

Social Economical Aspect of the City of Kigali Road Network Functionality

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Abstract : The population growth rate of the city of Kigali is increasing annually. In 1960 the population was six thousand, in 1990 it became two hundred thousand and is supposed to be 4 to 5 million in the coming twenty years. With the increase in the residents living in the city of Kigali, there is also a need for an increase in social and economic infrastructures connected by the road networks to serve the residents effectively. A road network is a route that connects people to their needs and has to facilitate people to reach the social and economic facilities easily. This research analyzed the social and economic aspects of three selected roads networks passing through all three districts of the city of Kigali, whose center is the city center roundabout, thorough evaluation of the proximity of the social and economic facilities to the road network. These road networks are the city center to nyabugogo to karuruma, city center to kanogo to Rwanda to kicukiro center to Nyanza taxi park, and city center to Yamaha to kinamba to gakinjiro to kagugu health center road network. This research used a methodology of identifying and quantifying the social and economic facilities within a limited distance of 300 meters along each side of the road networks. Social facilities evaluated are the health facilities, education facilities, institution facilities, and worship facilities, while the economic facilities accessed are the commercial zones, industries, banks, and hotels. These facilities were evaluated and graded based on their distance from the road and their value. The total scores of each road network per kilometer were calculated and finally, the road networks were ranked based on their percentage score per one kilometer—this research was based on field surveys and interviews to collect data with forms and questionnaires. The analysis of the data collected declared that the road network from the city center to Yamaha to kinamba to gakinjiro to the kagugu health center is the best performer, the second is the road network from the city center to nyabugogo to karuruma, while the third is the road network from the city center to kanogo to rwandex to kicukiro center to nyaza taxi park.

Keywords : social economical aspect, road network functionality, urban road network, economic and social facilities

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