

# Chapter 2

## Multi-level Regional Governance and Spatial Development in the Pearl River Delta



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**Abstract** In the deepening process of globalisation, reactions to socio-economic activities and resolutions of urban problems have to move from the urban scale to the regional scale. Coordinated development of urban agglomerations becomes a vital strategy for China to respond to the challenges and opportunities brought by globalisation. Urban agglomeration in the Pearl River Delta (PRD) has accumulated rich experience in regional coordinated development, including regional planning practice and cooperation of infrastructure development. In this chapter, various versions of PRD regional plans are reviewed, including the Plan for the Urban System in the PRD (1991) and the Planning Framework for the Development of the Guangdong-Hong Kong-Macau Greater Bay Area (China Central and State Council (2019) Planning framework for the development of the Guangdong-Hong Kong-Macau Greater Bay Area (2019–2035). China Central and State Council Printing Office, Beijing). Practice of coordinated development in the PRD is reviewed at four levels: cooperation at ministry-province level, cooperation at province-municipality level, integrative development at municipal level and coordination at town/district level. It is shown that regional coordinated development in the PRD has gradually deepened from the regional level to the municipality and the town/district level. The transformation and adjustment of their roles, the construction of common interests and the innovation of ‘incentive regulation’ mechanisms are not only the basis of coordinated development, but also key elements to promoting the planning process.

**Keywords** Pearl River Delta · Urban agglomeration · Regional coordinated development · Multi-level governance · Cross-boundary cooperation · Spatial planning

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## 2.1 Introduction

After the Opening Up Reform (1978), the central government improved the investment environment and promoted local development through administrative decentralisation and inter-city competition. However, excessive local competition has led to waste of resources, environmental damage and inefficient investment in areas of environment, industry and infrastructure. The interrelationship between global companies, the central government and local governments has become more complex. A city-region, instead of a single city, has become the main entity of global competition, while the improvement of regional competitiveness has become an important engine for national economic development. In the absence of regional governments, China has begun to seek new paths for coordinated development between cities and regional governance.

In the EU, the main obstacle to coordinated development is the difference of administrative system and urban planning system between participating entities, more specifically, the competences of the corresponding levels of governments. Diffusing the difference becomes a key step to promote horizontal cooperation. China's administrative structure has top-down characteristics. Thus, the difficulties and solutions encountered in the coordinated development process differ considerably from those of the EU (Huang 2020).

In China, fragmented governance systems (different powers in equivalent levels of governments) constrain the flow of economies and the circulation of capital (Zhang et al. 2020a, b). Powers in rescaling provide a proper tool to interpret regional governance. Power rescaling is the process of power moving between different geographical scales. The EU has built a new spatial platform through power rescaling to adapt to new socio-economic activities, to promote the accumulation of capital and flow of production factors, and to solve changing spatial problems. It mainly occurs at supranational scale and at region scale (Hall and Jones, 2002). However, power rescaling in China influences multiple levels of the country: province, municipality, town and district.

The objective of this chapter is to review the regional coordinated development experience of the PRD, which is a border region in China. This chapter consists of three parts. Firstly, 14 regional plans of this region and their evolved targets are reviewed. Secondly, coordinated developments of the PRD are illustrated from the regional governance perspective at ministry-province, province-municipality, municipality and town-district levels, respectively. We conclude with a discussion on matches between successful projects and levels of governance.

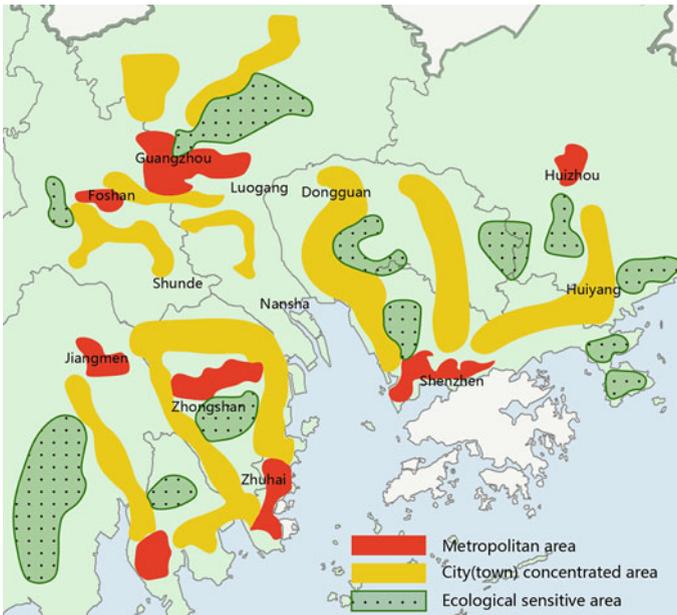
## 2.2 Regional Plans in the PRD

In the past 30 years, the central government and the provincial government have respectively enacted 14 regional plans to promote the coordinated development in

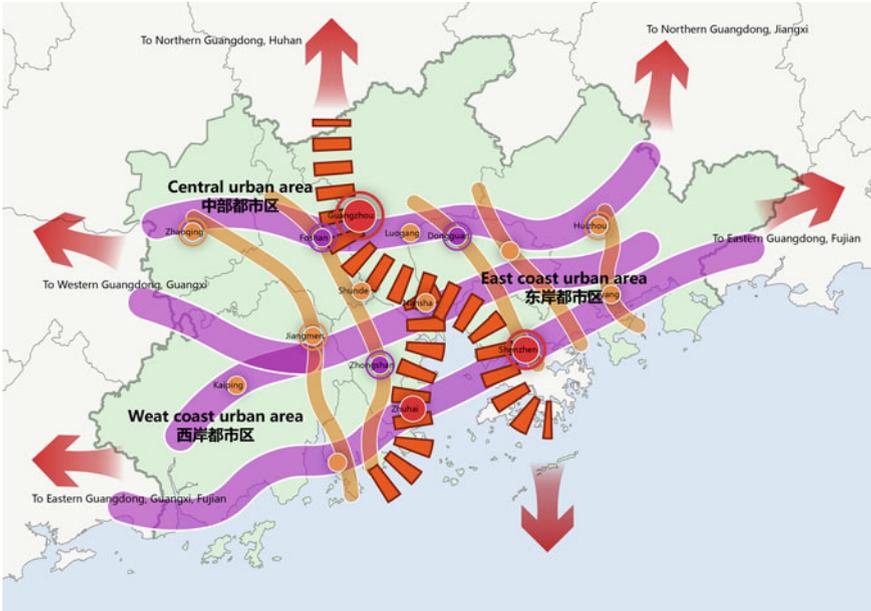
the PRD, and thereby to enhance the competitiveness of the region. Before the return of Hong Kong and Macau, the Canton Provincial Government issued two versions of regional plans: the Plan for the Urban System in the PRD (1991–2010) and the Plan for Urban Agglomeration in the PRD (1994). The former proposed the concept of the PRD for the first time. In that plan, the PRD includes only nine cities, not counties outside Zhaoqing. The latter initiated a polycentric urban structure in the PRD. Guangzhou, Shenzhen, Zhuhai and Huizhou are the four centres, and the complementary functions of each city (Fig. 2.1).

In the 2000s, the Plan for Coordinated Development in the PRD (2004–2020) was the first version of the regional plan updated after the return of Hong Kong and Macau. The main urban structure transformed from polycentric to multi-axes, i.e. ‘Guangzhou-Shenzhen’ axis and ‘Guangzhou-Zhuhai’ axis (Fig. 2.2). Construction of regional transportation infrastructures, regional ecological structures and green spaces is the three most important issues in this plan. The Intercity Rail Transit Network Plan in the PRD (2001), the Medium and Long-term Plan for Railway Network (2004) and the Intercity Rail Transit Network Plan in the PRD (2005–2020) were all issued during this period in response to the Plan for Coordinated Development in the PRD (2004–2020).

The Planning Framework for Reform and Development in the PRD (2008–2020; hereinafter referred to as Planning Framework 2008) was endowed with strategic significance by the central government. In this plan, the PRD is defined as playing



**Fig. 2.1** Polycentric structure of the PRD. Redrawn by author based on plan for urban agglomeration in the PRD 1994 (Canton Provincial Construction Commission, 1996)

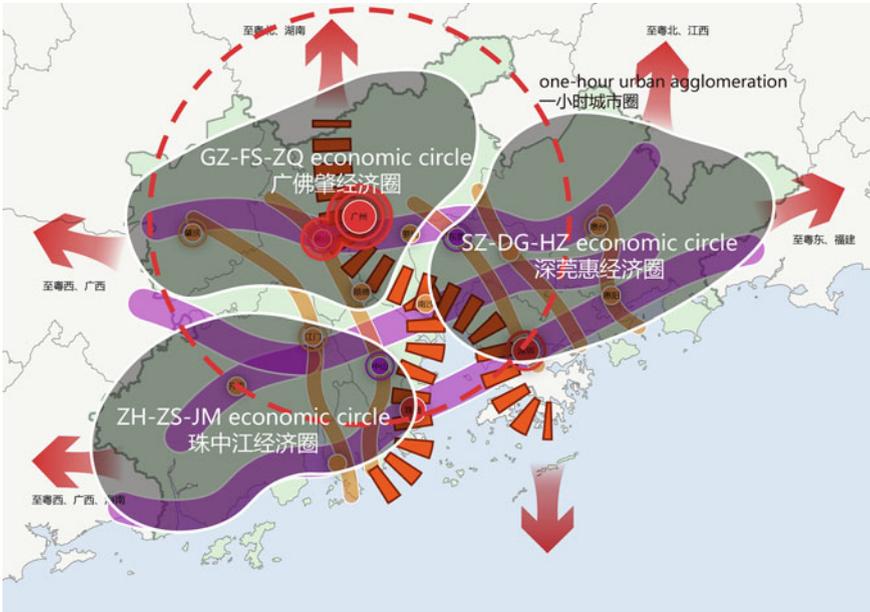


**Fig. 2.2** Two-axes structure of the PRD. Redrawn by author based on coordinated development in the PRD 2004–2020 (Editorial Board of Plan for Coordinated Development of the Pearl River Delta, 2007)

a leading role in promoting and radiating the coordinated development of the whole country. Hong Kong and Macau are included in coordinated development for the first time. The regional structure was changed from two-axes to a multilevel and multi-centre spatial development model based on three nodes: Guangzhou-Foshan, Shenzhen-Hong Kong and Zhuhai-Macau (Fig. 2.3). In May 2010, five sectoral plans in domains of infrastructure development, industrial development, public service, environmental protection and urban–rural planning were enacted.

Under the pressure of the central government, Hong Kong and Macau were involved in the coordinated development in the PRD. They promulgated the Agreement on Canton-Hong Kong Cooperation Framework (2010) and the Agreement on Canton-Macau Cooperation Framework (2011), respectively. And the three governments (Guangdong Provincial Ministry of Housing and Urban–Rural Development, Hong Kong Planning Department and Department of Transport and Public Works of Macau) jointly prepared the Study on the Key Action Plan for the Construction of a Livable Bay Area around the Pearl River Estuary (2012).

With the gradual deepening of cooperation between the three governments, the National Development and Reform Commission and the Canton Provincial Government, Hong Kong and Macau signed the Agreement on Deepening Canton-Hong Kong-Macau Cooperation and Promoting Development of the Greater Bay Area (2016) in July 2017. Coordinated development has moved to an era of the Greater



**Fig. 2.3** Multi-node, multi-centre network structure of the PRD. Redrawn by author based on planning framework for reform and development in the PRD 2008–2020 (2009)

Bay Area. Subsequently, the Planning Framework for development of the Greater Bay Area (2019–2–35; hereinafter referred to as Planning Framework 2019) was issued by the State Council. This plan continued the multilevel, multi-centred spatial structure, proposed a technology innovation corridor crossing Guangzhou-Shenzhen-Hong Kong-Macau, promoted integration of regional infrastructure and carried forward the improvement of ecological environment (China Central and State Council, 2019).

Since the 27 years the PRD was initiated, spatial objectives and structures for the coordinated development have evolved in various versions of regional plans. The focal topics include the construction of regional transportation and balance of municipal infrastructure, integrated development of industrial space, regional balance of ecological environment and construction of a high-quality life circle suitable for business, daily life and tourism. All the above objectives and spatial structures have impacts on the spatial development and regional governance in the PRD to varying degrees.

## 2.3 Regional Governance of Coordinated Development in the PRD

The practice of regional coordinated development in the PRD, which has been influenced by those regional plans, can be roughly divided into four stages according to the main entities of cooperation: cooperation at ministry-province level, cooperation at province-municipality level, integrative development at municipal level and coordination at town/district level. In each stage, the entities, cooperation mechanisms, planning tools and implementation projects are different.

### 2.3.1 Cooperation at Ministry-Province Level

Each version of the regional plans focuses on the development of regional transportation infrastructure, of which intercity rails are typical projects. Canton Provincial Railway Construction Investment Group Co., Ltd., the Fourth China Railway Survey and Design Group Co. Ltd, and the Department of Housing and Urban-Rural Development of Canton Province started the Feasibility Study on the PRD Intercity Rail in 2000. Based on the results of the feasibility study, the Intercity Rail Transit Network Plan in the PRD (2001), the Medium and Long-term Plan for Railway Network (2004) and the Intercity Rail Transit Network Plan in the PRD (2005–2020) are successively circulated. Two main transit axes were identified: the Guangzhou-Zhuhai Line and the Guangzhou-Dongguan-Shenzhen Line. This marked the beginning of cooperation between ministries and provinces.

Until 2010, the construction and operation of inter-city railroads had adopted a mode of cooperation between ministries and provinces. The Ministry of Railways and the Guangdong Provincial Government are responsible for the construction and operation process in accordance with 50% of each. The land acquisition and demolition costs along the railway line are undertaken by municipal governments. Construction of the Guangzhou-Zhuhai Line (2005–2012) was completed and put into operation under the mode of ministry-province cooperation (Table 2.1). In the process of cooperation with the Canton Provincial Government, the Ministry of Railways has played a dominant role due to three main reasons: (1) control of finance and funds; (2) control of administrative powers, such as competence of policy making and planning approval; (3) technology and information. The provincial government has always been in a subsidiary position due to a lack of technology and resources (Pang 2019). However, this cooperation mode doesn't last long. Since December 2011, the investment ratio of Canton Province and the Ministry of Railways has changed from 5:5 to 6:4. The Ministry of Railways faded out due to two reasons: one is due to the Wenzhou high-speed rail incident in July 2011; the other is financial burden. The provincial government took charge of the construction of intercity railroads thereafter. At ministry-province level, construction of regional transportation infrastructure like intercity rails is major projects.

**Table 2.1** Division of powers and cost allocation of entities at different levels in different periods, around 2008

Scale	Entities	Role		Competences		Cost sharing	
		dominant	/	Construction, operation, burden of loss, technical consulting	Technical consulting	50% construction fee	/
national	Ministry of Railways						
Regional	Canton Provincial Gov. (Provincial Railway Investment Co.)	Subsidiary	Dominant	Construction, operation, burden of loss	Construction, operation, burden of loss	50% construction fee	100% construction fee
Local	Municipal Gov	Subsidiary	Subsidiary	Land requisition, demolition	Land requisition, demolition	100% demolition cost	100% demolition cost

### 2.3.2 Cooperation at Province-Municipality Level

The progress of the intercity rail network was seriously delayed because of lack of funds. In addition, deficit of operation reached 820,000,000 and 1,070,000,000 yuan, respectively, in 2011 and 2012 after the Guangzhou-Zhuhai Line was put into operation (Zhang et al. 2020a, b). The provincial government is undoubtedly facing tremendous pressure, and it must find a new partner. Municipal governments became the main partner because they have the authority of land development and the motivation to reap huge dividends from it.

However, the provincial governments and municipal governments have different interests. The former concerns regional balance, while the latter focuses on profit from land development. In the early stage of cooperation, municipal governments played the dominant role. First, they are able to integrate the resources of various ministries. Second, they benefit from land development. This relationship is reflected in the locations of intercity railway stations, which are usually in periphery and suburbs. This result reflects the municipal governments' intention to increase development profits through reducing land acquisition and demolition costs.

Later, the provincial government adjusted its cooperative relationship with the city government through horizontal adjustment and vertical reconstruction of power. Regarding the horizontal adjustment of power, the provincial government initiated a new institution in July 2010, the Comprehensive Land Development Task Force for Provincial Intercity Railways. The Task Force constitutes leaders from various departments of the provincial government, including the Development and Reform Commission, the Urban and Rural Planning Bureau, the Bureau of Land and Resources and the Provincial Railway Investment Co. Ltd. Integration of different departments enables the provincial government to overcome information and technical shortcomings. Regarding the vertical restructuring, the provincial government took advantage of a series of tools to rework its planning competences and financial rights, such as freezing the land development indicators around a station; redistributing the responsibility for compensation and loss; releasing additional urban construction land indicators; and retrieving land use planning rights and approval authorities (Zhang et al. 2020a, b). As a result, the provincial government takes the lead in plan making and releasing land indicators, and a joint venture development company (provincial gov. and municipal gov.) carries out land development (Lin and Yang 2015). For the land within the red line of rail transit, the provincial government bears 100% of the project cost, and municipal governments bear 100% of the land demolition cost. For the land outside the red line of rail transit, a joint venture development company bears the project cost, of which the proportion is negotiable (municipal governments' investment ratio is generally less than 50%) (Table 2.1).

Aside from rail transit construction, greenways and water networks are also main fields of province-municipality cooperation. 'Providing overall guidance by provincial government, construction by local governments' is applied as a strategy for the construction of greenway networks. Providing overall guidance includes project establishment, planning, bidding, land supply and construction permits. The

provincial government successively promulgated regulations for the construction and management of Canton greenway networks, including Guidance for the Building of Canton Regional Greenways, the Guidelines for Designation and Control of Canton Greenway Control Areas, the Planning Guidelines of Canton Urban Greenways, the Functional Development Guidelines of Canton Greenway Networks and the Public Participation Handbook of Canton Greenway Networks. They help formulate implementation rules and management systems. In terms of funding arrangements, the provincial government is responsible for plan making of greenway projects, which are mainly concentrated in economically developed areas. Municipal governments are responsible for the construction of greenway projects according to the guidance of the Planning Framework of Canton Greenway Networks. The provincial government has also established a system of ‘construction information updated bi-monthly’ for the greenway networks. In terms of cooperation mechanisms, a three-level greenway network is proposed: provincial level, municipal level and community level. Its implementation depends on the ‘provincial and municipal counterparty working mechanism’, including greenways that connect both Hong Kong and Macau, and accordingly financial/subsidies arrangements. The provincial government also carries out inspections, evaluations and assessments on the construction of the greenway networks from time to time.

Coordinated development in the PRD originates from the division and cooperation of industries between cities, while the industrial cooperation space has undergone tremendous changes and scale reconstruction in the process of coordinated development in the PRD. As China’s first special cooperation zones, Shenzhen-Shantou Special Cooperation Zone (Shenzhen-Shantou SCZ in short) was established in February 2011. This project, which was initiated by the Canton Provincial Party Committee and Canton provincial government, aims to solve the problem of Shanwei’s economic backwardness and the shortage of land indicators in Shenzhen. It belongs to a leapfrog-style cooperation zone in geographic terms and a support-type cooperation zone in management terms. The plan for the Shenzhen-Shantou SCZ met difficulties in implementation, mainly due to the lack of well-documented cooperation mechanism between cities, such as land supply mechanism, a legal and reasonable mechanism for housing development and a personnel recruitment system (Zhang et al. 2020a, b). The provincial government distributes powers to local governments through two regulations: the Management Regulations of Shenzhen-Shantou SCZ and the Regulation for Canton Annual Land Use Plan. The municipal governments have gained more power to explore the innovation of administrative organisation and cooperation mechanism. As a result, the Shenzhen-Shantou SCZ was empowered with sufficient funds and independent rights of personnel recruitment. After 2018, the Shenzhen-Shantou SCZ will be jointly built by Shanwei and Shenzhen and will be fully managed by Shenzhen. Administrative power and financial power were decentralised to local governments, which aim to realise regional cooperation and boost economic growth.

### 2.3.3 *Integrative Development at the Municipal Level*

Coordinated Development in the PRD also benefits from local-level cooperation between cities, aside from the cooperation of ministry-province and province-municipality. The Planning Framework 2008 clarified a multilevel and multi-centre spatial structure surrounding three development nodes, which are Guangzhou-Foshan, Shenzhen-Hong Kong and Zhuhai-Macau (Fig. 2.1c). These three development poles show that the cooperation between cities will inevitably become the key level of the coordinated development in the PRD. The Guangzhou-Foshan integrative development is undoubtedly elevated to a national strategy.

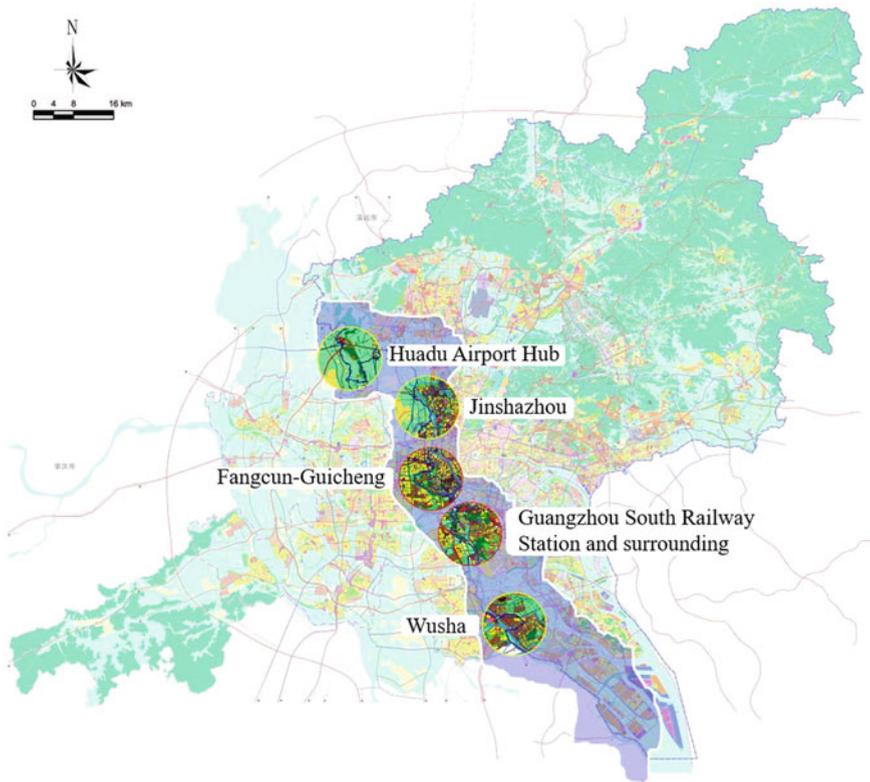
Guangzhou-Foshan integrative development is driven by the central government, and in fact also depends on the efforts of the local governments. As early as 2003 municipal governments of these two cities organised a symposium on ‘Guangzhou-Foshan Regional Cooperation and Coordinated Development’, and then conducted planning research aiming at promoting integrative development. The research developed into the Research on the Coordinated Planning of the Guangzhou-Foshan Metropolitan Area, the Coordinated Development Plan in the PRD, the Guangzhou-Foshan Road System Connection Plan and the Guangzhou-Foshan Inter-city Regional Transportation Integration Plan.

Based on the top-down thrust and bottom-up assistance, Guangzhou and Foshan formulated the Guangzhou-Foshan Integrative Development Plan (2009–2020) and four sectoral plans for urban planning, transportation, industry and environmental protection. The Guangzhou-Foshan Integrative Development Plan clarifies five joint development areas, including Wusha, Guangzhou South Railway Station and its surroundings, Fangcun-Guicheng, Jinshazhou and Huadu Airport Hub (Fig. 2.4); and integrated the related planning of each.

A list of projects for the integrative development is shown in the plan (Canton Provincial Government, 2008). Wei et al. (2016) tracked the implementation progress and found that the majority of infrastructure and transportation facilities in the two places were fulfilled, and environmental protection projects made certain progress. In 2015, medical insurance of the two cities was networked.

Although the development of Guangzhou and Foshan has become a model of integrative development across the country, they encountered many obstacles in the process. Their administrative structures are quite different. Since 1998, Guangzhou has followed a four-level administrative structure, city-district-street (town)-neighbourhood (village) committee, which is of top-down character. Guangzhou municipal government has the power to make decisions on major projects, although it has claimed that it is actively delegating powers. Foshan’s administrative structure is relatively flat and of a bottom-up nature. Several economically developed counties (Shunde, Nanhai, Gaoming and Sanshui) have always retained authority over their own economic development, which is attributed to the policy of strengthening county power.

So it was difficult for the two cities to reach an agreement on implementing integrative development projects due to a mismatch of the governance hierarchy in the



**Fig. 2.4** Joint development areas of Foshan-Guangzhou. *Source* Guangzhou-Foshan Integrative Development Plan 2009–2020 (2009)

first few years (2003–2008). In Foshan, district and town governments have the power to initiate new projects, which are usually not in accordance with of interests from Guangzhou. Guangzhou municipal government holds the leadership for important projects. Later, these two cities established the Coordination Mechanism of Joint Mayors Meeting and formed an interactive platform for communication between different administrative levels. This mechanism is higher than the level of the two municipal governments. When mayors and secretaries of the two cities (a group of four) reached consensus on general strategy of integrative development through the ‘joint meeting’, the strategy will be translated into plans and policies in domains of finance, information, industry, transportation, environment and urban planning. A task force of ministers of the above-mentioned sectors is then responsible for implementing the plans and policies (Fig. 2.5).

Guangzhou-Foshan integrative development is not entirely driven by the Planning Framework (2008) or the Guangzhou-Foshan Integrative Development Plan (2009–2020). The preparation process of the Guangzhou-Foshan Integrative Development Plan is also a process in which different stakeholders express their interests and seek

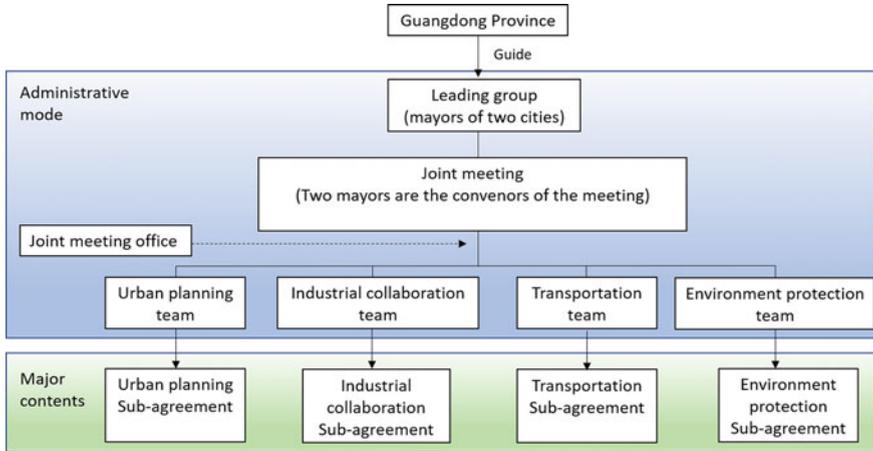


Fig. 2.5 Governance framework of Guangzhou-Foshan co-urbanization

consensus. The Joint Mayors Meeting and a series of planning research organised since 2003 have been ways to reach consensus. In addition, the integrative development cannot be achieved by municipal levels at a single level, but cooperation among different levels of governments; for instance, Canton provincial government and the central government played key roles of facilitating the West River water diversion project between the two cities (Wei et al. 2019).

### 2.3.4 Coordination at the Town/District Level

Guangzhou and Foshan signed the Memorandum on Joint Construction of Guangzhou-Foshan High-Quality Development and Integration Pilot Zone (Memorandum 2019 in short) in May 2019, under the impetus of the Planning Framework 2019. Five development poles are identified along the 197-km border of Guangzhou-Foshan: the area surrounding Guangzhounan South Railway Station, Huadu-Sanshui, Baiyun-Lishui, Liwan-Guicheng and Nansha-Daliang Ronggui. Integrative development of the two cities became more specific and could be implemented at the town and district levels.

Districts and towns have also sought opportunities for coordination based on the Memorandum 2019. As an old district in Guangzhou, Liwan District encountered a series of problems, such as insufficient public facilities, sanitation issues, low-end industry and so on. Nanhai District of Foshan, located on the edge of the two cities, developed well in the 1990s. However, its development lagged after Huangqi and Yanbu were merged into Dali Town (2005). They did not receive sufficient investment and planning; industries became low-end; infrastructure was lacking; the environment became further damaged. Facing similar development bottlenecks, the

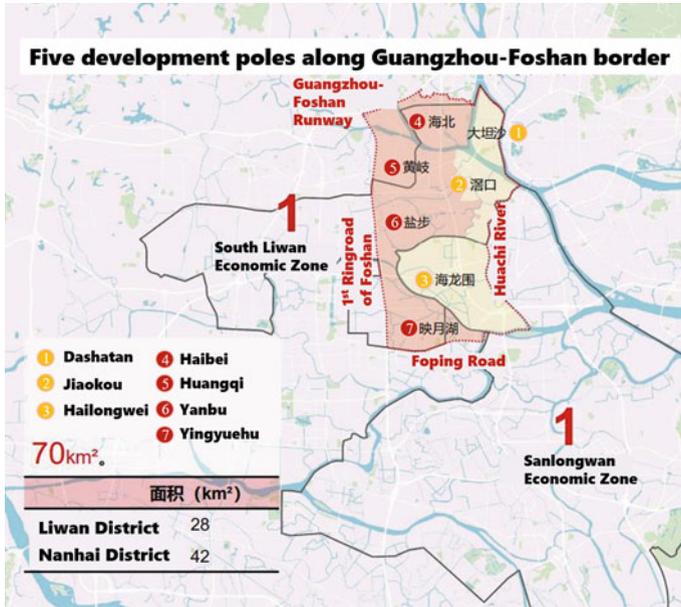


Fig. 2.6 Schematic diagram of the planning scope of Guangzhou-Foshan New Town. Source [https://www.sohu.com/a/421456188\\_689966](https://www.sohu.com/a/421456188_689966)

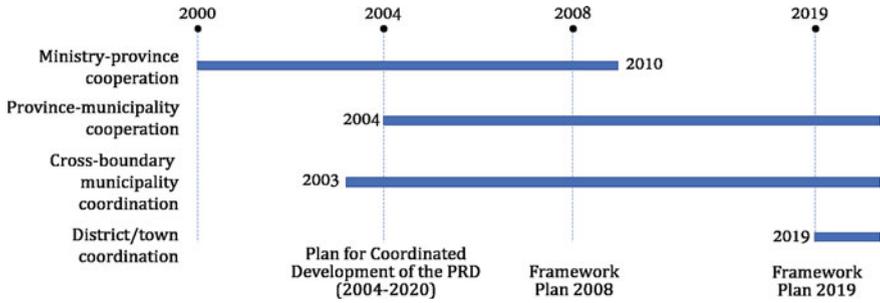
two districts have common needs for a better platform for industrial redevelopment, to help restore the environment and to improve services.

In September 2020, the Liwan District of Guangzhou and the Nanhai District of Foshan jointly held a symposium on establishing an innovative new town and signed a memorandum. The new town is called Guangzhou-Foshan New Town Technology Innovation and Intelligence Valley. It occupies area of 70 km<sup>2</sup> (42 km<sup>2</sup> in Foshan and 28 km<sup>2</sup> in Guangzhou) and accommodates a million people (Fig. 2.6).

So far, Guangzhou and Foshan have gradually extended their coordination/integration from municipality level to district/town and street level. The carrier of coordinated development has also moved from a series of projects to economic cooperation zones/new towns. Areas of coordination have been extended from transportation/municipal infrastructure to industry development, public service, daily life and many other aspects.

## 2.4 Discussion and Conclusion

Coordinated development in the PRD is inevitable under the background of new regionalism. Regional planning is an important tool to promote regional coordinated development. As a formal platform for cooperation, regional planning needs



**Fig. 2.7** Different modes of regional governance: ministry-province cooperation, province-municipality cooperation and cross-boundary municipality coordination to district/town coordination

consensus in the early stage, and then to be supplemented with incentive mechanisms in the later stage to ensure the progress of regional coordinated development. But regional plans in the 1990s were not well implemented, mainly because consensus was not reached.

In the absence of a formal regional government, regional governance in the PRD has gradually extended from ministry-province cooperation, province-municipality cooperation and cross-boundary municipality coordination to district/town coordination. Different levels have their areas of expertise in coordination (Fig. 2.7). In the initial stage of coordinated development in the PRD, the central government played a crucial role in finance and policy terms, and the cooperation between ministries and provinces became the main mode of cooperation. Construction of regional transportation infrastructure such as intercity rails are leading projects.

The Ministry of Railways gradually ceased cooperation with the provincial government around 2010. Ministry-province cooperation moved to province-municipality cooperation. The role of the provincial government evolved from a traditional subcontractor and coordinator to a major participant in the development process. At the province-municipality level, infrastructure for people’s livelihood such as cross-boundary subways, Pearl River drinking water projects, power stations and greenway construction were leading projects. The relationship between provinces and cities has undergone a rough patch in the past 17 years. The provincial government adjusted its relationship with the municipal government through administrative recruitment and land quotas. As a result, some powers were decentralised to municipal governments. The role of municipal governments has changed from a relatively independent competitor to a cooperative regional actor. Province-municipality cooperation is also the broadest and deepest level of cooperation.

Integrative development at the municipal level happens simultaneously. At this level, infrastructure construction, such as regional transportation facilities and municipal facilities, industrial integration zones, ecological space renovation and public services, is still the focal areas for cooperation. However, there is a heterogeneity in the degree of economic development and administrative structures of various cities.

Under the current system, it is not realistic to push a project only at the municipal level. Thus, regional governance and coordinated development often require the joint participation of multiple levels of entities. Implementation of either construction of the Guangzhou-Foshan Metro or the development of Shenzhen-Shantou Cooperation Zone depends on the impetus of high-level administrative departments (i.e. the Ministry of Railways, the Provincial Party Committee and the provincial government).

The cooperation at district/towns level started in 2019. This level of collaboration is based on economic cooperation zones and cross-boundary projects. It also requires the assistance and support of higher-level administrative departments. In short, the regional coordinated development in the PRD relies on the integration of different levels including ministry-province cooperation, province-municipality cooperation, integrative development at the municipal level and coordination at the district/town level. Each level of coordination has its area of expertise. Thus, a set of conventional cooperation mechanisms and ‘incentive-regulatory’ means need to be established; common interests need to be reached; roles of government at all levels have to be adjusted in the cooperation process.

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