

# Master Planning Challenges for Ho Chi Minh City

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## Abstract

The potential for tourism should provide major socio-economic opportunities in the master planning of Ho Chi Minh City. Rapid urbanization requires that infrastructure especially transit keep ahead of development to focus private investment. Convenient access between home, work and supporting services will help the development of a strong and productive work force. The built environment and open space system must make the city livable by preserving its history, culture, and natural features that reveal the image and identity of Ho Chi Minh City.

## Socio-Economic:

**Tourism** is the largest industry in the world and clearly of significance to developing countries. Substantial investments are required to capitalize major destination resorts, but the industry is now diversified enough to include wider participation by small and medium businesses. Tourism generates 11 percent of global GDP, employs 200 million people, transports 700 million international travelers per year, and is expected to double by 2020. However, developing countries have only 30 percent market share, a minority position.

**The challenge for Ho Chi Minh City will be how to integrate appropriate types of tourism into master planning for the city to become a world-class destination that reflects its people, history, culture, and landscapes while protecting and conserving these resources.**

Tourism is highly dependent on the natural and cultural assets of a place. In Hawaii, visitors are attracted by natural features such as our climate and pristine waters, as well as by our multicultural history. Vietnam has its own set of resources that can provide significant tourism opportunities. Today, authenticity has become an increasingly important attribute sought by the visitor in the international market. Some types of tourism that are successful elsewhere in the world include:

- Destination Resort Tourism:
  - Domestic Market: Hawaii developed major resort destinations around its beaches, something we call “sun and surf.” The resorts range from the urban setting of Waikiki to the remote, self-contained, and large scale developments

of the “Gold Coast” on the island of Hawaii. These destinations have required significant investments in infrastructure and have taken 30 to 45 years to build out. While these destinations may not appear relevant to the urban design of a city, they relate to potential special resort locations close to dense urban areas such as Sentosa Island in Singapore and Waikiki in Hawaii.

- Waikiki was the first resort for both the historic kingdom and territory of Hawaii.
- Ka’anapali on the island of Maui was the first planned resort.
- The Gold Coast resorts of Mauna Kea, Mauna Lani, Waikoloa, and Ka’upulehu/Hualalai comprise the largest visitor destination on a regional scale.
- International Market: Newer, smaller luxury destinations offer greater privacy in unique natural settings in remote locations. Most have incorporated strong environmental practices into their operations.
  - W Retreat and Spa in the Maldives
  - Labriez Silhouette in the Seychelles
  - Veranda Chiang Mai in Thailand
- Agricultural Tourism:
  - This type of tourism features working farms or other agricultural operations open to the public. These specialized destinations offer the experience to learn about and work at a farm, ranch, or other agricultural facility. Such land intensive uses with low development footprints can become part of an agricultural conservation area, similar to a regional open space system.
  - Sonoma and Napa Valley in northern California are known for their beautiful vineyards, wineries, and landscapes. Smaller towns such as Sonoma focus on historic Spanish plazas with commercial and hospitality uses, including wine tasting houses featuring small wineries that don’t have their own tasting rooms.
  - The Kona Coffee District extends 70 kilometers on the Big Island of Hawaii is known as one of the best premium coffee growing areas in the world. The small towns and farms have developed a thriving boutique hospitality industry. The current zoning update of the Kona Community Development Plan protects this area for growing coffee and directs development to other parts in the region.
  - Sannam Hoa Binh in Vietnam is a private development master plan that integrates fruit farming, a golf resort, and a second home community into a private development parcel.
  - Ag Tourism could be located in urban areas as special districts that reflect the culinary preferences of the host culture:
    - Tsukiji Fish Market in Tokyo is probably the largest fish auction in the world, selling 700 metric tons of seafood a year. Adjacent to the waterfront and accessible by a number of metro lines, it is one of the most interesting and vibrant districts in the city that is representative of the Japanese love of and reliance on seafood.
    - Urban food markets such as Ben Thanh Market in HCM City is similarly representative of Vietnam’s cultural influences in food.

- Cultural Heritage Tourism:
  - Cultural heritage tourism highlights a country's or region's culture, specifically the lifestyle and history of the people and their art, architecture, religion(s), and other elements that helped shape their way of life.
  - Heritage parks form special districts in cities or are composed of individual sites connected by an urban trail system.
    - Charleston Waterfront Park in the state of South Carolina is the city's gateway and connection to the Cooper River.
    - The Boston Freedom Trail links historic sites in the city.
    - The Statue of Liberty is one of the most important icons of America.
  - Arts districts are potential development zones for the visual and performing arts and arts education.
    - Dallas Arts District in Texas focuses on a festival street anchored by their museum, symphony hall, opera house, major sculpture garden, and arts magnet school. Private development in fills the remaining street frontage with art themed uses at the ground level.
- Eco Tourism:
  - Urban areas may not have remote sensitive ecologies but could contain remedial areas that can be integrated into a park system and offer recreational and educational opportunities. Urban greenways are good examples, e.g., Boulder, Wash DC.
  - Wetland Park in Xiamen, China
  - Boulder River Greenway, Colorado

### Mass Transit and Land Use:

In the U.S. our citizenry is starting to realize that you can never build enough roadway capacity for cars because if there is unused capacity, drivers would take additional trips until it is used up. This is called induced demand.

Cities have to be designed primarily for people and not for cars. Vehicles need to be accommodated but if most of the populace don't own cars, a transit network should be developed to serve the majority. **One of the major challenges in the master planning of Ho Chi Minh City is how to establish a mass transit network that is affordable, convenient, and will transition ridership from motorbikes to a mass transit mode of travel.** Some transportation planners have identified that convenience, short headways, and system-wide access are keys regardless of modes of transit.

- Curitiba, Brazil has become a world recognized model of environmental and urban planning practices for developing countries. The city experienced booming population growth as mechanized agriculture forced thousands of people to move from the countryside to look for work.
  - The heart of Curitiba's plan was to redirect growth from a traditional concentric urbanization pattern to a radial pattern along fairly narrow

corridors extending from the city center. High-density housing of all types, jobs, and services have been integrated along the alignment of the high-speed transit system.

- Redirecting high-density development away from the city center allowed Curitiba to retain its historic city center, distribute city services out to the new urban areas, and improve the quality of life for its citizens.
- Curitiba has developed what is the most efficient city bus system in the world by using bus rapid transit (BRT) routes. It is a model of efficiency, convenience, affordability, and loved by all Curitibaños. With a car ownership ratio of one car per three persons, two out of three trips in the city are made by bus.
- Five BRT routes radiate out from the center of the city. These high-speed transit ways have exclusive bus lanes and parallel one-way couplets, serving cars one block on each side. All streets have retained a human scale with heavy pedestrian use, avoiding the auto scale created by wide highways no longer found in the city. The transit system is so well used that many street in the shopping district are pedestrian only streets, except those shared as transit ways.
- A feeder bus system operates in constant loops through the outlying districts and connects to transfer centers on the transit way. Major transfer centers also provide venues for other city services, which alleviates the need to travel into the downtown area. Finally, a series of circumferential bus routes provide inter-district service around the city.
- The system improved and evolved over time, offering transit patrons added convenience. In the 1980s, “direct line” buses replaced the old buses on the busiest streets. A faster tube loading platform was the critical link that dramatically improved passenger boarding and exiting speeds. The modular tubes are raised to match the bus floor heights, fares are paid upon entering the tubes, and new long articulated buses are loaded through five doors and hold up to 270 passengers. This keeps dwell time down to 15 to 20 seconds. These “speedy buses” run at peak hour on one-minute headways and carry 20,000 passengers per hour in one direction. Daily ridership has grown from 25,000 in 1974 to over 2.4 million in 2008.
- By 1992, almost 40 percent of Curitiba's population resided within three blocks of major transit arteries. This integrated transportation plan reduced ambiguity for developers, discouraged false speculation on undeveloped lands, and provided clear structural corridors for growth.
- The bus system is not subsidized. It is regulated by the city and pays contractors by the kilometer traveled. The privately owned system is profitable, and a city fare allows unlimited transfers within the city.
- Jaime Lerner, the three-time past mayor of Curitiba and architect of the Curitiba Master Plan, has compared the cost differential of three modes of public transportation as follows: metro or subway is \$100 million per kilometer, light rail is \$20 million per kilometer, and BRT is \$1-2 million per kilometer. You can complete a BRT project in two or three years, whereas light rail requires 10 years, and metro can take 30 years.

- By establishing these highly efficient transit corridors, high density land uses were able to develop sooner to serve Curitiba's rapidly growing population and optimize the public infrastructure investment. In the future, higher capacity transit modes will be built, such as a light rail or metro along side or under the BRT corridor to serve evolving redevelopment strategies.
- The City of Puebla, Mexico applied the Curitiba Master Plan strategy using BRT radial corridors to accommodate rapid urbanization. In the mid-90s, Governor Bartlett Diaz committed to a new economic, social, and environmental agenda for the capitol city of Puebla. I was the principal urban designer for Sasaki Associates, Inc. which developed this plan.
  - Founded over 450 years ago, Puebla was the first colonial city in the Americas. It was laid out by the Spanish Law of the Indies on the eastern bank of the San Francisco River. Puebla was strategically located to monitor trade and used as a defensive position to control several major Indian cities in the region.
  - From 1570 to 1600, Puebla doubled in size to 1,500 people. During the 1700s, it became a thriving commercial center with hundreds of mills along the Atoyac River producing high-quality flour.
  - Puebla remained relatively unchanged until 1962 when a federal toll road was completed north of the city providing regional access to Mexico City and Veracruz. Industry developed to the north side along the highway, including the first Volkswagon plant in the Americas.
  - The devastating earthquake in the 1980s further impacted Puebla, resulting in a decentralization policy that caused tremendous growth. In the 1980s population grew by 26 percent and new urban areas expanded the city's geographic area by 50 percent. With no master plan, sprawl consumed prime agricultural lands around the city and threatened to merge with smaller colonial towns surrounding Puebla. The unchecked growth made it difficult for the city to provide necessary services.
  - Sasaki developed a master plan for the MegaProyecto Pueblo Plus project, creating a framework plan that focused on the following objectives:
    - Concentrate high-density development along transit radiating from the city.
    - Create an industrial park with supporting residential and commercial uses along transit ways parallel to the autopista (freeway).
    - Develop a loop road with an adjacent greenbelt of agriculture and forested land around the city to
      - relieve inner city traffic congestion,
      - function as a bypass for through-traffic,
      - contain or act as a limit to future growth, and
      - provide a strong edge between urban and open space.
    - Improve infrastructure systems to meet existing and future needs.
    - Preserve and revitalize the historic center by developing a tourist oriented "Riverwalk" district similar to San Antonio, Texas.

- Contain growth and preserve existing agricultural lands.
- Preserve the river corridors as conservation land.

### **Work Force Housing:**

In the United States, working households face a basic tradeoff between the costs of housing and transportation. To afford reasonably-priced housing, they must consider living in suburban or rural areas where car dependency and commuting costs rise. The two largest expenses for the majority of working families are housing and transportation—when combined, an average 52 percent of income (1).

In Brazil and many other countries, migrant housing is dispersed in unplanned areas. Residents face difficult commutes, lawless communities, and little or no access to public services. “Workforce housing” is often viewed simply as a problem of affordability. More generally, it is a problem of community-building. In the United States, the challenge is to keep valued public workers – policemen, teachers, nurses – within the communities they serve. Elsewhere, the challenge may be to provide the public services needed for a settled population, so that workers and their children will form a skilled, sophisticated, and healthy citizenry.

**Vietnam is a developing county but the relationship of housing location and transportation cost is still relevant for working families. To develop a strong and competitive workforce, it is necessary to give priority to the live-work commute and secondly to provide support services such as schools, childcare, medical facilities, and household commercial uses for these communities.** The goal is to reduce the time and cost of commuting to work and running basic errands, to provide convenience, and improve quality of life.

- Puebla’s Industrial City: One of the objectives of this plan was to create a prototype environmentally sensitive industrial districts consisting of mixed-use, commercial, and residential development, as well as worker support services, public amenities, and industrial uses. The districts provide integrated employment and housing away from the city center, thereby reducing additional demands placed on the city for services and allowing the city to preserve its history and character.
  - The districts are located along transit ways extending from the city center. Development follows a linear pattern along the transit way, with high-density development limited to the corridor immediately adjacent to the transit way. The intensity of the development diminishes as the transit way extends from the city center.
  - The industrial district zone is located along the Autopista (highway), north of the transit way. It is served by highway and two railroad spurs that connect to the freight airport, Mexico City, and Veracruz.
  - The residential zone is patterned after the grid configuration of the historic city center, creating similar sized streets and blocks. The zone is organized

into neighborhoods defined by churches, schools, community facilities, or neighborhood services.

- A mixed-use zone of higher density development is located between the residential and industrial zones and centered on the transit way. Half of the industrial zone and all of the residential zone are within an 800-meter or 10-minute walking distance from the transit way, making each district very accessible on foot.
- Whether one works near home or needs to commute to another location along the transit way, the live-work commute is convenient and accessible by walking, biking, and mass transit.
- Public Benefits: The Vancouver transit system has incorporated “public benefits” into each of its stations and transit oriented developments (TODs). For example, one station has a child care center as part of the TOD complex. The Denver system includes municipal servicing centers, libraries, weekend farmers markets, and educational facilities of all types.
- Self Help Programs: Curitiba has been innovative in providing low-income housing and other social benefits for economically disadvantaged people. To meet demand of such a fast growing city, Mayor Lerner and his team of planners creatively found ways to integrate new public housing developments to the city and to people who were arriving with no job skills. A number of programs were developed to supply homes, free business installation and assistance, free education, self-help housing, and more.
  - Warehouse Schools: Linhão de Emprego is a tri-parti partnership between city, local businesses, and the National Financial & Social Development Bank. As commercial development grew along the transit ways, warehouses were built and used as incubators, schools, and training areas. Economically disadvantaged people have received free education in vocations that best tap their skills. Classes have been provided to meet the work force’s needs, and trainees have been guaranteed employment upon course completion. For incubator businesses, free training and assistance was offered for up to two years.
  - Home Businesses: Linhas de Oficio is a program that promotes home businesses and allows citizens to buy their home and receive free training, benefits, and assistance to start their home businesses. The buildings accommodate business on the ground floor with the residence above. This mixed-use concept allows for higher density development and promotes compact and walkable neighborhoods.
  - Rural Village to Trash: Vilas Rurais involves seasonal migrant workers. The program was developed to provide an opportunity for people to stay in rural areas on small farms or to return back to them after working in the industrial plants after factories reduced their seasonal production.
    - Schools were built, health assistance was provided, and a program called Cambio Verde came about.
    - The city bought excess crops with bus vouchers and exchanged them for trash collected by the poor in the city.

- Trash was sorted and the recycled products were sold to cover the cost of the recycling program.
- The combined effect of the projects helped the city to retain local agricultural population and production, and also provide assistance to the poor already living in the city's shantytowns. Farmers could make a living, and the city's "trash" collection and recycling increased with no extra cost to the city government. Valuable farm land stayed productive and quality fresh local foods are provided to the poor.

## Quality of Life

One of the first things that Curitiba's Mayor Lerner did when he gained office in 1968 was to create *Rua Quinze do Novembro* at the heart of the commercial center. It was Brazil's first pedestrian-only street, and its success and vibrancy can be attributed to the high degree of accessibility provided by the bus transit ways. Today, the auto-free pedestrian zone has grown to encompass 50 city blocks. **Mayor Lerner was able to make major infrastructure improvements to serve a vital transportation and land use function, and also raised the quality of life for all Curitibaños. The Ho Chi Minh City Master Plan will need to provide the same level of functionality and quality in order for its residents and visitors to enjoy and appreciate the city's urban lifestyle.**

**Placemaking:** Other successful cities with vibrant and attractive pedestrian districts have used transit improvement to create them.

- Dallas Area Rapid Transit Mall: Another project I was involved with as the principal urban designer for Sasaki Associates, Inc. was the Dallas Area Rapid Transit Mall on a light rail system that runs through the downtown central business district. Working with the client and many user groups, Sasaki conceived the mall as a "Ramblas of the Southwest," referring to Barcelona's famous linear pedestrian street. The 1.2-mile corridor includes four stations and is unified by street trees, distinctive streetscape treatments, and a public arts program. The light rail lines extend many miles into the outer city and suburbs. Since its completion in 1996, the transit system has grown from accommodating 1.4 million passengers initially to 17.5 million in 2005. Its landscape and streetscape elements are now firmly part of the city's character, and the mall is a major urban design focal point and gateway for the city.
- Denver 16<sup>th</sup> Street Mall: The 16<sup>th</sup> Street Mall, predating the Dallas Transit Mall, has become the precedent for bus transit malls in the United States. The design was done by Harry Cobb of I.M. Pei and Partners for the Regional Transportation District (RTD) in 1977 and opened in 1982. The 1.2-mile transit mall functions well because of the linear layout of the city; it is anchored on both ends with regional bus transfer centers. Free hybrid buses connecting both hubs stop at every block and run on one-minute headways during peak hours. The mall is a beautifully designed streetscape with trees and furnishings that create an urban oasis and contrasts dramatically with the large one-way street system in the rest of the downtown area. Filled with pedestrians throughout the day and night, it has

become the main urban destination for Denver. In the last 10 years, significant redevelopment has occurred on various other districts but the common connection between them is the 16<sup>th</sup> Street Mall.

### **Open Space Framework:**

**From a landscape architect's perspective, an important challenge will be how to use a public open space system to act as the framework to link various parts of the city.**

The system would follow a network of corridors, including streets, boulevards, parks, major open spaces, rural landscapes, and natural areas. Typically, park systems in the U.S. utilize natural features such as shorelines, rivers, and regional drainage ways as the system's organizing structure. All require roadways to access parts of the system.

Emerald Necklace (1892) in Boston, Massachusetts was a parkway system designed by Frederick Law Olmstead, the famous American landscape architect of New York City's Central Park. It was the first park system in the U.S. and connected the Boston Commons and Public Gardens in the center of the city to the Charles River, Fenway, and Roxbury's Franklin Park. The entire 7-mile system formed a semi-circle around the city proper and was named the Emerald Necklace.

Metropolitan Park System: Charles Elliott, another Boston landscape architect, worked for the elder Olmstead on the Boston parkway system. He established the fundamental principles of regional planning and laid the groundwork for land and historical conservancies around the world. Elliott was the founder of the Metropolitan Park System which created, oversees, and manages the park system.

The system established by Elliott reserved large tracts of open land for public ownership, mainly land on the verge of development such as shores, rivers, marshes, and hills. The features became the natural framework for the urban development. The Metropolitan Park concept utilized three large woodland reservations connected by three rivers to Boston Harbor, which included Olmstead's original Emerald Necklace in the city of Boston.

The basic principles involve three steps:

- Preserve natural areas
- Create or use existing open space such as a central park as focal point to the new or redeveloped community or district.
- Interconnect the system with parkways, greenway corridors, open spaces, streets, and boulevards.

The following are examples of other very successful park systems in the U.S.:

- Kansas City Parks and Boulevard System, George Kessler
- Minneapolis Parkway, H.W.S Cleveland, Frederick Law Olmstead,
- Lei of Green, Honolulu, Hawaii, Lewis Mumford

Singapore: In the 1970s, Walter Collins (one of our founders) was at a gathering with the prime minister of Singapore, Lee Kuan Yew. The prime minister asked what planners could do to help plan the city. Mr. Collins' reply: "Plant trees."