

## The plan of public transportation in Ho Chi Minh City

**X.N Chu, P. Tran**

*Ho Chi Minh College of Transport III*

*No.189, Kinh Duong Vuong, District 6, Ho Chi Minh city, Vietnam*

---

**Abstract:** Traffic in the city shows that the market economy has brought about great changes, the influx of people from rural areas into urban areas has increased, the lifestyle and behavior of urban people have changed. the dynamics of industrialization, urbanization and the trend of globalization. In the past time, the City faced many difficulties in planning, planning management as well as planning implementation, including urban transport planning. The project of the Transport Strategy and Development Institute in Ho Chi Minh City has introduced 19 measures to increase public passenger transport and 16 measures to limit personal vehicles. Specifically, the project said that the city should implement synchronized groups of solutions such as bus, fast bus, metro, public bicycles, use of fuel buses clean, buses to support people with disabilities. Disadvantages, reasonable arrangement of bus interchanges near the intersection of the main axis with the belt, information technology application, electronic ticketing system, online digital mapping. The paper presents the matters about public transportation and the solutions for improving the planning in Ho Chi Minh city.

**Keywords:** public transportation, planning, personal vehicle, bus

---

### 1. Introduction

The traffic in Ho Chi Minh City is the sum of the many types of transport available for travel within the city and between Ho Chi Minh City and surrounding areas. Being the largest urban center and an important traffic hub of Vietnam, Ho Chi Minh City has a modern and diversified infrastructure system with many major inter-regional roads, two major highways connecting the provinces from Western and Eastern South, and many major national highways (such as National Highway 1, Highway 13, National Highway 22). The Trans-Asia Highway AH1 crosses the city's boundary and the North-South Railway begins and ends at Sai Gon Railway Station. The only airport in the city, Tan Son Nhat International Airport, is also the largest airport in the country. Today, the city also owns and operates a network of public buses throughout the district and is developing a metro network to meet the growing needs of its residents. Besides the advantages of socio-economic superiority to other localities in the region and the whole country, HCMC has been and will continue to face many serious problems and risk becoming obstacles. In the development of the city, the emerging problem is the capacity and quality of the urban transport system. Up to June 2014, the number of means of transport managed in HCM City is 6.5 million vehicles, of which 497,586 cars and 6.090,198 motorbikes. HCMC's urban transport features are primarily land-based, and this is also the dominant mode of addressing urban transportation needs.

Roadway: Total road length in the city is 3,670 km with 3,800 roads (excluding rural roads) but most roads are narrow, only About 14% of the roads have a width of more than 12m so as to be able to organize passenger transportation by bus, 51% of roads with width of 7m - 12m, 35% width is less than 7m.

About the railway: There is only one North-South national railway in Ho Chi Minh City, there are no large urban railway.

On inland waterway: The network of river-way with a total length of 975.5 km of rivers and canals of all kinds with 112 routes, although the waterway network is distributed evenly throughout the city, some rivers and canals are encroached, accretion, limited by the unblocked bridges of the bridge. In addition, river-way are affected by the tidal regime with large fluctuation amplitude, so waterway transportation has not formed a continuous network and has not exploited the advantages of water transport. Currently, water transport accounts for only a small proportion, about 4% to 6% of the city's transportation needs.

Sea transportation: Sea transport currently mainly connects Ho Chi Minh City with Vung Tau and the outer areas through two main channels: Luong Tau and Soai Rap lanes, which is also the main shipping lanes of the whole of southern area of foreign exchange.

About the public passenger transport system: Although not yet fully promoted as a key role in the urban transport system, public transportation by bus is the main means of public transportation of the city. . The increase in the volume of transport on bus routes between 2003 and 2005 was due to the expansion of the network of routes, the number of routes increasing rapidly, new investment vehicles through projects, and the subsidy policy is maintained in a stable manner. From 2006 up to now, the volume of transportation on bus routes has increased slowly due to the following reasons: Increasing ticket prices resulted in reduced passenger volume; The number of private vehicles has increased rapidly; The underground construction works, traffic flow

and bus services are not good yet. Over the past time, with the orientation of focusing on the investment and completion to put into use a number of key projects as planned like Saigon Bridge 2; Tan Son Nhat - Binh Loi - Outer Ring Road; Four steel overpasses at the intersections (Cong Hoa - Hoang Hoa Tham, Hoang Van Thu - Truong Son - Cong Hoa, 3/2 - Nguyen Tri Phuong - Ly Thai To, The Le Van Sy Bridge, Bong Bridge, Hau Giang Bridge, Kinh Thanh Da Bridge has contributed to reduce the number of traffic jams (over 30 minutes) in the city, the average of five years in 2009- The number of traffic jams will be reduced by 51.8% per year (5) and no major traffic jams have been observed since the beginning of 2014.

In order to develop the land area, HCM City needs to develop road traffic in the northeast, southeast and southern directions with belt roads. Ho Chi Minh City also needs to build urban railways such as metro, monorail and high-rise railways, to build railways linking the national network in Loc Ninh, central and Ba Ria-Vung Tau. According to the transport development orientation, HCMC needs to build an area of transportation infrastructure that accounts for 15-25% of urban land. At present, the land area of the city is only 6% (12.579 ha) of urban land, of which more than 2% (2.300 ha) of land for the airport.



Figure 1. Overpass bridge to reduce the traffic jam

Ho Chi Minh City is one of the most dynamic and economic cities in Vietnam. However, the process of urbanization is strong, immigrant population is rising, the infrastructure system is not synchronous, the orientation of urban planning is not really right, the weak management of the management agency Poor awareness of traffic participants ... made Ho Chi Minh City traffic worse. Traffic jams, noise, dust pollution caused by traffic vehicles have become a dread of those who have come to this city. Urban transport is like the blood vessels of the human body, blood clots mean that the body dies. Traffic jam affects the economic development, time-consuming waste of people involved in traffic, etc. How to solve the traffic situation of Ho Chi Minh City is a difficult problem of the whole society. Urban transport is not new, but why in Vietnam is the situation worse. This article only summarizes and sets out policies for reference.

## 2. Traffic jam causes

The process of urbanization and industrialization has positive and negative impacts at both national and city levels. In addition to promoting economic growth, increasing incomes, improving access to services, creating more employment opportunities, it also has many consequences that one of the consequences is easy to see. , which is the traffic jams. Traffic congestion has been the "specialty" that large cities in developing countries create but do not want to receive. Impacts from UTGT are fast, diversified, and complex. Cities have encountered many difficulties and time, resources to be able to solve, control and achieve sustainable development for urban. Identifying the root cause of the problem to find solutions to minimize and "destroy" this "specialty" is urgent. In the framework of this article, the author presents some main causes related to planning, urban development management, vehicle development ... creating traffic jam, finding measures

Overcoming negative impacts and encouraging positive impacts. After the renovation, the city's economy boomed as the biggest driving force, attracting the population of the whole country and the southern delta. Since 1986, the transportation planning mainly focused on development in the inner city. The structure of urban planning focuses, so all activities of the city people are concentrated here. In a small space, everything is pent up there, population density soaring, making the city increasingly more crisis. Looking at map 1 we can see that centralized planning is the main reason for motorcycles with high mobility. Chinese motorcycles are flooding the market with cheap price, thus most people can buy. Moreover, the rapid increase of personal transportation. Compared the means of transport in Ho Chi Minh City in 1995 to other Southeast Asian cities, it is easy to see the number of motorized vehicles dominate. The composition of motorcycles has not decreased, while the composition of automobile components is increasing trend. As the main means of transport, the flexibility and the area occupied by the road surface is greater than the automobile, which shows that motorbikes are currently the means of causing high traffic congestion. around area. According to the Houtrans report, the high demand for travel among districts, such as Binh Thanh - District 1, District 6 - Binh Chanh District, District 8 - District 5, District 1 - District 5, go to work and go to school. This shows that the drivers involved in traffic congestion are the workers, students - students. With the income of students and workers can only own means is a motorcycle. Transport Planning in Ho Chi Minh City in comparison with Seoul, Tokyo, and Beijing is shown in Figure 2.

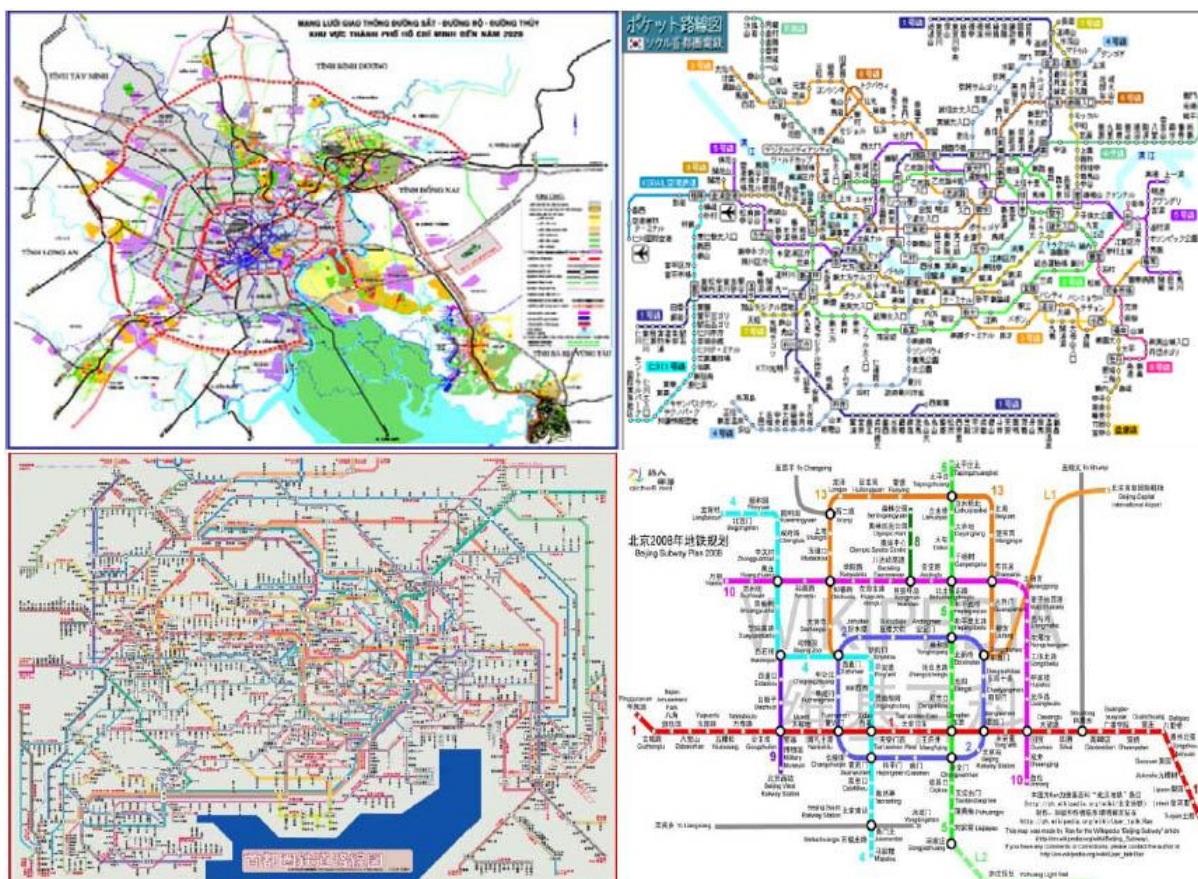


Figure 2. Transport Planning in Ho Chi Minh City in comparison with Seoul, Tokyo, and Beijing

The process of economic development, industrialization and modernization is the premise for urbanization. The demand for transportation (traffic demand) always increases according to the process of socio-economic development. Demand for passenger transport mainly depends on the development of population, demand for transportation of goods depends on the economic development.

Under current conditions, the demand for travel in urban Vietnam is solved mainly through road, so the process of expanding urban space is indispensable. The process of urbanization has attracted people from other provinces in large cities to work because of improved and diversified employment, study and living opportunities. Many functional economic zones, urban functional areas and The new urban areas are being built, which leads to the demand for transportation, the distance to travel, the demand for using high-quality means of

transport, and the expansion of urban space. Invisible urban space, however, is partially limited by the travel time criterion. Right from the middle of the nineteenth century, the German urban researcher C.Ritte mentioned the measurement of space to calculate the cost of time travel. British statistician F. Ganton has introduced contingencies to determine central access over time and thus speed is one of the key conditions for urban development. In the Soviet Union, the end of the nineteenth century travel time was accepted at 25-30 minutes, until the end of the twentieth century this number was accepted at 35-40 minutes, however distance traveled (length of urban up to about 2 times. In 2005, the average travel time to work in Hanoi and Ho Chi Minh City was 18 - 20 minutes (according to the HAIDEP report) corresponding to the average distance of about 6-8km, so far the average travel time to work has reached the threshold of 30-40 minutes corresponding to the average distance 8-10km, approaching the threshold of the major urban areas such as Malina and Jarkata is from 40 to 50 minutes, Tokyo and Osaka are from 30-40 minutes but the travel distance is not commensurate (due to current we are too dependent on individual means of transport) also means that the urban size is not adequate.

### 3. Solutions and Plans

The process of economic development, industrialization and modernization is the premise for urbanization. The demand for transportation (traffic demand) always increases according to the process of socio-economic development. Demand for passenger transport mainly depends on the development of population, demand for transportation of goods depends on the economic development. Under current conditions, the demand for travel in urban Vietnam is solved mainly through road, so the process of expanding urban space is indispensable. The process of urbanization has attracted people from other provinces in large cities to work because of improved and diversified employment, study and living opportunities. Many functional economic zones, urban functional areas and The new urban areas are being built, which leads to the demand for transportation, the distance to travel, the demand for using high-quality means of transport, and the expansion of urban space. Invisible urban space, however, is partially limited by the travel time criterion. Right from the middle of the nineteenth century, the German urban researcher C.Ritte mentioned the measurement of space to calculate the cost of time travel. British statistician F. Ganton has introduced contingencies to determine central access over time and thus speed is one of the key conditions for urban development. In the Soviet Union, the end of the nineteenth century travel time was accepted at 25-30 minutes, until the end of the twentieth century this number was accepted at 35-40 minutes, however distance traveled (length of urban up to about 2 times.

The State accelerates the implementation of government decisions such as Urban Planning and Transport to 2025, Regional Transport Planning, Decisions on Solutions to Traffic Congestion 2011-2015. In particular, the most attention to build the public transport system, ring road.

Renovating the mechanism, it is necessary to encourage private enterprises to invest in the construction of various types of traffic. As experienced in the capital city of Tokyo (Japan), in parallel with state transportation, the private railway transport system is very high. Currently, the world is tending to evaluate and re-use of LRT, Monorail transportation because it has very high efficiency in urban areas such as low construction cost, low noise, elderly users Passengers can travel within short distances, create a busy space in the neighborhood, can be associated with other types of traffic.

In the city's transport planning by 2025, it is necessary to define the urban railway or subway. To go to work, cannot be half-hearted. In the inner city area, land stockpiles are no longer abundant, compensation rates soar to develop underground traffic, LRT trains, bicycle recovery. The inner city should develop, modify the road system; Develop a cheap car park when the State collects tax on the inner city. In suburban areas, such as Can Gio and Nha Be, it is advisable to invest in building roads to access seaports and main development axes in the master plan with infrastructure investment policy.

For motorcycles, they must strictly limit the importation and production; increase in motor vehicle taxation for motorcycles for individuals and companies. For cars, taxis need to have limited measures, high taxes when using. It is necessary to invest in the development of the public transport system; Construction of high-rise mobile parking, underground mining when building offices, high-rise buildings. For buses need to improve service, cheap, safe to passengers peace of mind when joining this public transport. There should be incentives for private enterprises to invest in this service.

It should be clear, transparent and fair when licensing and issuing the rules of use, in the relationship between management agencies and enterprises. In order to increase the quality and quantity of passenger transportation, in the inner city, it is necessary to carry out free trial bicycle recall and change the type of means when collecting tax on cars into the inner city. At that point, the car will collect funds in the form of advertising. Reclaimed bicycles are popular in many European countries, and can be borrowed and paid for in short distances. Street order should be rearranged, combined with the LRT model. With the same space, but in HCM City, the encroachment of the trade streets is unproductive and confusing, causing the loss of urban landscapes.

#### 4. Conclusion

In addition to the synchronous development of transport infrastructure as planned, Ho Chi Minh City will deploy intelligent transportation system, which is identified by the City as one of the most effective solutions to solve the traffic problems of the largest city in the country. Continuing to improve the transportation infrastructure is very important, it is critical for experts to assess the need to minimize traffic congestion by limiting private transport in the urban area with a very clear and logical roadmap. At the same time, to promote means of public passenger transport. In addition, it is necessary to promote propaganda, increase sanctions to raise awareness for people involved in traffic. In the future, experts said that it is necessary to restrict the licensing of construction of apartment buildings, commercial centers, and offices in the inner city. At the same time, there are plans to shift some universities and agencies out of the city center in order to reduce population and transportation pressures for urban areas.

#### References

- [1] <http://thuvienxaydung.net/ha-tang-ky-thuat/phuong-phap-giai-quyet-van-nan-giao-thong-tp.hcm.html>
- [2] <http://www.viup.vn/vn/Giai-phap-giao-thong-n107-Un-tac-giao-thong-do-thi-Nguyen-nhan-va-tim-kiem-giai-phap-tu-quy-hoach-xay-dung-d3797.html>
- [3] <http://www.tapchigiaothong.vn/thuc-trang-va-giai-phap-gop-phan-giam-thieu-un-tac-giao-thong-o-cac-do-thi-lon-cua-viet-nam-d17525.html>
- [4] <http://trian.vn/tin-tuc/xa-hoi-3567/tac-duong-o-cac-do-thi-thuc-trang-va-giai-phap-135554>
- [5] <http://vov.vn/tin-24h/tac-duong-o-tp-hcm-khong-con-theo-qui-luat-527545.vov>
- [6] <http://dangcongsan.vn/xa-hoi/thanh-pho-ho-chi-minh-huong-den-giao-thong-do-thi-hien-dai-397258.html>
- [7] <http://baotintuc.vn/xa-hoi/thanh-pho-ho-chi-minh-giao-thong-voi-nhung-giai-phap-quyet-liet-20120203155837646.htm>
- [8] <https://www.tapchikientruc.com.vn/chuyen-muc/ly-luan-phe-binh-kien-truc/quy-hoach-phat-trien-giao-thong-thanh-pho-ho-chi-minh.html>