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# THE DEVELOPMENT OF AIRPORT CITY MODEL IN VIETNAM OPPORTUNITIES AND CHALLENGES, THE CASE STUDY OF LONG THANH INTERNATIONAL AIRPORT CITY

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The development of cities, throughout history, have always bound to hubs of transport; A strong connection between the airport and the city's development has emerged as a new model for future cities in which the airport is the center both physically and economically;

It performs not only as a transport center but also a business hub, becoming the main economically driven key of the city; Change the city's structure, including land use and transport system in order to be able to link the local to global market. Introduced by Nicholas DeDantis and advocated by Professor John D. Kasarda:

An urban area develops approximately 32km around an airport; warehouses, logistics businesses and other transport related services are found within the vicinity; other functions of the city remain the same as other form of cities; the airport is the hub of all kinds of transport.



# Airport cities around the world MEM VINCHEST RAINES SHELEN.

# **General Plan of Memphis Airport** (2014), Tennessee, USA:

Area:12.950 ha of land around Memphis International Airport.

- Will be the main area for human resource use, the planning includes land use regulations, zoning and urban structure configuration.
- The commercial corridors will be the routes connecting the Airport Urban with the commercial center of Memphis.
- The future airport city promises many complex functional areas combined with commercial functions and the majority of urban land is given priority for the working area.

# Memphis airport city's land use concept



Diagram of spatial development orientation for HCMCMA

The important role of Long Thanh International Airport (LTIA):

- Southeast-Northwest radial development corridor axis: Cai Mep Thi Vai transshipment port
   Long Thanh international airport - TP. Bien Hoa - Moc Bai connecting with the Trans-Asia development corridor
- Axial corridor of radial development in the Southwest -Northeast: The Mekong Delta region connecting Ho Chi Minh City.
- The axes of radial development corridors connecting with the International - National: include system of group V ports on the Thi Vai - Cai Mep River, Dong Nai River, Saigon, Soai Rap, Tan Son International Airport Nhat and Long Thanh International Airport.

#### diều chỉnh quy hoạch xây dựng vùng thành phố hồ chí minh đến năm 2030 và tẩm nhìn đến năm 2050 SƠ ĐỒ ĐỊNH HƯỚNG PHÁT TRIỀN HỆ THỐNG GIAO THÔNG



Map of development orientation of road, waterway and aero transport system of HCMCMA



LTIA project is a special project at the national level, it will be a major breakthrough force for socio-economic development in the HCMCMA in particular, the whole country in general in the period after the year of 2020

General Construction Planning project for the area around Long Thanh International Airport, Long Thanh district, Dong Nai province till 2030



Location: Long Thanh District and a part from Cam My town

Area: 21.000 ha (Long Thanh International Airport is not included)

> Vision: The area around LTIA will build into a world-class city, acting as an "International gateway to Vietnam, Indochina and Southeast Asia"

**Characteristics:** A gateway connecting the southern region of Vietnam with the world; Promoting the economy, bring growth to the region and the whole country

Urban Functions: Being a center of commerce, services, finance, banking and a focal point of product distribution, transactions, business, conferences and entertainment on an international level; International industrial center related to the airport; Center for transshipment and fast processing of goods; The city is highly competitive internationally. + *Classification of urban areas:* city of grade 4

+ *Population:* 2020-2030: 150,000 people;

period after 2030: 250,000 people

+ 5 main functional areas:

International Airport	<ul> <li>5.000 ha, proportion 19,23%;</li> <li>runway; terminals; facilities and others.</li> </ul>
Northern urban area	<ul> <li>5.725 ha, proportion 22%;</li> <li>international city; aviation staff quarters, new residential areas; buffer zones</li> </ul>
Southern urban area	<ul> <li>4,400 ha, proportion of 17%;</li> <li>international and industrial transit services; existing residential areas; logistics,</li> </ul>
Rural residences and agriculture land	<ul> <li>10.048 ha, proportion of 38,6%;</li> <li>agricultural land; existing rural residential areas</li> </ul>
Ecotourism, entertainment area	<ul> <li>827 ha, proportion of 3.1%;</li> <li>ecotourism area; entertainment; resorts; resettlements</li> </ul>



# The current condition of the site's vicinity



## The period before

198F

• This was an agricultural land and a longstanding settlement, including many rural residential areas in the form of line or concentrated clusters. The urban spatial morphology was mainly a rural residential area bound along National Highway 51 and National Route 19 spontaneously, accounting for about 3% of the total land area.

#### The period of 1986-

1995

• Long Thanh town became an urban residential area and developed spontaneous economic activities along the highway. **Rural residential** areas also began to develop. The form of urban space is very small, mainly in Long Thanh town along Highway 51A with linear settlements, accounting for about 4% of the total land area.

# *The period of 1996-2005*

• The form of urban space had a strong change, accounting for about 8% of the total land area with industrial parks; The urban transportation system and public works of Nhon Trach and Long Thanh were newly built according to the plan from the state investment. The old residential areas near the industrial zone began to develop in the form of linear settlement clusters from the existing roads.

## Period of 2006-2015

 Nhon Trach and Long Thanh urban areas were developed under general urban construction planning. The new urban areas were formal development spaces according to planning projects. The most developed area was the old residential areas near the industrial park in the form of linear and fishbone branches settlement clusters. Urban development land about 10% of the total area.

# The period before 1986 The period of 1986-1995 Period of 2006-2015 *The period of 1996-2005* Built -up and unbuilt -up Planned and unplanned

# Schematic change of urban spatial morphology and properties through morphological layers from before 1986 to 2015

LTIA will be the driving force to form the "airport city ", and vice versa, the "airport city", will be the driving force for economic development of the HCMC region

The chosen site for LTIA is located only about 30 km from Ho Chi Minh City, and has a good connection with HCMC and two urban areas that can support the development of the airport city which are Long Thanh town and Nhon Trach city. This is an opportunity for the development of a city based on the social characteristics and resources that are available to them. The general planning project for the area around Long Thanh airport with the vision of being the first "airport city" of Vietnam has been planned with the necessary functions for an urban area attached to the airport. This will be a well planned and invested city if the State has sufficient economic resources or appropriate policies for investors.

According to the forecast, the population of the city after 2030 will be 250,000, a significant labour resource and an important premise for the formation of the city. This is an opportunity for real estate investors in the segment of housing and public service works focusing on medium and higher level, along with high-class service works for transit guests at LTIA



## Challenges in applying the airport city model in Ho Chi Minh City area

**Resources to develop a planned airport city:** to build an urban area, it requires huge resources to invest in for a long time. At that time, the resources from the government were mainly development policies and enforcement mechanisms to mobilize all sources of investment, including investment from the state, private and foreign sources. The most important thing is that the combination between them in each stage must be suitable to be effective for urban development. This is absolutely impossible in the current economic situation of the country. Therefore, this is a big challenge and we can confirm that this is an almost impossible scenario.

**Combine three cities:** At present, Long Thanh, Nhon Trach and Binh Son's general urban construction planning projects urban areas have been studied independently. This leads to the failure to combine their socio-economic resources. If these cities are studied from the perspective of being a single city, it will be effective in implementing. Therefore, urban development policies can focus the public investment on public works for one urban area, the economic activities of those cities can support the relationship of investment and sharing. From there, the resources will be fully exploited for urban development, both in accordance with the socio-economic policies of the government and meeting the needs of the community.

In case the airport city model will not be implemented: In the construction plan of the Ho Chi Minh City Metropolitan Area approved in 2017, Nhon Trach is a grade-2 urban area, Long Thanh is a grade-3 urban area, Binh Son town is no longer available. Since LTIA has approved to restart, land speculation has occurred. If there are no mechanisms and policies for the appropriate use of resources, it is likely that the areas around LTIA will develop in a fragile way to meet the investment and accommodation needs of airport workers in the future. This results in poor land use efficiency and the fragile development of the space around LTIA. Moreover, the socio-economic effects brought about by an international airport for a country will not be exploited. Therefore, even if the airport city model is not implemented, a planning around the LTIA area is needed to guide the appropriate space development and avoid wasting land resources.

# **Development scenarios of** around Long Thanh International Airport



# Conclusion

A city associated closely with an airport, especially major international airports, is a popular urban development model in the world. In particular, the international airport plays a core role and is the driving force to power the development of urban areas. In contrast, the urban development at the airport area will provide convenient services for passengers, logistics for goods and the residence of employees working for aviation services. Therefore, the development of an airport city at LTIA is essential. This is an opportunity for socioeconomic development of Ho Chi Minh City Metropolitan Area in particular and the country in general. Besides, developing the model also faces many challenges, especially resources to build a whole new urban area.

Therefore, it is recommended to study comprehensively the airport city model for LTIA in many aspects to avoid wasteful use of land resources and resources generated from airport operations. In particular, it is necessary to study the urban model combining LTIA, Long Thanh and Nhon Trach urban areas with the view that it is a city in order to fully exploit the available socio-economic resources to bring about resonance efficiency for socio-economicenvironment and avoid the development of fragmented spaces around LTIA.

THANK YOU

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Recommendation