A TRIAL FOR AN URBAN TRANSPORT ZONATION FOR YOGYAKARTA CITY

by
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ABSTRACT

With the estimation of the Indonesian population increase reaching 222.753 million in the year 2000 (ESCAP, 1984), the needs for a spatial planning, an effort to optimize the land use, and an efficient development planning without damaging the environment will be very urgent in the coming years.

Like the other developing countries, Indonesia nowadays enters a certain phase of growing urbanization. The slow growing city of Yogyakarta is also affected by the increase of population, population density, and also by the growing number of motorcycles and motor cars which has raised transportation problems in the city and its surroundings.

There are other factors raising urban transportation problems, though the factors mentioned before are dominant. Some of those factors are: (i) the agglomeration of congestion or absorbing centres/buildings in a row, (ii) the various vehicles, both motorized and non-motorized, using the same road for there are no separating strips except the road connecting the Tugu (monument) and Alun-Alun (square) near kraton (Yogyakarta Sultanate palace), (iii) the low carrying capacity of the roads in the city especially at peak hours, (iv) a shortage of wide parking areas, and (v) only a small percentage of land area in the city is used for traffic.

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INTRODUCTION

The spatial pattern of the city and region is mostly influenced by the geographical and historical backdrops, besides other factors, such as population structure and local economic conditions. So the best way to arrange the spatial pattern is by adjusting it with physiographic and socio-geographic aspects.

The seminar on spatial planning in Indonesia in the year 2000 discussed the base for spatial setting. It was set forth that according to the scale of the Republic of Indonesia, concerning the urban spatial pattern, the arrangement of space is a structural form which reflects the use and pattern of the space. The space in this discussion is in the sense of a national region, a local region, an urban or rural region. Based on the explanation mentioned above, probably it will be wise if the spatial planning for Yogjakarta city is oriented to a micro, meso, and macro scale planning.

Since Yogjakarta was formerly the capital of the Republic of Indonesia and currently serves as an international tourist area following Jakarta and Bali, automatically the spatial planning must be integratively handled within a national ecosystem scheme. That is why the city planning must go hand in hand with the urban transportation planning.

MULTIPLE FUNCTIONS AND TRAFFIC PROBLEMS

The urban sprawl or urban expansion of Yogjakarta city is a result of the growing population and the penetration of the modern technology. The small city of Yogjakarta has a size of 32.5 sq. km owns multiple functions. Yogjakarta is known as a student town, a cultural town, and a tourist town. These attributes have attracted more students from the surrounding towns and outer Java, and also domestic and foreign tourists.

Twenty years after the independence of the Republic of Indonesia, even before the war the city of Yogjakarta which was formerly a city of bicycles and ambulances has changed into a city of motorcycles and motor cars. The break (a three-wheeled vehicle operated with pedal power by a man), which was a common view of the whole city during the years 1957–1967 might be vanished in the future, pushed aside by the four wheeled transportation, motor cars, like city buses, mini buses, and others.

Traffic jams, especially at peak hours, and traffic accidents have been a common scene on the roads in town. Traffic treatment has been executed, but it seems to give just a temporary solution for imbalance of the ratio between the available road for traffic and the running vehicles in the city. An overall and spatial treatment will be most effective in this case.

THE PROBLEM OF SPATIAL ARRANGEMENT

From the urban sphere point of view the city of Yogjakarta has changed from a quiet city to a noisy one, from a non-polluted city into a rather polluted one, and from a city with a single attribute to the one with a multiple attributes.

Unfortunately, the spatial setting does not develop in harmony with those changing urban sphere. The amount of schools and universities has increased. The houses of the people have spread all over the periphery of the city, the small hotels and big ones for domestic and foreign tourists have arisen everywhere, and the increasing shopping centres, cinemas and other offices or governmental buildings make the urban space physically crowded. With those circumstances the author remind the readers to an article written in the Asian Geographer Journal (1982):

"Yogakarta, as a cultural and educational centre has played an important and determinant role in changing the social, economical, and cultural life of the people. After the independence of the Republic of Indonesia in 1945, there were ideas of rebuilding the city and its surrounding. Three alternatives were suggested. The first was 'keep the town traditional', the second was 'make it modern', and the third was 'combine the modern with the traditional'. These alternatives have caused some 'chaotic' morphology of the town or the city of Yogakarta" (Bintarto, 1982).

If you now visit Yogjakarta than you will see that the idea of combination between modern and traditional pattern has been mostly realized, but still the problem of the urban transport system has not been solved.

The population density in the city has moved slowly during the years 1978, 1979, 1983 from 15,556 to 12,552, and then to 12,554 persons per square kilometre respectively (Pusat Pengolahan Data, DIY, 1983). The increasing number of students in Yogjakarta has crowded completely the roads in the small sized city with their motorcycles at around seven to nine in the morning, one to two in the day time, and five to nine in the evening.

The total population in the city is not so high, 408,033, as compared with the other cities in Indonesia and the population for the whole Yogjakarta Special Region (Daerah Istimewa Yogjakarta) is ca. 2,671,677 persons in 1983 (Pusat Pengolahan Data, DIY, 1983). The main problem is that the city is small and the area used for traffic purposes as mentioned before has a very small percentage.

The existing development problems have to be urgently answered and solved by doing keen and continuous researches concerning the really earning capacity of the Yogjakarta city and surrounding regions from time to time, so that the spatial planning programs are always based on exact and valid data which will be also usuable for the future programs and planning in Yogjakarta.
AN IDEA FOR URBAN TRANSPORT ZONATION

Until now various kinds of vehicles and sorts of urban transportation are still found in Yogyakarta, such as cow-carts (pedal or gendong), horse-carts (tandang), becak, bicycles, motorcycles, four-wheeled motor cars, city buses and intercity buses, trucks, mini buses, oil or petrol trucks, primitive garbage carts, food-vendor carts and other. All of these various sorts of transportation are concentrated in the city and the surrounding areas, and most of them use the same roads without separate strips in town.

The widening of roads, in fact, is not the best panacea for solving the urban transportation problem. To relieve the crowdedness in the city, there must be a shift outside the town by creating new small centres or constructing a new road around the city which is usually called the ‘ringroad’. But again, unfortunately the ringroad has not yet fully finished because of some land problems and the budget.

Assuming that the ringroad has already existed, a kind of spatial model might be applied in this case by creating separate spaces or strips. This model is based on the physical reality of the urban traffic problems in the city of Yogyakarta and on the humanity aspect. A proposed model will be shown in Figure 1.

Notes for Figure 1.
1. The city buses will operate in the city as the main urban transportation.
2. The four-wheeled non-private, non bus motorcars will be the main transportation along the ringroad and the roads which are free from the city bus route.
3. Bicycles and becak will operate along roads free from the city bus route. The becak mostly move on the periphery of the city, while the becak freely move in the small streets.
4. The trucks must have a special time schedule, especially at the ‘on peak hours’ for unloading materials for the shops and markets in town.
5. The petrol, water, and the garbage trucks enter the city on special chosen hours to prevent from more crowdedness.
6. The bicycles and motorcycles have a more free moving area in the city but have to obey traffic rules.
7. It is suggested that the private cars would be used for the urgent purposes only.
8. The intercity buses are not allowed to enter the city, but they may use the terminal built on the periphery of the city.

The concept or model for zonation of urban transportation will be used as a base-line, and the detailed implementation of the model using detailed city maps must be carefully handled.

REFERENCES