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journal homepage: www.elsevier.com/locate/habitatint

# Metropolitanization through making 'new metropolitan plans' in China



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# ARTICLE INFO

Keywords: Metropolitan region Metropolitan planning Urban governance City regionalism China

# ABSTRACT

Although mega-city regions have attracted wide attention in China, recent 'metropolitanization' at the multi-city scale is poorly understood. To tackle the void, this paper examines the emergent 'metropolitan plans' (*dushiquan guihua*) since 2019 and identifies a paradigm shift in metropolitanization from 'territorial urbanization' to 'multi-city regionalism' in China. We find that 1) as a fuzzy and dynamic concept, the metropolitan region has been mainly employed as a policy object for state rationalities and has been upscaled from a city region scale to a multi-city scale; 2) regarding planning practices, the new metropolitan plans function as an overall collaborative framework to support priority tasks for city regionalism in a shorter term rather than formulating long-term spatial strategies; 3) as space of governance, the recent state-orchestrated metropolitan region reflects the newest round of state rescaling process to cope with domestic uneven development and urban issues through 'urban unification', and its materialization heavily relies on concrete cross-boundary projects delivery and co-ordination through soft governance. These findings not only provide conceptual clarity and relational understandings of the metropolitanization process but also exemplify the distinctiveness of the Chinese metropolitanization approach in terms of scalar logic, planning style, and associated governance mechanisms. This paper furthers the understanding of the divergence and diversity of metropolitan planning and governance

## 1. Introduction

Over the past decades, new modes of socio-spatial regulations for capital accumulation and political restructuring have emerged in China. Echoing the proliferation of the city regions and state spatial selectivity in advanced capitalism (Brenner, 2004; Scott, 2019), China has also seen the rise of the entrepreneurial city and re-emergence of city-regional planning and governance since the reform policy (Li & Wu, 2012; Wu, 2016). Initially, urban clusters (*chengshiqun*), an equivalent of mega-city regions, such as the Beijing-Tianjin-Hebei Region and the Guangdong-Hong Kong-Macao Greater Bay Area (an extension of the Pearl River Delta) have been recognized as the major spatial form of Chinese new style urbanization (Harrison & Gu, 2021; Xu and Yeh, 2010; Yeh et al., 2020). Since 2019, the central state has presented metropolitan regions (*dushiquan*) as a new specific type of spatial entity to establish a coordinated urban system (NDRC, 2019).

Urban development across China has taken a metropolitan-style development since the mid-1990s. However, the concept of metropolitan regions was loosely defined in either policy documents or scholarly research, and it is less popularized than other spatial concepts, such as mega-city regions. The formation and development of (mega-)city regions in China have been widely investigated from geopolitical process (Li et al., 2014; Li & Jonas, 2019; Wu, 2016) and economic regionalization (Li & Wu, 2018; Yeh et al., 2015; Zhang, 2006). Nevertheless, the metropolitan scale is seldom discussed in scholarships because of 1) the ambiguous definition of metropolitan regions and interchangeable use with other spatial concepts and 2) the over-emphasis on regional policy and planning at the mega-region level. The recent revival of metropolitan planning in China indicates that the metropolitan regions are gaining momentum, mirroring the broader spatial transformation of the Chinese state.

This paper differentiates the metropolitan region from other spatial concepts and regards the metropolitan region as a new expression of state spatiality and a new policy object. Although metropolitan planning and governance have been well discussed in other contexts (Heinelt & Kübler, 2004; Kantor et al. 2012; Zimmermann et al., 2020), we know little about metropolitan planning and metropolitanization process in China neither theoretically nor practically. In this paper, metropolitanization refers to physical growth, enhanced functional interconnections of urban agglomerations beyond city limits, and all planning and

https://doi.org/10.1016/j.habitatint.2023.102987

Received 8 August 2023; Received in revised form 23 October 2023; Accepted 26 November 2023

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governance strategies to achieve this objective. By investigating 'new metropolitan plans' in China, this paper aims to explore the recent changes in metropolitanization, particularly focusing on planning practices in contrast to the prior approach. This study contributes to a situated understanding of metropolitanization in the Chinese context and enriches contemporary divergence and diversity of metropolitan planning and governance practices internationally.

The remainder of the paper is organized into four parts. To overcome the fluidity of metropolitan regions and present divergent paradigms of planning and governance, the first part provides a critical overview of the definition of metropolitan regions and recent theoretical constructs and practices of metropolitan regionalism in international literature. The second part reviews the metropolitanization process in the form of territorial urbanization that has become dominant since the 1990s and early metropolitan planning experimentation from the below in the 2000s. The following section examines the recent state-led metropolitan planning, focusing on the planning formulation and implementation process to reflect new changes in metropolitanization in the form of multi-city regionalism. Finally, it concludes with the new features in scalar logic, planning style, and governance during the metropolitanization process and the theoretical and practical implications of the Chinese approach.

## 2. Metropolitan regionalism: concept, planning and governance

# 2.1. Metropolitan region as a fuzzy concept

Various terms have been coined to describe the evolution of spatial forms, such as megacities, metropolises, metropolitan areas/regions, functional urban regions, city regions, conurbations, and city clusters. The notion of the metropolitan region is often deliberately employed to denote a unified territory that often extends beyond the core city and includes interconnected jurisdictions to form an integrated functional area (Katz & Bradley, 2013; d'Albergo and Lefèvre, 2018; Zimmermann et al., 2020). Although the metropolitan region is internationally recognized as a spatial concept at the meso-scale, its definition remains ambiguous. It is often used interchangeably with other spatial terms (e. g., city regions) in specific contexts (da Cruz et al., 2020). Scholars and policymakers have acknowledged the fluidity and dynamics of the metropolitan region.

First, the metropolitan scale is in the middle ground between the urban scale and regional scale because it stresses the dominance of the large city and the importance of horizontal linkage between the core city and the hinterland. They are not mutually exclusive categories. Parr (2008) has clarified the nature of cities and regions and reflected their interconnections. Cities could be either a 'built city', a physically continuous entity, or a 'functional urban region', combining the adjacent districts or municipalities that interact closely with the built city. Likewise, the primary city regions that are extensive in area comprise a collection of adjoining secondary city regions that are often regarded as functional urban regions. Metropolitan regions, therefore, may refer to city-regional spaces at different scales (Brenner, 2002). Corresponding to China's context, an urban cluster or mega-city region is the primary city region, a cluster of city regions instead of a single city region. In contrast, metropolitan regions that fit with the administrative boundary or the sub-regions of neighboring jurisdictions are the equivalent spatial form of secondary city regions (Li et al., 2014; Wang et al., 2020; Wu, 2016; Yeh & Chen, 2020).

Second, the metropolitan region is not a static but a dynamic entity undergoing continuous change. Metropolitan regions continuously grow more extensively and link with other metropolitan areas to form a larger territory. For instance, the metropolitan form in the US has evolved from the 'urban realm' in the 20th century towards the 'new metropolis', which facilitated the formation of a hierarchical and networked metropolitan system with different degrees of extended scale (Lang & Knox, 2009). In the Pearl River Delta region in China, three waves of economic transitions, namely rural industrialization, land-centered development, and urban tertiarization since 1978 have steered the individual cities into city regions, mega-city regions, and super mega-city regions, showing a similar pathway in the West (Yeh & Chen, 2020).

Third, the metropolitan scale can be constructed as an analytical unit or a policy object for specific state functions such as statistics or strategic spatial planning. On the one hand, the metropolitan region has been stretched and reshaped in response to the changing socioeconomic reality and driven by market forces. On the other hand, the metropolitan scale is created as a state policy object, the formation of which is embedded in the broader process of state restructuring (Brenner, 2004). In this respect, metropolitan region is constantly terrorized by political contestation, and metropolitanization is increasingly understood about discursive construction and spatial imaginary (Davoudi & Brooks, 2021; Zimmermann et al., 2020).

#### 2.2. The historical evolution of metropolitan planning

Planning has constantly sought to influence metropolitan spatial development and address socio-spatial and governance challenges over decades worldwide. The rapid growth and negative effects of industrial cities in Europe and North America in the late nineteenth and early twentieth centuries have led to the need for a normative planning approach at the metropolitan scale (Wheeler, 2000) and in the early post-war era of Spatial Keynesianism, metropolitan plans generated in blueprint style flourished to reshape the spatial form of central city and suburbs through development control, evidenced by the 1944 Greater London Plan and 'Finger Plans' in Copenhagen. In the post-war era, metropolitan plans advocated a rational, comprehensive approach to coordinating land use with housing provision, transportation, and environmental protection within the larger region. Then, the 1980s witnessed a decline of metropolitan planning internationally, starting with the abolition of metropolitan and regional planning governments in many regions, particularly in the UK and continental Europe. This transition was driven by the 'anti-planning' and neoliberal ideology of nation-states, the dominance of market mechanisms, and devolution to local governments (Baker & Wong, 2013; Thomas & Roberts, 2000).

However, since the 1990s, metropolitan planning has evolved in diverse planning forms and transitioned towards divergent paradigms in different institutional and political circumstances. In Western European countries, metropolitan plans have shifted from traditional technocratic statutory planning towards more informal, collaborative, and actionoriented strategic spatial planning for international competitiveness (Albrechts, 2006). Strategic spatial planning was formed in a more fluid and generalized fashion than previous plans, acting as frames to incorporate different discourses of many actors and to create action spaces situated in relational complexity (Healey, 2004, 2007). The relationality of space has also produced 'soft spaces' and 'soft planning' that resulted in new multiple scales of governance for effective and agile planning interventions coexisting with statutory planning in various European countries (Allmendinger & Graham, 2009; Haughton et al., 2013). Even within Europe, the recent informal planning practices based on contractual or agreement-based practices have exemplified novel but spatially variegated processes (Galland, & HarrisonTewdwr-Jones, 2020).

Although showing some similar trends to the European model, Australian metropolitan strategies for its five state capital cities remained in the traditional form of specifying spatial arrangement in a detailed fashion for regional purposes (Bunker, & Glen Searle, 2009; Searle & Bunker, 2010b) and demonstrated a re-centralization and formalization of spatial planning and state control at the city-regional scale (Searle & Bunker, 2010a).

In the United States, diverse types of metropolitan planning and institutions and actors in shaping metropolitan planning have emerged and coexisted in parallel to the shift of the European paradigm due to its extreme jurisdictional fragmentation and difference in public services and infrastructure provision (Brenner, 2002; Searle & Bunker, 2010b). The metropolitan planning can be formulated as detailed and comprehensive regional land use plans or the advisory regional framework for coordination. These plans have been produced by arrangements such as Federal Highway Administration Metropolitan Planning Organizations, Councils of Governments, interest/community-based independent organizations, and metropolitan planning agencies established by state legislation (Searle & Bunker, 2010b).

In general, metropolitan planning has experienced periodical transitions, moving from the initially positivist planning in the post-war era to the rise of strategic spatial planning in the era of new regionalism since the 1990s and the emergent new informal practices based on city deals and contractual-based approaches after the 2010s. Despite the similar trends over time, the planning paradigms have shown divergence and diversity within and between different countries.

# 2.3. Metropolitan region as governance space

The shift of metropolitan planning paradigms is closely associated with waves of metropolitan institutional reforms. Since governance is always problematic and challenged (Storper, 2014), metropolitan governance has been continuously reformulated since the last century, usually associated with periodization exercises (e.g., Brenner, 2004; Savitch & Vogel, 2009). The periodization of metropolitan reform in neo-Marxist and institutionalist approaches was indeed coincident in terms of the common arguments (equity, efficiency, rationality, austerity, and economic competitiveness) that were mobilized and dominated in successive periods with different degrees (Tomàs, 2020).

In the 1960s, metropolitan governments were created or consolidated in Western countries with strong competence in planning under Keynesian welfare states to deliver better redistribution and improve efficiency. Since the 1990s, austerity, territorial competitiveness, European integration and 'glocalization' strategies under neoliberalism have become the primary driving forces for the renaissance of metropolitan governments in new forms shifting towards soft and flexible governance arrangements (Jouve, 2005; Lefèvre, 1998). These changes are at stake of the national state's rescaling strategies and the new regionalist approach. Consequently, metropolitan governance practices increasingly prioritize territorial competitiveness by articulating the public and private actors around economic interests to form growth coalitions (d'Albergo and Lefèvre, 2018). Strategic spatial planning had been promoted at the city-regional scale, aiming to articulate a more coherent spatial logic for consensus building and to mobilize multiple stakeholders for partnerships (Albrechts et al., 2003).

Despite the convergence in general trends in these theoretical approaches, metropolitan reforms in empirical evidence have been occurring with much more heterogeneity (Heinelt & Kübler, 2004; Tomàs, 2020). In European and North American metropolitan regions, conditioning contextual factors such as local government system, state-society relationships, a common vision and identity, and civic capital (e.g., leadership and policy networks) concerning governance and determine the success or failure in practices case by case (Heinelt & Kübler, 2004; Nelles, 2013). The statecraft and scalecraft have reshaped the structure and scale of urban planning differently in different times, and in different ways (Pemberton, & Glen Searle, 2016).

A new wave of metropolitan reforms since the 2010s implemented in Italy, Spain, Poland, and the UK has occurred with varying degrees of legitimacy and institutionalization (Tomàs, 2020). In Asian metropolitan regions, structural reforms have been the most common form and have been initiated by central or provincial/state governments without much involvement of civil society (Laquian, 2005). Success has been achieved in urban and regional planning that goes beyond the administrative boundaries and sometimes even focuses on mega-city regions covering wider geographical areas, such as in Tokyo, Pearl River Delta region, Greater Jakarta (Laquian, 2005; Vogel et al., 2010). In India, metropolitan growth in post-liberalization has involved efforts from both the state governments and local governments, which has led to the emergence of metropolitan governance (Shaw & Satish, 2007). However, metropolitan governance in India still relies on structured multi-tier jurisdictions and state governments. Although many metropolitan regions have established 'Metropolitan Planning Committees' legislated by the 74th Constitutional Amendment Act, metropolitan authorities lack resources and devolved power from the state governments in implementation (Biswas, 2020; Kennedy, 2017).

To sum up, the international evolution and experiences in its definition, planning, and governance demonstrate the importance of institutional, political, and socio-economic context and coexisting divergent paradigms in metropolitanization in international settings. The following sections will provide a nuanced understanding of metropolitanization in China over time, in line with the broader urbanization process and state spatial transformation process under its specific political economy.

# 3. Research methods

Instead of presenting a detailed case study, this research focuses on recent metropolitan planning practices across China. The discussion attempts to exemplify contemporary trends at the metropolitan/regional scale through the investigation of centrally prescribed planning practices on the one hand and to demonstrate concrete practices and spatial variations of metropolitanization on the ground using selected examples on the other hand. These examples are metropolitan regions with issued new metropolitan plans. We selected these metropolitan regions because they have attracted scholars' attention on their decade-long efforts in metropolitanization. In addition, they were frequently mentioned by interviewees to reflect new practices and challenges during planning formulation and implementation.

The empirical data for this research were gathered between August 2022 and May 2023. The first-hand data includes nine interviews with government officials and planners directly involved in metropolitan policy and planning-making processes and grey literature, including research reports and policy documents collected from fieldwork or accessed from governmental official websites. To explore the new practices and still ongoing process, online or face-to-face semi-structured interviews were conducted. The key themes that the interview questions covered include the underlying rationalities, roles of stakeholders, struggles and tensions, governance mechanisms during planning formulation and implementation and the relationship between metropolitan plans and other regional policies and spatial plans. The interview analysis was supplemented by the analysis of national policies, planning documents, and relevant academic reports.

# 4. China's metropolitanization in the form of territorial urbanization

China's remarkable urbanization since economic reform, featuring a significant increase in rural-urban migrants to coastal megacities and metropolitan suburbanization, has transformed the relationship between the central city and its suburbs (Feng et al., 2008; Li et al., 2016; Wu & Phelps, 2011). Urban development has been extended from the limit of the central area to incorporate suburban and rural areas, presenting an almost continuous and closely linked built-up area. This process is usually accompanied by administrative annexations (i.e., conversion of counties into districts) to consolidate and strengthen metropolitan governance (Wu, 2016). In doing so, the municipal government functions as the quasi-metropolitan government to implement planning functions and materialize infrastructure and the built environment within its jurisdiction.

Metropolitanization in the post-reform period is dominated by the form of 'territorial urbanization', which is claimed as a process through

which the Chinese party-state strategically establishes, expands, and develops cities through territorial designation and administrative adjustment to achieve geographically targeted development and territorial governance (Cartier, 2015). Territorial urbanization with the extension of administrative capacity and reproduction of authoritarian power reflects how municipal governments plan and govern the extended metropolitan area and organize political and economic capacities at the meso level through reterritorialization (Hidalgo Martinez & Cartier, 2017; Ma, 2005; Wu, 2016; Zhang and Wu., 2006). First, metropolitanization is achieved through formal institutional reform and enlarged jurisdiction to coordinate the relationship between economic development and territorial organization. Second, the enhanced municipal government capacity through administrative restructuring facilitates city-based and land-centered urbanization, following the development logics of the land regime (Lin & Ho, 2005; LinGeorge, 2007; Wu, 2022). Third, the formal institutional reform and the reliance on land finance have consolidated the planning power of municipal government (Wang et al., 2020; Yang & Li, 2014).

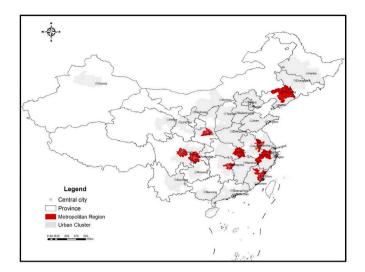
Various new spaces have been planned and developed in the suburbs, such as planned new towns (Shen & Wu, 2012, 2017), development zones (Wei, 2015), and rural land acquisition (Qian & Wong, 2012). A new type of plan (i.e., strategic plans or concept plans) has been produced beyond the formal planning system since the 2000s to smooth the annexation process, direct spatial development, and strengthen the competitiveness of the city (region) through the construction of a metropolitan region (Wu, 2007; Wu & Zhang, 2007).

Facing increasingly fierce inter-city competition and strengthened economic linkages, the provincial government proposed experimenting with metropolitan plans involving multiple cities for better coordination. For example, Jiangsu Province in the Yangtze River Delta formulated the Nanjing metropolitan plan and Suzhou-Wuxi-Changzhou metropolitan plan in 2002 (Luo & Shen, 2009). It was an instrument of the provincial government to 'coordinate economic development and enhance regional competitiveness' (Interview A, a planner from Nanjing Institute of Geography and Limnology Academy of Science, March 2023). Nonetheless, these bottom-up plans by the provincial government had never been approved by the central state, and their implementation was unsuccessful due to the lack of a coordinating mechanism and competitive city governments (Luo & Shen, 2008, 2009).

# 5. Metropolitanization as multi-city regionalism through making new metropolitan plans

The failure of earlier metropolitan planning practices is partly attributed to the central state megaregionalism policies. The central state has proposed 19 urban clusters as the primary regionalism projects since the 2000s, agglomerating over 70% of China's population and 80% of GDP (Fig. 1). Since 2019, the central state has conceptualized metropolitan regions as a new kind of entity for regional governance at the mesoscale, with the inauguration of the milestone document *Guidance on Fostering and Developing Modernized Metropolitan Regions* (NDRC 2019).

Building on the foundation of previous planning experiments, the Nanjing Metropolitan Development Plan has been quickly formulated and approved by the central state. By June 2023, nine metropolitan development plans have been intensively approved by NDRC since 2021, and one territorial spatial plan for the Shanghai Metropolitan Region has been issued (Table 1). It is projected that eighteen large cities in China will formulate their own metropolitan development plans during the 14th Five-year Plan (2021–2025), and most large cities (provincial capital cities, separate-planning cities) will formulate their metropolitan plans before 2035 (Interview B, an official from NDRC, October 2022) (Fig. 1). This section explores the new metropolitan plan's main drivers and transforming features in detail.



**Fig. 1.** Metropolitan regions, urban clusters, and central cities of (existing and potential) metropolitan regions. Source: Drawn by authors

# 5.1. Changed context and driving forces

The emerging metropolitan plan is influenced by both international and domestic challenges. First, China's political economy has gone through export-oriented development and financialized infrastructure development over the past decades (Wu, 2023). Recent 'new normal' economic development in China and the move towards deglobalization have challenged this model. To reduce the dependency on the global market, the central state began to re-emphasize the integration of the domestic market for endogenous growth.

Second, the launch of the New Urbanization Plan (2014–2020) by the central state has indicated a transition of developmental ideology from quantity-oriented urbanization (manufacturing-centered industrialization, land-centered urban expansion, and export-oriented economy) to quality-oriented urbanization (innovation-based economy, ecological civilization, and social inclusion). However, many large cities in China face development issues such as over-concentration and a lack of development resources, while surrounding cities and counties are still lagging far behind.

Third, previous regional policy at the mega region level (e.g., urban clusters) was ineffective, resulting in uneven geographies. Other urban clusters are still embryonic except for well-developed regions such as YRD and PRD in the coastal regions. As one interviewee informed,

Political leaders from NDRC have realized that urban clusters are over-large and too generalized based on our research ....They recognized most urban clusters should strengthen the development and integration of the central city and functionally linked surrounding cities to foster metropolitan regions first (Interview C, a planner from Tsinghua University Institute for China Sustainable Urbanization, March 2023).

In response to international and domestic issues, the metropolitan region has been identified and reinvented as the new focus of urbanization in the New Urbanization Plan (2021–2035) and an important governance entity to achieve high-quality development and simultaneously fix urban and regional issues (Interview B). Metropolitanization has taken on the form of multi-city regionalism (Table 2). The new features that are manifested by its definition, planning styles, and governance are scrutinized next.

#### 5.2. Scale and delineation

Under state-led metropolitanization, a metropolitan region has been

#### Table 1

Metropolitan plans in China Issued Since 2021.

Metropolitan Regions	Planning type	Approval Date	Planning scope	Planning Area (km²)	Permanent Population (Million)
Nanjing	Development plan	2021.02	Jiangsu Province: Nanjing, Zhenjiang, Yangzhou, Huaian Anhui Province: Wuhu, Maanshan, Chuzhou, Xuancheng	27, 000	20.00
Fuzhou	Development plan	2021.05	Fujian Province: Fuzhou, Putian, Ningde, Nanping, Pingtan Comprehensive Experimental Area	26,000	13.00
Chengdu	Development plan	2021.11	Sichuan Province: Chengdu, Deyang, Meizhou, Ziyang	26,400	27.61
Chang-Zhu-Tan	Development plan	2022.03	Hunan Province: Changsha, Zhuzhou, Xiangtan	18,900	14.84
Xi'an	Development plan	2022.03	Shaanxi Province: Xi'an, Xianyang, Tongchuan, Weinan, Yangling Agricultural Hi-tech Industries Demonstration Zone	20,600	18.02
Chongqing	Development plan	2022.08	Chongqing Municipality: 21 urban districts Sichuan Province: Guang'an	35,000	24.40
Shanghai	Territorial spatial plan	erritorial spatial 2022.09 Shanghai Municipality		56,000	77.42
Wuhan*	Development plan	2022.12	Hubei Province: Wuhan, Ezhou, Huangshi, Huanggang	_	_
Hangzhou*	Development plan	2023.01	Zhejiang Province: Hangzhou, Jiaxing, Huzhou, Shaoxing, Quzhou	-	-
Shenyang*	Development plan	2023.02	Liaoning Province: Shenyang, Anshan, Fushun, Benxi, Fuxing, Liaoyang, Tieling, and Shenfu Reform and Innovation Demonstration Zone	-	-

Source: Data derived from various metropolitan plans. Metropolitan regions with \* means their plans have been issued but not disclosed, and their approval information is informed by interviewees.

# Table 2

Metropolitanization in two different Forms Before and After 2019 in China.

	Metropolitanization as territorial urbanization	Metropolitanization as multi-city regionalism		
Political-economic context	Globalization and China's export-oriented development model Power and fiscal decentralization and the rise of localism	Deglobalization and emphasis on development and integration of domestic market Emergent city regions as new state space		
Planning activities	Strategic plan/concept plan Piloted metropolitan plans within one single provincial territory	Development plan Territorial spatial plan (suspended)		
Primary objective	To enhance territorial competitiveness	To achieve high-quality urbanization through inter-city cooperation		
Major content	Spatial development strategy and economic development	Priority tasks for inter-city cooperations		
Planning rationale	Expansion-oriented	Resource sharing		
Scale of operation	Central cities and their suburbs within a single administrative	Major cities and secondary cities within a networked city region		
	jurisdiction or including edge cities in adjacent jurisdictions	Consisting of county level administrative units based on functional linkages		
Spatial forms	Almost continuous built-up area	A juxtaposition of disjointed urban settlements		
	Loosely defined	Explicitly defined		
Institutional configurations	Administrative annexation	Soft institutions, e.g., leading group, coordination offices, joint meeting, but more formalized and normalized		
	Quasi-metropolitan governments	Inter-city agreements, e.g., benefit sharing mechanism		
Governance regime	Land-based growth machine Bottom-up entrepreneurialism	Multi-scalar governance with top-down command and negotiations between local governments		
Key territorial actors	Municipal governments of central city	The central state, provincial governments, and municipal governments		
Financing capacity	Reterritorialization and Recentralization of government financing capacity	Budget sharing		
State strategic	New CBDs, New Towns and New Districts	Cross-boundary development projects in infrastructure, economic development, public		
projects	Development zones	services, and environmental protection, e.g., inter-jurisdictional industrial parks, inter-city railways, government service platform		

Note: The concepts of 'territorial urbanization' (Cartier, 2015) and 'multi-city regionalism' (Wachsmuth, 2017) have been expanded to productively present the changes in territory, scale, planning and governance in this paper.

Source: Summarized by authors

explicitly defined as a regional territory centered on a dominant city with functionally linked neighboring secondary cities as its hinterland. The spatial form is featured as the network relationships between multiple cities and the nodal centrism of the core city. The dominant cities are usually super-large and large cities with a population of over 5 million. The delineation process includes technical delineation and political adjustments (Interview H, a planner from Tsinghua University Institute for China Sustainable Urbanization, March 2023). County-level administrative units are employed as the basic units, and the ones functionally linked with dominant cities are assembled into metropolitan regions based on commuting distance, population size and density, and geographical conditions. The delineation also considers national and regional development strategies to foster metropolitan regions in less developed regions with lower thresholds and adjust the technical delineation boundary. Consequently, the delineated metropolitan region includes disjointed urban settlements across multiple jurisdictions,

but they are all functionally linked (usually connected by high-speed railways within 1 hour) with the core city.

As a new policy region, the delineation of the planning area has also been embedded within the political process. First, new metropolitan plans refine the regional policy to a smaller scale to overcome barriers caused by administrative fragmentation and jurisdictional-based governance. The central state strictly controls the regional scope of metropolitan regions to pursue genuine breakthroughs in governance innovation and coordinated development. For example, Wuhan Metropolitan Region originally planned to incorporate eight neighboring cities into the metropolitan region. However, the NDRC rejected this scheme, and finally, it only covers four cities in Hubei (Interview C).

Second, metropolitan regions are designated as soft and relational spaces through planning. Therefore, their regional scope is dynamic and malleable to conform to the changing development reality and state strategy. Third, the scope of metropolitan regions is not exclusive, as the technical demarcation process may result in overlaps. Some cities can be the constitutive parts of two different metropolitan regions simultaneously. For example, Nanjing Metropolitan Region and Hefei Metropolitan Region (under planning) have overlapped within Anhui Province, which inevitably causes conflicts of interest, as the Anhui Provincial Government may provide more policy and financial support for Hefei metropolitan region (Interview C).

## 5.3. Planning types and institutionalization

As Table 1 shows, there are two parallel planning series for metropolitan regions: development plans and territorial spatial plans. A territorial spatial planning system has been newly established in China along with the establishment of the Ministry of Natural Resources (MNR) in 2018 to integrate multiple plans that are related to spatial arrangements (i.e., urban and rural planning, land use planning and main functional zone planning) (Liu & Zhou, 2021). The development plans led by the NDRC are more strategic in regulating economic and regional development.

Overlapping functions between NDRC and MNR is causing conflicts regarding planning authority and style (Interview E, an official from MNR, April 2023; Interview F, a planner from MNR, April 2023). For example, after the approval of the metropolitan development plan, Nanjing has been preparing a territorial spatial plan at the metropolitan scale (Interview D, a planner from Nanjing Academy of Urban Planning and Design, November 2022). However, territorial spatial plans at the metropolitan scale have been suspended, and the planning content that has already been formulated is required to be incorporated into the provincial and prefecture-level territorial spatial plans, which two levels have been legally defined in the new "five levels and three categories" spatial planning system (Interview C). Meanwhile, MNR has compiled Planning Codes for Metropolitan Territorial Spatial Planning and sought other departments' comments, but it was rejected by NDRC (Interview F). As NDRC has actively promoted the concept of the metropolitan region and its overarching role in planning system has been further reinforced (NDRC, 2019; State Council, 2018), metropolitan development plans have become the mainstream type. Therefore, the metropolitan plans discussed in this paper refer to the development plan.

Although metropolitan plans are not statutory plans, the changing national politics and mandates redefine the relationships among cities and influence the attitudes toward collaboration of local governments. Unlike regional plans usually compiled by the NDRC, local governments prepare and implement metropolitan plans. The plan-making departs from traditional agency-client interactions in previous strategic plans and gives rise to a process-oriented mechanism. This process involves iterative negotiations and communications among the central state, provincial governments, municipal governments of member cities, and commissioned planning or research institutes (Interview B). In practice, planning preparation is led by the Development and Reform Commission of the central city. It involves inputs such as budget, knowledge from member cities, and coordination between various government departments. The attitude of city governments varies and depends on their self-interests and demands. Local governments are also motivated because the designated projects in the name of metropolitanization would be easier to get approval and support from upper-level governments during implementation (Interview B).

Provincial governments facilitate the planning-making process, coordinate the conflicts, submit the plan to the central state for comments, and issue the plan ultimately. NDRC will provide revision comments and consent as an 'official reply' (*hanfu*) rather than an official approval (Interview B; Interview C). The central state uses the metropolitan plan as a policy tool to mobilize local governments and create new space for coordinated development. The planning outcome does not have binding effects, and the central state empowers autonomy to local governments for governance innovation except for some restrictions on the planning area and state-funded projects (Interview B). In this sense, the collaborative planning process becomes more important than the outcome. This process-oriented mechanism facilitates the planning implementation.

# 5.4. Planning rationale

The logic of metropolitanization has turned from expansion-oriented developmentalism to 'resource sharing' for integration. New metropolitan plans propose 'urban unification' *(tongchenghua)* as the common vision of member cities. 'Urban unification' can be achieved by establishing a common resource pool, a common market, and unification of regulations and policies within the metropolitan region to defy the administrative boundaries. Accordingly, resource sharing based on reciprocal relationships has become the underlying rationale of metropolitan plans in the following aspects.

First, the metropolitan plan promotes the optimal allocation and utilization of production resources such as land, labor forces, capital, and technology through industrial collaboration and the construction of a common market. In this way, the economic competitiveness of metropolitan regions can be significantly improved due to the efficient use of production resources and the integration of the supply chain and innovation chain. For example, the logistics centers and facilities have been redistributed from the central city to secondary cities, which are well connected with other places by the transportation system, aiming to free up more land in the central city and to integrate the space of production and circulation at the metropolitan scale (Interview G, a researcher from NDRC research institute, September 2022).

Second, the metropolitan plan proposes rational distribution of public resources such as education, health, and municipal infrastructure in a more coordinated way to enhance social cohesion and environmental sustainability within the metropolitan region. In doing so, new rural-urban migrants (the major forces for urbanization) can be accommodated in secondary cities and counties within the metropolitan region and have better access to high-quality public services and an integrated employment market (Interview G).

Third, the sharing resource is not limited to production or consumption sectors but also can be designated preferential policies or development quotas through institutional innovation. For example, the State Council approved the China (Sichuan) Free Trade Zone and established it in Chengdu. Through the building of the Chengdu Metropolitan Region, similar preferential policies have been expended to surrounding cities such as Meishan, supported by the Sichuan provincial government, and Meishan has been connected with the New Western Land-Sea Corridor and China Railway Express for more convenient and faster customs clearance (Interview C).

# 5.5. Planning functionality and common themes

Metropolitan development plans mainly function as an inter-city cooperation and coordination framework to enhance the synergy of city regions. This framework identifies key themes and priority tasks for metropolitanization in a short-term planning period (five years). Metropolitan plans aim to foster coordinated development between central and surrounding cities and create innovative governance mechanisms beyond traditional jurisdictional-based governance. The main content focuses on coordination between multiple jurisdictions and sectors rather than merely regional economic growth (Interview B). Unlike other regional and strategic spatial plans, schematic maps and diagrams seldom appear in metropolitan plans, and spatial layout and land use regulations are not defined in metropolitan plans. Rather, the plans are formulated narratively and more detailed regarding the tasks and concrete projects. Its rhetoric is filled with discourses such as 'jointly', 'unified', and 'integrated' development in several key fields. This has raised the concern of physical planners who argue for the necessity of territorial spatial planning at a metropolitan scale regarding its implementation (Interview F).

The format of the metropolitan plan is centrally prescribed, generally following the Guidance. Like the Five-year Plans, the metropolitan plans set up a series of development goals in urbanization, innovation, ecological protection, social cohesion, inter-city interactions, etc. Key themes and major tasks identified for metropolitanization include: 1) to promote infrastructure integration through enhancing the transport network, optimizing municipal infrastructure distribution, and smoothing the management system; 2) to strengthen inter-city division of labor and facilitate industrial and innovation collaboration; 3) to eliminate administrative and market barriers and construct a unified market for human resources, technology transactions, and financial services; 4) to build balanced and inclusive public service system and promote the integrated development of public services, social security system and government services; 5) to jointly promote ecological and environmental protection and treatment; 6) to facilitate the integrated development between urban and rural area.

Moreover, metropolitan regions can tailor specific content and tasks considering their physical forms, governance forms, development stage, and local characteristics. Under each theme, the priority tasks will be further broken down and assigned to responsible departments or cities with the support of other policy documents, action plans, policies, and subject plans in specific fields.

# 5.6. Planning implementation under multi-scalar governance

Even though new metropolitan plans highlight both the rhetoric of coordination and short-term pragmatism, the implementation is more complicated and not exempt from risks of failure. On the one hand, the metropolitan region remains a policy region rather than a genuine functional urban region in China. Functional linkages between cities remain weak due to polarized development, homogenous industries, and ineffective transportation (NDRC, 2019).

On the other hand, regional planning implementation is challenged by inter-city competition, conflicts among governments, unfeasible content, and a lack of coordination mechanisms (Li & Wu, 2012; Luo & Shen, 2008). As mentioned above, new metropolitan plan has overcome some drawbacks through an explicit definition, a consensus-building process, a collaboration framework, and pragmatic content. In response to national mandates, local governments may passively be involved in planning to align with national discourses (Interview B). However, the major actors in implementation may perform less actively due to vested interests or lack of incentives. New governance models have emerged to facilitate the implementation, including the following features.

First, metropolitanization is promoted through various crossboundary projects in multi-scalar governance. For example, administrative fragmentation and urban entrepreneurialism led to excess competition between local governments, manifested by broken roads and the lack of an intercity transit system (Li et al., 2023; Yang et al. 2021). Metropolitan plans are keen to build up the rail-based public transport system and to re-connect previously dead roads. This improvement can realize the full potential of the financialized infrastructure over the past decade through enhanced connectivity. Other typical city-regional projects include industrial parks, collaborative innovation platforms, and cross-border demonstration zones. For example, Nanjing metropolitan region has selected adjacent areas between Jiangsu and Anhui Province to explore new coordinated governance mechanisms regarding planning management, land use, public services provision, grassroots governance, and environmental protection (Interview D). These projects could be existing ongoing ones or newly designated by the central state in a top-down manner, by local governments through bottom-up cooperations, or in an approach with 'layered' histories (Anguelov et al., 2023). These city-regional projects involve scalar politics, top-down administrative command, and negotiation between multi-scalar governments. They are also facilitated by specific inter-city agreements based on market mechanisms to deal with territorial interests (Zhang, Shen, et al. 2023; Zhang, Li, et al. 2023).

Second, coordination relies more on soft institutions and mechanisms than hard governance (i.e. formal administrative adjustments or binding planning). However, soft institutions that emerged in the 2000s have become more formalized and normalized with the mobilization of the central state. For example, leading groups and specific coordination offices have been established in many metropolitan regions, such as the Chengdu metropolitan region, responsible for promoting and supervising the implementation (Interview G). Although still in the conceptual stage, many metropolitan regions also attempt to establish metropolitan development funds to deliver cross-boundary projects better and to reduce disputes (Interview G).

Third, the provincial governments, resembling regional authorities, have been brought back as one of the most important territorial actors in multi-level politics. On the one hand, the provincial government tends to secure more resources for the metropolitan region as it is usually the most competitive and potential region within its jurisdiction (Interview C). As shown in the Greater Xi'an metropolitan region, the provincial government has driven the metropolitanization of Xi'an through horizontal sprawl across local jurisdictions and extensive policy and material support (Jaros, 2016). On the other hand, the governance capacity of provincial governments is critical to organizing development tasks and coordinating policies and relationships between multi-level governments, which will influence the effectiveness of plan formulation and implementation. For instance, Hunan Province developed its regional development strategy and persisted in this work over the past years thanks to its internal cohesion and informal links with higher-level politics (Jaros, 2016). In particular, some metropolitan regions are stretched beyond provincial boundaries, so cooperation and coordination between provincial governments is necessary.

#### 6. Discussion and conclusion

Unlike Western countries where the planning and governance of metropolitan region has been a long-term and recurrent topic, China's metropolitan regions are gaining momentum recently, evidenced by the latest wave of state-led metropolitanization. This paper has examined new metropolitan plans in China and explored new features of recent metropolitanization in contrast to the earlier approach. We identify a paradigm shift from 'territorial urbanization' to 'multi-city regionalism' in China, as shown in Table 2, to account for the changes in territory, scale, planning, and governance during the process of metropolitanization. This investigation provides three key findings.

Frist, the metropolitan region has been mainly employed as a policy object for state rationalities and has been upscaled from a single city region scale to a multi-city scale. Rather than as a pre-given territorial unit, we regard the metropolitan region as a relational space that is subject to state politics, functional complexity, and urban reality. The metropolitanization in China reflects a recurring and dynamic state-rescaling process. In the earlier practices, a metropolitan region mainly refers to a reterritorialized city-region (Cartier, 2015; Wu, 2016), and sometimes it could be a loosely defined region by local governments for their own interests (Luo & Shen, 2008). New metropolitan plans have explicitly redefined the metropolitan region at the multi-city scale through technocratic delineation.

Second, the new metropolitan plans function as an overall collaborative framework to support priority tasks for metropolitanization in a shorter term rather than formulating long-term spatial strategies. This transformation largely coalesces in planning type, planning process, underlying rationale, and planning content (Table 2), compared to earlier planning practices such as strategic planning (Wu, 2007) and regional planning (Li & Wu, 2012; Luo & Shen, 2008, 2009). New metropolitan plans not only set up a representation of coordinated development rhetorically but also drive metropolitanization through pragmatic content in detail. This new trend reflects the process- and action-oriented transformation of regional planning and inevitably inherits the legacies of the socio-economic plan (Five-year Plan) and compiles it in a comprehensive and project-based approach.

Third, the planning implementation heavily relies on multi-scalar alliance building through specific projects and coordination through soft mechanisms, but the implementation is not exempt from challenges. Recent state-orchestrated metropolitanization reflects the newest round of state rescaling process to cope with domestic uneven development and urban issues through 'urban unification'. The central state creates this new scale for better coordination and institutional innovations through mobilization and empowerment of local governments. The success or failure of implementation depends on the changing governance capacity of multi-level governments, geographical and economic development, and governance mechanisms designed for specific projects.

We contribute to the existing literature in two ways. First, by analysis of historical geographies of metropolitanization, this research provides a relational understanding of the metropolitanization process and highlights the varying 'scalar logics' of city regionalism in China. As Wachsmuth (2017) argues, multiple regionalism projects exist throughout the state-economy nexus with interacting and conflicting scalar logics. This paper clarifies the concept of a metropolitan region with the interaction of other spatial concepts. It demonstrates the co-existing of variegated city-regionalisms with their scalar logics (cf. Wu & Zhang, 2022). In this regard, metropolitanization is manipulated by the central state as a 'fix' to the failure of prior regionalism projects and over-accumulation in urbanized areas.

Second, rather than merely investigating metropolitan regions as a planning concept to explain territorial politics and governance (e.g., Harrison & Gu, 2021; Li et al., 2023; Wu, 2016), this study interrogates the planning per se in terms of planning style, planning process, planning outcomes, and implementation to disclose the new paradigms in metropolitan planning and governance. Our findings demonstrate similarities and differences with the diverse experiences in other countries; therefore, mutual learning and policy mobility can be facilitated. For example, adopting informal planning instruments such as urban contractual policies in Nordic countries and City Deal in the UK also involves nation-level intervention to align planning objectives and improve the commitment of multi-level governments (Galland, & HarrisonTewdwr-Jones, 2020). In parallel to innovative informal planning practices, the role of long-term and legal spatial planning, as well as formal structural reform, have been reasserted and occurred in some European countries, Asian countries, and Australia (Laquian, 2005; Searle & Bunker, 2010b; Tomàs, 2020).

While these changes in planning and governance raise issues around government competence and legitimacy in Western countries (Heinelt & Kübler, 2004; Tomàs, 2020), China's new metropolitan planning practices in the context of state rescaling and recentralization under Xi's regime focus more on coordination within the party-state system. China can learn from other countries how to maintain consistency of new metropolitan plans with other binding spatial planning, establish partnerships (both public-public and public-private) for planning formulation, implementation, and funding, and monitoring and flexibly adapting the implementation. The specific paradigm of metropolitanization in China, which combines planning instruments and governance techniques and intertwined processes of top-down mandates and bottom-up innovation (cf. Li et al., 2023; Ye, 2014), could be useful for other countries, particularly those with centralized states.

#### Author statement

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# Funding

This work is supported and funded by H2020 European Research Council (Advanced Grant No. 832845- ChinaUrban).

# **Declaration of Competing interest**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

# Acknowledgements

The authors would like to thank the reviewers and the editor for their invaluable comments to enhance the quality of the paper. They also thank Dr. Yun Qian of the Beijing Forestry University for fieldwork assistance and all informants who participated in this research.

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