

RECONSTRUCTION OF PEOPLE FLOW IN HANOI AND HCMC USING JICA PERSON TRIP DATA

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ABSTRACT

Nowadays, Asian, African, and South American countries are developing very fast. The installation of the infrastructures has to be done in right way; otherwise these countries will have to make a huge effort to modify all the infrastructures after installation. In order to install enough and appropriate infrastructures, it is necessary to make all the systems visible. Transportation system is not only a part of the infrastructures but also one of the most important systems in the city.

This study presents GIS-based analysis of people flow in Asian cities, especially Hanoi and HCMC, by using JICA person trip data. We visualized the transportation system in the city in order to find out circumstances such as how much capacity for transportation systems that are already installed is left. In order to visualize transportation system in the city, there are three steps. At first, we smoothed PT data to reduce the bias of raw PT data. Second, we did spatial interpolation using OpenStreetMap. In this step, we matched data from person trip surveys with the road data in OpenStreetMap. Since person trip data does not include the route data, we used pgRouting as free software for route searching. After all these steps, we can get the location of all the subjects of surveys. At last, we combined images together and completed visualization of people flow in the city.

Throughout this study, we acquired the visualization which shows the necessity of the transportation systems and the method to analyze people flow. The analysis of people flow makes it possible to optimize the infrastructures for reconstructing people flow.