

MINISTRY OF WATER AND ENVIRONMENT

JOINT SECTOR REVIEW  
2018

Funding Requirements for Water Quality  
Management

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Commissioner, WQM

18<sup>th</sup> -20<sup>th</sup> September 2018



# Introduction

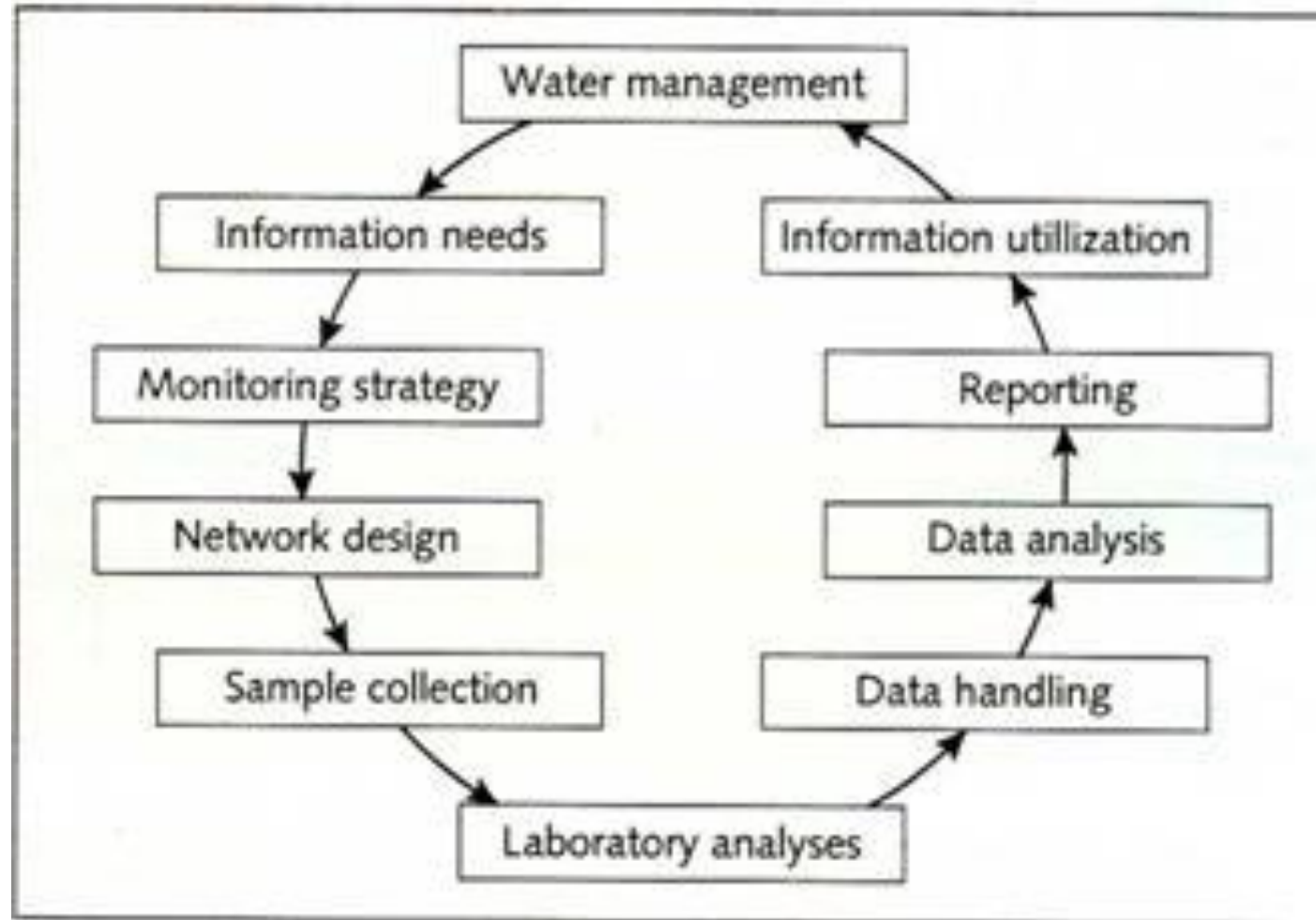
## **Mandate**

The mandate of Water Quality Management Department as derived from the Water Act Cap 152 is: to investigate the quality of water in order to promote provision of adequate quality of water for all uses and sustainable management of water resources.

Water quality investigations performed through

- Water quality assessments and
- Water quality monitoring

# The Water Quality Monitoring Cycle



Chapman, 1996

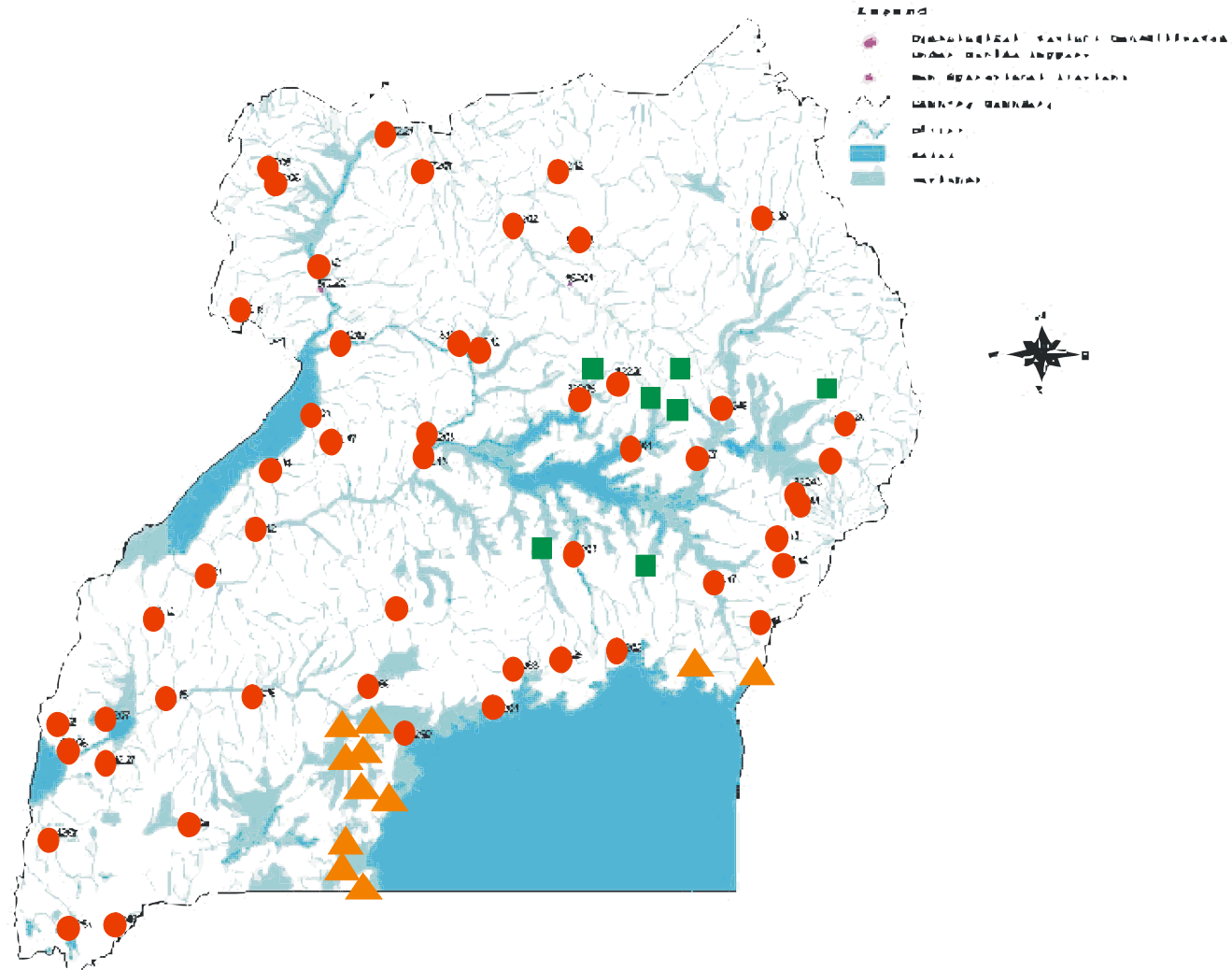
# Water Quality Monitoring Network



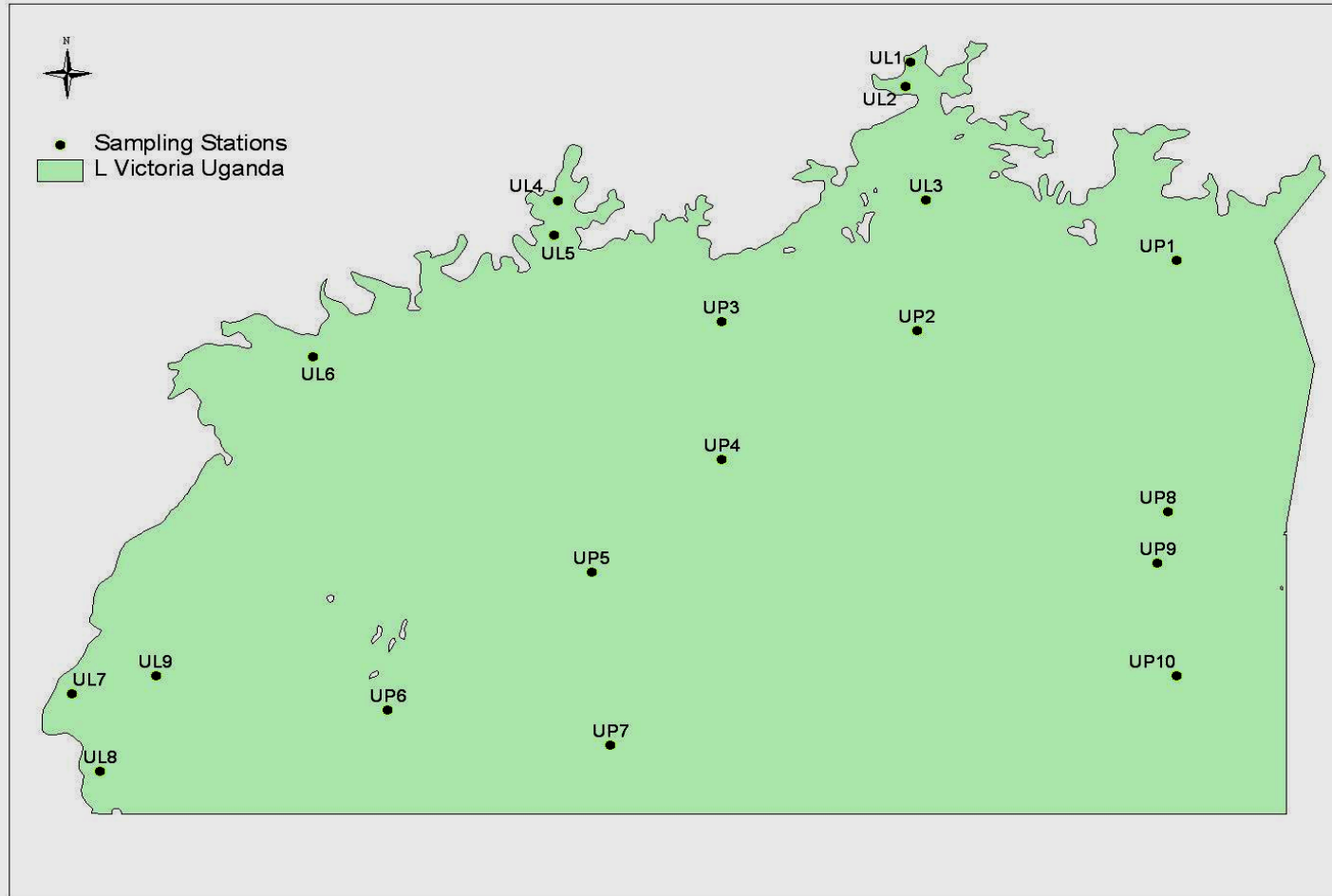
Type	No	Monitoring Objectives
<b>Ambient monitoring</b>		
• Surface	56	<ul style="list-style-type: none"> <li>➤ Status and trend detection in rivers, lakes</li> <li>➤ Testing of water quality standards</li> <li>➤ Calculation of loads</li> </ul>
- Rivers		
- Lakes	19	
- L. Victoria	19	
- Transboundary stations	10	
• Groundwater	8	
<b>Effluent monitoring</b>		
• Industrial effluents	66	<ul style="list-style-type: none"> <li>➤ Calculation and control of discharge standards</li> <li>➤ Monitoring of plant performance</li> </ul>
• Municipal wastewater	5	
<b>Early warning</b>		<ul style="list-style-type: none"> <li>➤ Warning for calamities</li> <li>➤ Protection of downstream functions</li> </ul>
	0	
<b>Operational monitoring</b>	12	<ul style="list-style-type: none"> <li>➤ Monitoring for operational uses such as water treatment works</li> <li>➤ Monitoring of drinking water</li> </ul>

- Currently only 119 are monitored
- Additional 76 not included on national network yet due to financial constraints
- Network is under review

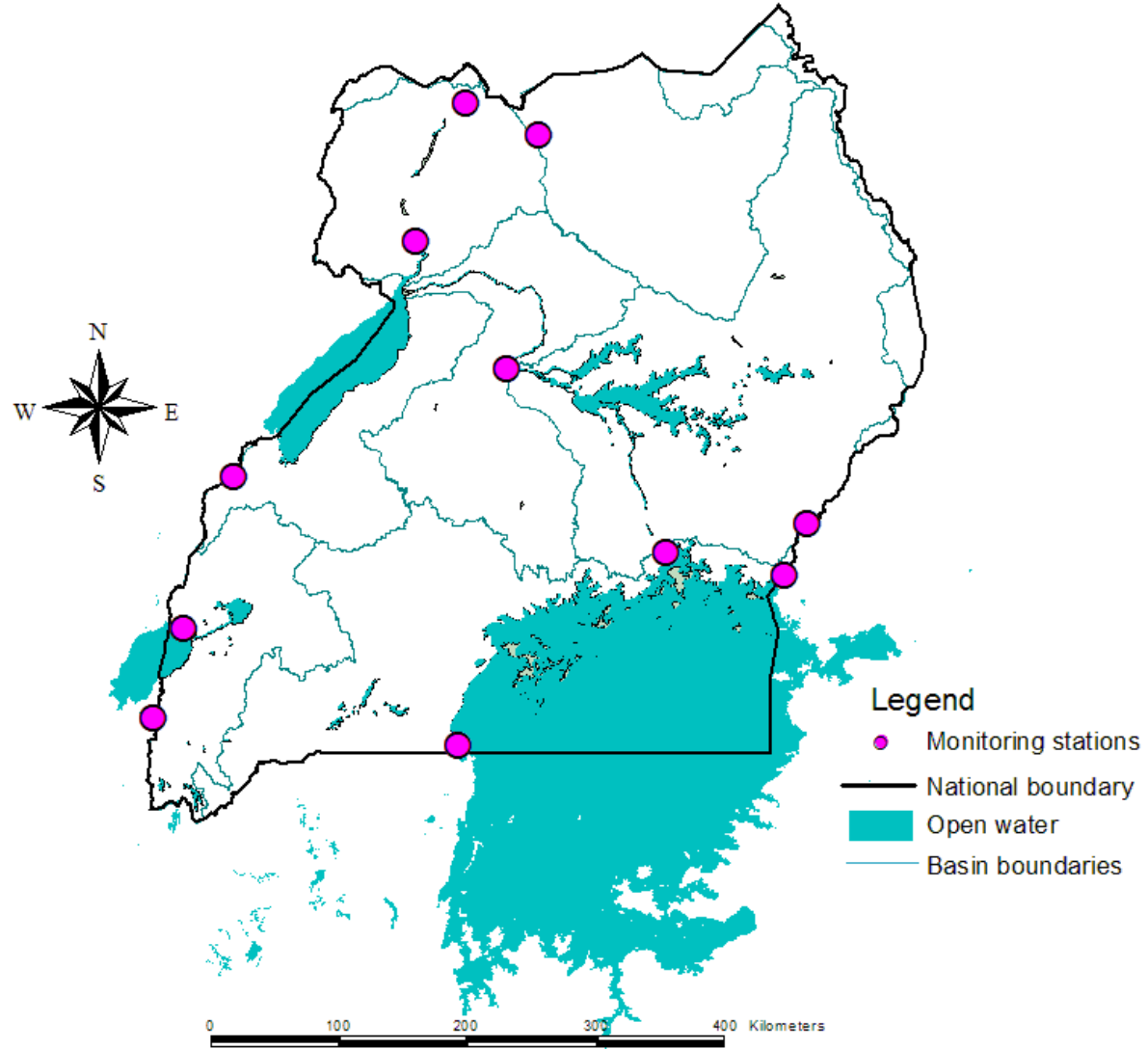
# 119 National Water Quality Monitoring Stations



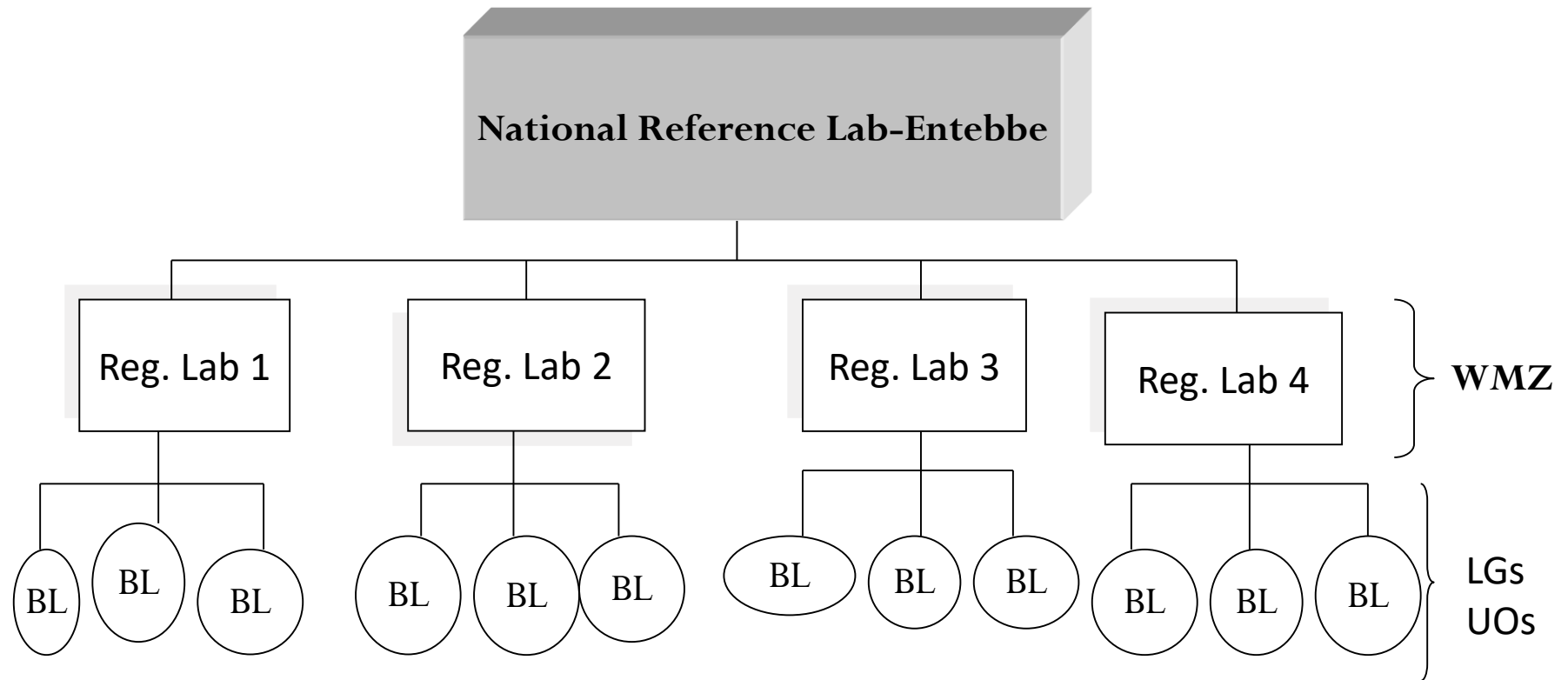
# Regional Water Quality Monitoring on L. Victoria, 19 stations



### Transboundary Water Quality Monitoring Stations



# Water quality testing Laboratories 3- Tier Structure







# Data Generation

Laboratory Accreditation required





# Data Handling and Storage

- ❖ Web-based database and information system
  - ✓ Data turned into information
  - ✓ Generation of products
  - ✓ Feeding into the WIS
  - ✓ Decision making





# Funding Gap

## Investment Required

Item	Funds required UGX, billion
• NWQRL (Construction)	20
• Mbarara WQ Regional Lab & furnishing & equipping others	10
• Lab. accreditation	3.84
• National Framework for WQM & Regulation	32
• Project for management of pollution in IMB	50
• SDG 6.3.2 (economic study)	US\$ 1.8 billion



# Funding Gap

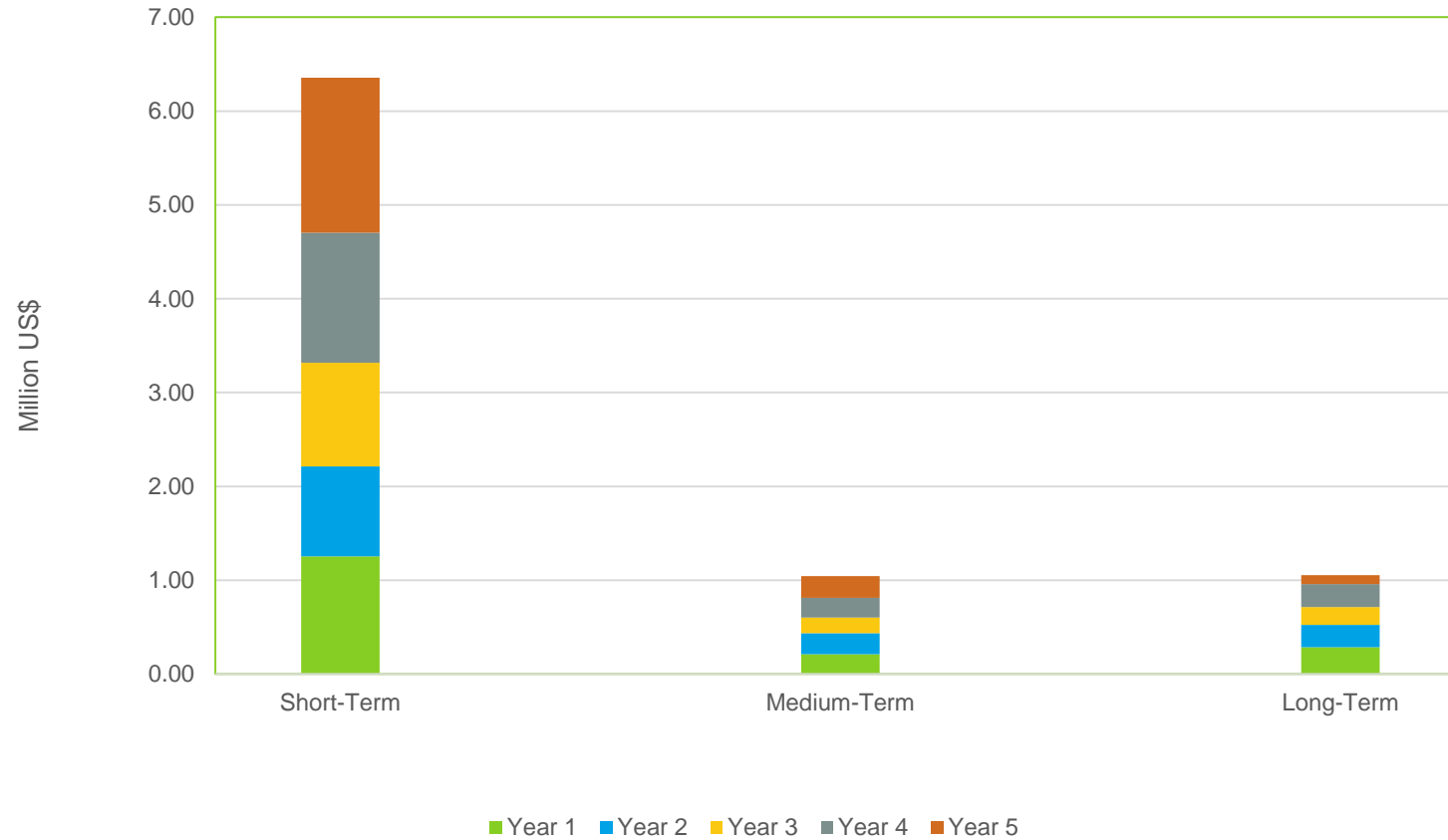
## Network & Lab. O & M

Item	Required Funds UGX, million	2018/19 GoU UGX, million	Funding gap UGX, million
<b>Network</b>			
• Ambient	304		
• Lake Victoria	608		
• Operational	152		
• Regional WQ Labs	240		
<b>Laboratory</b>			
• Reagents & Consumables	382		
• Equipment (annual service)	58		
• Equipment (spare parts)	477		
• Lab. QS	70		
	2,291	676 million	1,615

- Annual JPF budget for Water Quality Management was approx..0.9 - 1.4 bn (closed)
- GoU Dev (2018/19) of 576 million is shared under SWRM (closing this financial year)
- Recurrent Non-wage is 100 million (Administration & management, staff welfare etc)

# Funding Gap

## Implementation of National Framework



**Total = US\$ 8,441,604.00**



## Implication of Inadequate Funding

- i. Increased pollution of water resources.
- ii. Increasing cost of water treatment due to increased pollution.
- iii. Continuous outbreak of water borne diseases & other water related illnesses.
- iv. Decreased fisheries & loss of other biodiversity.
- v. Inadequate enforcement of policy, laws, and regulations.
- vi. Failure to achieve accreditation implies loss of trade opportunities.
- vii. Slowing achievement of middle income status.

Thank you

For Your

Attention