ABSTRACT

The study area for this development project falls within a residential neighborhood which is Jamhuri estate where an urban road passes through. The focus of the project is to discuss in detail the proposed integrated non-motorized transport plan for the neighborhood. From the data collected in the research study, it is evident that Kibera station road lacks a proper and adequate NMT system and this makes it difficult for the NMT users to navigate their way around. This project proposal aims to make Kibera station road and Jamhuri neighborhood into a place that has an efficient and adequate NMT system integrated with the surrounding land uses. In consequence, improving NMT user experience. The methodological approach of the development project involved review of literature (theories, principles, concepts, policies, guidelines, case studies), regulatory standards and site analysis. The site assessment was mainly done through visual survey of the study area, land use analysis and site suitability analysis. This assessment was done in order to better understand the study area in terms of challenges and opportunities, what already exists and what is lacking in the study area. The site was identified to be predominantly a residential area. The residential land use covered 42% of the study area while the commercial land use covered 4%, public purpose land use covered 5%, educational land use covered 7%, recreational land use covered 32% and the transportation land use covered 10%. Alternative plan proposals were guided via integrated transport development concept, rational planning model, linkage theory, statistical decision theory, legal, policies, planning and design standards and principles. The development concept, the rational planning model, linkage theory and statistical decision theory helped in the decision-making process and adoption of concepts. Legal policies helped to know which legal rules to follow.

Planning, design standards and principles helped to know in detail how the proposal should look like and which principles to use. From the alternative plan proposals, a preferred site plan was derived by integrating the physio-economic model with the socio-environmental model and the institutional model. Herein, the preferred site plan includes the repairing of existing NMT infrastructure, the construction of new NMT infrastructure, landscaping and creating awareness on the benefits and importance of NMT. Successful implementation of the project will have positive impacts in that NMT user mobility will be enhanced and activities such as cycling and resting on the street benches will promote socialization among the NMT users. There will be positive impacts economically, which include the creation of employment opportunities during the construction process and the maintenance of the NMT infrastructure and the vegetation, which will be introduced via landscaping. There will be positive impacts physically which include having an efficient, safe and effective NMT system and infrastructure. Institutionally the positive impacts include community inclusivity, effective development control, street user safety and community sense of pride. In this regard, the project can be used on other urban roads in Kenya.