



## URBAN WATER SUPPLY PROJECTS

### 1. Karumuna - Kanzenze water supply network extension project

The current project will help to distribute to customers the water produced by Kanzenze Water Treatment Plant, under construction, and thus to offer water access to people staying in Karumuna and Kanzenze, as until now the water network of WASAC has not yet been extended to the area, which is currently considered as a potential emerging centre.

#### ***Specific Positive Socio-Economic Impacts***

The water supply project would have positive impacts on several levels.

On social level, in particular:

- Jobs creation during project execution
- Development of other services in the areas which will benefit from the access to water supply services;
- Improvement of the local population's living standard.
- Reduction of water borne diseases,
- Reduction of money and time spent to look for water.

#### ***Project summary:***

- Construction of HDPE DN 200 PN 16 (6227 m)
- Construction of ND160 pipelines (1970 m)
- Construction of ND110 pipelines (10,221 m)
- Construction of ND 90 pipelines (13,000 m)

### 2. Strengthening of Nzove - Ntora Water Principal Pipeline

Kigali City has water production capacity of 82,000 m<sup>3</sup>/day from three (3) water treatment plants, Kimisagara, Karenge and Nzove, to respond the current water demand. Nzove water supply system is responsible for approximately 50 % of the total production. Thus, Nzove water supply system is the most important facility in Kigali City.

Almost all of the volume of water produced (about 90 %) in Nzove water treatment plant (hereinafter referred to as "WTP") is pumped to Ntora Reservoir (5,000 m<sup>3</sup> x 2 reservoirs). Ntora Reservoir supplies water to 34 reservoirs and it covers 24 sectors of the total 35 sectors by gravity. Nzove WTP is planning to extend the water supply volume to be able to supply about 2.1 times more of the current volume (about 145,000 m<sup>3</sup>/day) responding to the future population increase. The purpose of strengthening Nzove - Ntora Water Principal Pipeline is



to adjust water volume, reduce risks and optimize city water distribution, which is the key facility of the Kigali City distribution network.

The project objective is to increase the efficiency and reliability of Nzove - Ntora water network and supply of safe water sustainably to almost all residents of Kigali City

Output 1: Supply of safe water sustainably to almost all residents of Kigali City.

- Construction of 11,300 m of transmission pipeline DN800 mm-DIP
- Construction of 20,000 m of distribution pipe DN150 mm-PVC

Output 2: Increase of water storage capacity

- Construction of Nzove #3 reservoir with storage capacity of 3,500 m<sup>3</sup>
- Construction of Gisozi #1 reservoir with storage capacity of 2,500 m<sup>3</sup>
- Construction of Gisozi #2 reservoir with storage capacity of 1,000 m<sup>3</sup>
- Construction of Kinyinya #1 reservoir with storage capacity of 2,500 m<sup>3</sup>
- Construction of Kinyinya #1 reservoir with storage capacity of 3,000 m<sup>3</sup>

Output 3: Reduction of NRW.

### **3. Water Supply Master Plan for Kigali City**

#### ***Objectives of Kigali Water Supply Master Plan***

The objective of the Kigali Water Supply Master plan is to provide a blueprint of the future water supply system by 2050 and steps to be taken by Rwandan side for achieving the same. The Master plan consists of the Master Scenario until 2050 and the 15-Year Investment Plan. Based on the Master plan, Feasibility Studies on the 2 priority projects will be conducted. In addition, technology transfer to the counterpart staff from the WASAC is also being pursued during the course of preparation of the Master plan and the feasibility studies.

#### ***Target area of Kigali Water Supply Master Plan***

The Greater Kigali, that is the target area of the Master plan, covers the City of Kigali and its seven adjacent sectors, i.e., Shyorongi, Runda, Rugarika, Ntarama, Muyumbu, Gahengeri, and Nyakaliro.

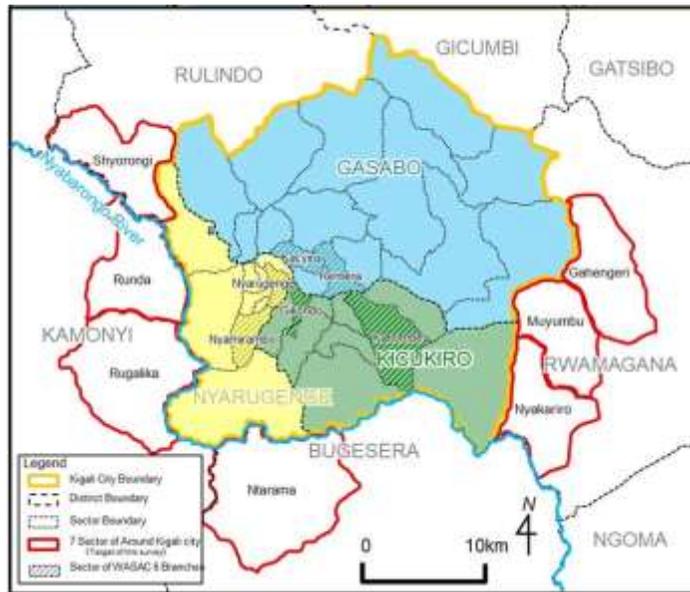


Figure: Location of Major Water Sources in Greater Kigali

