

# INTEGRATED WATER MANAGEMENT AND DEVELOPMENT PROJECT(IWMDP)

# The Project information sheet March 2018



# **OBJECTIVES**

# Project Development Objectives and brief description of components

# Water Sector in Uganda: Goals, Achievement and Challenges



"A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years".

Access to safe, clean water and good sanitations services are essential for achievement of this vision.

- ➤ GoU has set a target of universal (100%) access to safe and clean by 2035.
- Access to safe and clean water has increased from 63% to 70% in rural areas and from 56% to 71% in urban areas in the last 10 years).
- ➤ The key challenge faced by the sector is the inadequate financing to achieve the targets under the National Development Plan (NDP-II)
- Areas with limited access to surface water sources have continued to have low access to safe and clean water.
- Transmission of piped water for long distances to serve water stressed communities and upgrading of boreholes fitted with hand pumps to piped water systems are required.



# **IWMDP-** Overview/ Back ground

- ➤ The proposed Integrated Water Management and Development Project (IWMDP) was conceived as a follow on project to the current Water Management and Development Project (WMDP) which is consistent with the World Bank Group (WBG) Country Partnership Framework (CPF) FY16-17.
- ➤ The proposed project also responds to the Government of Uganda (GoU) vision of a transformed society from a peasant economy to a modern and prosperous country by 2040.
- ➤ The medium-term goal is to attain middle income status by 2020 as described in the second National Development Plan (NDPII).
- ➤ The CPF is designed to contribute directly to achieving the Sustainable Development Goals (SDGs) and is guided by the Addis Ababa Action Agenda on financing for development.
- > This Project is estimated to be worth USD 308 million



# **IWMDP**: Project Development Goal(PDO)

➤ The Project Development Objective (PDO) is to improve water supply and sanitation services and strengthen water resources management in project targeted areas.

### The project aims to:

- ✓ Improving access to water supply and sanitation services in urban towns, small towns and rural areas including refugee hosting communities in the Northern part of Uganda;
- ✓ Improving water resources management; and
- ✓ Institutional strengthening to ensure improved service delivery and sustainable water resources management in Uganda



# IWMDP: Implementing Agencies(IAs) and Coordination and Project Scope

### 1. IMPLEMENTING AGENCIES

- ✓ Ministry of Water and Environment (MWE) and
- ✓ National Water and Sewerage Corporation(NWSC).

### 2. PROJECT COORDINATION

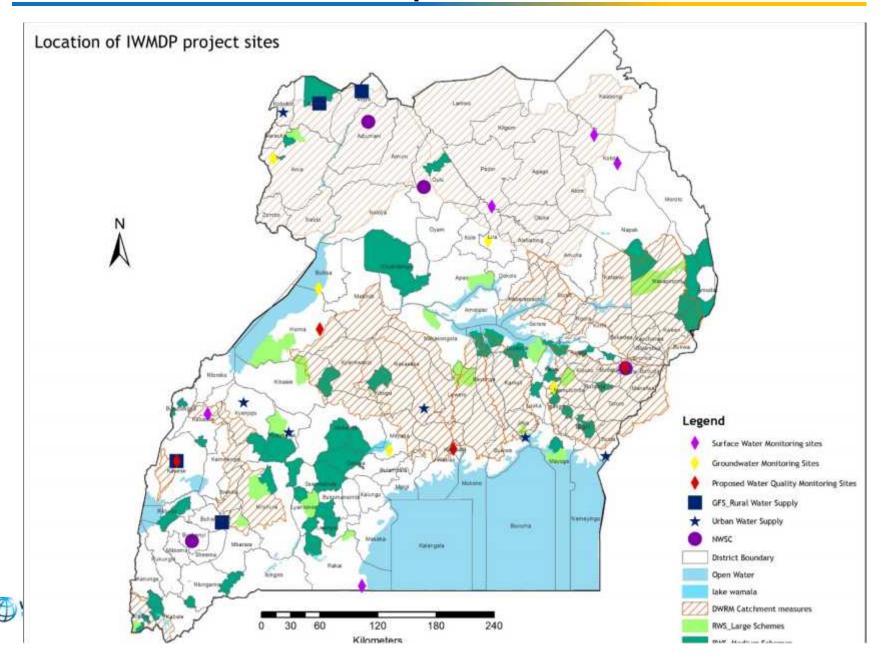
✓ The Water and Environmental Sector Working Group shall be the overall coordinator of Project activities with those of other development partners who are supporting complementary activities.

### 3. PROJECT SCOPE

- ➤ IWMDP will target 3 Urban town of Mbale, Gulu, Adjumani and water supply systems in seven small town clusters of Busia, Butaleja-Busolwe, Budaka-Kadama-Tirinyi-Kibuku, Namungarwe-Kaliro, Kyegegwa-Mpara-Ruyonza, and Namasale, Yumbe, Moyo etc
- ➤ Gravity flow schemes of Nyamugasani and Bitsya, 32units of solar water systems and water supply and sanitation for refugee host communities
- Water Management zones across the country



# **IWMDP:** Scope



# **IWMDP:** Components

### **COMPONENT 1**

**Small Towns and Rural Water Supply and Sanitation.** 

### **Implemented by:**

- ✓ Sub-component 1.1: Small Town WSS System
- ✓ Sub-component 1.2: Rural Water Supply and Sanitation Systems
- ✓ Sub-component 1.3: Water Supply and Sanitation in Refugee Host Communities

# **COMPONENT 2:**

Urban Water Supply and Sanitation

✓ Implemented by NWSC

# **COMPONENT 3:**

**Water Resources Management** 

## **COMPONENT 4**

Project Implementation Support and Capacity Building



# Component - 1

# SMALL TOWN AND RURAL WATER SUPPLY AND SANITATION

March 2018



# **Sub Component 1.1**

# SMALL TOWNS URBAN WATER SUPPLY AND SANITATION SYSTEMS

**MARCH 2018** 



# **Sub Component 1.1 Urban WSS under DWD - Activities**

# Water and Sanitation Systems

- Construction of water supply systems in seven town clusters of Busia, Butaleja-Busolwe, Budaka-Kadama-Tirinyi-Kibuku, Namungarwe-Kaliro, Kyegegwa-Mpara-Ruyonza, and Namasale
- ➤ Construction of Feacal Sludge Treatment Facilities in Rukungiri, Koboko, Busia, Budaka-and Kumi.
- Implementation of priority source protection measures in Busia, Butaleja-Busolwe, Budaka-Kadama-Tirinyi-Kibuku, Kyegegwa-Mpara-Ruyonza, and Namasale.
- Consultancy Services

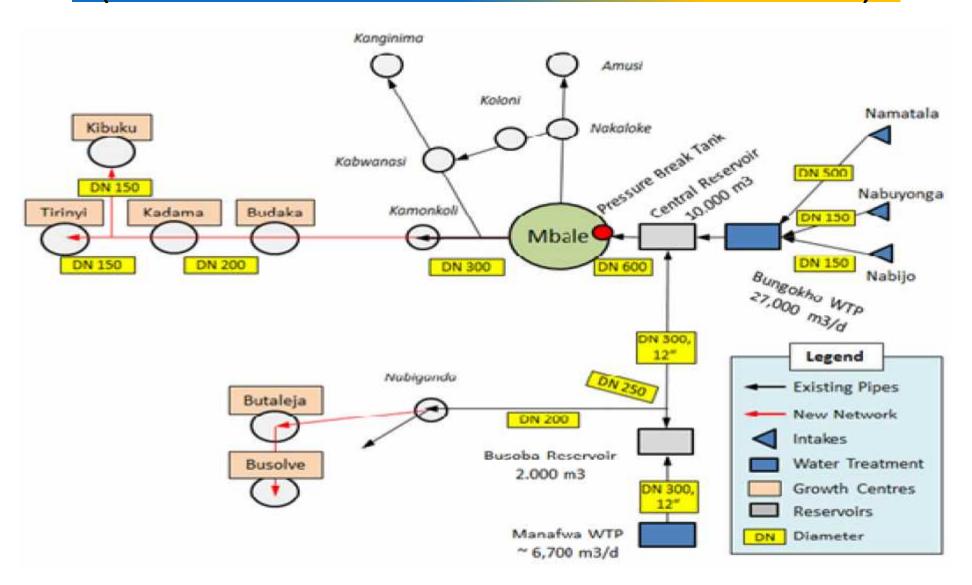


# 1. MBALE CLUSTER – WATER SUPPLY & SANITATION (BUDAKA-KADAMA-TIRINYI-KIBUKU-BUTALEJA-BUSOLWE)

TOWNS	POPN BY 2040	MAX SEASONA L DEMAND (CM/D)	TOTAL LENGTH OF TRANSMI SION (M)	NO. OF CONNECT ION	RESERVOI R SIZES (CM)	DAILY FEACAL SLUDGE PRODN (CM/D)
KADAMA	22,111	572	68,101	300	200	7.19
BUTALEJA	17,735	459		200	160	6.13
BUSOLWE	25,742	666		300	200	5.97
KIBUKU	23,034	596		200		3.63
TIRINYI	34,087	882		300		11.68
BUDAKA	26,107	676		500	160	7.79



# MBALE CLUSTER WATER SUPPLY SYSTEMS (BUDAKA-KADAMA-TIRINYI-KIBUKU-BUTALEJA-BUSOLWE)





# SMALL TOWNS STAND ALONE - WATER SUPPLY AND SANITATION (WSS)

### **□** WORKS

### 1. BUSIA WATER SUPPLY AND SANITATION

- Water will be abstracted from Lake Victoria
- > 9,100m<sup>3</sup>/day Water treatment plant to be constructed

### 2. NAMUNGALWE – KALIRO WSS

- Water source is a Tee off from the Jinja-Iganga pipeline of DN 300 steel gravity transmission main
- An online booster will be at Wairaka to continue supply from the Jinja-Iganga transmission to Kaliro Namungalwe beyond 2024 to 2040

### 3. KYEGEGWA-MPARA-RUYONZA-KYAKA WSS

➤ Water will be extracted from River Katonga, have a water treatment station and a pumping station where water can be pumped to Izina hill at a capacity of 720 l/s.



# SMALL TOWNS STAND ALONE - WATER SUPPLY AND SANITATION (WSS) - Conts

### 4. NAMASALE WATER SUPPLY AND SANITATION

- Water will be abstracted from Lake Kyoga at Mbiko Landing Site for a complete water treatment processes.
- ➤ Supply and Installation of 3-Phase 200kV Transformer with associated cabling to the Overhead three-phase power line.
- A New Office building shall be constructed for O&M.



### **OPERATION & MAINTENANCE MODELS**

- ➤ Budaka-Kadama-Tirinyi-Kibuku-Butaleja-Busolwe, Busia and Namungalwe-Kaliro water supply systems and FSTP will be managed by NWSC.
  - ➤ Namasale and Kyegegwa-Mpara-Ruyonza-Kyaka water supply systems and FSTP will be managed by the N/SW Umbrellas
  - The public toilets will be managed by Municipal or Town authorities.



# Sub Component 1.1 Activities – Consultancy Services

# Water and Sanitation Systems

# **☐** Consultancy Services

- Consultancy services for Construction Supervision of Butaleja-Busolwe, Budaka-Kadama-Tirinyi-Kibuku Water Supply and Sanitation Systems. Detailed Engineering designs is complate.
- Consultancy Services for Detailed Engineering Designs and Construction Supervision of Namungarwe-Kaliro, Kyegegwa-Mpara-Ruyonza-Kyaka Water Supply and Sanitation Systems.



# Sub Component 1.1: Consultancy – Continuation

# Water and Sanitation Systems

# **☐** Consultancy Services

- Consultancy services for Feasibility Study, Detailed Design Reviews and Construction Supervision of Namasale Water Supply and Sanitation System, and Feacal Sludge Treatment facilities
- Consultancy services for Development of full scale source protection plans/measures for Namugalwe-Kaliro, kyegegwa-Mpara-Ruyonza, Namasale Similar approach (Design and Supervision) may be adopted for other Works.



# Sub Component 1.2 &1.3

- 1.2: Rural Water Supply and Sanitation Systems
- 1.3: Water Supply and Sanitation in Refugee Host Communities

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# **Sub Component 1.2** Rural WSS under DWD- Activities

Water
Supply
and
Sanitation
Systems

# **Works**

- Nyamugasani Gravity Flow Scheme-Kasese
- ✓ Raw water main
- ✓ water treatment plant
- ✓ Primary distribution and service connections.
- > Bitsya Gravity Flow Scheme in Buhweju District
- ✓ Protection of the spring source;
- ✓ Construction of Transmission mains
- ✓ Steel Reservoir tanks (150m³, 100m³, 50m³),
- ✓ Distribution pipe network and Service connections
- Construction of solar powered large-piped water supply and sanitation systems (16 units)
- ✓ Pump stations, transmission and distribution pipe network, reservoir tanks, water offices, public stand posts and more 100 private connection for each unit.



# **Sub Component 1.3:** Water supply and sanitation in Host Communities under DWDA - activities

# Water

Supply and

**Sanitation** 

**Systems** 

## **☐** Works

- Construction of Kochi Kaya
- ✓ Water Supply for Communities in Koboko, Yumbe and Moyo Districts.
- Construction of Ala Ora Water Supply and Sanitation System
- ✓ Water Supply for Communities in Arua, Moyo and Yumbe Districts.
- > Hygiene and Sanitation Facilities:
- ✓ 24 institutional and 2 public sanitation facilities, and a Fecal Sludge Management Facility in Moyo district



# **Sub Component 1.2 & 1.3 Consultancy Services**

# Water Supply and Sanitation Systems

### □ Consultancy Services

- Consultancy Services for Construction Supervision of:
- ✓ Nyamugasani GFS
- ✓ Bitsya GFS
- ✓ Large Solar Piped Water and sanitation Systems
- Design review and Construction Supervision of larger River – based Water Supply and Sanitation Systems for Refugee Host Communities
- Consultancy Services for Community Mobilisation and Capacity Building
- ➤ Consultancy Services for Hygiene and Sanitation Promotion, stakeholder engagement, media campaigns, design and production of IEC materials
- ➤ Consultancy services for preparation of microcatchment management and source protection plans



# Component - 2

# URBAN WATER SUPPLY AND SANITATION UNDER

# NATIONAL WATER AND SEWERAGE CORPORATIONWSC

PRESENTED BY: -----



# **Component 2- Works**

### 1. Mbale Water Supply and Sanitation Project

- ✓ Construction of new raw water intakes, upgrading and refurbishment of existing intakes, water and waste water treatment facilities, sewerage network and water distribution system.
- ✓ Construction of public toilets and implementation of full scale source protection measures in Nabijjo, Nabuyonga, Namatala and Manafwa.

### 2. Adjumani - Pakele Water Supply and Sanitation Project

- ✓ Construction of a new water treatment plant, development of ground water resources, upgrading of the water distribution system and existing faecal sludge treatment facility.
- ✓ Construction of public toilet facilities and implementation of source protection measures.

### 3. Gulu – Karuma Water Supply Project

- ✓ Construction of a bulk water transmission pipeline from Karuma to Gulu
  with branch off systems to supply at least 6 small towns en-route from
  Karuma to Gulu.
- ✓ Implementation of full scale source protection measures for Oyitino 1, Oyitino 2, selected ground water systems in Gulu and the abstraction point in Karuma.



# **Component 2: Consulting Services**

# Component 2 Consulting services

- Design review and construction supervision for Mbale Water Supply and Sanitation Project
- Detailed design and construction supervision for Adjumani - Pakele Water Supply and Sanitation Project
- Development of source protection plans for Adjumani - Pakele Water Supply and Sanitation Project –
- 4. Development of ESIA and RAP for Adjumani Pakele Water Supply and Sanitation Project



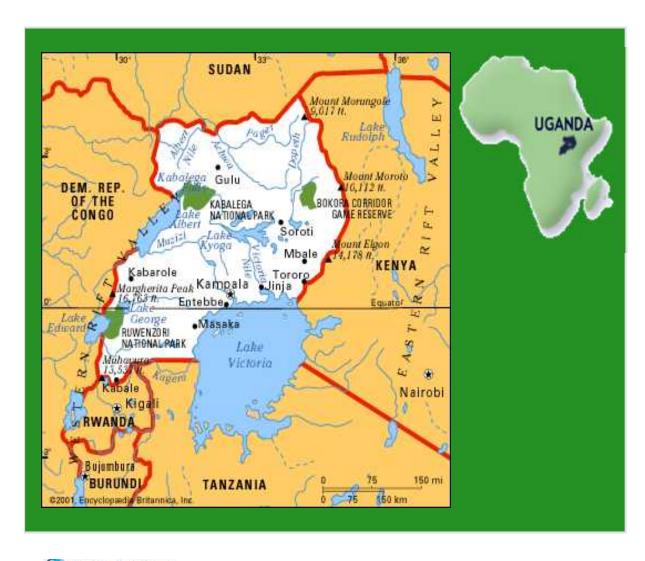
# Component – 3

# WATER RESOURCES MANAGEMENT

March 2018



# Water resources of Uganda



# Renewable water resources

15% of Uganda is open water

3% permanent and9.4% seasonalwetlands

98% of water resources are transboundary



# **Establishment of Water Management Zones**

Albert Water Management Zone (AWMZ) : Fort Portal

Kyoga Water Management Zone (KWMZ) : Mbale

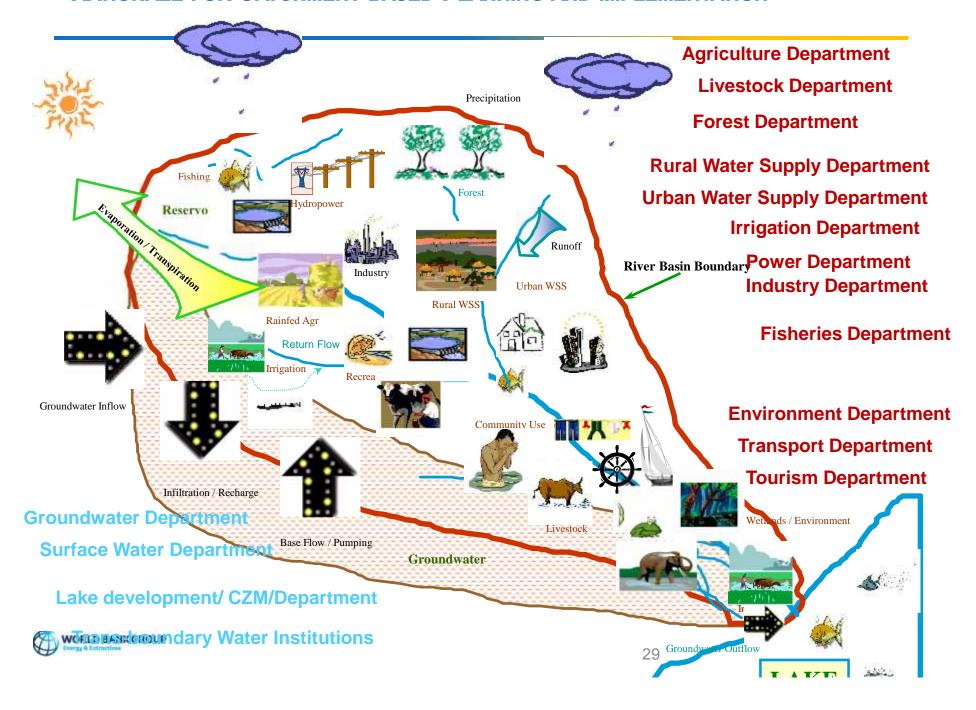
Upper Nile Water Management Zone (UNWMZ) : Lira

Victoria Water Management Zone (VWMZ)
:Mbarara





### RATIONALE FOR CATCHMENT BASED PLANNING AND IMPLEMENTATION



# **IWMDP Component 3 Activities ..i**

# 1. Implementation of priority projects identified in the Catchment Management Plans

The catchment management measures will be implemented in the hot spot sub-catchments as prioritized in the 5 CMPs.

# The interventions include;

- > Soil and Water Conservation Measures
- Environment management measures
- Livelihood Improvement Options.



# **IWMDP Component 3 Activities --ii**

# 2. Development of Catchment Management Plans

- ✓ Nyamugasani catchment in Albert Water Management Zone
- ✓ Kafu catchment in Albert Water Management Zone
- ✓ Sezibwa catchment in Kyoga Water Management Zone
- ✓ Okweng catchment in Kyoga Water Management Zone.

The catchments are hosts to some water supply and sanitation projects proposed under rural water and urban water supply for consideration under WMDP II and similar projects.



# **IWMDP Component 3 Activities---iii**

### 3. Implementation of the Water Information System

Hardware and software development and capacity building at national level and in all the 4 WMZs

### 4. Improvement of water resources monitoring

Monitoring stations and equipment at 17 monitoring stations on-line remote sensing equipment for Real time monitoring

## 5. Assessing and managing the use of groundwater

Preparation of aquifer utilization guidelines, and maps on aquifer characteristics, distribution and responses to pumping

- 6. Preparation of a WMZ Strategy and Action Plan for Albert WMZ
- 7. Renovation and Expansion of the National Water Quality Laboratory (NWQRL)



# **IWMDP Proposed Procurement Strategy**

- ✓ Each implementing agency (MWE and NWSC) shall carry out its own procurements.
- ✓ Procurements will be done in lots where necessary.
- ✓ Designs, design reviews and ESIA shall be undertaken before effective date of the project so that procurement of works start immediately.
- ✓ Terms of reference for the consultancy services shall be prepared before the effective date of the project so that when the project starts, procurements start immediately

