



Research on Urban Construction Planning and Management Mechanisms in Zhongshan City

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Abstract. With the acceleration of China's urbanisation process, the improvement of urban construction planning and management mechanism has become an important guarantee to promote the sustainable development of cities. This study takes the urban construction planning and management mechanism of Zhongshan City as the object of research, aiming to explore in depth its current situation, existing problems and possible ways to solve them. Through literature review and field research, it is found that Zhongshan City has many challenges in urban construction planning and management. A series of feasible solutions are proposed to address the problems of insufficient foresight, little space reserved for development, lack of actual investigation, resulting in a serious waste of resources, and the supply system of public services is still uneven and insufficient. This paper is mainly problem-oriented, focusing on the characteristics and problems of urban design management in Zhongshan City, studying and learning from the experience of other provinces and cities in China, and comprehensively sorting out and summarising the preliminary exploration and practical experience of the construction of urban design management system in Zhongshan City. Zhongshan City needs to establish a management mechanism with multi-party participation, information transparency and legalisation. All parties, including the government, enterprises, social organisations and residents, should participate in urban planning and management to form a synergy. At the same time, information disclosure and public participation mechanisms should be strengthened to make the urban planning process more transparent and fair. In addition, the legal system should be strengthened, relevant laws and regulations should be improved, the responsibilities and obligations of planning preparation and implementation should be clarified, and the rule of law level of planning management should be enhanced. Through a series of measures such as strengthening government leadership, reinforcing market supervision, and promoting public participation, the city of Zhongshan can be better guided and regulated to promote the healthy development of urban construction and planning management, and to provide a strong guarantee for the sustainable development of the city of Zhongshan.

Keywords: Urban construction planning; management systems; implementation; sustainable development

1 Introduction

1.1 Background and Significance of the Study

1.1.1 Background of the Study.

At the beginning of China's reform and opening up, Zhongshan was one of the economically active regions in the Pearl River Delta. Zhongshan, together with Shunde, Nanhai and Dongguan, is known as the "Four Tigers of Guangdong". However, in recent years, a series of cumulative and structural problems have brought great challenges to Zhongshan's economy.

The current situation of Zhongshan City is precarious, although the annual economic growth is still there, but the urban change is minimal, the overall trend is not satisfactory, Zhongshan City needs a more advanced, in line with the specific situation of Zhongshan city construction planning and management mechanism to promote the development.

1.1.2 Significance of the Study.

With the development of the times and changes in the economic environment, urban planning also needs to be constantly revised and improved. Currently, Zhongshan City is launching a new round of urban planning, so it is especially important to find the problems of previous planning, put forward corresponding management countermeasures and implement them.

2 Concepts Related to Urban Planning Management

2.1 The Concept of Urban Planning Management

Urban planning management refers to the approval of planning and supervision of land use and construction activities by the competent authorities, mainly including:

1. land use planning and management: the competent authority manages urban land according to the plan approved by the state, and construction projects need to comply with the guidelines and submit applications, and can only be used after being approved and granted a construction land license.
2. Engineering and construction planning and management: construction projects in the planning area need to be managed according to the regulations of planning, all land needs to apply for and be granted a construction permit before construction can start to ensure effective supervision and synchronized development.

3 Analysis of the Current Situation of Urban Construction Planning and Management Mechanisms in Zhongshan City[2]

3.1 Objectives of Urban Construction Planning

Zhongshan City will build an internationalized, modernized and innovative city core, relying on the Shenzhen-Zhongshan industrial corridor, connecting Guangzhou-Shenzhen-Hong Kong and Guangzhou-Zhuhai-Macao science and technology innovation corridors, linking with Zhuhai, and building a metropolitan area on the west bank of the Pearl River Estuary.

The plan focuses on innovation and industrial development, building a science and technology innovation hub, upgrading infrastructure modernization, optimizing the economic structure and achieving high quality by constructing “4+6+4” industrial clusters and “3+4” key industrial platforms, laying out the digital economy, and promoting the upgrading of the manufacturing industry and the development of the modern service industry. level, optimize the economic structure and achieve high-quality development.[9]

3.2 Urban Construction Planning and Management

3.2.1 Planning System Construction.

Zhongshan has established a multi-level planning system, including master planning, detailed planning and special planning, to provide strategic guidance and project direction. Led by the master plan, it promotes infrastructure construction, public service sharing and industrial project docking, deepens cooperation with cities such as Shenzhen, Guangzhou, Hong Kong, Zhuhai and Macao, and introduces new technologies and intelligent means to improve planning accuracy and science in order to respond to changes in urban demand.[1]

3.2.2 Government-led and Market-regulated.

The government plays a leading and coordinating role in planning, while encouraging the participation of market players to enhance planning flexibility. Through the public-private partnership mechanism, social capital is attracted to participate in infrastructure construction to promote diversified and sustainable urban development.

3.3 Analysis of Existing Problems

3.3.1 Problems of Urban Construction Management.

The first point is that the high-tech industry is weak and it is difficult to retain talents. The high-tech industry starts late, the investment is insufficient, and the lack of industrial ecosystem affects the introduction and retention of talents. The second point is the lack of foresight, limited spatial planning, narrow roads in the old city, insufficient space for development, difficulties in expanding commercial and public facilities, and

traffic and parking problems that seriously affect the vitality of the city. The third point is the fragmentation of economic and industrial development, scattered resources, duplicated construction, single industrial structure, limited service capacity of towns and streets, and failure to form industrial agglomeration effect and regional synergy effect.

3.3.2 Urban Planning and Management Problems.

1. Many projects but insufficient results

The number of planning projects is large, but the execution and innovation are not enough to effectively promote urban development.

2. Lack of field research and serious waste of resources

Lack of in-depth research, frequent road maintenance leads to waste of resources and traffic congestion, affecting the efficiency of urban operation and the use of financial resources.

3. Decentralized planning management and unclear direction

The lack of coordination mechanisms among departments has led to inconsistencies in planning directions, affecting the coherence and consistency of urban development. Decentralized management has also weakened the long-term and forward-looking nature of planning, and some projects have neglected long-term development in the pursuit of short-term achievements, such as rainwater and sewage diversion and road construction, which has constrained the sustainable development of the city.[11]

4 Characteristics of Urban Planning Management in Other Cities in Guangdong Province and Reference to Experience

4.1 Shenzhen Urban Planning and Management Characteristics

Shenzhen is actively exploring urban governance, focusing on comprehensive efforts in planning, construction and management, and promoting a governance model adapted to the characteristics of mega-cities. Shenzhen has taken the lead in formulating a “multi-planning” territorial spatial master plan for 2035, optimizing production, living and ecological space, and promoting intelligent and refined governance[4]. In urban construction, Shenzhen emphasizes the coordinated development of high-tech industrial layout, green city construction and urban design. As a large city, Shenzhen ensures efficient operation through scientific and refined practices to cope with the rapid growth of population and geographical scale.[6]

4.2 Lessons Learned from Urban Planning and Management

Zhuhai adopts a combination of overall, district and parcel urban design to ensure scientific and hierarchical design; Foshan builds an urban pattern of coordinated development and landscape protection through the “1+2+5+X” layout. Zhongshan City, due to unclear development positioning and insufficient township synergy, should draw

on the experience of Zhuhai and Foshan to establish clear urban design standards and development directions, optimize district and township planning and management, and promote more efficient urban development.[3]

4.2.1 Implementing Relatively Centralized Administrative Penalty Rights to Improve the Overall Effectiveness of Law Enforcement.

The system of relatively centralized administrative penalty power effectively integrates administrative penalties, licensing and management powers, improves law enforcement efficiency by streamlining law enforcement agencies and personnel, and solves the problems of multiple law enforcement and responsibility circumvention. After the reform, urban management law enforcement has become more standardized, and the overall effectiveness has been significantly improved[12].

4.2.2 Focus on Promoting Environmental Governance.

In the face of pollution problems brought about by urbanization, Zhongshan should implement air purification, water treatment and soil restoration projects, and improve the quality of the environment by controlling industrial pollution, sewage treatment and garbage classification. Promote clean energy applications and energy-saving technologies, and promote the development of a low-carbon economy, such as the use of solar energy and carbon trading mechanisms, among other measures, to reduce greenhouse gas emissions and improve resource utilization[7].

4.2.3 Consistent “Top-down” Urban Design System.

The upper urban design clarifies the scope of the design, provides guidance for the lower design, and guides the implementation through a rational design framework to ensure harmonization with the city master plan. In this process, the upper design emphasizes the shaping of landscape, skyline, landmarks and other characteristics, and puts forward requirements for fine control, integrating historical and modern needs to form a unique urban spatial form.

4.3 Experiences of Other Cities and Applicability to Zhongshan City

Zhongshan is located in the core of the Guangdong-Hong Kong-Macao Greater Bay Area strategy. It should seize the opportunity of the “dual-region drive”, learn from the experience of Shenzhen's refined management as well as Zhuhai's and Foshan's planning strategies, and formulate a clear framework for urban development to promote the construction of Cuiheng New District and the advantages of the transportation hub brought by the Shenzhen-Zhongshan Corridor.

5 Countermeasures to Optimize the Planning and Management Mechanism for Urban Construction in Zhongshan City

5.1 Improve the Field Investigation Process and Reduce the Waste of Resources

Formulate and improve relevant laws and regulations to ensure the standardization of planning management, covering approval, implementation and supervision, and increase law enforcement to curb illegal behavior. Construct a scientific planning evaluation system, encourage multi-party participation, improve the scientific and democratic nature of planning decision-making, and enhance the quality and management ability of planners.

5.2 Increase High-Tech Industry and Education Planning and Construction to Attract and Retain Skilled Personnel

Cuiheng New District should be “first-class ecological environment, first-class industry, first-class service” as the goal, to create an international first-class science and technology innovation zone. The high-tech zone should accelerate industrial upgrading and economic quality improvement, and become the economic, scientific and technological and talent gathering place of Zhongshan, and promote it to become a world-class high-tech zone[10]. At the same time, Zhongshan needs to increase its investment in higher education, improve the resources and quality of universities, promote the transformation of scientific research results, and provide more opportunities to enhance the capacity of education and research and attract high-level talents.[5]

5.3 Revisit Urban Planning to Remedy the Problem of Insufficient Space Reserved for Development

Reasonably adjust the development blueprint by updating urban planning to ensure that future development needs are met. A number of measures can be taken to address the problem of decline in Shiqi Old Town: firstly, building a large parking lot to solve the problem of parking difficulties; secondly, dredging the main traffic arteries in the Old Town to alleviate the pressure of traffic flow; thirdly, renovating the old buildings in the Sun Wen Road area and setting up the Zhongshan Museum of Art to showcase the achievements of the local arts, enhance the cultural influence and attract tourists to the city, so that it can be built as an important window for the propagation of the culture of Zhongshan.

6 Conclusion

The coordinated development of urban planning and construction management is the basis for the prosperity and sustainable development of the city, and also provides a

guarantee for the residents' happy life. However, there are some problems in the current management mechanism, such as low efficiency of planning implementation, lack of scientificity and pertinence, which affects the implementation effect; insufficient sustainability, such as traffic congestion, environmental pollution, and repetitive construction, which harms people's livelihood; poor sharing of information, and decentralized development of districts and towns, which affects the interconnection and sharing of planning information; and insufficient innovation, and the management mechanism responds slowly to the market and technological changes.

To this end, the integration of urban planning and smart cities should be accelerated, the construction of a platform for scientific and technological exchanges should be promoted, high-end talents should be introduced, and colleges and universities should be strengthened in order to provide technical support for urban management. By enhancing management efficiency, strengthening public participation, and ensuring the effective implementation of planning programs, we can promote economic prosperity, social harmony, and livable environment, and help realize the goal of sustainable urban development.

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