

Nakuru Countywide Inclusive Sanitation
Overall Terms of Reference
for
Preparation of a Strategic Sanitation Investment Plan for Nakuru County

1. Background

1.1. Sanitation Technical Assistance

The World Bank Group, through the Global Water Security and Sanitation Multi-Donor Trust Fund, is providing support to the Government of Kenya to address sanitation challenges. The objective of this technical assistance (TA) is to support the GoK in the implementation of Kenya's national sanitation program through the application of best practices and innovative approaches, as well as knowledge sharing activities to raise awareness and create demand. The national sanitation initiative focuses on improving Sustainable Development Goals (SDG) sanitation indicators, particularly by eliminating open defecation practices and improving sanitation conditions in rural communities and urban settlements.

The TA will provide support in two key areas:

- **Component 1. Technical assistance** to support Countywide Inclusive Sanitation, which is based on the principles of city wide inclusive sanitation (CWIS) but also incorporating rural sanitation, particularly Community Led Total Sanitation (CLTS) approaches into the Government of Kenya's national sanitation program. The grant will assist in deepening the discussions with local and national stakeholders on comprehensive countywide sanitation solutions by applying various tested sanitation approaches and tools in at least one county. The selected county would provide an example of the interventions that could be applied to improve sanitation in both urban and rural areas in Kenya. Recommendations from this component would therefore inform Kenya's sanitation program and policies. Nakuru County has been selected as the case study for the detailed sanitation assessment.

The grant will also support the development of a guidance note on *Kenya Countywide Inclusive Sanitation* that would be used in advancing the sanitation dialogue. The note will include applicable sanitation approaches and institutional architecture for improving sanitation coverage in urban and rural areas, and is expected to provide practical guidance to counties on achieving countywide inclusive sanitation.

- **Component 2. Knowledge exchange and dialogue.** The grant will support knowledge sharing and learning activities for various institutions dealing with sanitation at national and county levels. It will also advance the dialogue between national and county governments on ways of improving access to improved sanitation in the country, including reviewing institutional arrangements.

The TA will support the relevant institutions responsible for enacting policies and providing sanitation services both at national and county levels. This will include the Ministry of Water and Sanitation (MoWS), Ministry of Health (MoH), Water Services Regulator and selected County Governments, among others.

1.2. Nakuru County

Nakuru County is one of the 47 counties of the Republic of Kenya. The county lies within the Great Rift Valley and borders eight other counties namely; Kericho and Bomet to the west, Baringo and Laikipia to the north, Nyandarua to the east, Narok to the south-west and Kajiado and Kiambu to the south. The county covers an area of 7,495.1 Km² and is located between Longitude 35° 28` and 35° 36` East and Latitude 0 ° 13 and 1° 10` south. The county headquarter is Nakuru Municipality which was previously the headquarters of Rift Valley Province. Administratively, Nakuru County is divided into 11 administrative Sub-Counties with a total of 55 administrative wards, 106 locations and 219 sub locations.

Physical and ecological profile

Nakuru County has a robust ecological system consisting of Mau escarpment, Menengai crater and Longonot crater. It is endowed with natural water resources including four major lakes, namely Nakuru, Naivasha, Solai and Elementaita; rivers including Malewa, Njoro, Molo and Igwamiti and springs found in Subukia, Nakuru North, Molo and Kuresoi areas. The county has a bimodal rainfall pattern with a high of 1800mm and a low of 500mm. The effect of climate change is however, making rainfall patterns increasingly unpredictable and affecting the water levels in Lakes Nakuru, Elementaita and Naivasha as well as reduction in volume of river flows. As a result, Lake Nakuru National Park, the home of flamingos, is experiencing unprecedented migration of the birds to other lakes including Lake Bogoria.

Population and demographic characteristics

In 2017, the county population was estimated at 2,046,395 (of which 62% rural and 38% urban), and a growth rate of approximately 3.05% per annum. The county population is predominantly youthful with about 51.87% aged below 20 years and about 71.63% of the total population aged below 30 years. About 62% of the total population lives in the rural areas. The rate of unemployment is 24%. The high population growth rate implies that the county will have to invest in more social amenities and physical infrastructure to match the needs of the population.

Table 1: Population and Population Density per Sub County in Nakuru County

Constituency	Area (Km ²)	2009 (Census)		2012 (Projections)		2015 (Projections)		2017 (Projections)	
		Population	Density	Population	Density	Population	Density	Population	Density
Nakuru Town West	251	152,257	607	166,846	665	182,832	728	194,332	774
Nakuru Town East	74.3	157,167	2,115	172,226	2318	188,728	2,540	200,599	2,700
Molo	478.79	124,438	260	136,361	285	149,427	312	158,826	332
Njoro	713.3	184,859	259	202,572	284	221,981	311	235,944	331
Kuresoi North	559.7	124,050	222	135,936	243	148,961	266	158,331	283
Kuresoi South	572.3	115,435	202	126,496	221	138,616	242	147,335	257
Rongai	1049.1	130,132	124	142,601	136	156,264	149	166,093	158
Bahati	375.4	144,266	384	158,089	421	173,237	461	184,133	490
Subukia	390.71	94,478	242	103,531	265	113,451	290	120,586	309
Naivasha	1685.8	224,141	133	245,617	146	269,152	160	286,081	170
Gilgil	1348.4	152,102	113	166,676	124	182,646	135	194,135	144
Total	7498.8	1,603,325	4,660	1,756,951	5,107	1,925,295	5,596	2,046,395	5,948

Source: Kenya National Bureau of Statistics, 2013

Economy & Poverty Profile

The GDP per capita of the County in 2015 was \$1,413, making it the fourth richest county in Kenya. In 2005/6, the poverty line was estimated at Kshs. 1,562 and Kshs. 2,913 per adult equivalent per month for rural and urban households respectively. According to KNBS (2017), 17% of Nakuru County residents have no formal education; 55% have primary level only, while 28% have secondary level and above.

Environment, Climate Change & Vulnerability

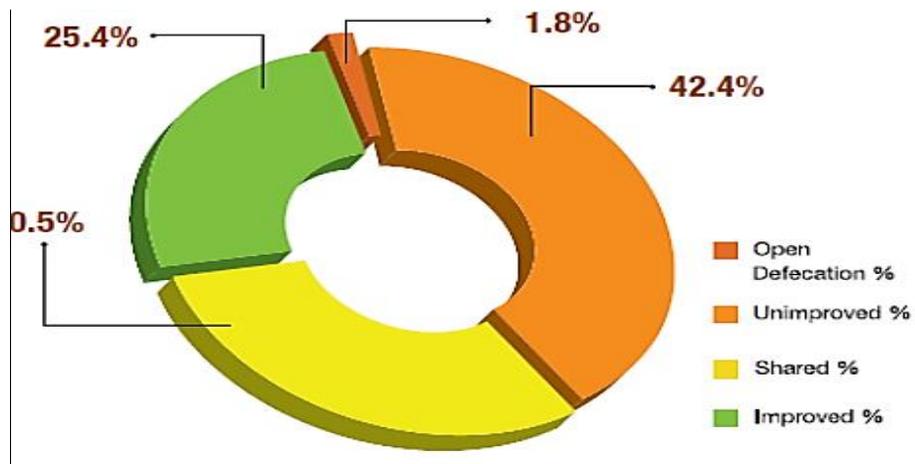
The major effect of climate change on the water systems is through changes in the hydrological cycle, the balance of temperature, and rainfall. In Nakuru, temperatures have significantly increased, leading to increased evaporation and hence reduced water levels within the county's lakes. Salinity and pollution levels have also increased. With recent flooding and generally more conducive environment for bacteria and viruses to multiply in food and water, cholera outbreaks have become frequent.

Water Supply, Sanitation, Drainage and Solid Waste Management

In Nakuru County, it is estimated that about 60% of households have access to improved water sources while 40% rely on unimproved sources.¹ Some 36.8% of households have access to piped water. The county largely depends on underground water which has high fluoride levels. Rain water is another major source of water in the county with about 80% of households harvesting rain-water.

Sanitation coverage in the county is quite low with only 25.4% of the population having access to improved sanitation. About 2.8% defecate in the open, some 42.4% use unimproved sanitation facilities and some 0.5% rely on shared sanitation facilities. Sewerage coverage is estimated at 3.4%. Onsite sanitation services are poorly managed, with over 65% of excreta ending up in the environment untreated, due to inefficient collection, transport and treatment.

Nakuru County Sanitation coverage



In Nakuru County, there are only 5 sub-counties with systems in place to manage solid waste. These are: Molo, Gilgil, Nakuru Town East, Nakuru Town West and Naivasha sub counties. This accounts for only 30% solid waste management within the county. The urban drainage systems are also poorly maintained and prone to blockages.

¹ Kenya National Bureau of Statistics, 2013

Institutional Arrangements

Sanitation services are provided by various departments and institutions within Nakuru County, with little or no coordination. These include:

1. Department of Health Services: On-site sanitation; public health and sanitation; rural sanitation and hygiene promotion.
2. Department of Water, Energy, Environment & Natural Resources: Off-site sanitation (sewerage); water supply.
3. Department of Infrastructure, Roads and Public Works: drainage and storm water management.
4. Department of Planning and Housing: planning and housing.

The county has three Water Services Providers which fall under the Department of Water:

- **Nakuru Water and Sanitation Services Company Ltd (NAWASSCO)**, mandated to provide water and sanitation services primarily to Nakuru town (municipality), though the service area extends beyond the municipal boundaries. The total target service area is 320km². NAWASSCO operates two wastewater treatment plants and has 16,000 sewer connections. Financed by the European Union, NAWASSCO is partnering with Vitens Evides International to pilot production of briquettes using fecal sludge. The briquettes are sold to households who use them instead of charcoal.
- **Naivasha Water Sewerage and Sanitation Company (NAIVAWASS)**, mandated to provide water and sanitation services to the residents of Naivasha sub-county and its environs. Naivasha Sub-County has a population of about 268,354. Although sanitation services are offered by NAIVAWASS through an established sewer system (designed and constructed in the period 1974-1977), most of the residents depend on on-site sanitation, including septic tanks. NAIVAWASS provides septic sludge exhaustion services to areas within Naivasha town and its environs. The company has also been able to reach low income areas with such services as water kiosks and construction of sanitation blocks. NAIVAWASS has entered into a partnership arrangement with Sanivation to work on production of briquettes from fecal sludge.
- **Nakuru Rural Water and Sanitation Company Limited (NARUWASSCO)** responsible for provision of water and sanitation services to the whole of Nakuru County except Nakuru and Naivasha municipalities/towns. The total population within its service area as defined in the Service Provision Agreement is 511,586. In total, NARUWASSCO currently serves about 16 small urban centres in the following areas - Eastern (Gilgil, Langalanga, Keykopye); Western (Salgaa, Sach-angwan, Kampi-yamoto, Mangu, Kirobon); Southern (Elburgon, Arimi, Molo); Central (Njoro, Kiamunyu, Mbaruk); and Northern (Bahati, Subukia).

2. Proposed Assignment

2.1. Objectives

The objective of this assignment is to develop a comprehensive Countywide Strategic Sanitation Investment Plan for Nakuru County. The scope of work involves the following: (i) preparation of a Sanitation Strategy with a vision, guiding principles and a roadmap for the strategic plan; (ii) comprehensive review and assessment of the existing situation and plans with respect to sanitation, drainage, and solid waste in the county; (iii) assessing strategic options for improving sanitation (on-site and sewerage) in rural and urban areas; and drainage and solid waste services in the urban areas; (iv) preparing an investment plan for the prioritized policy and physical interventions; (v) providing support for consensus building around the strategic sanitation investment plan.

2.2. Project Area Description

A comprehensive strategic investment plan for sanitation covering the entire county will be developed. A broad assessment and recommendations for strategic interventions for other related services including solid waste and drainage management in the urban areas will also be made. The strategic plan will include a prioritized investment plan indicating the measures to be taken in the short, medium and long term to improve access to safely managed sanitation. Recommendations will be made for the entire sanitation service chain (see Annex 1). The study will consider all factors that impact sanitation interventions while developing the proposed plan, including but not limited to the economic, social and land use of the study area.

2.3. Strategic Planning Process

The Nakuru Strategic Sanitation Planning process is the first step towards the county embracing a ‘*Countywide Inclusive Sanitation*’ approach. Nakuru County established a multi-sectoral technical team (Nakuru County Sanitation Technical Steering Committee—NACOSTEC) to lead the sanitation work in the county. As part of their initial assignment, the team has undertaken an assessment of the existing water supply, sanitation, drainage and solid waste management situation.

The Nakuru Strategic Sanitation Planning process was launched through a workshop hosted by Nakuru County on May 22, 2018, and attended by several key national and local stakeholders. The concept of strategic planning was explained in detail to the participants before presenting a four-step framework for participatory planning.

3. Detailed Scope of Services

3.1. Task 1 – Preparation of a Sanitation Strategy

The first step in the development of the Countywide Strategic Sanitation Investment Plan is the development of the Sanitation Strategy. A strategy is a solution to move from the current situation to where the county wants to be (Nakuru County Vision 2030). It provides guidance on how to achieve an end. The strategy will help the county to deal with uncertainty and changing conditions and provides a sound framework for the development of the strategic investment plan, sanitation masterplans and any future sanitation projects.

After the Nakuru strategic sanitation launch workshop, the Nakuru sanitation team (NACOSTEC) held working sessions, guided by a team from the World Bank, to develop the Sanitation Strategy. The strategy was developed based on the four-step framework for participatory planning that was presented during the workshop. The Sanitation Strategy is undergoing review and later formal adoption by Nakuru County and its stakeholders.

3.2. Task 2 – Detailed Assessment of Existing Sanitation Conditions

Nakuru County sanitation team has undertaken a situational assessment and prepared a report on the same. The first step will be to review this situation assessment report and assess its adequacy in covering the aspects highlighted below. The aim is to develop an overall understanding of existing sanitation conditions and the factors that influence them.

The activities shall include, but not necessarily limited to the following:

Existing Policy, Legal & Institutional Framework

This will involve a review of:

- Roles and responsibilities for provision of sanitation services (sewerage and on-site sanitation) and other related services including solid waste management and drainage. This should not be limited to formal institutions but should also explore the role played by households, community organizations and informal service providers. The identification of responsibilities should be related to the links in the service chains appropriate to each type of service. For example, which agency is responsible for collection and conveyance of fecal sludge, which agency is responsible for treatment?
- Capacities, activities of organizations and their responsibilities as related to the various links in the service chain for each type of service.
- The engagement of these and other stakeholders in sanitation, drainage and solid waste service provision. This should include coverage of the roles of households, elected representatives and the formal and informal private sector.
- Any gaps and overlaps in responsibilities.
- Institutional arrangements for coordination between different stakeholders; and processes to ensure that plans are produced, implemented, approved, adjusted as necessary to reflect changing ground realities, and periodically reviewed and comprehensively updated.
- Critical review of the current organizational structures for construction, operation and maintenance of drainage structures, solid waste management systems and septic tank handling system and recommend future reform necessary and potential new organizational structures for the responsible agencies to provide sanitation (sewered and on-site), solid waste, and drainage services.
- Review the current legislation and regulatory structures for sanitation, solid waste and protection of natural drains, canals and flood plains or other water bodies. Identify and assess effectiveness of tools and agencies responsible for enforcements.
- The resources (human, institutional and financial) and associated costs required for effective drainage and sanitation planning and management, and the necessary institutional strengthening and capacity development programs required to support human resource development;
- An assessment of financial resources and systems, including municipal and utility budgets. Through this, a clear idea on related expenditure by the government and by households and businesses should be provided.

Existing Water Supply, Sanitation and Drainage Situation

To gain an understanding of existing water supply, sanitation and drainage services, assess at least two areas representative of rural and urban settings in the county, and one area representative of informal settlements. The aim should be to develop a general understanding of the following:

- Per-capita water availability should be assessed for both the total county population and the estimated population served by water connections. Where relevant, an appropriate allowance should be made for per-capita water availability from local sources such as household and communal wells.
- The level of service provided by the water supply to each type of area. For example: Where is water available (public taps, yard taps, in-house taps etc), are there pressure problems, is any information available on per-capita use? What type of variations in service level exist between similar areas?
- Existing sanitation provision in each type of area. The description should cover both toilet types and conditions and provision for removal of excreta and wastewater. Points to include in the description include:

- Details of households / community / public toilets toilet types (improved, shared, unimproved, open defecation; toilets connected to pits / septic tank / discharging to open);
- Condition of containment structures;
- Are excreta/black water and grey water discharging to open and / or dealt with together or separately?
- Are fecal wastes contained on-site or carried off site? If the latter, what are the arrangements for transporting them off-site (possibilities include sewers – both formal and informal, drains and removal by formal and informal cartage/container systems);
- Where fecal sludge is held in dry pits, leach pits and septic tanks, what arrangements exist for dealing with the situation when the pit or tank is full?
- Whether sullage waste/toilet wastes are discharged to drains, either directly or via ‘septic tanks’?
- Is there any use of wastewater, fecal sludge in agriculture? If so, is there any information on the impacts of the practice on health?
- Is there demand for wastewater in industries / agriculture or fecal sludge for agriculture?
- Initial identification of environmental conditions, covering groundwater and surface water quality and flooding problems.
- The initial investigation should also aim to collect information on water production facilities and water bodies, paying particular attention to ways in which water quality might be compromised by existing sanitation arrangements.

Existing Solid Waste Situation

This assessment is mainly for the urban areas. City-wide information on solid waste management services includes:

- Any information on per-capita solid waste generation.
- Characterization of the generation and types of waste that enter the drainage system. For example, is it construction debris, household waste or industrial debris?
- Are the current solid waste management services efficient? For example, what type of containers are used, frequency of collection, treatment.
- A review of the official system, setting out primary (local) level services, secondary collection, disposal and reuse/recycling practices. For example, do households segregate waste and is there door to door collection of waste, etc? How are staff managed?
- Information on vehicles and equipment.
- Information on staffing levels and deployment – distinguishing between staff employed for primary collection, secondary collection, at landfills/dumpsites, for drain cleaning and for specialist tasks such as vehicle maintenance. Distinguish between permanent, daily wages and contract staff. Identify average population served per staff member.
- Information on informal collection systems (which usually operate at the local level and may involve house-to-house collection) and on recycling/reuse practices and systems.
- At the local level, as for other services, the aim at the initial planning stage should be to produce a descriptive assessment of the existing situation in representative locations. This should be based on observation and could encompass focus group discussions with groups of households, groups of workers and key informants. The latter should include workers, their supervisors and people who are involved in collection, transportation and recycling.

Secondary information² to be collected should include but not be limited to:

- Copies of any existing plans and proposals;
- Information on population, including census data;
- Information on water production, distribution, extent of coverage, service standards (hours of supply and per capita water supply), charges for water supply;
- Information on sanitation and wastewater services;
- Information on climate, particularly on rainfall and temperature;
- Information on solid waste collection services – equipment available, number of workers, distinguishing between full-time and contract workers.
- Information on drainage (extent of coverage, condition of the drains, etc)

3.3. Task 3: Stakeholder Consultations and Consensus Building

This task will involve the development of a stakeholder engagement and communication strategy, which will be used to engage and consult different categories of stakeholders. The aim is to get consensus by various stakeholders at different stages of preparation of the strategic plan. Key stakeholders have been identified in the Sanitation Strategy and categorized based on required level of engagement. The list of stakeholders can be updated as appropriate.

The stakeholders will include households/residents randomly selected from the study area, and who will help to further understand key issues on the ground.

The constraints identified under Task 2 above will be discussed with key stakeholders, including but not limited to those with current responsibility for sanitation, drainage and solid waste collection, to obtain their views on the action required to overcome constraints and create the conditions required for the implementation of integrated plans for sanitation and other related services.

The results of these discussions, together with the information collected earlier, will be used to prepare the report on assessment of the existing situation and the key issues to be addressed to develop an effective approach to service delivery across the sanitation, solid waste and drainage service chains.

Consensus building efforts will involve preparing short briefing reports and presentations; making presentations and facilitating a series of workshops with different stakeholders and representatives with an interest in sanitation and related services, and as identified in the Sanitation Strategy. Critical stages to conduct consensus building forums (workshops) include:

- Launch of the strategic planning exercise (workshop conducted on May 22, 2018).
- Presentation of the draft Sanitation Strategy, before its formal adoption.
- Presentation of draft report on “assessment of existing sanitation situation”.
- Presentation of final report on “assessment of existing sanitation situation”.

² Where there is doubt about either the reliability or accuracy of information, the Consultant should explore options for cross-checking it with information from other sources and/or calculated in a different way.

3.4. Task 4– Preparation of a Strategic Sanitation Investment Plan

Based on the Nakuru Countywide Sanitation Strategy and bearing in mind issues identified under Task 2 above, this task will involve assessing options and preparing a strategic plan identifying the broad approach to be taken to improve sanitation and related services, and to prepare an investment plan for the proposed interventions. This should set out the objectives and a series of steps and actions to be taken to overcome constraints and move towards desired objectives. The aim of this plan is not a long list of actions needed in the future but rather to identify broad direction and key interventions to address specific objectives. The investment plan should not be confined to physical works but should also include the proposed legislative and institutional changes needed to ensure strong and effective management of sewerage, drainage, solid waste and on-site sanitation functions.

The strategic investment plan will include:

- Realistic proposals for a phased approach for attaining countywide inclusive sanitation. This should include:
 - Key priorities and short, medium and long-term objectives for the county to achieve its sanitation vision as stipulated in the Sanitation Strategy.
 - Interventions for the county to reach open defecation free (ODF) status and attain safely managed sanitation based on above objectives.
 - This phased approach should therefore not only cover the introduction of infrastructure improvements but also the actions needed to develop policy and institutional capacity.
- Priority policy/institutional interventions and infrastructure investments for the short- (12-24 months), medium (2-5 years) and long-term (>10yrs):
 - Develop a methodology and criteria following a participatory approach to prioritize investments and interventions.
 - Evaluation of alternatives through the urban sanitation planning and costing tool to review the CAPEX and OPEX costs of different configurations of on-site and sewerage solutions.
 - Develop a notional project paper³ for each of the proposed interventions. The project paper shall include a brief description of the intervention and how it contributes to the sanitation objective, preliminary cost estimates, proposed financing options, knowledge gaps (need for further analytical work) and implementation strategy recommendation. The identified investment options should indicate whether they are appropriate for (i) private sector financing; (ii) public-private sector financing; (iii) national public-sector financing, and consistent with the current and projected financing capacity of the country and/or (iv) county government.
- Summary of knowledge gaps and technical studies required to undertake the proposed priority investments for the short and medium term.
- An implementation plan to move the strategic investment plan forward which will set out the actions, timelines, responsible institutions, and financing options.

4. Schedule of Deliverables

The scope of work described earlier, and the outputs described below shall be completed within a period of 5 months. The key deliverables are as follows.

³ A one-pager description of the proposed interventions

Table A – Schedule of Deliverables

	Report/Deliverable	Timeline
1.	Draft updated report on assessment of existing sanitation situation	1.5 months
2.	Draft stakeholder engagement and communication strategy	1.5 months
3.	Final Report on assessment of existing sanitation situation	2 months
4.	Draft Strategic Investment Plan	3 months
5.	Final stakeholder engagement and communication strategy	3 months
6.	Report on Stakeholder Consultations/Workshops Conducted	4 months
7.	Final Strategic Investment Plan	5 months

5. Execution of the Assignment

The Nakuru County Sanitation Technical Steering Committee (NACOSTEC) will take lead on the preparation of the strategic investment plan.

NACOSTEC will be supported by a team of World Bank staff and consultants including:

Water and Sanitation Planning Expert (International Consultant) Team Leader	<ul style="list-style-type: none"> • Master’s degree in a relevant field (planning, WASH, public health), with at least 8 years work experience in the sector. • A strong background and experience in participatory planning, stakeholder analysis, community level engagement and coordination, in the context of water and sanitation programs. • Familiarity with existing tools and ongoing research in the field of sanitation. 	45 days
Sanitary Engineer (Local Consultant) Co-Team Leader	<ul style="list-style-type: none"> • Minimum Bachelor’s degree in a relevant field (water or sanitary engineering), with at least 8 years work experience in the sector. Master’s degree will be an added advantage. • A strong background and experience in sanitation planning. • Familiarity with existing tools and ongoing research in the field of sanitation. 	30 days
Urban Sanitation Specialist (Planning & Costing) (International Consultant)	<ul style="list-style-type: none"> • Master’s degree in a relevant field (civil or sanitary engineering), with at least 8 years work experience in the sector. • A strong background and experience in sanitation planning and development of sanitation services. • Familiarity with existing tools and ongoing research in the field of sanitation. 	10 days

<p>Institutional Specialist (Local Consultant)</p>	<ul style="list-style-type: none"> • Minimum Bachelor’s degree in a relevant field (WASH, public health, planning), with at least 8 years work experience in the WASH sector. Master’s degree will be an added advantage. • Experience in undertaking sector policy, legal and institutional reviews. • Experience on the Kenya water and sanitation sector legal and institutional setup will be an added advantage. 	<p>20 days</p>
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Annex 1: Sanitation Service Chain

