



The Kigali Water Supply Masterplan 2050

Urbanization is an emerging trend in Rwanda including the City of Kigali, the capital city. It was anticipated that the population of the City of Kigali would increase rapidly from around 1.1 million in 2012 to 3.8 million in 2050 due to the large migration from rural areas. The City of Kigali Masterplan (CoK M/P), which was updated by the end of 2019, adopts the city's actual development trends. In addition, seven sectors adjacent to the City of Kigali have been considered in this study, namely **Shyorongi, Runda, Rugarika, Ntarama, Muyumbu, Gahengeri** and **Nyakaliro** as they are being rapidly developed mainly for residential purpose due to availability of land at lower cost compared to those within the city.

According to the Fifth Integrated Household Living Conditions Survey (EICV5, 2016/2017) carried out in the country, the coverage of water supply in the City of Kigali is around 87%. Meanwhile, the big challenges that lie ahead in the future for the Study Area (the City of Kigali and the adjacent seven sectors) pertain to catching up with the emerging demand due to the rapid-growing population in this area and to improve the quality of the water supply to a satisfactory level for the users. For example, insufficient water production, a large volume of water leakages that brings about intermittent water supply in some areas, and the deterioration of water sources that provoke a greater burden on water production.

The Water Supply and Sanitation Corporation (**WASAC**) has the responsibility for providing water and sanitation in Rwanda. As for the Study Area, there are three main water treatment plants and more than 4,000 km of pipelines that need to be operated and maintained. One of the most important geographic features of the City of Kigali is its large elevation differences. The existing facilities were developed incrementally to catch up with the social demand. However, they still have plenty of room for improvement and for meeting the challenges. For instance, the present water supply system in the study area was developed without a comprehensive water supply plan and design criteria; therefore, a comprehensive plan is awaited for a long time duly considering various aspects including:

- The fact that the current distribution system, which lacks proper zoning arrangement according to the difference of elevation, forces WASAC to face difficulties while managing water distribution pressure adequately.



- The operation of some water reservoirs is unstable, and water cannot reach certain areas within the study area.
- The current water supply facilities have too complicated networks that cause difficulty in operation and maintenance.
- There is also a concern that the Study Area may face a lack of water source due to the rapid increase in water demand in the near future.

Under the above-mentioned circumstances, it is indispensable for WASAC to have one comprehensive Masterplan for the City to improve the existing water supply facilities and new facilities in order to meet the rapid increase of water demand in the Study Area as well as for the sake of ensuring quality water supply service effectively and efficiently over a long period of time.

In cooperation with Japan International Cooperation Agency (**JICA**), the development of the Kigali Water Supply Master Plan project conducted by WASAC Ltd was initiated in March 2019 and currently it is at its final step.

The objective of the Kigali Water Supply Masterplan is to provide a blueprint of the future water supply system by 2050 and steps to be taken by the Rwandan side for achieving the same. The Masterplan consists of the Master Scenario until 2050 and the 15-Year Investment Plan. Based on the Masterplan, feasibility studies of two selected priority projects are developed.

Additionally, technology transfer to the counterpart staff from WASAC is also being pursued during the course of preparation of the Masterplan and the feasibility studies.



For more Information, you can visit the links below;

Executive Summary and MP Document

https://www.dropbox.com/sh/ym1hl4gh83q0rsy/AAB_uteueoIXpudTah00iBI9a?dl=0

Presentation material

https://www.dropbox.com/s/ok9rrko102wz5on/20210827_KigaliMP_ProjectExplanation_SEA_f.pdf?dl=0

We request your comments and questions on above until 24 September 2021:

<https://forms.gle/pTfah5JULdSJgxzP7>