

Conventional Four Steps Travel Demand Modeling for Kabul New City

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Abstract : This research is a very essential towards transportation planning of Kabul New City. In this research, the travel demand of Kabul metropolitan area (Existing and Kabul New City) are evaluated for three different target years (2015, current, 2025, mid-term, 2040, long-term). The outcome of this study indicates that, though currently the vehicle volume is less the capacity of existing road networks, Kabul city is suffering from daily traffic congestions. This is mainly due to lack of transportation management, the absence of proper policies, improper public transportation system and violation of traffic rules and regulations by inhabitants. On the other hand, the observed result indicates that the current vehicle to capacity ratio (VCR) which is the most used index to judge traffic status in the city is around 0.79. This indicates the inappropriate traffic condition of the city. Moreover, by the growth of population in mid-term (2025) and long-term (2040) and in the case of no development in the road network and transportation system, the VCR value will dramatically increase to 1.40 (2025) and 2.5 (2040). This can be a critical situation for an urban area from an urban transportation perspective. Thus, by introducing high-capacity public transportation system and the development of road network in Kabul New City and integrating these links with the existing city road network, significant improvements were observed in the value of VCR.

Keywords : Afghanistan, Kabul new city, planning, policy, urban transportation

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