

BASIC ISSUES OF SMART CITY DEVELOPMENT IN BINH DUONG, VIET NAM TODAY

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Abstract:

As a province in the Southeast region of Vietnam, Binh Duong has constantly strived, innovated and created to develop to become one of the localities of Vietnam that is rich in socio-economic strength and stability. sure about national defense and security. With smart urban development, Binh Duong has a breakthrough approach, pioneering in building a smart city; actively participate in and integrate into the world community, showing initiative in local governance while ensuring compliance with the orientations, guidelines and policies of the Vietnamese government on smart urban development. bright. In particular, Binh Duong has implemented good models and practices in smart urban construction such as applying the state model; Entrepreneurs; The school often builds a typical 5-layer model in the Binh Duong Innovation Zone project from planning urban infrastructure, technical infrastructure, and traffic to building a culture of innovation and entrepreneurship; comprehensive and balanced development of the economy; digital transformation, development of digital economy and digital society; develop and attract human resources. The article analyzes and clarifies the basic issues of smart urban development in Binh Duong today. The article is structured into two parts: (1), Smart city and the urgency of building a smart city in Binh Duong today: (2), Problems and issues that need to be solved to build a smart city in Binh Duong in the current period.

Keywords: Urban; Smart city; Building smart cities; Binh Duong.

1.Introduction

Over the past time, Binh Duong - a province in the Southeast region of Vietnam has gradually realized the goal of synchronous and modern urban development with a long-term vision and orientation of sustainable development. . One of the important tasks that the province actively implements is building a smart city. The province has promoted its initiative, creativity, active participation of the business community and people, and international cooperation in organizing the implementation of the Smart City Project for the 2021-2025 period. successfully achieved the goal of the 11th Provincial Party Congress, term 2020-2025 set out. Faced with the impact of the 4th industrial revolution and current international integration, smart cities are an inevitable trend of sustainable urban construction. To build a smart city, the main prerequisite is to form a plan in accordance with smart criteria and to go ahead with the vision of the times, predicting based on the overall development of all fields. Binh Duong aims to become a modern industrial center by 2030; by 2045, it will be a smart city of Vietnam. Therefore, the development of a smart city in Binh Duong in the current context is a matter of urgent significance.

Theoretical basis

Based on the guidelines, guidelines and policies of the Communist Party of Vietnam and the State of Vietnam on the development of smart cities in Vietnam.

Practical basis

The process of leadership, direction and implementation of the Communist Party of Vietnam and the Government of Vietnam, the Binh Duong government for the current smart city development.

Research methods

The article uses specific methods including: Analysis, synthesis, logic and history.

Research question

Question 1: Smart city and the urgency of building a smart city in Binh Duong today are shown through what?

Question 2: What are the obstacles and problems that need to be solved to build a smart city in Binh Duong? Research purpose The purpose of the article is to analyze and clarify the basic issues of smart city development in Binh Duong today.

2. Results and discussion

Currently, the strong development of science and technology, especially digital technology, in recent years has created a rapidly developing production force. Vietnam in general, including Binh Duong in particular, has achieved many results, but the process of urbanization still has many shortcomings. Smart cities will be a strategy that can solve these inadequacies.

Smart city and the urgency of building a smart city in Binh Duong today

The concept of "smart city" was mentioned by technology companies in the early years of the 21st century to talk about application of information technology to the operation of urban infrastructure such as buildings, traffic, electricity and water supply and social safety. This idea also forms on the basis of information technology for the planning, development and operation of cities. In 2008, IBM International Computer Corporation referred to "smart cities" as part of its "smarter planet" concept. Later, this concept became the dominant strategy and competitive trend among countries. In the view of Peter Sany, executive director of TM Forum (Global Membership Association for Digital Business), smart cities are places where technology comes to life. In smart cities, technology connects citizens and businesses with government and with each other, thus eliminating information dispersion and minimizing negative impacts through intelligent resource allocation [9,123] . A smart and sustainable city is an innovative city that uses information and communication technology (ICT) and other means to improve the quality of life, the performance of urban services and competitiveness, while ensuring that it meets the economic, social and environmental needs of present and future generations. To improve people's lives, a complete smart city project needs to take into account the human, social and environmental aspects of urban centers. Therefore, the concept of smart city needs to incorporate aspects related to governance, infrastructure, human capital and society. Only when these factors are combined can cities become smart and capable of promoting sustainable and integrated development. A smart city integrates its different areas using broadband communication networks, cloud computing, smart mobile devices, analytics software and sensors. A collection of digital resources that

collect data generated by different employees and process the data, generating information and knowledge that support leadership decision-making, providing quality of life and better benefits for the people. In 2016, the World Telecommunication Union (ITU) summarized about 116 definitions of smart cities from various sources such as academic and research from communities, initiatives of governments, international organizations, etc. Economic, trade association ..., in order to provide a common definition that is: "Sustainably developed smart city is an innovative city, using ICT (information and communication technology) and other methods. other means to improve the quality of life, operational efficiency, service delivery and city competitiveness, while ensuring that the needs of present and future generations are met. all economic, environmental, cultural and social aspects". In terms of content, we believe that the concept of "smart city" should contain contents related to:

- ✓ Resources are mainly related to knowledge/technology innovation, with creative ability.

- ✓ Using advanced IT technology to turn technical infrastructure, social infrastructure, administrative management, services and quality of life elements into smart, comprehensive and more effective connectivity.

- ✓ An advanced information technology platform towards efficient energy management, pollution reduction, security enhancement, or quality improvement of services provided to the people.

Binh Duong is a province in the Southeast region, with a natural area of 2,695.22km² (accounting for about 0.83% of the country's area, about 12% of the Southeast region's area). As of August 2021, according to the World Population Review website, the population of Binh Duong province is about 2,678,220 people. Historically, Binh Duong was the name of administrative units at different levels (total, district, province) with different territorial areas. The capital associated with Gia Dinh and Dong Nai in the past, ie the Southeast region today, Binh Duong residents are a part of the Southeast region's residents, but at the same time Binh Duong is the land surrounded by the Dong Nai River. and the Saigon River. Binh Duong has typical industrial parks for Vietnam in terms of building complete, synchronous and modern infrastructure, speed of investment attraction, production management and environmental protection such as VSIP 1, 2 , My Phuoc. Not only impressed by the dynamic and developing economy, the land of Binh Duong in the past and now is also known for its rich and diverse history and culture, with many common features blending into history. - Southern culture but still retains its own unique features, creating its own impression. With a history of more than 300 years of establishment and development, Binh Duong has been and will continue to assert its position and role in the development of Vietnam today. As a typical industrial park for Vietnam, Binh Duong is also an urban center with high population concentration, the urban growth rate in recent years has brought Binh Duong some challenges in meet the growing needs of the people; starting with basic items such as infrastructure, environment, traffic and disaster response; housing, energy, security, health and education requirements, as well as issues such as media and entertainment [11,76]. Therefore, planning, managing and operating, ensuring Binh Duong's sustainable development in terms of economy, society and environment will be challenges that Binh Duong will surely face in the process of operation. current and future development of the city. Managing and improving the quality of Binh

Duong requires knowing what is happening within the province, which can only be captured through changing the way the government operates, the participation of the people, and as the involvement of stakeholders responsible for their management. Therefore, transforming and moving forward to implement a smart city, in terms of connotations and trends, is an objective necessity in the development of Binh Duong.

In addition, we believe that the development of a smart city in Binh Duong is also a condition for Binh Duong to:

- Apply the "3 houses" model to promote cooperation between the government, businesses, hospitals, schools in the province and flexibly linking with neighboring areas as well as smart cities in the world.
- Improving people's life quality, economic growth, saving energy, effectively protecting resources, forecasting risks and risks more accurately and quickly. Thereby, increasing the adaptability, self-healing as well as the socio-economic growth and development of the city.
- Enterprises of Binh Duong province have a favorable environment for digital transformation, thereby sustainable development, the State has an effective management method, people have the best living and working environment.

Problems and problems to be solved to build a smart city in Binh Duong in the current period

According to Binh Duong People's Committee, the province will continue to cooperate with Eindhoven city (Netherlands), organization Brainport organization, EIPO, implementing "Smart City Project". This is considered an important motivation for the locality to recover after the recent Covid-19 wave. The "Smart City" project was launched by Binh Duong in 2016 [7]. After 5 years of development, the World Smart Community Forum (ICF) has recognized Binh Duong Smart Region in the top 7 communities with a typical smart city development strategy in the world in 2021. However, The deployment of smart cities in Binh Duong still faces some difficulties and problems that need to be solved in order to build a smart city in Binh Duong to adapt to the integration context. The problems are:

First, on institutions

The implementation of smart city construction requires sticking to modern technology. At the same time, during the implementation process, it is necessary to predict and forecast future technology development, so that technology can be selected that is open, capable of converting and integrating between current and future technologies. future. In addition, scientific and technological solutions and information technology have developed and changed continuously. Meanwhile, the project implementation process under the Law on Public Investment and the Law on State Budget is complicated and takes a long time, leading to the fact that when the project is approved, the technological solution is no longer suitable.

Second, awareness of smart cities

Perception of smart cities from the needs of managers (local leaders), the need to provide products of the business community, investors or from the needs of the local community. People's demand for services has not been improved. Standards and regulations on smart urban planning and technical infrastructure and smart architectural works have not been fully and synchronously promulgated. Besides the participation of the community, economic sectors in Binh Duong in building smart cities are still limited. The deployment of smart

cities is still separate and fragmented. Smart cities are not yet specific to urban areas. Resources for smart city development, including capital and human resources, are still limited. On the other hand, difficulties in human resource work meet the requirements; Information technology infrastructure, especially computers, is equipped with many asynchronous configurations, so the implementation faces many difficulties; online public service provision is not high.

Third, the overall process of smart city development is at the initial stage

Deploying the tasks assigned by the Government, the Ministry of Construction of Vietnam is studying the quantification of criteria for smart cities in Vietnam. areas of urban planning, urban infrastructure, urban architecture, urban operation (including water supply, waste treatment, traffic, communication, housing, health care, education, etc.) , utilities for people, energy saving, sustainable development. The Ministry of Construction is urgently developing basic criteria for smart cities to be applied throughout urban areas and urban areas suitable to Vietnam; building a legal foundation, regulations and standards for smart cities; building an interconnected (digitized) database on land, planning, traffic, population and other urban spatial data; building smart urban planning, applying geographic information system (GIS); develop smart urban infrastructure system; management and operation of smart cities. Regarding the implementation roadmap, by 2025, fiber optic broadband infrastructure will cover over 90% of households in urban areas; complete the legal basis for smart city development; at least 3 urban centers of grade II or higher implement smart urban planning, 6 urban centers in 6 economic regions have a master plan on smart city development; pilot certification of smart new urban areas. It is expected that by 2030, Vietnam will form smart urban chains in the North, Central, South and the Mekong Delta, in which, Hanoi, Ho Chi Minh City, Da Nang city, Can Tho city are the nucleus, forming a network linking smart cities.

What are the problems that need to be solved to build a smart city in Binh Duong in the current period?

Firstly, the issue of funding

To build Binh Duong into a smart city, it requires a technical infrastructure system of information technology combined with modern communication to cover the city (also known as ICT - Information technology combined with communication). The ICT system ensures in the city "Internet of things" (Internet of things). This will require a large infrastructure investment, because all smart city management devices are high-tech products. And the application of smart technology devices to the activities of a city is also a matter of concern, there cannot be the same copy for all cities across the country.

Second, urban development planning

To build a smart city, first of all, there must be a smart urban planning. The first principle of smart urban planning is to maintain, restore and preserve natural ecosystems, typical landscape structures, and preserve urban heritages where many values are contained. only history, only urban life in that period can create. Avoid distortion or disappearance of the structure and landscape of an area or of an entire city. Therefore, the developing Binh Duong urban infrastructure lacks the synchronization between urban construction planning and investment in building infrastructure for smart urban development such as

telecommunications works. , fiber optic networks, using the same telecommunications infrastructure, etc., so it is difficult to integrate high-tech systems into the urban technical infrastructure system for common use.

Third, the human factor

In the end, the human factor is the key, deciding the success or failure of building a smart city. Therefore, when building a smart city in Binh Duong, it is necessary to have smart citizens with full jobs with high incomes. In addition, it is necessary to have a team of experts who are good, comprehensive and loyal to the interests of Binh Duong people to manage and operate a technical system of a smart city. In addition, the legal consciousness, cultural consciousness, and construction consciousness of people living in smart cities are also issues of concern when building a smart city in Binh Duong. And, the last important factor regarding people is: smart government; Smart leadership. They include talented, conscientious, visionary and transparent people, because a smart government will know how to make the right decisions, choose the right priority areas, decide the appropriate investment level and know how to maintain the results. long-term for smart cities.

3. Conclusion

Over the past years, the process of urbanization and urban development in Binh Duong has been achieving many positive results. The urban system has developed strongly and is distributed relatively rationally, the urban appearance has changed to become more modern and better quality, and the life of the urban community has also been upgraded. The urban system in Binh Duong has shown its key role and driving force in economic growth and development. However, in the process of development, there are also gradually appearing limitations, major inadequacies, especially the lack of sustainable development. To solve these problems, urban areas in Binh Duong need to be researched, selected and developed in order to ensure the urban connection and identity; solve urban problems such as environmental pollution, inundation, traffic congestion, problems related to social security. Building and developing smart cities is an important way to effectively take advantage of opportunities and achievements of the fourth industrial revolution, in line with international trends and towards sustainable development - is the most correct choice for Binh Duong in the current context. This study was conducted to analyze and clarify the basic issues of smart city development in Binh Duong today.

The results show that the urgency of building a smart city in Binh Duong today is reflected in the objective necessity in the movement and development of Binh Duong; related to promoting cooperation between the government, businesses, institutes, schools in the province and flexibly linking with neighboring regions as well as smart cities in the world; Improving people's quality of life, economic growth, saving energy, effectively protecting resources, forecasting risks and risks more accurately and faster. The study also points out the problems and issues that need to be solved to build a smart city in Binh Duong in the current period. Accordingly, the problems are related to: institutions; smart city awareness; The overall process of smart city development is at an early stage. The article also analyzed and pointed out the problems that need to be solved to build a smart city in Binh Duong in the current period. The limitation of this study is that it has not analyzed the characteristics and factors affecting the development of smart cities in Binh Duong in the current period.

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