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Positioning the China’s spatial governance and planning system within existing classifications

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Abstract

This thesis focuses on China's spatial governance and planning system, reflecting on its potential and effectiveness in the aim to position it within the main international comparisons and classifications. The research background stems from China's efforts to reconstruct its national spatial governance system starting in 2019, attempting to optimize spatial planning through top-down institutional reforms and bottom-up "integrated multi-planning" pilot projects to address the challenges of globalization, regional integration, and rapid urbanization. The study adopts a comprehensive comparative research method, combining theoretical analysis and practices examinations, intending to delineate the characteristics of China's present spatial governance and planning system, and on the basis of the latter, to position it within the most relevant classifications developed in Europe in the last decades.

This research methodologically borrows extensively from the EU Compendium of spatial planning systems and policies and from a more recent typology of spatial governance and planning system classified in relation to their capacity to favor the public control of spatial development, built on the results of the ESPON COMPASS project. It emphasizes the analytical framework of Multi-Level Governance to better understand the characteristics of the spatial governance and planning system of China in the context of globalization and regional integration. The study points out that, despite the initial success, the system still faces inconsistencies between policy development and policy implementation. The results show that global comparative study is vital for refining and innovating spatial governance and planning systems, notably in maintaining local flexibility while relying on transnational experiences. Additionally, the research advises that comparative studies should further refine methodology and construct more rigorous and operable analytical models, especially for expanded global comparative studies, to tackle the analytical and comparative challenges brought by the inclusion of more non-Western contexts, thereby enhancing the effectiveness of transnational policy transfer and practice.

Keywords: Comparative spatial planning study, Spatial Governance and Planning System; Policy transfer; China; Europe;

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List of Acronyms and Abbreviations

SGPS	Spatial Governance and Planning System
UN-Habitat	The United Nations Human Settlements Programme
CEMAT	FR: Conférence Européenne des Ministres responsables de l'Aménagement du Territoire EN: Council of Europe Conference of Ministers responsible for Spatial/Regional Planning
MLG	Multi-level Governance
CEC	Commission of the European Communities
EU15	The 15 European Union compositions from 01.01.1995
ESPON	European Spatial Planning Observation Network
COMPASS	Comparative Analysis of Territorial Governance and Spatial Planning Systems in Europe
ESDP	European Spatial Development Perspective
APEC	Asia-Pacific Economic Cooperation
RCEP	Regional Comprehensive Economic Partnership
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
FDI	Foreign Direct Investment
OECD	Organization for Economic Cooperation and Development
PRC	The People's Republic of China
ERL	Ecological Redline
MNR	Ministry of Natural Resources
CPC	Communist Party of China
NPC	National Congress
MFOZP	Main Function-Oriented Zone Planning
URP	Urban and Rural Planning
LUP	Land Use Planning
PPP	Public-Private Partnership
CSPON	China Spatial Planning Observation Network

Chapter 1

Introduction

This introduction provides an overview of the thesis by framing the research context through the introduction of the research objective, questions and hypotheses. It first sets out the international and national contexts of the research, hence explaining the general relevance of the research. Next, it clearly defines the objectives of the study, which represent the essential questions that this research is supposed to answer, expecting also the outcome through the work. In addition, this chapter illustrates the structure of the thesis volume by clearly showing how the contents of the research are organized. The roadmap for the entire thesis is established by the combination of these elements, which serve as the foundation for subsequent chapters.

1.1 Framing the research context

Currently, globalization and regional integration have initiated a series of comparative studies in human geography, urbanism and spatial planning that encompass a variety of perspectives. Its complex theoretical system is being progressively refined through critical evolution and conducts in a more comprehensive way, with the goal of facilitating effective mutual learning and policy transfer to guide the scientific and rapid development of cities or regions. Europe is at the forefront of both spatial planning systems and their comparative research, particularly with the advancement of integration processes. The European experience of comparative research in systems, cultures and practices of spatial governance and planning system (SGPS henceforth) has served as a model for global comparatives initiatives (Zimmermann & Momm, 2022).

Against this background, China, facing a brand new proposition, has been pursuing the logical construction and reform of the top-level design of the SGPS and scientific improvement of its content, in response to the current situation of the special national conditions, in order to coordinate the spatial planning of various regions, to avoid the blind and vicious competition for resources (among regions, sectors and various types of planning) and the bubble-type unsustainable development, to ensure the rational decision-making of the regional resource allocation strategy to maximize energy efficiency for regional development (Niu & Lv, 2023).

In 2018, China's national institutional reform clarified the responsibilities of the Ministry of Natural Resources (MNR) in the construction of a spatial planning system. In the same year, a series of intentions, decisions and important documents were

issued to construct and explain the underlying logic of the construction of spatial planning system in the form of the “Golden Circle”. “Several Opinions on Establishing the System of Territorial and Spatial Planning and Supervising its Implementation” (“Options” henceforth) were officially released as guidelines in May 2019. Up until this, the exploration and debate on the path of spatial planning reform that began in 2013 in society and academia have taken the "Integrated Planning System" as a stage summarization and the destination for the gradual advancement of practice. As we all know, “Multi-plan Integration” is not simply the sum of various plans, but rather the unification of the planning system by addressing the residual issues of conflicting plans and integrating existing types of spatial planning, "achieving the organic fusion of multiple ways of thinking" (Hu et al., 2023); at the same time, it is very important to actively sniff the opportunities and challenges of the changing trends in domestic, international, political, economic and social landscape, and to precisely define and design the mission for the time of the territorial spatial planning.

However, “territorial planning” within the framework of contemporary political economy transcends traditional natural resource management, incorporating a spatial dimension and evolving into a more intricate concept of “territorial space” (M. Yang & Liang, 2020). The second point is that territorial spatial planning, characterized by its open, long-term experimental dynamic cyclic evolution (Zuo & Meng, 2022), has a unique delay and timeliness in the verification of its conclusions. Due to the rapid shifts in external environments - such as economy, society, and technology changes - the feedback optimization effect of the evaluation conclusions on itself is fairly restricted. Countries need extensive practical experience to scientifically alter their spatial planning systems and build flexible mechanisms that react to current circumstances. Clearly, depending entirely on each country's own long-term practices is untenable in today’s quickly changing global scene. Therefore, performing effective comparison studies of spatial planning systems is a viable strategy. It is necessary to investigate a scientific mechanism for comparative research on spatial planning systems, establish a horizontal comparison framework, augment the reference sample library through specific analytical transformation mechanisms, and based on this, conduct a specific deconstruction of the spatial planning systems of various countries to enhance the reliability of cross-national conversions.

In many prior research on planning systems, spatial planning systems have existed almost as a cultural abstraction, making it impossible to establish meaningful cross-national mutual learning and policy transmission. Therefore, the urgent

requirement for reform and development of territorial spatial planning system has generated a paradox that demands resolution, particularly due to the lack of mechanisms for transferring real case experiences across diverse settings.

China, which is in the midst of restructuring its spatial planning system, urgently needs to pick a scientific and rational system analysis mechanism and comparative methodologies to engage in global comparative research, so as to actualize efficient experience learning.

1.2 Objective and main research questions

The main research objective of this thesis is to analyze China's spatial governance and planning system within the framework of global comparative studies, assess China's capacity for public control over spatial development (Janin Rivolin, 2012; Berisha et al., 2021), and discuss potential deficiencies in the design or implementation of the current spatial planning system, along with avenues and viability for reform.

In addition, the study investigates the challenges encountered in global comparative research, exploring effective horizontal comparative analysis methods for quantifying various elements of SGPS, and try to assess their efficacy in mitigating or eradicating horizontal comparison obstacles following the incorporation of additional non-Western countries. Taking China's spatial planning system as an example and incorporate it into the array of European countries where spatial planning originated earlier, it is vital to discuss how the outcomes of engaging in international comparative studies can be translated into effective experiential references for the innovative development of the China’s system. Future broader study intends to build an ideal model for universal comparative studies and mutual learning, and to expand to additional influencing elements in the field, such as innovation in system analysis approaches, improvements in comparative variable assessment methods, and explorations of ideal models for policy transfer, all aim to improve the current situation where there are major discrepancies in participation between Eastern and Western countries in comparative studies, consequently strengthening international collaboration and academic exchange.

As one of the typical Eastern countries, China endured colonization or foreign influence from the late 19th century to the mid-20th century. Its spatial planning system is typically seen as an extension and adaptation of post-colonial systems (Zimmermann & Momm, 2022). Overall, it is in a backward state, although later

reforms suited to local situations have led to differentiated development and initial successes. However, this differentiated evolution can be a double-edged sword when studying spatial planning systems comparatively, ultimately becoming a hindrance. To reach the general objective of the research, the categorization study and analytical methodologies of spatial governance and planning system will build the analytical framework of the thesis, incorporating both broad and narrow definitions linked to space and planning, and will be revisited several times throughout the research process, seeking to access the outcomes of spatial governance practices and planning system designs qualitatively and quantitatively. This provides a specific overview of spatial planning delineated by various features and outlines their similarities and variations, establishing the platform for more in-depth comparative research and policy transfers.

Based on previous research, the research explores China's spatial governance and planning system through a literature review regarding institutional framework and its processes (Janin Rivolin, 2012), from four perspectives: the organizational structure of spatial planning, the tools for integrating territorial governance practices, the evolution trajectory of spatial planning discourse, and the social experiences of spatial development in local implementations, applying approaches such as inductive-deductive reasoning, theoretical analysis, and qualitative comparison.

It is vital to highlight that the major purpose of this research is to focus on existing research findings and data, based on relevant practical explorations both domestically and abroad. By employing the same logical approach and methodology to add new samples, broader comparative research may be conducted, offering inspiration for finding breakthroughs and ideal models for international mutual learning and policy transfer. Creating an entirely new classification approach for spatial governance and planning systems, or an improved comparison research methodology, is not the fundamental objective of this work, but rather a potential route for future research.

The three core research questions around which the study is constructed in the following:

1. What are the characteristics of China's spatial governance and planning system from the standpoint of institutionalization? What accomplishments have been realized in the reform of "Multi-planning Integration" and what es and hurdles are currently encountered?
2. What are the contemporary analytical methodologies for comparative study,

what conclusions have been obtained or can be derived, and are they sufficient to promote effective horizontal comparisons? What are their respective strengths and weaknesses?

3. How does the China's SGPS position within global comparative spatial planning research? Can China's comparative experiences serve as a reference for other nations, and inspire broader global comparative study and policy transfer?

1.3 The structure of the thesis

The second section (Chapter 2) following this introduction offers relevant definitions and conceptual frameworks for understanding SGPSs and discusses their role in modern urban and regional development, planning, and management. Exploring it as an interdisciplinary notion, incorporating the interaction of theories and practices from subjects such as urban planning, public policy, geography, economics, and sociology. In addition, it also lists the relevant research background on SGPSs from both domestic and international academic circles, analyzes and compares debates, and explains the difficulties and current achievements in advancing comparative research on spatial planning systems.

In the following section (Chapter 3) categorizes different methodologies, detailing their theoretical foundations and the research outcomes achieved. Based on the application of these methodologies, it provides a rich theoretical framework for better understanding the planning systems, governance models, and their operational modes in specific contexts of different countries and regions. Considering the projected research outcomes of this thesis, select the most relevant analytical categories to be adapted through comparative analysis and analyze the reasons for this choice.

The fourth section (Chapter 4) includes an in-depth analysis of China's SGPS based on the specified methodologies. As the core of the thesis, it intends to dissect the structural components of these SGPSs, scrutinize their instruments of territorial governance, and evaluate the evolutionary trajectory of China's spatial planning discourse. A systemic discourse and comparison of the results of the spatial planning system reform are interpreted in China in order to highlight positive and negative elements. Through a brief overview comparative analysis of the similarities and differences of SGPSs among China and other countries, the features of China's SGPS could be summarize and the challenges its reform faced could be observed.

In Chapter 5, based on the selected approach, identifies the array location of China's SGPS in the comparative planning system research in Europe, and as well assesses the actual capacity to control spatial development that the system awards the public authority.

Finally, the sixth section (Chapter 6) concludes the answers to the research questions, assesses the effectiveness of this cross-national comparison research of China's SGPS in European context, summarizes the limitations of this thesis, and explores whether it is possible to extract structural approaches for global comparison of planning systems or associated improvement ideas, as well as passible inspiration into potential innovations and future research paths in the field of study.

Chapter 2

Theoretical Framework

This chapter aims to establish a robust theoretical framework for comprehending Spatial Governance and Planning Systems (SGPS) within a global and comparative context. It explores the theoretical foundations of SGPS and contextualizes them within the broader discourse of spatial planning as a multidisciplinary field. By drawing on interdisciplinary perspectives from urban planning, geography, political science, and public administration, this chapter examines how SGPS operates as an institutional framework, seeking to elucidate its evolution from a rigid, state-led model into a dynamic, multi-actor governance structure.

The chapter is structured into three primary sections. First, it begins by defining core concepts such as spatial governance, planning systems, and institutional technologies. Spatial governance is framed as the collaborative decision-making procedures through which spatial resources are allocated, regulated, and managed. Planning systems are conceptualized as institutional technologies that embed these governance processes into legal, organizational, and practical tools. By situating SGPS within broader governance discourses, this chapter highlights its role as a mediator between public policy goals and spatial outcomes.

Following this foundation, the second section goes into the evolution of spatial governance theories, adopting a dynamic understanding of SGPS. It traces the shift from top-down, centralized planning approaches to more decentralized, collaborative, and multi-scalar frameworks. This shift reflects broader societal transitions, including globalization, the rise of regional governance, and increased expectations for participatory planning. It highlights the role of social, political, and economic forces in reshaping the planning discourse, making the balance of competing goals a mandatory function of SGPS, such as economic development, social equity, and environmental sustainability, often in contexts marked by complex stakeholder dynamics.

Lastly, the chapter engages with contemporary debates in comparative research on SGPS. It underscores the complexity of transnational policy transfer, noting challenges in applying these current frameworks across contexts with divergent institutional and cultural conditions, particularly when comparing Western and non-Western systems, and highlights the need for nuanced analytical tools to facilitate meaningful cross-national learning.

The theoretical framework presented here serves as the foundation for comparative methodology outlined in Chapter 3 and provides the lens through which China's SGPS is analyzed in subsequent chapters. By incorporating both theoretical consensus and academic debates, the chapter positions SGPS as a critical

mechanism for attaining spatial justice and sustainable development in an era of rapid global change.

2.1 Conceptual Definition

2.1.1 Spatial Governance

Governance is the pattern or structure that arises beyond governmental activities within a socio-political system (Kooiman, 1993), can be understood as the means by which society organizes itself to make decisions and allocate resources (Pierre & Peters, 2000), which indicates a transition in public affairs decision-making from traditional formal control forms of hierarchical government to a horizontal forms of governing involving multiple levels of government, private sector actors, non-governmental organizations, and transnational entities (Jessop, 2006). It emphasizes the broader reconfiguration interactivity and process-oriented characteristics of networks and partnerships, and reflects of a more decentralized, pluralistic set of rule-making framework, alongside the increasing complexity and multi-dimensionality of governing processes of national and social public affairs (Jessop, 2006).

In specific instances, governance is frequently perceived as "the political and technical practices used to order space" (Gaeta et al., 2018, p. 265), synonymous with the broader concept of spatial governance, as the majority of governance activities eventually entail operations or effects at the spatial level. Spatial governance, in a narrow sense, pertains to forms of governance that concentrate on specific spatial territories and their developmental requirements. Nonetheless, still it deals not only with land-use planning but with the broader issues of economic development, environmental sustainability, and social equity (Healey, 2004). The essence is in the effective allocation and coordination of spatial resources both within specific regions and between regions, as well as the creation and execution of spatial strategies that balance protection and development. UN-Habitat characterizes it in a series of reports and planning documents as a process that promotes spatial efficiency through the integration of spatial planning, environmental governance, and development policies, as well as a critical instrument for attaining sustainable urban and regional development, social inclusion, and optimum resource management.

The theoretical foundation of spatial governance can be linked to several main theoretical traditions. The "Institutionalism Theory" underscores the significance of institutions in mediating interest conflicts and allocating resources spatially, including formal legislation and regulations alongside informal social norms and cultural

practices; "Regional Development Theory" grounded in regional economics emphasizes the spatial distribution of resources, population, and industrial organization, as well as the coordination and equilibrium among various regions.

Spatial governance encompasses not only the reorganization of administrative authority and management frameworks but also the comprehensive administration and coordination of geographical resources. This multi-actor, multi-level governance structure can more effectively tackle the complexities and uncertainties inherent in urban development. Therefore, the features of spatial governance commonly implemented in practice can be encapsulated as multi-participation, cross-border coordination, and flexi-adaptability.

2.1.2 Spatial planning system

The modern origins of urban planning lie in a social movement for urban reform that arose in the latter part of the 19th century as a reaction against the disorder of the industrial city. Over the course of nearly two hundred years of ongoing practice and iterative updates, the emphasis has transitioned from interventions in infrastructure and urban construction, which satisfied the demands of industrialization and urbanization with obvious non-political and non-social overtone, to increasingly being recognized as an interdisciplinary and multidimensional focal of the comprehensive and complex system of national and regional politics, economics, and societies. “Land itself is both the national space and the top resource” (Yi et al., 2022, p. 151). Under the impact of modern political economics theory, the concept of “territory” has also redefined the naturalness of resources and is no longer limited to the study of traditional natural resource management. It not only affirms the natural attributes of all tangible spatial resources, but also attaches equal importance to intangible space, thus developing the concept of “territory space” in a broad sense.

Spatial planning, as an expansive macro extension of urban and territorial planning, has progressively transformed into an administrative framework, enabling the state to develop and governance space from the standpoint of an administrative authority(M. Yang & Liang, 2020). It has emerged as “an crucial instrument for coordinating urban and regional development in various countries" (Miao & Shan, 2019). An early definition of spatial planning comes from the European Regional/Spatial Planning Charter (usually called the 'Torremolinos Charter'), adopted in 1983 by the Council of Europe Conference of Ministers responsible for Spatial/Regional Planning (CEMAT): "Regional/spatial planning gives geographical expression to the economic, social, cultural and ecological policies of society. It is at

the same time a scientific discipline, an administrative technique and a policy developed as an interdisciplinary and comprehensive approach directed towards a balanced regional development and the physical organization of space according to an overall strategy" (COE, 1983). “The objectives of spatial planning encompass the artificial environments of socio-economic activity clusters and all domain/element of natural resources, such as mountains, water, forests, fields, lakes, grasslands, and deserts, thereby enriching spatial layers and complicating element nesting” (S. Wang et al., 2022, p. 18).

As for now, numerous European nations have developed relatively advanced spatial planning systems (Taylor, 1998; Miao & Shan, 2019). Although there are inevitable variances in the legal or informal definition of territorial spatial planning (S. Wang, 2019), there is an international consensus on its complexity and importance, which has been defined as a product of "deep coupling" with the context of political, economic, social and cultural development stages (Zuo & Meng, 2022). ’involving multiple and complex processes of vertical […] and horizontal […] interactions’ (Janin Rivolin, 2012, p. 2), rooted in the interdependencies of social, economic and political values, differing institutional contexts, policy systems, spatial objects and planning philosophies, objectives, targets, hierarchies, tools and models (Hohn & Neuer, 2006; Niu & Lv, 2023).

Within the framework of spatial governance, the planning system is a crucial implementation instrument (Figure 2.1). Spatial governance, via consultation,

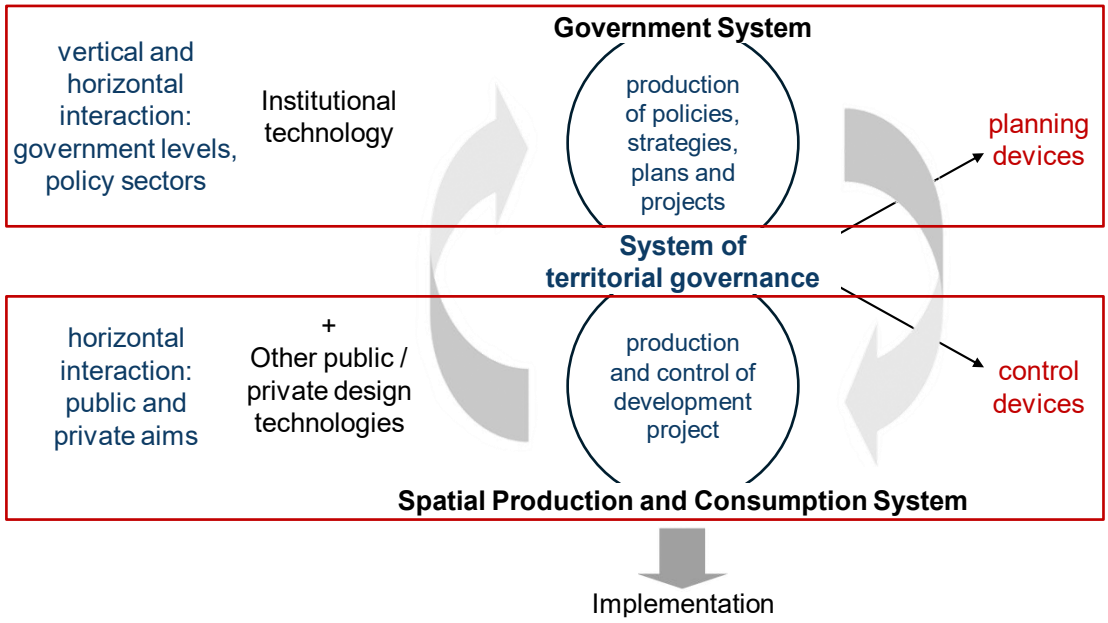


Figure 2.1 *Operation of a system of territorial governance*

(Source: Cotella, 2020 ppt.15, Rivolin, n.d. p. 6)

participation, and collaboration procedures, provides a more inclusive decision-making framework for the formulation of plans. The planning system serves a fundamental coordinating function in multi-level governance. The integration of many planning tiers guarantees the coherence and synergy of spatial policies across various levels. The concept of spatial governance is operationalized through the implementation of targeted policies, regulations, and spatial configurations (Figure. 2.2).

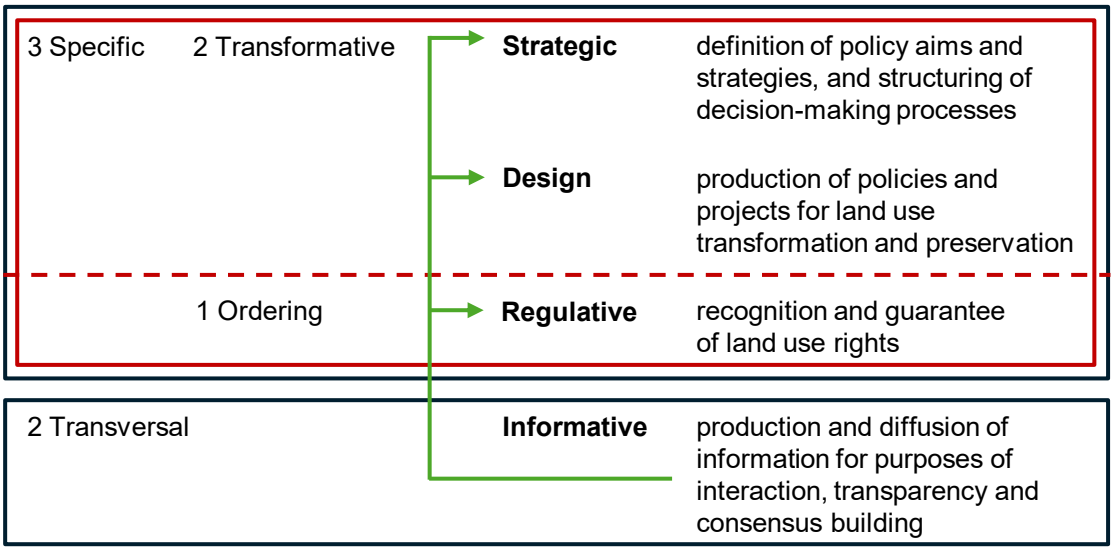


Figure 2.2 *Functions of a system of territorial governance*
(Source: Cotella, 2020 ppt.15)

2.2 Dynamic Understanding of SGPS

With the effect of global trends such as globalization, urbanization, technological advancement, and climate change, SGPS are no longer a rigid and routine procedure. On the contrary, they are increasingly recognized as a changing and complex system that should dynamically respond to varied socioeconomic requirements, resource distribution, environmental stresses, and cross-regional cooperation demands. Therefore, only from a dynamic perspective can we adequately examine the spatial governance and planning system.

2.2.1 Social adaptability to cope with challenges of transformations

SGPS provides a framework for understanding and managing the complex difficulties of contemporary cities and regions and consequently needs to continuously adapt to the rapidly changing socio-economic context. With the acceleration of urbanization, changes in population structure, and the exacerbation of

inequality issues, spatial planning needs to appropriately update policies to ensure it “can flexibly adjust to new forms of urban growth, labor market shifts, and social inequality" (Scott, 2001, p. 144).

Spatial planning, on the one hand, from the perspective of planning theory, considered as complex (relative) micro-system, are necessary links and important components of the macro-system nested in the region or country (or even the world) that drive their development and functioning, “can be seen as a governance activity occurring in complex and dynamic institutional environments shaped by wider economic, social and environmental forces that structure” (P. Zhao, 2015, p. 271); on the other hand, in the practice of spatial theory, SGPS is the study of physical space that accommodates all human or natural activities. It seems that the so-called “macro-system” indicated above can be viewed as a collection of significant variables (collection of important components for the synthesis of “chemical reactions” in the spatial “petri dish”) in SGPS.

This seems to be a tricky dialectical issue of chicken-and-egg, however what is certain is that the mutual embedding of dual complex systems makes SGPSs highly sensitive and offers exponential development potential for SGPSs, with influencing elements ranging from large-scale concerns such as national sovereignty, change of political parties, regional geographical patterns, and the impacts of new ideological tendencies, to smaller-scale issues such as sectoral reorganization, community autonomy, and new indicator data. “The interrelationships and combinations among various elements not only require an overlay study of natural characteristics but also emphasize the gradient transmission of spatial resource value. Additionally, spatial governance encompasses matters such as the distribution of responsibilities and authority between central and local entities, the tripartite interaction of government, market, and society, and the coordination across concurrent functional departments” (S. Wang et al., 2022, p. 18).

Moreover, “Spatial planning systems are not static objects” (Janin Rivolin, 2012, p. 3). The outcomes of decision-making in spatial planning (whether positive or negative) feedback into and alter the focus of their own structural systems. For example, the achievement of a high level of urbanization and a stable national/regional spatial pattern can weaken the importance of “meso-scale planning that reflects national development strategic intentions” in the subsequent spatial governance, shifting the emphasis to “micro-scale functions that respond to local development needs” (Miao & Shan, 2019, p. 64). Therefore, in the continual dynamic evolution of the multi-dimensional open system process, facing the new propositions

constantly put forward by the times, the optimization and development of SGPS is a “long-term topic that needs to be determined or solved” (Zuo & Meng, 2022, p. 127; Wang W. & Yao, 2020; McLoughlin, 1969).

2.2.2 The impact of globalization and regional integration

Globalization and regional integration represent two significant tendencies in the contemporary international political economy. Globalization can be understood as a process (or set of processes) which fosters an increase in transnational connections due to the “transformation in the spatial organization of social relations and transactions”, "generating transcontinental or interregional flows and networks of activity, interaction, and the exercise of power" (Held et al., 1999, p. 16). Regional integration focuses on cooperation and coordination among nations or economies within a defined geographical area, fostering stable and unified development through the creation of instruments such as economic unions, customs unions, and shared markets (Mattli, 1999).

Globalization has promoted the interconnection of global markets, while simultaneously giving rise to greater regional integration projects to overcome the competitive problems posed by globalization. The two have aspects of mutual dependence, yet they can also sometimes conflict. Regional integration can complement globalization through shared infrastructure, coordinated economic strategies, and political alliances. By improving internal collaboration inside the region, it helps regional members achieve a more advantageous position in the process of globalization, while also creating a stable regional framework for global cooperation. However, certain parts of globalization may also aggravate inequality within regions, leading to conflicts between globalization policies and regionalization policies.

"The rise of transworld simultaneity and instantaneity" generated by the growth of supra-territorial relations between people is viewed by Scholte to be a sign of the "shift in the nature of social space" (Scholte, 2000, p. 46). Regional integration, as a counterbalance mechanism, allow countries using regional blocs “to better protect their interests in a globalized world by pooling resources and negotiating power within their region” (Söderbaum, 2004, p. 44). Whether it is the extensibility of globalization or the internal governance attributes of regional integration, both have driven SGPS to become increasingly characterized by multi-level governance structures that transcend traditional state boundaries, involving local, regional, national, and even supranational actors. These structures reflect the growing complexity of spatial management in a globalized world (Swyngedouw, 2004).

2.2.3 Adjustment of power and participation

Traditionally, spatial governance was more state-led, while modern spatial governance systems are shifting towards a collaborative and participatory form of shared engagement by diverse stakeholders (Healey, 1997b). "The restructuring of urban governance under conditions of globalization has shifted power away from centralized, hierarchical structures towards more flexible, networked forms of governance, reflecting the dynamic nature of contemporary spatial governance." (Brenner, 2004, p. 152)

Multi-level Governance (MLG) theory, proposed by scholars such as Scharpf (1997), who believe that in spatial governance, different administrative levels (such as local, national, and international) and various stakeholders (government, private sector, and the public) are jointly participate, forming a complex governance network. Healey (1997), stemming from planning theory, argues that spatial governance entails the interaction and cooperation between different stakeholders, resolving land use and development concerns through consultation. Jessop (2002) views spatial governance as a multi-level, multi-dimensional policy network from the perspective of government governance.

2.3 Consensus and debate in comparative analysis

Although globalization brings inevitable homogenization, planning systems presents diversity in aspects such as the division of power between central and local authorities, participatory planning and technocracy, and the flexibility of legislation, deeply rooted in national and local context, (Sanyal, 2005; Faludi, 2000). This diversity has spurred debates on the convergence and divergence of planning systems in different countries within the context of globalization. Whether planning systems will converge under the effect of globalization or whether they will still preserve considerable national and regional diversity is a major focus of debate. Meanwhile, one of the crucial outcomes is that it also contributed to rise of theoretical comparative study on SGPSs, to analyze the differences, commonalities, and the practical transformation of theory in the planning systems of various countries or areas. Research in this field not only cultivates varied spatial planning theory but also motivates countries to improve their planning practices by leveraging the experiences of other countries within the framework of globalization.

In order to build a more scientific, rational and efficient SGPS, there have been numerous researches and discussions in the related fields in various countries, mostly focusing on studying the evolution process of various national or regional

spatial planning systems in parallel with the analysis of characteristics, or understanding the logic of spatial planning by taking a single matter (types of planning, planning theories, the transmission mechanism at different levels, the generational alternate of the ideology, the right to development of centralized land, or the separation of central and local rights to development or allocation of resource factors, negotiation between the interests of various actors, intergovernmental relations and government-market relations, etc.) (Zuo & Meng, 2022; P. Zhao, 2015; Hu et al., 2023). However, such analyses tend to dismember the independent SGPSs in a partial and fragmented way from the perspective of “planning culture” (P. Zhao, 2015, p. 271), and becomes even more complex as it expands in response to new trends and challenges. Such an analysis often leads people to think that SGPSs are one-to-one tailor-made in their respective “perspective institutional contexts”(Janin Rivolin, 2012, p. 3), and that even if there are many essential similarities, they appear to be very different because of the complexity of the variables; however, this “own metabolism” type of logic to promote reform and development is limited, on the one hand, this kind of reform behind closed doors will infinitely magnify the influence of each variable; on the other hand, without enough experimental results and empirical findings of horizontal comparison, the implementation of planning system reform decision-making is tantamount to a certain sense of a gamble.

Spatial planning, as a practical science, is not afraid of mistakes, it just needs a larger sample pool of both successful and failed experiences. The reference to international experience holds substantial importance for the improvement of planning systems in various countries or regions. As a result, typologies, international comparisons, and transnational transformations of SGPS have been increasingly emphasized and various attempts have been made. However, “any attempt at comparative evaluation has proved therefore to be difficult and controversial, impeding further theoretical and institutional progress.” (Janin Rivolin, 2012, p. 2). Although the localized application of international experience is regarded crucial to improve the efficacy of planning systems, mutual learning and policy transfer still tend to be superficial due to the lack of efficient methodologies for horizontal comparison of planning systems.

While comparative studies have revealed many commonalities in planning systems across various countries, the differences in cultural, institutional, and policy contexts often make cross-national comparative research complex and challenging. For example, in certain nations, the planning process is generally directed by the

central government, whereas in other countries, local governments and communities play a more significant role in the planning process. Even the EU Compendium (CEC, 1997) in the professional context inevitably use the “interrelated factors” that tend to limit and confuse the analysis of multiple complex processes. Another challenge of cross-national comparative research is that, although many countries are gradually converging in the design of their planning policies, the actual effects of policy implementation may vary due to variances in local systems. The intricacy in execution frequently makes the effectiveness of planning programs dependent on individual local factors (Alexander, 2006). Successful planning practices still require to properly consider the specific conditions and needs of the local context. These institutional disparities and the gap between planning policy design and implementation, to some extent, limit the direct application of transnational planning experiences and raise the challenge for academics in theoretically inducting and summarizing.

An urgent need exists for an effective methodology for comparative analysis and its precise definitions, essential for both governmental decision-making and academic research, to avert the hindrance of general classifications and vague definitions to the further theoretical and institutional progress. Given the fact that Europe has already established a system of results using diverse theories and analytical framework, this thesis aims to incorporate China’s SGPS into this library of samples, and after analyzing its counterparts, it aims to select relevant methods of comparative analysis with a view to promoting the advancement or reform of the system through mutual facilitation.

Chapter 3

Methodology

The third chapter with 3 sections outlines the comparative methodology adopted within global frameworks. Building on the theoretical foundation established in Chapter 2, translating the global comparison of SGPS from abstract concepts into an operational framework for comparative analysis. It emphasizes the fundamental concept of understanding SGPS as an "institutional technology" that influences spatial dynamics, and then reviews the current comparative research, introducing their methodologies and tools for analyzing and positioning the SGPS of various countries within global categories, evaluating the strengths and limitations of these approaches, noting the challenges posed by geopolitical, cultural, and institutional variations. Finally, as needed, the methodology adopted in this thesis is identified.

The chapter begins by revisiting the concept of institutional technology, focusing on its dynamic interplay between structure, tools, discourse, and practices. It explores how planning systems, as products of their distinctive socio-political and economic contexts, evolve through interactions among the four analytical dimensions. This conceptual lens guides the construction of the national evaluation report for China's SGPS. It also highlights the necessity for methodological flexibility to accommodate the complexities of cross-national comparisons.

The second section reviews existing methodologies for comparative research in SGPS. It examines the classifications based on legal traditions or governance models, EU Compendium’s ideal types and ESPON’s typologies, among others, and also reveal challenges, the gaps such as Eurocentrism, insufficient consideration of non-Western contexts, and difficulties in operationalizing abstract typologies, identified as opportunities for methodological refinement. These methodologies highlight differences and commonalities across national planning systems and serve as benchmarks for positioning China's SGPS

Building on this review, the third section concludes with a discussion of the framework’s application in subsequent chapters for analyzing China’s SGPS. It integrates qualitative and quantitative methods. The framework emphasizes a comparative perspective, positioning China’s SGPS within global classifications while accounting for its unique features. Particular attention is given to adapting existing frameworks to reflect China’s distinct governance structure, legal traditions, and socio-economic conditions.

By aligning theoretical rigor with practical applicability, this chapter ensures a systematic and comprehensive analysis of China's SGPS. By selecting and adapting comparative frameworks, the chapter paves the way for the in-depth evaluation presented in Chapter 4 and the broader comparative discussions in Chapter 5.

3.1 SGPSs as institutional technologies

The present contribution is aimed as an effort towards conceptualization for more fruitful observations and evaluations. In this context, Mazza proposes the notion of “institutional technology” to materialize spatial planning and planning system, operating “as a hinge between the government system […] and the spatial production and consumption system” (Mazza, 2003). Janin Rivolin adopted “the notion of ‘institutional technology’ […] to understand planning systems as specific social constructs […] and explained, as such, in its overall functioning and capacity to be renewed over time” (Janin Rivolin, 2012, p. 63), emphasizing that spatial planning systems are not “exclusively formal and unanimated structures” (Janin Rivolin, 2012, p. 70).

It is a general conceptual framework which may contribute to the dynamic understanding and analysis of spatial planning activities as the basic rationale, may “overcome a persisting (and misleading) conceptual separation between ‘planning systems’, as the configuration of formal and informal institutions (laws and rules) which guide spatial planning practice, and ‘planning cultures’, as referred to the concrete practices and mechanisms which determine the ways of planning” (Janin Rivolin, 2012, p. 64).

The planning system is regarded not merely as a technical operational instrument for managing spatial development and regulating land use, but also as a technological system that adjusts interest relations and achieves social policy goals through an institutionalized framework, instead aimed at reducing the real processes in to order, but totally welcomes “the centrality of individual choices and behaviors in social organizations” (Janin Rivolin, 2012, p. 70). The operation and efficacy of the planning system consequently depend on how it interacts with the broader institutional context. This viewpoint encompasses the functions of planning within social, political, and economic frameworks, aiming to comprehend and study the operation of various planning systems within the ‘evolutionary explanations’ through the interaction of four analytical dimensions: Practices, Discourse, Structure and Tools:

- **Practice (P)** - In an institutional context, the variety of interactive practices generated from the social experience of planning and control activities in the local implementation of spatial development, including public and private initiatives, various activities planning, project and control and their relationships.

- **Discourse (D)** - Development of the political, technical, and common knowledge "occurs through a competitive and iterative discourse" concerning the formal and informal assessment of the specific and overall outcomes of the territorial governance within the institutional context (Janin Rivolin, 2012, p. 71).
- **Structure (S)** – The complex of constitutional and legal provisions aimed at territorial governance, whose substantial and/or procedural changes are inspired by certain ideas, concepts, and arguments that are commonly shared or accepted.
- **Tools (T)** - All devices for planning and control adopted "to achieve the propagation and some persistence of the solution (the system of rules) selected", their systematic application "becomes the operational framework of practice" (Janin Rivolin, 2012, p. 71).

Janin Rivolin illustrates the adaptability of planning systems and its evolution throughout many periods and situations by detailing the alterations in these analytical dimensions within the dynamic social, political, and technological milieu. The evolutionary process (Figure 3.1) commences with practice, wherein the institutional technology operation interacts "locally in an indefinable number of very specific

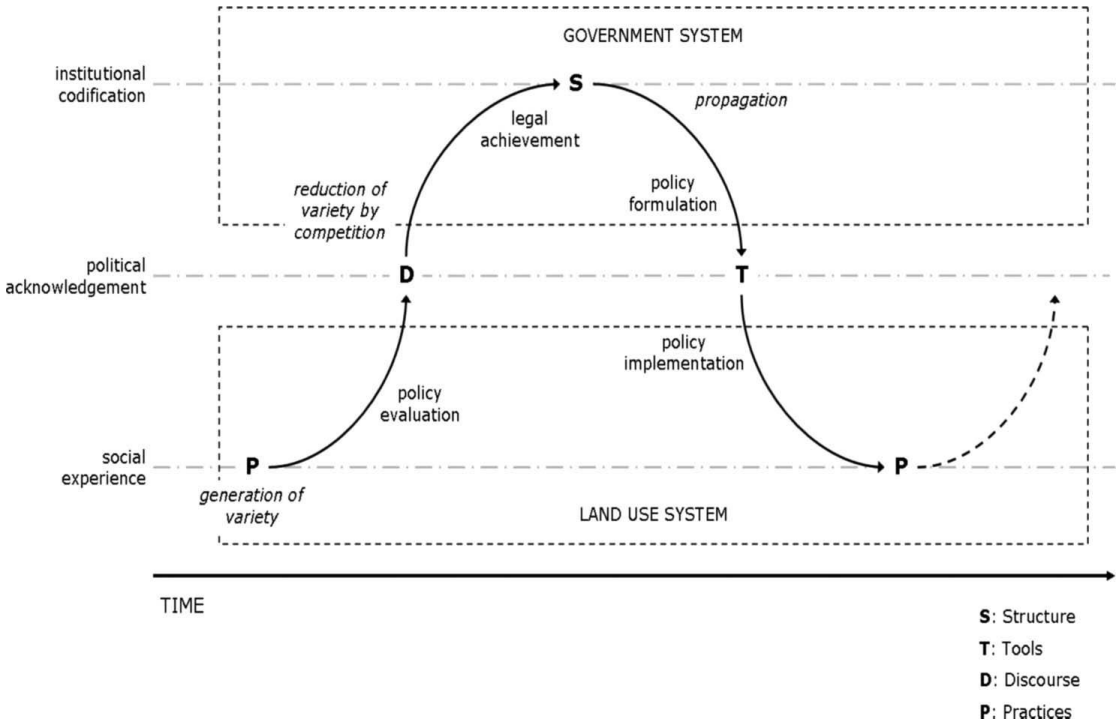


Figure 3.1 *Simplified pattern of planning system evolution (Source: Janin Rivolin, 2012 p. 70)*

'institutional milieus'" (Janin Rivolin, 2012, p. 71), " continuously and variously challenged and stimulated by other public and private design technologies, pertaining to the land use system"(Janin Rivolin, 2012, p. 70), obtaining continuous momentum for evolution by continuously varying periods, levels and disparate kinds of needs, interests and aims highlighted by local-level practices. Subsequent debates and summaries detailing the social, political, and technological issues associated to planning will eventually lead to various ideas, concepts and arguments becoming active to varying degrees within "knowledge arenas", where professionals, interdisciplinary elites, lobbies play main roles. The dominant mainstream ideas will directly influence the validity, social acceptance, and policy choices of planning goals and decisions. The eventual mainstream view will directly affect the validity of planning goals and decisions, social acceptance, and policy choices within the institutional context. When political recognition or general consensus is achieved, they ultimately integrate into the structure, manifesting as "substantive and procedural principles, administrative organization, vertical and horizontal relationships, the legitimacy of planning and control activities" (Source: Mezza, Cotella, 2020 pp.22), "constitutes the overall set of constitutional and legal provisions allowing and ruling the operation of the planning system. These regulate the legitimate share of the government system intervention on the land use system, and confer legitimacy to certain combinations of planning and control activities, attributed to the planning system in order to assign individual rights for land use" (Janin Rivolin, 2012, p. 71). To provide extensive propagation opportunities, operational environments and some persistence for the practice of the chosen direction of reform in the planning system, tools become "a sort of 'descending phase' in the cycle" (Janin Rivolin, 2012, p. 71), including various types of plans and programmes, packaging of policies, forms of incentive and prohibition, monitoring, and evaluation procedures and so on.

"A planning system is led, like any technology, to renovate its capacities in face of change", as essentially an evolutionary accumulation of the knowledge/wisdom, a distillation wisdom and experience of several generations (Janin Rivolin, 2012, p. 72), and will initiate a new distillation cycle when faced with persistent issues of spatial organization. Hiding the temporal function, the "Diachronic Prospect" transforms into the " Synchronic Prospect", which may serve as a simplified model for comprehending the dynamic interrelations occurring between different analytical dimensions and with the government system and the land use system (Figure 3.2). It is additionally enhanced with super-contextual variables to correspond with the

actual complexity more accurately. All factors work together to finally output the aims and behaviors of the land use system, namely "concrete acts of physical development or preservation affecting the land use system" (Janin Rivolin, 2012, p. 73).

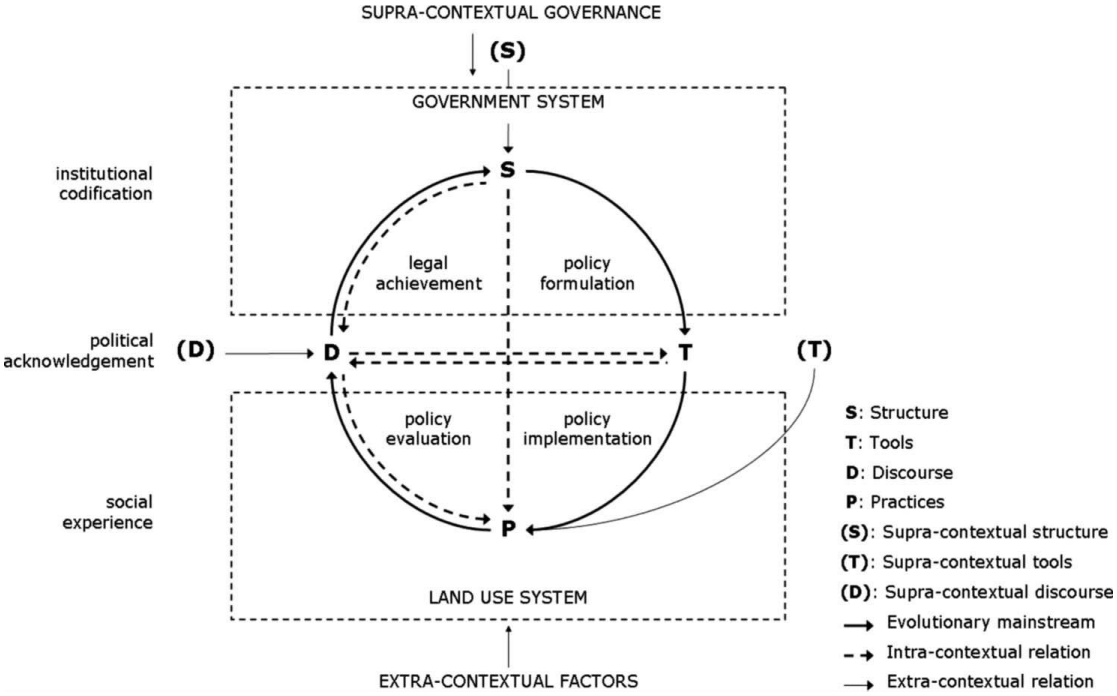


Figure 3.2 *Simplified model of planning system operation*
(Source: Janin Rivolin, 2012 p. 73)

In this light, three models of SGPSs institutional technology based on institutional technology are as follows (Figure 3.3):

- **Conformative model**: the public space strategy is transposed into a plan for the “preventive” binding zoning of a comprehensive urban area, which at the same time finish the allocation of land use and spatial development rights. Indirectly regulate the delivery of building permits by assessing the conformity of proposed development projects (whether they “conform” to the collective strategies. Any confirmed necessary optimizations or modifications indicate an update to the binding plan, as well as a reallocation of land use and spatial development rights.
- **Performative model:** It “pivots on indicative and nonbinding zoning for the comprehensive urban area” (Berisha et al., 2021, p. 184), which not have corresponding juridical implications. For this reason, land use and spatial development rights are allocated based on the negotiation of proposed

development projects and the delivery of building permits, which are regulated to ensure their capacity to perform public strategy.

- **Neo-performative model**: Plan, in this model as the final summary form and substance of the collection, control and negotiation of projects initiated by public spatial strategy, serves as the "final balance" for the redistribution of spatial development rights in previously controlled and approved development projects by public authorities, it has therefore assumed the force of law. Building permits are provided according to the binding plan (Berisha et al., 2021).

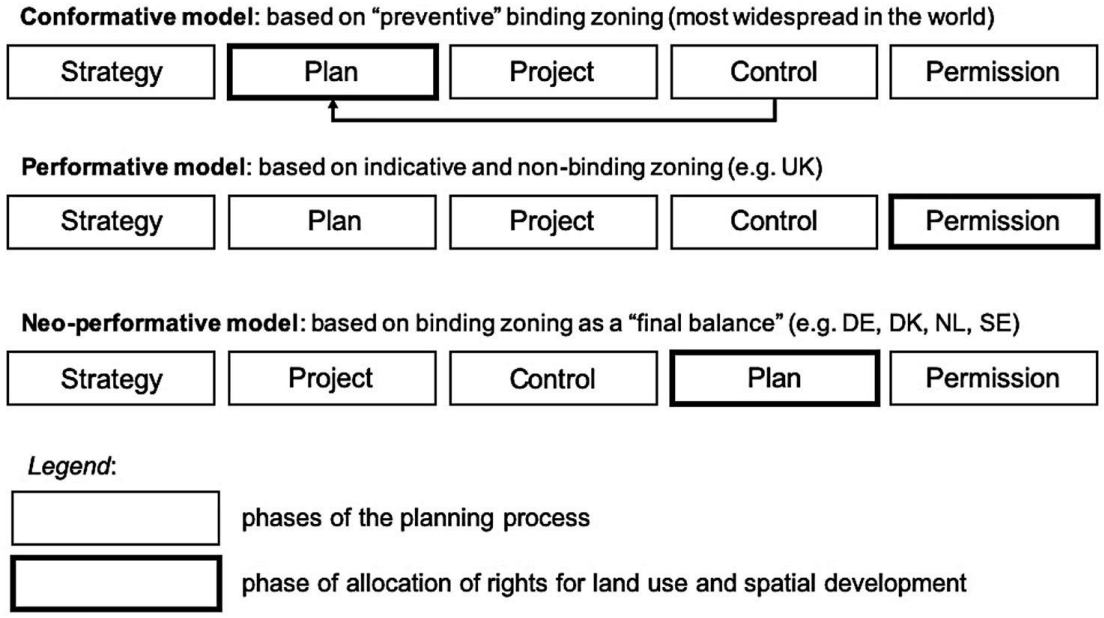


Figure 3.3 *Three models of SGPSs as institutional technologies (Source: Berisha et al., 2021, p. 184)*

Janin Rivolin believes that the planning system, as an institutional technology, is not limited to the regulation of land use or physical space, but rather channels social and political intentions into specific spatial strategies and practices through the operation of institutional forces. His pattern of planning system evolution provides "comparative research with commonly acceptable and usable concepts and terminology, allowing 'thick descriptions' of planning systems" (Janin Rivolin, 2012, p. 78), demonstrating that the efficiency of a planning system depends not only on the technicalities of the tools but also on the interaction and balance between structure, discourse, and practice. A successful planning system, "as the 'distillate' of various concatenated cycles of institutionalization" (Janin Rivolin, 2012, p. 75), entails

coordinating these four dimensions within a complex social and political context to ensure that the planning objectives may be properly implemented.

The planning system evolution models a systematic framework for further examining the dynamics, adaptability, resilience, and evolution patterns of planning systems. “The analytical framework coherently derived may have the value of a rough conceptual instrument”(Janin Rivolin, 2012, p. 78), “seems to meet current critiques on traditional comparative studies” (Janin Rivolin, 2012, p. 76). By integrating the planning cultures and governance structures of diverse regions, it can assist with evaluating and inspire current comparative studies of planning systems, thereby making them more flexible to the complex global comparative and evaluative studies of planning systems.

3.2 Current comparative studies

3.2.1 Classification by juridical families / social models

“Spatial planning systems are deeply embedded in their socio-economic, political and cultural context” (Nadin & Stead, 2008, p. 35). The social models as an effective tool for “a synthesis of the real complex mixture of observable phenomena” (Nadin & Stead, 2008, p. 39), has “a strong correspondence in the application of social models and models of planning to particular countries” (Nadin & Stead, 2008, p. 36). Consequently, the discourse on the classifications of spatial planning systems, informed by the typology of social models of planning operations, is one of the main effective approaches evident in classifying spatial planning systems.

The distinction made by Davies et al. between the continental and England planning systems (Figure 3.4) extends to the distinction between the legal systems in continental Europe based on the Napoleonic or Scandinavian legal systems and the English legal system based on common law (Nadin & Stead, 2008).

- **Continental System (Civil Law / Napoleonic Codes)**: Originating from the Napoleonic tradition, it emphasizes the importance of comprehensive and highly codified statutes formulated by government. It values normativity and consistency, adopting a "prescriptive" paradigm that rigorously regulates land use and development through the preceding establishment of comprehensive statutory plans. This system prioritizes public interest, with a significant role for the state.
- **English system (Common Law)**: Founded on Common Law judicial precedent, providing local governments with considerable autonomy and

decision-making latitude. Spatial planning frequently utilizes "guiding" rules that prioritize discretion and private interests, facilitating case-by-case decision-making to accommodate diverse demands and permitting more adaptable implementation strategies.

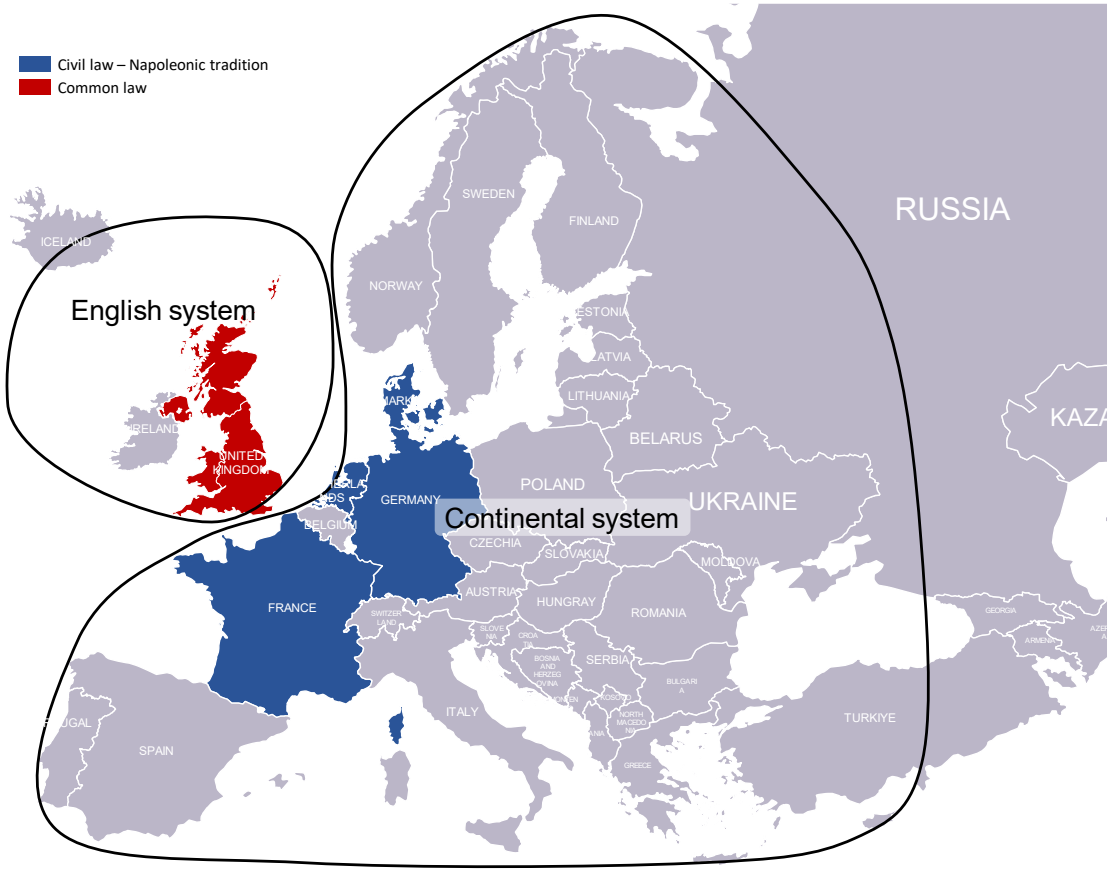


Figure 3.4 *Ideal types and classification of planning systems by social models (Source: adapted from Davies & Herbert, 1993)*

The main difference between the continental and English system is that the former assures the coherence of laws and plans through codified statutes, while the latter promotes flexible policy adaptation. In the continental system, planning decisions are implemented by local authorities within the centralization and structuring of legislation and administration under strict legislative frameworks (Cullingworth & Nadin, 2006), which lead the centralized formulation and execution of planning to ensure the consistency and coordination of spatial development (Davies & Herbert, 1993). The English common law system, however, grants local governments great autonomy to interpret and adapt policies (Booth, 1996), emphasizing the accumulation and flexible application of cases, making policies more adaptable. The legal system has larger supervisory roles in the implementation

of spatial planning, "providing a more flexible but less centralized planning framework" (Davies & Herbert, 1993, p. 150). The comparison between these two systems reveals the differences in spatial planning at the institutional and implementation levels, providing fundamental insights for theoretical research on spatial governance.

Newman and Thornley then refined the classification of spatial planning systems (Figure 3.5) drawing on the five European legal families and demonstrated their distinctions. These diversified systems reflect various planning cultures and implementation approaches and also reveal the unique understanding of spatial governance in different countries within their social, economic, and political contexts.

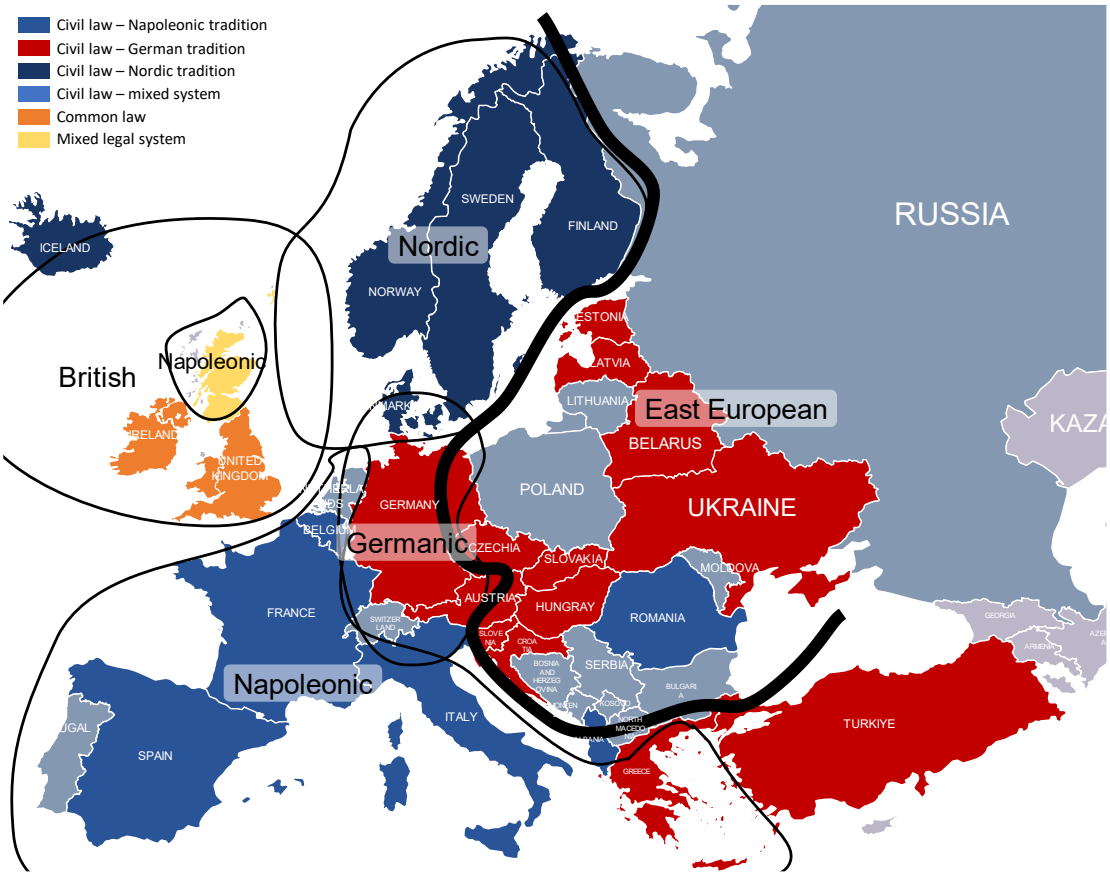


Figure 3.5 *The legal and administrative 'families' of Europe*
(Source: adapted from Newman & Thornley, 2002b; Nadin & Stead, 2008)

- **Germanic**: Based on codified laws and regulations, it underscores the strictness and transparency of the legal system, under which the spatial planning system emphasizes on structure and consistency in planning. Planning regulations are usually organized in a hierarchical manner (federal, state, and local) and place a strong focus on the common goal of social welfare. This system stresses public engagement, making the spatial

planning process transparent and socially inclusive (Newman & Thornley, 2002).

- **Nordic**: The Nordic system is oriented around cooperation and consultation, with a relatively flexible spatial planning system that promotes sustainability and social equity (Newman & Thornley, 2002, p. 93). The planning systems under the Nordic system primarily focus public welfare and local autonomy, providing local governments extensive autonomy in the design and execution of plans, and actively fostering public engagement and stakeholder collaboration.
- **Napoleonic**: Based on the Napoleonic Code, it stresses centralized control and authority by the state. Planning laws are generally driven by the state, with local governments adopting plans under the leadership of the central government. Spatial planning under this system is usually rigorously managed through codified regulations to maintain congruence between local and national development goals.
- **British**: Based on common law, its spatial planning system is characterized by flexibility and policy orientation, focusing on guiding policies rather than rigorous laws. Local governments have substantial discretion to conduct spatial planning according to policy guideline documents, with particular emphasis on community participation and public consultation processes.
- **East European**: It is defined by collectivism and state domination, historically greatly influenced by the planned economic system of the Soviet Union. Spatial planning features high centralization and state intervention, emphasizing the achievement of national development goals. However, in recent years, it has steadily shifted towards a market-oriented planning paradigm, with the planning system focusing increased emphasis on economic development and market efficiency.

“Distinct differences among the five planning systems lie in their approach to centralization, legal basis, and level of public involvement” (Newman & Thornley, 2002, p. 120). The Napoleonic and the East European system differ from the decentralized local autonomy of the British and Nordic systems, tending towards centralized governance and emphasizing the executive nature of local authorities. However, this characteristic has considerably reduced in the East European system with the growing implementation of market mechanisms. The Germanic system's centralization, on the other hand, highlights the structural aspect of layered governance. Unlike the central authority of the Napoleonic and the East European

system, which are also based on statute law, the centralized control of the Germanic system is manifested in its highly transparent social inclusivity, while the Nordic system, supplemented by case law, emphasizes local autonomy. The Nordic and the Germanic system have the highest level of public involvement, whereas the East European system has considerably less. The Napoleonic and the East European system historically valued public involvement less, but there have been improvements in recent years.

This comparative approach employing a single contextual variable can intuitively and rapidly help people grasp and recognize different spatial planning systems, but it still posed various limitations. Due to its overemphasis “on the effect of variation in legal styles and administrative structures", “identifying the nature and operation of planning mainly as a product of governmental and legal provisions […] influenced by professional traditions” (Janin Rivolin, 2012, p. 65), it will possibly become ineffective in broader comparative research applications. For example, situations that have already been proved to exist, planning applications that are radically different under similar government structures and legal frameworks, or planning systems that operate in similar ways emerge under quite different formal government and legal arrangements. This demands future comparison studies to examine more thorough contextual variables and analytical evaluation approaches.

3.2.2 Ideal types and classifications by the EU Compendium

The expansion of the EU and increased interactions among member states have resulted in mutual dependency on cross-border environmental issues, including water resources and air quality, as well as transnational infrastructure development, such as transportation networks. Nonetheless, considerable disparities among member states in spatial planning, environmental governance, and regional economic development present coordination issues.

The EU Compendium of Spatial Planning Systems and Policies (CEC, 1997) was initiated in response to the growing desire for EU integration and policy coordination across member states. Adopting another one of the two main approaches in classifying spatial planning systems stated by Nadin and Stead (2008), it applied a wider set of criteria, “a more complex and sophisticated approach in order to position European (EU15) planning systems” (Janin Rivolin, 2012, p. 65), in which the legal family context still serves as one of the variables to help distinguish planning systems together with six other relevant variables (as blow), and produced a similar set of ideal types. The “Interrelated factors” that concur to shape the system:

1. Scope of the system

2. Extent and type of planning at national and regional levels
3. Locus of power
4. Relative roles of public and private sectors
5. Constitutional provisions and administrative traditions
6. Maturity or completeness of the system
7. Distance between expressed objectives and outcomes

This leads to an overemphasis on structure in the evaluation of planning systems in comparative studies, with minor attention devoted to tools and practices, and even a direct absence of analysis from a discursive dimension, and there are issues of mixing individual content and overlapping multiple content to some extent (Table 3.1).

EU compendium's variables		***Responding to a descriptive purpose: related analytical dimensions***	***Responding to an evaluative purpose: related criteria***
1.	Scope of the system	Structure	
2.	Extent and type of planning at national and regional levels	Structure, tools	
3.	Locus of power	Structure	
4.	Relative roles of public and private sectors	Structure, practices	
5.	Constitutional provisions and administrative traditions	Structure	
6.	Maturity or completeness of the system		Relevance, efficiency, sustainability
7.	Distance between expressed objectives and outcomes		Effectiveness

Table 3.1 *Consistency of the EU Compendium's variables respectively to analytical dimensions and evaluation criteria*
(Source: Janin Rivolin, 2012 p. 80)

However, this cohesive policy framework aimed at comprehensive comparative analysis is enlightening. It is still crucial for understanding the spatial planning systems of member states, establishing a unified market, improving the connectivity of the internal market, migrating uneven development resulting from policy fragmentation, and furthering the common objectives of member states in economic, social, and environmental domains. In particular, the identification of four "ideal types" of planning system traditions existing in Europe (Figure 3.6), "representing as much approximate reference frameworks to guide the understanding of (European) planning systems" (Janin Rivolin, 2012, p. 65).

Figure 3.6 *Four ideal types of spatial planning*
(Source: Cotella, 2020, ppt. 11; CEC, 1997)

- **Regional Economic**: This sort of planning system strives to promote balanced economic development as its fundamental purpose, typically operating at the national or regional level, with a focus on strategic economic planning and resource allocation. By combining spatial planning and economic policy, the regional economic system is dedicated to employing economic instruments and incentives to drive development, decrease regional development imbalances, and increase regional competitiveness, economic growth, and employment opportunities.
- **Comprehensive-Integrated**: The integrated planning system prioritizes

comprehensive, strategic, and coordinated approaches. Typically, it is directed by the central government and integrates spatial development goals across diverse sectors through a systematic policy framework. Spatial planning encompasses not only land use management but also transportation, infrastructure, environmental conservation, and social services, with the objective of balancing economic development, environmental conservation, and social demands, while extensively adopting participatory planning approaches.

- **Land-Use Management**: The land-use management model focuses on detailed legal and regulatory specifications for land use, with the fundamental purpose of restricting and regulating land development to ensure rational spatial distribution and sustainable development. This type of planning system typically relies on local authorities' permission for individual land-use projects by legislative and administrative mechanisms, with the purpose of minimizing unreasonable spatial development and resource waste through planning procedures to ensure that land development corresponds with specified policy objectives.
- **Urbanism**: The urbanism model primarily focuses on the design and development of urban spaces, including the aesthetics of the built environment and public spaces, the enhancement of urban environmental quality, and the effective distribution of urban functions. This system is significantly influenced by architecture and urban design, with urban development and administration at its core. It emphasizes the planning of physical spaces and the improvement of visual effects and urban environmental quality, highlighting high density and mixed-use urban design to ensure the orderly development of urban spaces and the logical allocation of resources.

The essential differences between the four ideal types of spatial governance and planning systems lie in their planning objectives, governance authorities, and spatial control tools. These research outcomes offer theoretical support for the EU to create more inclusive, coordinated, and adaptable spatial planning strategies. "This new classification, although more detailed, has somehow made the original focus on the effectiveness of public control more nuanced" (Berisha et al., 2021, p. 182)."Apart from final outcomes and possible misunderstandings, the EU Compendium had the merit of posing the need for a wider notion of planning system, coming from a different view of its institutional substance" (Janin Rivolin, 2012, p. 65)

3.2.3 ESPON project 2.3.3

With the gradual incorporation of new member states, the numerous rounds of enlargement of the EU with greater complexity made the resultant diversity impossible to ignore. The constraints of the four ideal types identified by the EU Compendium are therefore increasingly evident, which are manifested in the overemphasis on structure by interrelated factors on the one hand, and in the restriction of the state to a one-to-one correspondence model with the types on the other hand, ignoring the local evolution of spatial governance in practice.

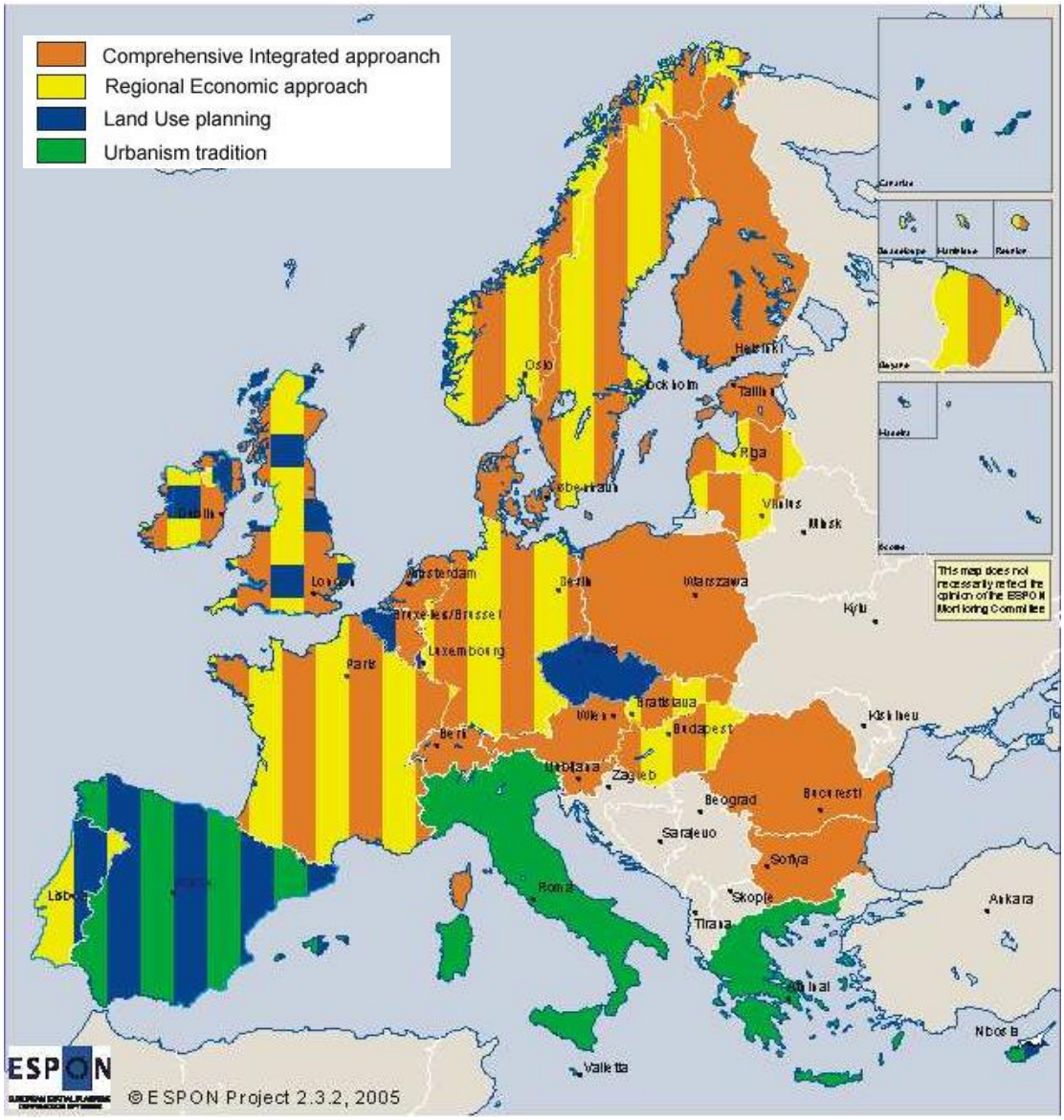


Figure 3.7 *Movement within the EU 15 between the Styles of spatial planning and characterization of New Member States*
(Source: ESPON, 2007, p. 40)

The planning systems of each member states are progressively perceived not as a static and permanent “photograph” (ESPON, 2007, p. 31) of structure but as dynamic processes that borrow and mix elements from the other styles of spatial planning (Figure 3.7). The assessment and comparison study methodologies of spatial governance and planning systems need to be updated in the light of a dynamic view that considers territorial governance as the process of territorial organization of the multiplicity of relations, to enable more effective cross-border cooperation and regional development policies.

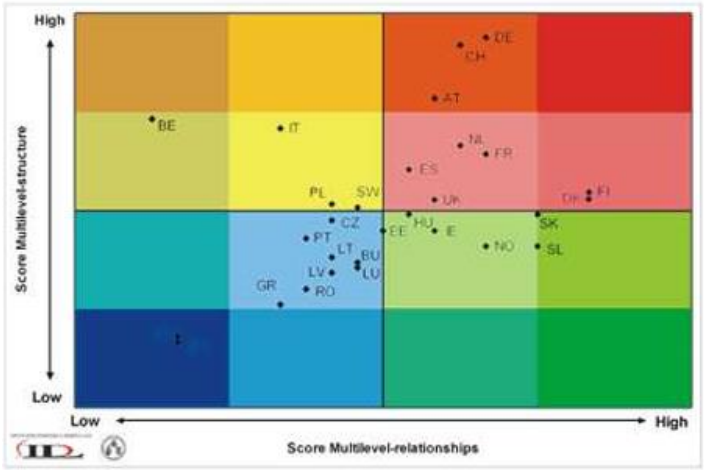
ESPON Project 2.3.2 “Governance of Territorial and Urban Policies from EU to Local Level” was launched in 2004 in this context to update and deepen the understanding of spatial governance and planning systems in European countries, responding to policymakers' needs for more refined and dynamic analysis. As a pioneering project, ESPON 2.3.2 aims “to exactly define relations between territorial governance and territorial cohesion” (ESPON, 2007, p. 47). The two principal contributions are, firstly, recognizing the influence of EU policies down to the local level; secondly, it incorporates a multi-level governance perspective, understanding territorial governance in a more complex and interesting way, combining “ambitious objectives with limited resources and a scarcity of directly related data and indicators” (ESPON, 2007, p. 48).

		Type of Analysis	
		Qualitative	**Quantitative**
Type of Data	**Qualitative**	Methods: Interpretation and thematic coding ↑ National Overviews + Case studies Reports	✧ Statistical analysis of text frequencies; ‘yes-not’ ✧ Scoring (-1/0/1)
	Quantitative	Method: interpretation of statistical results ↑ Data Collection in Case Studies	Existing ‘proxy’ indicators Method: ↓ Standard statistics (e.g. regression)

Table 3.2 *Combining Qualitative / Quantitative methods & data*
(Source: ESPON, 2007 p. 49)

All this qualitative information, from NO and CS, was described by each of the research teams according to guidelines and structure specifically designed in accordance with the Terms or Reference document, exploited and organized on the premise of the "numeric approach" in systematized semi-closed tables with “yes/not” test or limited alternatives for answers (ESPON, 2007, p. 49), thereby transforming and combining it with quantitative indicators, and try to find States classification criteria in accordance with this information. The analytical matrix serves as basis for the elaboration of guidelines, providing a systematic approach to the qualitative observations of governance practices and processes analyses. The selected relevant indicators assist define multi-level relations, as well as quantifies vertical (between levels with competences in spatial planning) and the horizontal (between policies with territorial impact) relations at work (ESPON, 2007), producing maps representing the performance of the countries for the multilevel structure and multilevel relationships (Figure 3.8), as well as in for horizontal and vertical dimensions of territorial governance (Figure 3.9). The important conclusions are as follows:

> *“From the arithmetic mean the graphic has been divided into four groups, which are also divided into other four sub-groups. The red group involves the countries with a high score, both on multi-level structure and relationships. In the yellow group the countries with a relatively good multi-level structure but less good relationship mechanisms, tools and attitudes are clustered. On the opposite side there are the countries in the green group, with a weak developed multi-level structure, but a well-established understanding between the different levels. Finally, the blue group gathers the countries which still have undeveloped multi-level structures and relationships” (ESPON, 2007, pp. 34–35).*
>
> *“Changes in the vertical/multi-level dimension of territorial governance have evolved much more than those related to the horizontal dimension” (ESPON, 2007, p. 15)*



Indicators of multi-level structure
- Typology of Regionalization.
- Constitutional guarantee of local and/or regional levels.
- Allocation of spatial planning powers.
- New spatial planning powers at supra-local / sub-regional level.
- Existence of Constitutional regions and National Territorial Chambers or Senates.
- Regular multi-level governmental meetings.
- Local financial dependence on central government.
- Devolution to 1 tier local authorities

Indicators of multi-level relationship:
Indicators were grouped in 3 categories.
- Forms of cooperation between agencies, departments and authorities.
- Approaches for vertical cooperation and coordination.
- Integrated Spatial Planning.

Figure 3.8 *Performance of the countries for the multilevel structure and relationships (Source: ESPON, 2007 p. 36)*

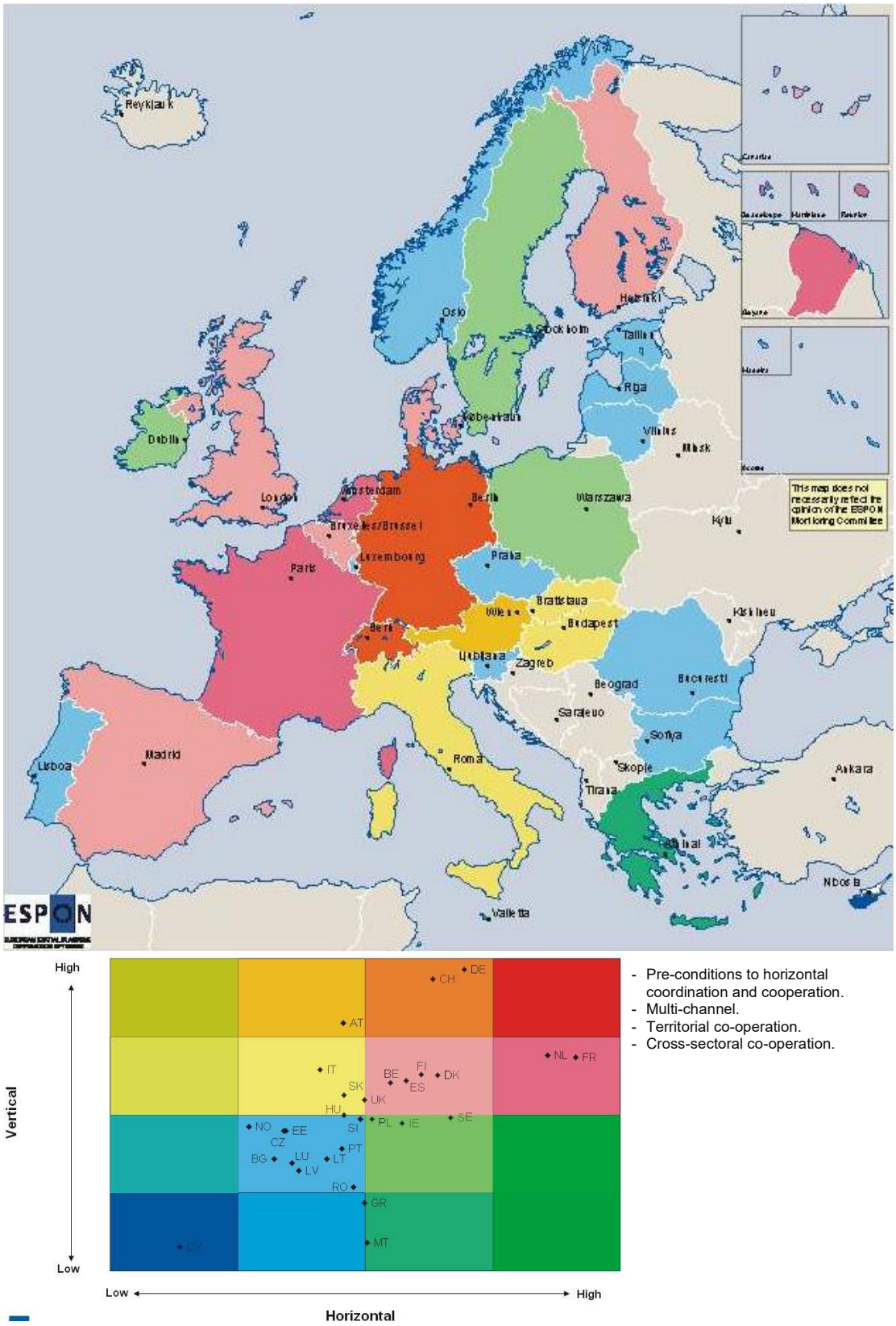


Figure 3.9 *Performance of the countries for horizontal and vertical dimensions of territorial governance*

(Source: ESPON, 2007 p. 37)

ESPON Project 2.3.2 provides a systematic strategy to bringing the study of spatial governance and planning systems into the research on the interaction between policy layers and strategies for integrated territorial management. The specific analytical matrix transforms this complex dynamic understanding into a relatively feasible comparison of territorial governance practices across European regions(Table 3.3), while also allowing people to break through cognitive limitations and realize that "despite the progressive mix in styles of planning, the map of types of spatial planning practices is diverse both between countries and inside each State" (ESPON, 2007, p. 15).

Davies et al. (1989)*		Common law England		Napoleonic codes DK, DE, FR NL		
Newman and Thornley (1996)	Nordic DK, N, SE	British IE, UK	Germanic AT, DE	Napoleonic BE, FR, IT, LU, NL, PT, KS		East European
CEC (1997)**	Comprehensive integrated AT, DK, FI, DE, NL, SE	Land use regulation IE, UK (and BE)		Regional economic FR, PT (and DE)	Urbanism GR, IT, ES (and PT)	
Farino´s Dasi (2007)***	Comprehensive integrated AT, DK, FI, NL, SE, DE (and BE, FR, IE, LU, UK), BG, EE, HU, LV, LT PL, RO, SL, SV	Land use regulation BE, IE, LU, UK (and PT, ES), CY, CZ, MT		Regional economic FR, DE, PT (and IE, SE, UK), HU, LV, LT, SK	Urbanism GR, IT, ES, CY, MT	

*Davies et al. (1989) do not give a specific name to the two groups but contrast England and other systems based on their legal frameworks.

**The EU Compendium identifies 'ideal types of planning traditions. Each country may exhibit combinations of ideal types in different degrees. The ideal types are dominant in the countries indicated here.

***The ESPON project took the EU Compendium traditions as a starting point and examined how countries, including the transition states of central and eastern Europe, were moving between them.

***Table 3.3** Planning system typologies*
(Source: Nadin & Stead, 2008 p. 37)

Nevertheless, the researchers are also fully aware of the limitations of ESPON Project 2.3.2, stemming from the lack of clear theoretical foundations, especially in terms of quantitative methodologies, as well as the selection and application of data and indicators, which could lead to less developed, or concrete results. But from another perspective, it also supplies a vast database for further comparative studies, therefore enabling for further extension of the open findings of the ESPON Project 2.3.2.

3.2.4 ESPON COMPASS

The development of EU sectoral policies has resulted in several instances when the synergy between planning at national, sub-national and local levels and EU policies strengthens the combined impact; nonetheless, there is certainly not mature theoretical study and comprehensive international comparison about this phenomenon. The necessity for a broader "spatial planning approach" has emerged to enhance the coordination of European spatial planning systems and policies while responding to rapidly changing socio-economic and environmental challenges.

In this context, Comparative Analysis of Territorial Governance and Spatial Planning Systems in Europe (COMPASS), as an ESPON Applied Research Project, firstly affirmed the value in “updating knowledge of spatial planning systems and territorial governance and widening the analysis to more countries” (COMPASS, 2018, p. vii), intending to stimulate research on the evolution of European spatial governance and planning systems in Europe, and to develop comprehensive international comparison extending to 32 European countries (the 28 EU member states plus four ESPON partner countries).

COMPASS exercises considerable caution in project research design, with the lessons from the lengthy review of prior comparative studies of spatial planning, refining each aspect of the comparative process from consensus conceptual definition and comprehension to the quality control of the final conclusions. The researchers have, for the first time, recognized the importance of understanding the same complexity and diversity of terminology, thoroughly addressing the misunderstandings that may stem from potential biases, rather than presuming uniform definitions and substances. Referring “to national and regional social models (socio-economic, political and cultural systems)” of the places under study (COMPASS, 2018, p. 5), the exploration of the foundational and potential meanings of key terms in each country helps to “foster consistency in the use of generic terms” (COMPASS, 2018, p. 6). Building “a clear and consistent methodological/conceptual framework” to assure meaningful comparisons, which is a huge advance for comparative research (COMPASS, 2018, p. 5). Thus, COMPASS’ working definitions are (COMPASS, 2018, p. 8)

> *Territorial governance comprises the institutions that assist in active cooperation across government, market and civil society actors to coordinate decision-making and actions that have an impact on the quality of places and their development.*
>
> *Spatial planning systems are the ensemble of institutions that are used to*

mediate competition over the use of land and property, to allocate rights of development, to regulate change and to promote preferred spatial and urban form.

In addition to a snapshot of systems (the diachronic method), researchers are also increasingly aware that identifying trends, performance evaluation and studying the interplay of actors and networks in micro-practice are more vital for the fluid, multi-scalar and iterative operation of planning systems (COMPASS, 2018). Unlike the static descriptions provided by the EU Compendium, ESPON COMPASS adopts a dynamic and evolutionary approach, conceptualizing spatial planning "as an 'institutional technology' comprising structure, tools, discourse and practices" (COMPASS, 2018, p. 6). It may assess the adaptability and innovation within spatial governance systems of various countries in responding to emerging challenges.

The design of the research, the methods for comparison and the data collection are also significant challenges of COMPASS. The research design involved primarily collection of data from the 32 countries through questionnaires (on the structure and changes in territorial governance and spatial planning systems) and five in-depth (exploration of the reality of the operation and performance of the system) case studies (COMPASS, 2018, p. vii), with explicit, written guidance to country experts on the meaning of various terms used in the project. Throughout the whole project, quality control validates the consistency and coherence of objectives and conceptual consensus, to ensure conditions for meaningful comparisons. "Initial investigations have also been made of the feasibility of adding further countries to the study" (COMPASS, 2018, p. vii).

The COMPASS project concluded that "systems of spatial planning and territorial governance in Europe are well established and maintained" (COMPASS, 2018, p. 76), with trends of decentralized of competences for planning, cooperation across administrative boundaries, community and citizen participation, and increasingly demand for "more strategic and joined-up approaches for policy making for spatial development" (COMPASS, 2018, p. 77). However, the cohesion policy's role in promoting the implementation of spatial planning policy is not inevitable, while EU-funded projects have a significant impact on physical development especially in particular countries. Mainstream spatial planning instruments and their policies focus are not on aligning with Cohesion Policy and other (EU) sectoral policies, but rather come into play mostly in the regulation stage, resulting in insufficient expected added value of the cohesion policy (COMPASS, 2018, p. 76). Therefore, the EU discourse unexpectedly did not have the desired impact on domestic mainstream spatial

planning and territorial governance. In response to these conclusions, policy recommendations are proposed from the perspective of multi-level governance to empower territorial governance and spatial planning, and further research needs are raised from nine dimensions.

The research findings of ESPON COMPASS have provided a wide range of interesting results and inspiration for subsequent international comparative studies, including the introduction of more flexible analytical frameworks, focusing on the implementation effects of spatial planning policies, and exploring a broader range of social, economic, and environmental indicators. Furthermore, the project also calls for greater attention to the role of local community participation and innovation in spatial governance, emphasizing the necessity to understand and assess the spatial planning system from multiple perspectives.

3.2.5 European typologies build on the materials of ESPON COMPASS

Berisha et al. characterize the SGPS as a "political process through which the state (usually through local governments) allocates spatial development rights" and " the technical function that serves this process", which is the "institutional technology" through which "the public authority to guide and control the transformation of the physical space in respect of property rights" (Berisha et al., 2021, p. 181). The property market behaviors as anomaly, exemplifies the constraint of the legal family distinction hypothesis. The "simple comparison between the legal and administrative structures of SGPSs ended up leaving in the shadows the true variety of planning practices and, above all, their socioeconomic outcomes" (Berisha et al., 2021, p. 183). Therefore, Berisha et al. believe that focusing on the spatial practices of "institutional technology" is more efficient than making overall comparisons of complex system structures. Because regardless of how complex the vertical and horizontal relations within the system are, the act of physical development (i.e., the specific methods of assigning the rights to use and transform the physical space) as the final output of this process can better distinguish various types of SGPSs.

As mentioned in the ESPON COMPASS research project, it is open to new comparative observations and general findings based on the raw material with which the project was developed. Berisha et al. thoroughly analyzed part of the collected data, proposing a typological classification of European SGPSs of 39 countries (28 EU and 11 non-EU) from the perspective of capacity for public control of spatial development, " in relation to the mechanisms to allocate land use and spatial development rights as well as to the prevalence of the state vs. the market in guiding the development decisions" (Berisha et al., 2021, p. 181).

Within the framework of this research, Berisha er al. designed ten research purpose-oriented questions, analyzed the corresponding answers provided by national experts from each research target country (Table 3.4 and Table 3.5), so that "the SGPSs could therefore be grouped and scored according to four progressive degrees of relevance between the ideal conformative and performative planning models" (Berisha et al., 2021, p. 186).

X Score	Description
0	Ideal conformative model (general binding plans decide any detailed transformation)
1	The public authority tends to allocate land use and development rights through general binding plans
2	The public authority allocates land use and development rights through binding general plans, but devices that allow to modify plans (e.g. variants) are recurring
3	The public authority allocates land use rights through general plans, and spatial development rights through detailed binding plans
4	The public authority tends to allocate land use and development rights case-by-case
5	Ideal performative model (plans are non-binding and transformations are decided case-by-case)

Table 3.4 *Scores attributed to SGPSs according to respective positions between conformative / performative models of planning*
(Source: Berisha et al., 2021a, p. 187)

Y Score	Description
3	Ideal state-led spatial development
2,5	
2	Spatial development is mainly driven by the state
1,5	
1	Spatial development is driven by the state and the market, with a prevalence of the former
0,5	
0	Ideal balance between state and market
-0,5	
-1	Spatial development is driven by the state and the market, with a prevalence of the latter
-1,5	
-2	Spatial development is mainly driven by the market
-2,5	
-3	Ideal market-led spatial development

Table 3.5 *Scores attributed to SGPSs according to respective positions between state-led / market-led models of spatial development*
(Source: Berisha et al., 2021a, p. 187)

The minimum and maximum scores of X (0 to 5) correspond to the extreme ideal types of the conformative and performative models of spatial governance and planning; Y (-3 to 3) "centered around three ideal benchmarks […] the ideal state-led model of spatial development […] (3); the ideal market-led model of spatial development […] (−3) and the ideal balance between state and market (0)" (Berisha et al., 2021, p. 188).

Based on the position of the 39 systems in the X-Y diagram and the summary analysis of the capacity for public control of spatial development, five types of SGPSs have been identified, which can be exhibited in the form of clusters (Figure 3.10) with close characteristics and show how the various types of SGPSs are mapped on the European continent (Figure 3.11).

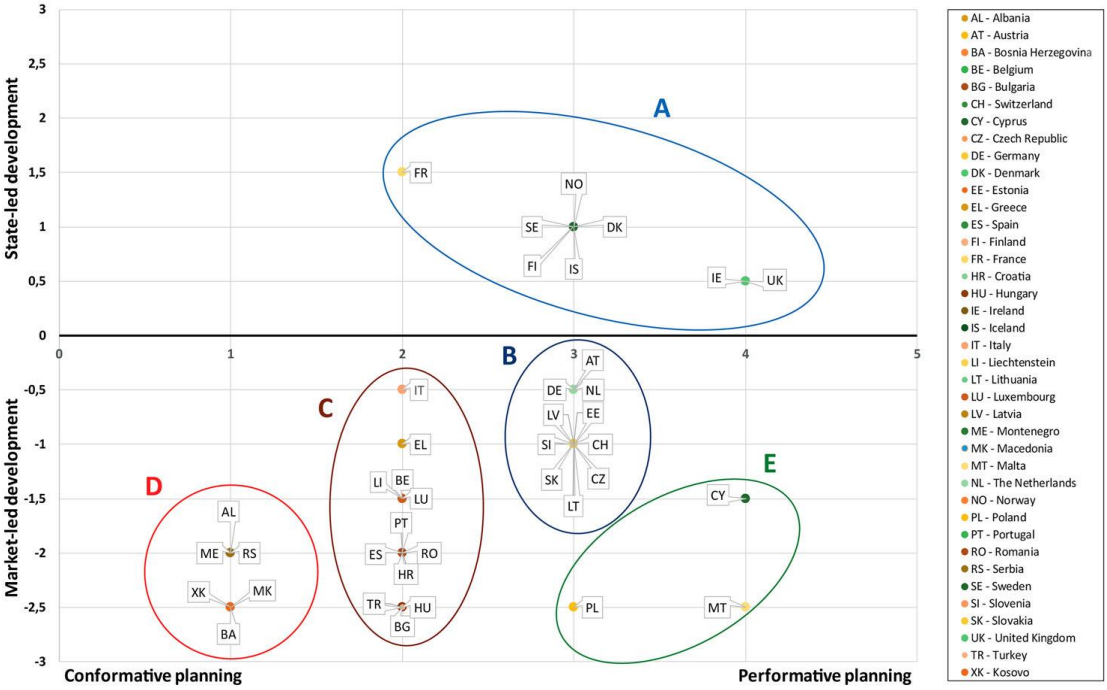


Figure 3.10 *Typology of European SGPSs with respect to the capacity for public control of spatial development*
(Source: Berisha et al., 2021, p. 192)

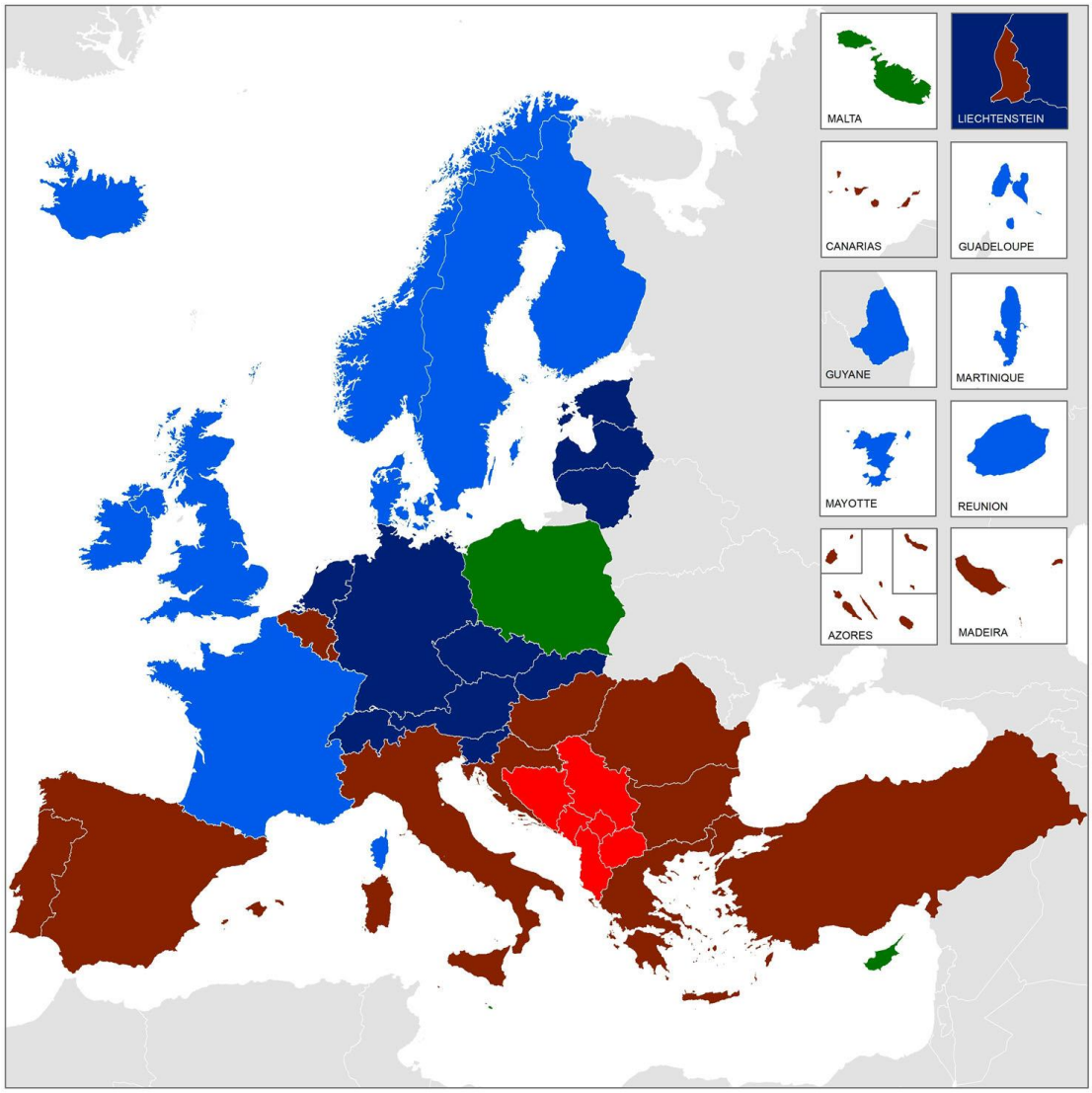


Figure 3.11 *Map of European SGPSs with respect to the capacity for public control of spatial development*
(Source: Berisha et al., 2021, p. 193)

- **Type A State-led systems** - In this model, spatial development of the eight countries distributed in Northern and Western Europe is primarily centered around state-led planning, even if the market has influence to different degrees. In order to avoid a 'blind' pre-allocation, most of them (NO, SE, DK, FI and IS) allocate land use and spatial development rights through the use of general plans developed after specific negotiations with landowners and developers, which is classified as "neo-performative"; the French central government plays a traditional strong role in the overall process of spatial governance using a "conformative" paradigm; the UK and IE, however, due to the explicit political orientation of the respective governments, oppositely have the characteristic of limited capacity to ensure public interest through a performance model.
- **Type B Market-led neo-performative systems** - In contrast to the state-led Type A systems, including the 10 SGPS across the Baltic, Central-Eastern and Western Europe, spatial development here is driven by a mix of state and market interests. The market enjoys some prevalence, although the state still retains a certain degree of authority. The land use and spatial development rights are assigned through detailed plans previously negotiated with the private actors, corresponding to market-led neo-performative systems. The socio-economic and political changes occurred since the fall of the Soviet bloc have made a greater prevalence of market interests in the Baltic Republics and in the concerned countries of Central and Eastern Europe, compared to the recently more or less increasingly neoliberal-oriented governments of Austria, Germany, and the Netherlands.
- **Type C Conformative systems** – It concerns 12 other SGPSs adopted mainly in the countries of Southern and Eastern Europe, "with this model spatial development is generally driven by the market, although by very different degrees in terms of control by the state". "Here the public authority assigns the rights to use and develop the land through the more traditional method of binding general plans, but with the recurrent use of variants that can subsequently modify them" (Berisha et al., 2021, p. 194). But overall, the general planning provides a stable framework, facilitating long-term development. Southern and Western European countries, due to their long-standing stable systems, have relatively stronger capacity of public control compared to Eastern countries after the fall of the Soviet regime.
- **Type D Proto-conformative systems** - Theoretically, the 6 SGPSs of non-

EU countries in the Balkan region "based on the original and most authentic ideals of hierarchy (top-down relations between the levels of planning) and of dirigisme (state-led implementation of the plans)" (Berisha et al., 2021, p. 194), emphasizing state intervention, which can be typically defined as that of proto-conformative systems. However, throughout implementation, the dominance of spatial development has been proven to shift from state-led in the early planning phase to being primarily driven by market interests, which better illustrates the dialectical relationship between land economy and spatial planning in current times.

- **Type E Misunderstood performative systems** - Under the present frameworks in Cyprus, Malta, and Poland, land use and spatial development rights are normally allocated by public authorities on a case-by-case basis or with detailed negotiated plans. Overall, spatial development is market-driven, with weaker control capacity in the public authorities. “the ‘treasure’ of public authorities […] is somehow given away to market forces, which have enough power to direct public decisions towards their own interests” (Berisha et al., 2021, p. 195), thus being indicated as that of misled performative systems.

Data from the ESPON COMPASS research indicates significant variations in the capacity of European SGPSs to impose public control over spatial development. The distinction is principally driven by the power relations between the State and the market, the political orientation of the government, and the institutional context. “One general conclusion of the comparison carried out is that spatial development is currently driven more by the market than by the state’s leadership in the vast majority of European countries (31 SGPSs out of 39)” (Berisha et al., 2021, p. 195), especially in countries that adopt the "neo-performative" model (specific detailed plans through previous negotiation), where there is a better balance between the market and the state. On the contrary the more traditional "conformative" model (pre-allocation by general plan) is generally ineffective in containing market interests in driving spatial development, except under very specific institutional, administrative, and cultural conditions, such as Franch “aménagement du territoire". Moreover, the research also shows that a significant imbalance relation between state and market may weaken the core function of spatial governance as an instrument of public control. Based on these findings, the research advises that future policymaking should focus on the coherence between SGPS and EU economic, social, and regional policies to achieve justice and coordination in regional development.

3.3 Research methodology adopted in this thesis

Based on the characteristics of SGPS, this research primarily employs standard methodologies in the spatial planning field - inductive and qualitative methods (ESPON, 2007, p. 4) - to organize the analysis of China's SGPS within a very different and complex context, combined with quantitative ones to ensure horizontal comparability , seeks to guarantee horizontal comparability in global comparison, thereby answer the research question proposed above.

The primary resource for qualitative and quantitative methods is the Volume 2 of the final report of the ESPON COMPASS research project, which focuses on methodology. Based on its unified definition of significant related concepts, the desk research method was employed to answer the corresponding questions according to the designed questionnaire. Under the four dimensions involved in the institutional technical model (previous Figure 3.2), the data of China's SGPS in the structure, the organization and implementation of policies and so on were collected, presenting a national comprehensive report, including:

1. **Structure (S)**: general institutional structure of government (the underpinning constitutional and legal framework, the organization of government and distribution of territorial competences); the general system of governance (horizontal and vertical relations during processes of public decision-making; the procedures for the allocation of development rights through plan and decision-making).
2. **Tools (T)**: the character of spatial planning and territorial governance instruments with territorial effects at national, sub-national and local levels; the production, procedure, and influence of spatial planning instruments; the integration of spatial planning with other sectoral policies, and the influence of those sectors on planning.
3. **Discourse (D)**: terminology and its evolution for spatial planning and territorial governance; outcomes and iterative developments in spatial governance; the interrelationship and impact between UN legislation, policies, or discourse and domestic spatial governance.
4. **Practice (P)**: context for the case study; the reality of the operation and performance of the system; approaches of horizontal and vertical cooperation and coordination in practice; the extent to which spatial planning coordinates other sectors, mobilizes citizen engagement and is adaptive to changes in circumstances.

In qualitative methods, apart from general attribute descriptions, it is also necessary to adopt a dynamic perspective that shows the evolution of the system through time. A multifaceted approach was adopted to examine China's SGPS, using the evaluation elements raised by legal families, the four "ideal types", and ESPON Project 2.3.2 etc., which are previously outlined, as an auxiliary to obtain a more comprehensive and detailed orientation of China's SGPS.

It is worth noting that although the EU cohesion policy does not have a direct contact with China's SGPS to generate an obvious impact, considering that "the EU exerts most influence on domestic systems of territorial governance and spatial planning through legislation, especially in environment and energy" (COMPASS, 2018, p. 77). In this view, the UE can be seen as a microcosm of globalization - the EU cohesion policy for European countries is similar to the various UN policies or initiatives (such as the SDGs) for countries throughout the world, including China. Therefore, in the practice dimension, replacing the EU cohesion policy with the UN policy, investigating the relationship between the UN policy and China's SGPS in practice, reflecting the responsiveness of spatial development policies to supranational strategies in China, may help explore methods for the effective cross-fertilization of spatial development policies with UN policy in practice.

The quantitative methods in the research mainly fill China's SGPS into the comparison framework, translating the qualitative information into quantitative data. Based on the information included in the national comprehensive report, the research assesses China's SGPS according to the 7 variables used to develop the EU Compendium typology and see whether this lead to position China within (or between) existing ideal-types or it deserves the delineation of an additional ideal-type. With the database provided, it is possible to conduct a comprehensive international horizontal comparison of China's SGPS based on the raw material.

Furthermore, the quantitative method (Table 3.4 and Table 3.5) proposed by Berisha et al. is employed to assess the capacity of China's SGPS capacity for public control of spatial development, with the combination of two main variables, namely the relative role of state versus market in influencing spatial development decisions and the actual technology that is available to the public sector to provide land use and spatial transformation rights. The quantitative quantification process makes it possible to compare with the countries engaged in the research.

Chapter 4

Spatial Governance and Planning System in China

This chapter provides an in-depth examination of China's SGPS, offering a detailed analysis of its historical development, operational mechanisms, and recent reforms. It builds on the theoretical and methodological foundations laid in Chapters 2 and 3 to contextualize China's SGPS within its unique socio-political and economic environment.

The chapter begins with an overview of the geo-historical and socio-economic context of China, emphasizing how its rapid urbanization and economic transformation have shaped spatial planning practices. It then explores the structure of China's state apparatus and its evolution in administrative decentralization, which has significant implications for spatial governance. These contextual factors set the stage for understanding the evolution of China's SGPS.

The second section delves into the operation and evolution of China's SGPS, analyzing its structure, tools, discourses, and practices. Key topics include successes in areas like infrastructure development and urban regeneration, persistent issues such as land misallocation and environmental degradation, as well as the shift from rigid, top-down planning models to more integrated and adaptive approaches, such as the "multi-plan integration" initiative launched in recent reforms.

By dissecting China's SGPS through the lens of institutional technology, this chapter contextualizes it within global planning practices and identifies its distinctive features, such as the strong role of the state and the integration of economic and spatial planning. It serves as the core analysis of the thesis, laying the groundwork for the comparative discussions in Chapter 5.

4.1 Basic introduction of China

4.1.1 Geo-historical context

The People's Republic of China is a country located in the northern part of the Eastern Hemisphere, on the eastern part of the Eurasian continent, and on the western coast of the Pacific Ocean, with both land and sea. With significant geographical features, it spans the equivalent of five geographical time zones (5,200 km), with a latitude span of nearly 50 degrees (5,500 km) from north to south, and borders fourteen countries by land. The northernmost point is located on the central line of the main channel of the Heilongjiang north of Mohe (53°N), and the southernmost point is near the Lidi Ansha in the Spratly Islands of the South China Sea (3°31′N), the easternmost point is at the intersection of the main channel centerline of the Heilongjiang and Ussuri (135°E), and the westernmost point is at the

Pamir Plateau in Xinjiang (73°E). These natural geographical features, such as rivers, the high-altitude Tibetan Plateau, and the rugged Himalayas, which include the world's highest peak, Mount Everest, are ideal for implementing an active defense strategy, serving as natural barriers that shape the country's geopolitical landscape.

China is the fourth largest country in the world, covering an area of about 9,600,000 km^2 (3,700,000 sq mi), including approximately 3,685,000 km^2 (1,423,000 sq mi) of maritime territory. Its topography is diverse, featuring vast coastal plains in the east, complex mountains and basins in the central region, expansive plateaus and deserts in the west, etc. Among them, Mountains, plateaus, and hills account for approximately 67% of the land area, whilst basins and plains constitute about 33%. The main mountain ranges include the Altai Mountains, Tian Shan, Kunlun Mountains, and the Himalayas, which generally trend from east to west and from northeast to southwest. The overall terrain gradually decreases from west to east. Topographically, it is low in the east and high in the west, forming three steps of terrain (Figure 4.1):

Figure 4.1 *Physical Geography of China*

Source: Worldometer net, 2018. <https://www.worldometers.info/maps/china-map/>

1. The first step is the Tibetan Plateau, the highest and largest in the world, with an average elevation of over 4,000 meters, known as the "roof of the world".

2. The second step boundary is between the northern edge of the Qinghai-Tibet Plateau to the Daxinganling Mountains, Taihang Mountain, Wushan, and the eastern edge of Xuefeng. It is mainly composed of the Inner Mongolia Plateau, the Loess Plateau, the Yungui Plateau and the Tarim Basin, the Junggar Basin, and the Sichuan Basin.
3. The third step is the wide plains and hills in eastern China, which are the lowest first-level land steps. There are mainly the Northeast Plain, the North China Plain, and the middle and lower reaches of the Yangtze River, which are less than 200 meters above sea level, and the Changbai Mountains, Shandong hills, and coastal hills and mountains along the coast of Zhejiang and Fujian.

China with a vast territory, spans a wide range of latitudes and longitudes, has significant differences in distance from the sea across different regions, as well as varied elevations, complicated relief and mountain range directions. As a result, the climate of China is extremely diverse. Natural geographical boundaries such as the Qinling - Huaihe Line, the Greater Khingan Range - Taihang Mountains - Wushan Mountains - Xuefeng Mountains, etc., have a significant impact on the distribution of climate, culture, and industries. In terms of climate types, although most of the country lies in the temperate belt, its climatic patterns are complex. It ranges from tropical in the far south to subarctic in the far north. The eastern region has a monsoon climate (including subtropical monsoon climate, temperate monsoon climate, and tropical monsoon climate), the northwest region has a temperate continental climate, and the Tibetan Plateau has a cold Alpine climate. From the perspective of temperature zones, there are tropical, subtropical, warm temperate, temperate, cold temperate, and the Tibetan Plateau region. Most areas are located in the northern temperate zone, a small portion in the tropical zone, and there is no polar zone.

China abounds in rivers and lakes (Figure 4.2). There are over 1,500 rivers with total length exceeding 1000 square kilometers in the territory of China. The boundary between the catchment area of the exterior and interior rivers is roughly the line from the Greater Khingan Range - Yin Mountains - Helan Mountains - Qilian Mountains (eastern part), south of which with the southeastern area being the exterior river zone, encompassing roughly 2/3 of the country's total land area, with river water volume exceeding 95% of the national total; the northwestern region represents the interior river zone, comprising about 1/3 of the total area, but less than 5% of the total river water volume. China's major rivers include the Yangtze River, the Yellow River, and

the Pearl River, among others. The Yangtze River, among the main rivers, is the longest one in China and the third longest in the world, the world's third largest one after the Amazon in South America and Nile in Africa, with a length of 6300 km. While it is followed by the Yellow River with total length of 5464 km. China's territory includes numerous lakes, however they are unevenly distributed, most of which are found on the Middle-Lower Yangtze Plain and the Qinghai-Tibet Plateau. In the eastern monsoon region, freshwater lakes predominate, such as Poyang, Dongting, Taihu and Hongze Lake; in the west, inland saltwater lakes are more common, such as Qinghai, Siling Lake and Namtso. These rivers and lakes are not only an important element of China's geographical environment but also contain enormous natural resources, leading the world in hydropower potential, with reserves of 680 million kw.

Figure 4.2 *Map of China River Systems*

Source: ChinaMaps net. <https://www.chinamaps.org/china/china-river-map.html >

China's natural resource abundance, from coal to rare earth metals, powers its economic ascent. Notably, attributed to its diverse and vast landscape, the country, as one of the few countries in the world with a relatively complete range of mineral types, boasts extensive deposits of coal, oil, natural gas, iron ore, copper, rare earth metals and various industrial minerals (173 different mineral resources), with coal

taking the lead and the majority concentrated in the northern regions. In addition, abundant rivers for hydroelectric power, extensive forests and grassland are also the major natural resources of China. This resource wealth has played a crucial role in China's economic growth and global influence. However, due to its large population, China's per capita resource possession is relatively low, making the rational development and utilization of natural resources particularly important.

China has one of the world's oldest continuous civilizations, with the only continuous recorded history of 5,000 years, renowned alongside ancient India, ancient Babylon, and ancient Egypt as one of the "Four Great Ancient Civilizations". It has left behind countless literary classics, historical documents, cultural relics, and national records reflecting a splendid culture, and a rich variety of human landscapes, with customs and traditions varying greatly between counties, provinces, cities, towns. The early dynastic periods (such as the Xia, Shang, and Zhou) saw the emergence of centralized states and the development of Chinese writing, philosophy, and religious beliefs. The imperial rule established by the Qin and Han dynasties laid the foundation for a unified state, becoming a necessary condition for the stable economic and cultural development on the expanded territory. Subsequent dynasties (such as the Tang, Song, and Ming) oversaw unprecedented scale of unity and prosperity, marking a peak period of economic transformation and cultural flourishing, achieving advancements in art, science, and governance. Of course, also the periods of division and foreign conquest, such as the Mongol-led Yuan dynasty and the Qing dynasty, which was founded by the Manchus. These represent all pieces of the unique cultural traditions and customs of each ethnic group across an extensive historical process, adding infinite charm to China's cultural landscape.

China's geographical location is of enormous significance to its economic development and international relations. Such geographical diversity also impacts the difficulties of resource allocation, environmental preservation, and regional growth faced by different regions in spatial governance. The humid climate and excellent harbors of the eastern coastal areas are conducive to maritime trade and international cooperation, while the deep inland areas of the west facilitate land-based communication with Central Asia, West Asia, and European countries. This presents localized challenges for spatial governance, such as the coordination of the China Western Development and the eastern coastal economic zones. The eastern coastal areas are concentrated with economic activities and population, while the central and western regions are primarily based on natural resources. This geographical distribution has formed a "dense east, sparse west" development

pattern in planning, which also indirectly affects population distribution. The southeastern plains are densely populated, while the northwestern plateaus and mountainous areas have relatively fewer inhabitants. This uneven population distribution complicates the attainment of balanced regional development.

China's geography has had a profound influence on the country's historical trajectory, influencing everything from trade and agriculture to cultural exchanges and political boundaries, including the rise and fall of dynasties, the emergence of philosophical and technological advancements, and its interactions with neighboring regions. The development of urban settlements in China has undergone a long history and profound evolution. Prior to the extensive conceptualization of "space", the evolution of urban settlements predominantly reflected the attributes of spatial government. In the following lines, the main passages of timeline of the evolution of urban development and spatial governance in China are unpacked, aiming to preliminarily understand the reasons behind the characteristics of the SGPS dynamically.

The urban development in China and their early morphology originated from the rise of agricultural civilization and political centers. The earliest cities can be traced back to the late Neolithic symbols (21st century BC - 221 BC), such as the Liangzhu and Hongshan cultural sites located in Pingyao Town, Yuhang District, Hangzhou, Zhejiang Province.

The earliest cities can be traced back to the late Neolithic period (21st century BC - 221 BC), such as The archaeological ruins of Liangzhu City located in the Liangzhu Subdistrict and Pingyao Town of Yuhang, Hangzhou and Hongshan culture site found in an area stretching from Inner Mongolia to Liaoning. These early cities primarily served agricultural civilizations, featuring functions for rituals, handicrafts, and habitation. During the Shang and Zhou dynasties, cities gradually became centers of political power and religious ceremonies, characterized by walls and organized layouts. During the Shang and Zhou dynasties, cities gradually became centers of political authority and religious rites, characterized by walls and organized layouts. Cities generally developed around palaces and temples, with the capital site Yinxu located in northern Henan, near modern Anyang and the borders Henan shares with Hebei and Shanxi, being a typical example. With the formation of a unified national urban layout and functional differentiation (221 BC - 589 AD), during the Qin and Han dynasties, urban functions further diversified, resulting in an urban network based on the "system of prefectures and counties", with the capital in center. Capitals were oriented around political administration, supplemented by military and

commercial functions. At the same time, water transportation gradually influenced urban distribution, with several important large urban settlements establishing along the Yangtze and Yellow Rivers.

The development of medieval cities (589 AD - 1644 AD) was primarily driven by economic and cultural factors. During the Sui and Tang dynasties, the prosperity of commerce contributed to urban diversity, and China established the urban layout based on the “system of Fang and Shi”, with clear divisions between fang (residential areas) and Shi (commercial areas). Chang'an and Luoyang (now Xi'an in Shanxi Province and Luoyang in Henan Province) were the two major capitals of the Sui and Tang dynasties. They were the largest cities in the world at that time, integrating political, cultural, and commercial functions. The flourishing of foreign trade promoted the prosperity of coastal port cities, such as Guangzhou and Yangzhou, which became important hubs for Sino-foreign exchanges. The layout of cities during the Song Dynasty became more open, with the “Fang-Shi” system gradually being replaced by the "system of street and market". Commercial activities transcended temporal and spatial limitations, "where cities became integrated into broader networks of regional and interregional trade" (Skinner, 1995, p. 278), leading to a transformation in the socio-economic landscape and the beginning of diversified development. Cities like Hangzhou and Kaifeng became the economic and cultural centers of the time, with significant increases in population size and urbanization levels.

The evolution of modern cities in China can be summarized by external shocks and internal reforms (1644-1949 AD). During the Ming and Qing dynasties, urban development was constrained by the agricultural economy, and cities primarily served as administrative centers and regional commercial hubs. Beijing, as the capital of both the Ming and Qing dynasties, was grand in scale and strictly planned. Regional commercial cities (such as Jinan and Suzhou) relied on canals and postal routes to establish traditional urban networks based around regional markets. After the Opium Wars, China's traditional urban system was altered by Western industrialization and colonial forces. Coastal cities such as Shanghai, Guangzhou, and Xiamen were designated as treaty ports, their spatial organization and urban morphology reshaped by colonial influences. They gradually became industrial and trade centers, forming a binary urban structure. Foreign concessions appeared in some major cities, affecting urban spatial layout and architectural styles, resulting in the characteristics of "colonial modernization".

Modern urban development (1949 - present) has undergone the socialist urban

planning and construction, the popularity of urbanization after the reform and opening-up, the development of new urbanization and urban agglomerations. Socialism and marketization. After the founding of the People's Republic of China, urban development was incorporated into the planned economy system, with an emphasis on prioritizing industrial development, forming an "industry-led urbanization" development model. Urban land is owned by the state, and urban construction focused on the development of heavy industrial bases, with cities like Shenyang and Changchun becoming representatives of industrial cities. Urban growth is strictly restricted by the household registration system, with a clear division between urban and rural areas. After the reform and opening-up, the urbanization process accelerated, with a large influx of rural labor into cities, forming coastal economic zones and urban clusters, such as the Pearl River Delta and the Yangtze River Delta. Urban planning has begun to introduce market mechanisms, and land use rights reform has provided momentum for urban expansion and real estate development. In recent years, China has proposed the "new urbanization" strategy, emphasizing human-centered urbanization, “focuses on addressing imbalanced development by promoting coordinated urban agglomerations" (M. Chen et al., 2015, p. 337) and improving the public service levels in small and medium-sized cities and county towns. Urban agglomerations have become the main model for urban development, such as the Yangtze River Economic Belt and Coordinated Development of the Beijing-Tianjin-Hebei Region, aimed at promoting regional integration.

The urban development in China has exhibited the following characteristics:

1. The transformation from a political center to an economic center - the fundamental functions of the city have gradually expanded from early administrative management to economic and cultural activities.
2. The transition from a closed system to an open system - especially in modern times, urban development has been driven by globalization and external influences, with planning principles gradually becoming internationalized.
3. The evolution from a monocentric layout to polycentric urban agglomerations - urban development is gradually revealing patterns of networking and regional coordination, which have comparative value with the EU's urban agglomeration development model.

The characteristics of urban development in China provide rich case studies for the research on global SGPSs, while also offering valuable insights in areas such as

urban agglomeration development, regional balance, and land policies.

4.1.2 Socio-economic context

Social structure and demographic characteristics

Historically, China was the world's most populous country from at least 1950 until being surpassed by India in 2023. By the latest United Nations report, as of November 1, 2024, China's population stood at 1.411 billion, accounting for about 17.4% of the global population. After the mid-20th century, population growth underwent a rapid expansion (the "baby boom") followed by a steady deceleration. In recent years, Chinese society has entered an aging era, with the percentage of the population aged 65 and over exceeding 14%. The phenomenon of urban-rural division has long existed in Chinese society, primarily influenced by the household registration system, leading to inequalities in education, healthcare, and employment opportunities for urban and rural residents (Chan, 2010).

Over the past 75 years since the founding of the People's Republic of China, the country has undergone the largest and fastest urbanization process in world history, the NBS said in a report. There were just 129 cities in China at the end of 1949, with a combined population of 39.49 million. The number of cities reached 694 at the end of 2023, while prefecture-level and larger cities were home to 673.13 million people. Among them, there were 29 cities each with a population exceeding 5 million and 11 cities each with a population of over 10 million. By the end of 2024, China had an urbanization rate of 67% and is expected to reach 75-80% by 2035. Moreover, the raise of China's less-developed western region represents a more balanced urbanization process.

There were just 129 cities in China at the end of 1949, with a combined population of 39.49 million. The number of cities reached 694 at the end of 2023, while prefecture-level and larger cities were home to 673.13 million people. Among them, there were 29 cities each with a population exceeding 5 million and 11 cities each with a population of over 10 million.

Due to the impact of the pandemic, the scale of China's floating population decreased from approximately 295 million in 2022, accounting for about 20% of the total population, to around 150 million in 2024, a reduction of half. These people were mostly concentrated in labor-intensive industries such as manufacturing, services, and construction, and primarily flowed to economically developed regions and large cities like Beijing, Shanghai, and Guangzhou. In the first three quarters of 2024, the volume of inter-regional population movement in our country reached 49.09 billion person-times, an increase of 5.4% year-on-year. On September 16, the

number of inter-regional population movements nationwide exceeded 190 million, an increase of 10.8% compared to the same period in 2019. This data not only reflects the resilience of China's economic recovery and the progressive warming of domestic market demand, but also mirrors significant changes in residents' lifestyles, business models, and social dynamics.

Economic development and industrial structure

The economy of China is a developing mixed socialist market economy, incorporating industrial policies and strategic five-year plans. Since the reform and opening up in 1978, the GDP has consistently demonstrated a steady rising trend, with an average annual growth rate of around 9%. It has now become the world's second largest economy by nominal GDP. China's GDP has been rapidly expanding from CN¥ 59.3 trillion (about US$ 9.57 trillion based on the annual average exchange rate of that year, the same as below) in 2013 to double that amount, reaching CN¥ 126.06 trillion yuan (US$ 17.89 trillion) by 2023. In the first three quarters of 2024, China's cumulative GDP was CN¥ 94.975 trillion (US$ 13.35 trillion), and several parties estimate it to potentially surpass the US$ 18 trillion USD mark. Per capita GDP increased from approximately US$ 6,807 in 2013, ranking 84th in the world, to about US$ 12,600 in 2023, achieving a similar doubling and ranking 69th.

China is the world's largest manufacturing industrial economy and exporter of goods, widely regarded as the "powerhouse of manufacturing", "the factory of the world" and the world's "manufacturing superpower". From 1949 to 1978, 30 years of economic reforms altered the economic structure from a traditional agricultural economy to one dominated by industry and services, with a full range of manufacturing industries and the share of services in GDP reached 55% in 2022. In recent years, China has accelerated the pace of industrial upgrading and transformation, gradually expanding its market influence. E-commerce, mobile payments, and other fields have also developed rapidly, with a focus on high-tech industries, particularly in the areas of artificial intelligence, new energy, photovoltaics, and chips. As of 2021, the country spends around 2.43% of GDP on advance research and development across various sectors of the economy.

Income distribution and regional disparities

China has developed from one of the poorest countries to one of the largest economies at the quickest pace in the world, while bringing more than 1 billion Chinese people out of poverty and having the largest national proportion of the global middle class. China has taken up majority of global poverty reduction between 1981 and 2008, leading to a major decrease in world inequality. Between 1978 and 2018,

China reduced extreme poverty by 800 million. Between 1981 and 2019, the percentage of the population living in extreme poverty decreased from 88.1% to 0.2%. As of 2021, statistics from The World Factbook indicated the Chinese had the largest labor force in the world, totaling 791 million. In 2022, the National Bureau of Statistics reported that China's average disposable income per capita was ¥36,883. Public social expenditure in China was around 10% of GDP. Additionally, the public pension expenditure in China accounted for 5.2% of GDP.

In the 2020s, even with the initiation of a massive stimulus package, a range of challenges from a rapidly aging population, higher unemployment and a property crisis nonetheless forced China to face a mild economic slowdown. In 2022, the per capita disposable income of urban residents was 2.5 times that of rural residents. Although this gap has decreased compared to the end of the 20th century. The Gini coefficient of China has remained between 0.46 and 0.49 in recent years, indicating that the issue of income inequality is still substantial. Regional differences are mainly reflected in the imbalance of economic development. Economic reforms have stimulated growth in coastal areas. The eastern areas, such as the Yangtze River Delta and the Pearl River Delta, are the most developed regions in China, with their GDP accounting for almost 60% of the national total. However, the central and western areas are rich in resources but fall behind in economic growth, with per capita GDP below the national average.

Globalization and foreign economic relations

International trade makes up a sizeable portion of China's overall economy. Since economic reforms began in the late 1970s, China sought to decentralize its foreign trade system to integrate itself into the international trading system. In November 1991, China joined the Asia-Pacific Economic Cooperation (APEC) group. Afterward, after 16 years of negotiations, China became a member of the World Trade Organization in 2001. China also participated in the signing of the Regional Comprehensive Economic Partnership (RCEP) in November 2020, becoming a member of the world's largest free-trade area, and cooperating to achieve the goal of eliminating tariffs on a variety of products within 20 years. On 17 September 2021, China formally applied to join another large Asia-Pacific free-trade pact, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

As the world's largest goods trader, China actively participates in multilateral and regional economic cooperation, promotes bilateral trade and investment. Since its proposal in 2013, the Belt and Road Initiative has become a core policy for the deep integration of China's economy with the global economy, involving infrastructure

investment, trade, and cultural exchanges. The total import and export volume in 2023 is approximately $ 5.9 trillion. About 80 percent of China's exports consist of manufactured goods, most of which are textiles, machinery, and electronic equipment, with agricultural products and chemicals constituting the remainder. Out of the five busiest ports in the world, three are in China.

In addition, from 1992 until at least 2023, China has been either the number one or number two worldwide destination for foreign direct investment, attracting substantial capital from the United States, Japan, and Europe. As of the end of June 2020, FDI stock in China reached US$ 2.947 trillion, and China's outgoing FDI stock stood at US$ 2.128 trillion. The total foreign financial assets owned by China reached US$ 7.860 trillion, and its foreign financial liabilities US$ 5.716 trillion, making China the second largest creditor nation after Japan in the world. At the same time, outward foreign direct investment is a new feature of Chinese globalization, where local Chinese firms seek to make investments in both developing and developed countries.

Sustainable development and green economy

Although not the largest source of historical cumulative emissions, due to its massive population base, today China accounts for one quarter of global greenhouse gas emissions. On a per capita basis, China's emissions in 2019 (9 tons CO_2-equivalent [tCO_2e] per year) surpass those of the European Union (7.6 tCO_2e) but remain slightly below the Organization for Economic Cooperation and Development (OECD) average (10.7 tCO_2e) and well below the average of the world’s largest economies, the United States (17.6 tCO_2e).

Even so, China has made diligent efforts to increase energy efficiency and increase use of renewable sources. Regarding environmental protection and carbon neutrality targets, the Chinese government has pledged to achieve peak emissions before 2030 and carbon neutrality before 2060. The concept of "Ecological civilization" was picked up, emphasizing the integration of ecological protection into economic development, such as delineating ecological protection red lines and developing green industries. The concept of "Ecological Civilization", emphasizing the integration of ecological protection into economic development, such as delineating stringent Ecological Conservation Redline (ERL) and developing green industries. Moving away from coal towards cleaner energy sources including oil, natural gas, renewable energy, and nuclear power is an important component of China's development program. As of 2022, China accounted for over 30% of global investment in new energy and is the largest country in terms of installed capacity of wind and solar power.

4.1.3 Structure of the state and administrative evolution

The People's Republic of China (China henceforth) is a socialist state under the people's democratic dictatorship led by the working class and based on the Workers-Peasants Alliance (Zhao L., 2024), and is the most populous developing country in the world. China emphasizes that all power belongs to the people, and the system of People's Congress is the form of regime organization of China's people's democratic dictatorship, i.e., the people elect the National People's Congress (NPC henceforth) and local people's congresses at all levels as organs of state power to exercise state power; the state administrative, judicial, and prosecutorial organs are elected by the NPC, are accountable to it and are subject to its supervision.

The Chinese People's Political Consultative Conference (CPPCC henceforth), on the other hand, is an important carrier for realizing a system of multiparty cooperation and political consultation in order to make decisions on the national major policies as well as important issues in political, economic, cultural and social life, while adhering to the premise of the Communist Party of China (CPC henceforth) as the sole ruling party. An important way for the CPC on governing and ruling the country is to lead the economic construction and development of society by planning (Yang & Liang, 2020). The Two Sessions System enables China's national governance and operation to proceed efficiently and steadily in a moderate centralization and orderly decentralization, with Democratic Centralism as the organizing principle. Socialist Democratic Politics with Chinese Characteristics of combining representative and consultative democracy will inevitably promote the process of land nationalization and lays the physical foundation for the development and evolution of China's SGPS.

The pattern of administrative divisions in China evolved from two-tier system during the Spring and Autumn period to three-tier during Qin and Han Dynasties and has continued to develop and improve ever since. More or less influenced by the monarchical autocracy and absolute centralization inherited for thousands of years in ancient China, the two factors defining the administrative divisions are closely related to the convenience of state administration, namely, a relatively fixed area and an administrative body sent by the central government or a higher authority. Therefore, it is not difficult to understand that “province” first appeared as the name of a Government Units in China, and its jurisdiction area was later formalized as a level of administrative division in the Yuan Dynasty.

Administrative division is not a very serious concept in China because “localities ... are not subjects of power per se, but merely units of administrative division” (Chen

M., 2021, p. 10). That is why only three levels have been stipulated in successive versions of the Constitution, and their relevant texts have never been changed. According to Article 30 of the current Constitution of China (the Constitution 1982 henceforth) stipulates that the country's administrative units are currently based on a three-tier system: (1) The country is divided into provinces, autonomous regions and municipalities directly under the Central Government (municipality henceforth); (2) provinces and autonomous regions are divided into autonomous prefectures, counties, autonomous counties and cities; and (3) counties, autonomous counties and cities are divided into townships, ethnic minority townships, and towns. (Municipalities and larger cities are divided into districts and counties. Autonomous prefectures are divided into counties, autonomous counties and cities). Autonomous regions, autonomous prefectures and autonomous counties are all national autonomous areas. The Country may establish special administrative regions, when necessary, in which the system to be practiced is prescribed by the NPC in accordance with the specific circumstances. However, in practice, we generally say that there are four levels of administrative divisions: provinces, cities, counties and townships, but there are also those that say there are five levels: provinces, cities, counties, townships and villages. The dispute is at the village-level, which is legally said to be autonomous but is scoped and organized, so it can be said to be five-tier as well (Figure 4.3).

Figure 4.3 *The Administrative Divisions in China*

Source: drawn by the author

As of June 2024, China has a total of 34 Province-level administrative districts (4 municipalities, 23 provinces, 5 autonomous regions, 2 special administrative regions), 333 Arrondissement\-level administrative districts (289 prefecture-level cities, 11 Prefecture, 30 autonomous prefectures, 3 leagues), 2854 County-level administrative districts (893 municipal districts, 361 county-level cities, 1429 counties, 117 autonomous counties, 49 banners, 3 autonomous banners, 1 special district, 1 forestry district), 40497 Township-level administrative districts (2 county districts, 20117 towns, 11626 townships, 151 sums, 1034 ethnic townships, 1 ethnic sum, 7566 sub-districts), 731658 Village-level administrative districts.

4.2 The operation and evolution of China's SGPS

4.2.1 Structure before and after reform

As mentioned before, China's SGPS is currently in a period of frequent reforms and transitions. The primary objective is to achieve the integration of planning processes through departmental restructuring and the clarification of the spatial development rights and responsibilities framework. This process distinctly reveals China's strategic emphasis, transitioning from land use control to spatial order governance. This might be interpreted as an inquiry into a more holistic higher-level planning, acknowledging the constraints of the existing fragmented and incremental system following the broadening of spatial concepts.

China's previous planning often focused on solving specific issues, lacking a clear definition of space and its relationship with spatial planning. The establishment of the spatial planning system in 2013, as a preliminary concept, first appeared in Chinese policy documents, following which these prior types of planning are generally referred to as spatial planning. Only at that point can we engage in a discussion on the evolution of the spatial planning system.

Originating from the historical inertia of legislative strategies driven by conservatism and pragmatism, China has long adhered to a problem-oriented legislative strategy of "one affairs, one law" and "one category, one law." Similarly, the current legal framework for spatial planning in China is fundamentally characterized by "one planning, one law." Therefore, the systemic faults in the current legal framework of spatial planning essentially mirror the problems inside the existing spatial planning system. The following section will explain the structural reforms of China's SGPS in a way that corresponds the spatial planning system with the relevant legal framework.

Current legal framework and spatial planning system

The layout and spatial arrangement of major projects in the early National Economic and Social Development Plans are considered the starting point of China's spatial planning legal system construction. Based on the regulatory nature, laws on environmental resource are the first to define the legal status of relevant spatial planning, such as the long-term forestry development plan in the Forest Law, the Environmental Protection Law, the Marine Environmental Protection Law, and the Grassland Law and so on. However, the main components of China's spatial planning legal system are the Urban and Rural Planning Law and the Land Administration Law, both of which are cornerstone legislations.

Subsequently, the adoption of laws such as the Soil and Water Conservation Law and the Highway Law has further enlarged the scope of the spatial planning legal system horizontally. The formulation of administrative regulations such as the Administrative Regulations on the Planning and Construction of Villages and Towns and departmental rules such as the Measures for Examination and Approval of Provincial Urban System Planning has extended the vertical chain of the spatial planning legal system (Sun Y. & Wang, 2022). In addition, the recent National Main Functional Zoning Planning and National Main Marine Functional Zoning Plan, as new sequences of spatial planning, have simultaneously enriched the legal system of spatial planning both horizontally and vertically. This further indicates that the content of spatial planning continues to expand with the emergence of new trends.

Under this reverse-driven legislative construction mechanism, China's spatial planning legal system is characterized by a collection of legal norms that specify sectoral planning for certain fields in the form of dedicated chapters. The horizontal content is cluttered and still shows a tendency for further expansion, while the vertical extension, which involves the formulation of specific lower-level plans for spatial planning matters, is clearly insufficient, presenting a flattened "umbrella" structure (Figure 4.4).

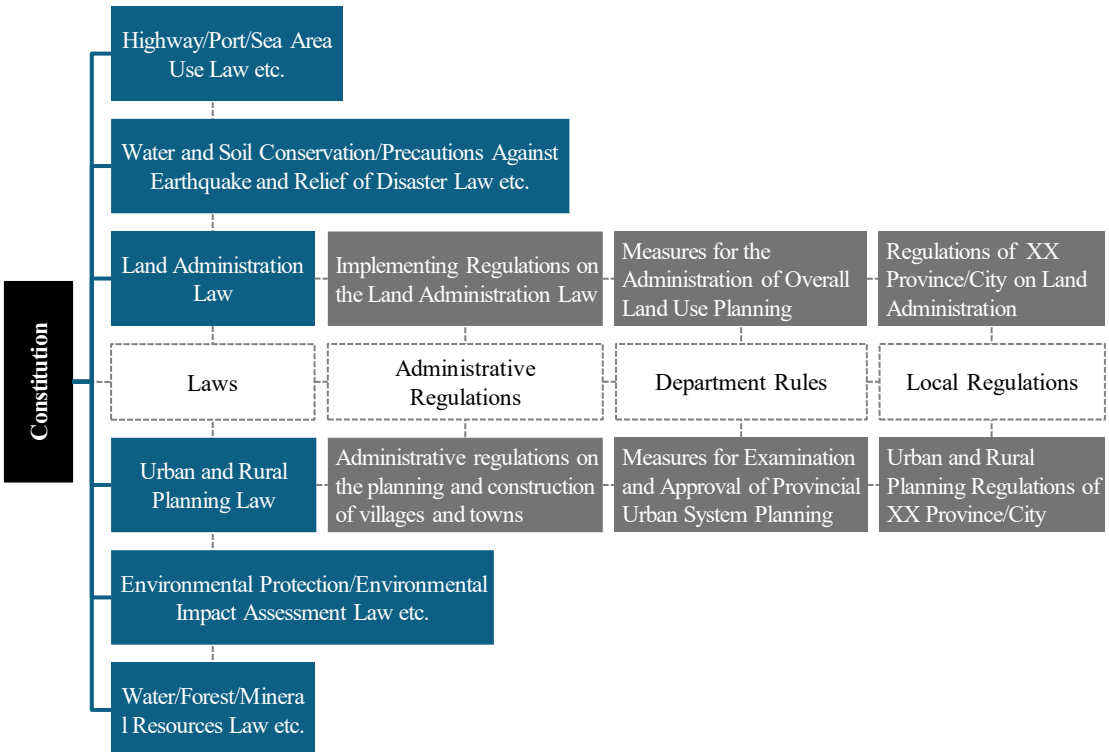


Figure 4.4 *The current spatial planning legal system*
(Source: Sun & Wang, 2022 p. 2977)

Overall, a spatial planning legal system has been formed with the Constitution as the core, supplemented and detailed by separate laws such as the Land Administration Law, the Urban and Rural Planning Law, the Environmental Protection Law, and the Mineral Resources Law etc., as well as related administrative regulations and departmental rules. Separate laws include is laws and regulations for comprehensive territorial planning, urban and rural planning, land-use planning, resource planning and public infrastructure. This has given rise to numerous types of developmental and control-oriented planning such as the Main Function-Oriented Zone Planning, Land-Use Planning, Urban and Rural Planning, Environmental Planning. In addition, there are numerous plans involving infrastructure and spatial resource utilization, sectoral planning such as transportation planning, water conservancy planning and watershed planning (Pan & Zhao, 2019).

The Urban and Rural Planning Law, the sole legislation explicitly titled with "planning", has been recognized as the backbone of the spatial planning legal system since its enactment in 1989. It emphasizes the dualistic dialectical structure of urban and rural areas, the legal vacuum concerning the coordinated development between regions, and the optimization of urban layout. It has been amended twice, in 2015 and 2019. The Urban and Rural Planning Law delineates comprehensive

restrictions regarding the preparation, approval, implementation, amendment, and supervision of urban and rural planning. Although its normative effect is explicitly confined to urban, town, township, and village planning, it is regarded as fulfilling the fundamental guiding role that should be performed by the Territorial Spatial Planning Law, as it offers, to a certain extent, practical references and basis to support the formulation and implementation of various other spatial planning, even a significant portion of which have simple norms or lack operationalization.

In addition, to resolve the notable human-land conflicts during the early period of reform and opening-up, another cornerstone law, the Land Administration Law, was adopted at the 16th Meeting of the Standing Committee of the Sixth National People's Congress on June 25, 1986. It has received three corrections in 1988, 2004, and 2019, and one revision in 1998. This law consists of 8 chapters and 87 paragraphs, aiming to highlight a management system that equally stresses "special protection of farmland, strict control of buildable land" and "optimizing market allocation, building a unified urban-rural buildable land market". Among these, setting a separate chapter detail the preparation, implementation, and related legal obligations of the Land Use Master Planning.

Although in recent years, after the reform of the “personal” principle planning model, which takes population flow into account, a new type of territorial resource planning principle based on the per capita development and utilization rate of territorial resources has gradually been introduced into the system of SGPS (Zhang T., 2022). However, the existing legal system still has a strong “territorial principle” character under the long-term effect of the restrictive concept of space in the traditional political and economic fields, adhering to the legislative paradigm of "one planning, one law" has resulted to a long-term "pace dilemma" in which China's spatial planning legislation has been passively catch-up (Sun Y. & Wang, 2022). In fact, the spatial planning system, composed of various types of plans, as institutional technical tool pollution control, is also in a similar predicament during its evolution.

Before the broader conceptualization of space, environmental plans such as Air Pollution Control Planning, Water Pollution Control Planning, Solid Waste Pollution Control Planning, Noise Pollution Control Planning and other plans such as Five-Year Plan for National Economic and Social Development, Industry Planning, etc., which were not considered spatial plans in the traditional sense, which are distinct from and independent of territorial planning, prepared and submitted for approval respectively by the environmental protection administrative authorities and other administrative authorities. Territorial planning, on the other hand, which is considered spatial

planning, is under the responsibility of the Territorial Administrative Department, including Urban System Planning, Master Planning, Detailed Planning and Specific Planning (Figure 4.5).

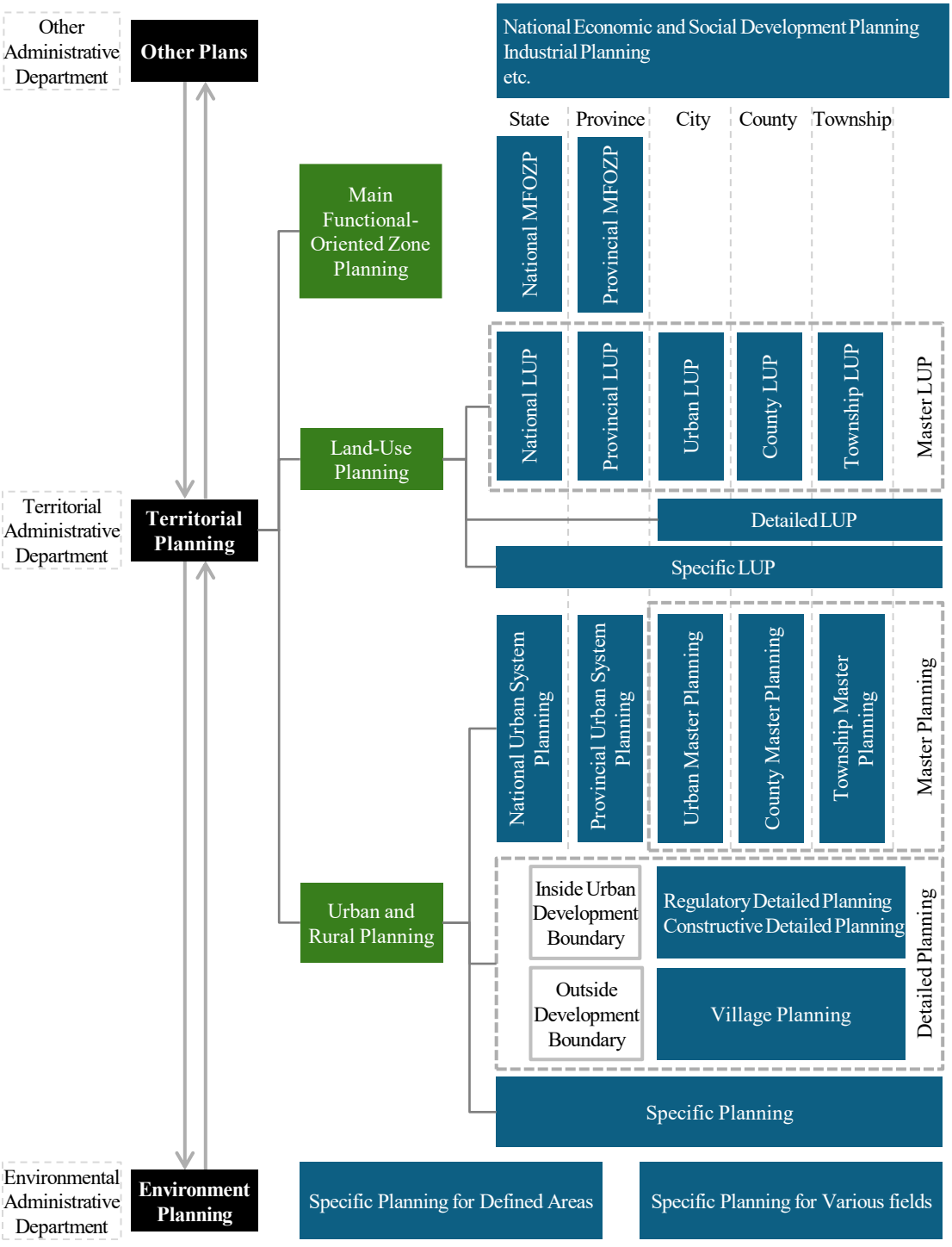


Figure 4.5 *Existing main spatial plans in China*

Source: drawn by the author (Pan & Zhao, 2019 p. 6)

"One planning, one law" has resulted in multiple spatial plans being organized under various competent departments, each with distinct objectives, functions, and planning attributes (Table 4.1). It seems that various types of plans at different administrative levels are performing their respective roles, collectively promoting the rational use and effective protection of land and space. The spatial planning system appears to have taken shape. But in actuality, similar to the spatial planning legal system, the drawbacks of a system pieced together from scattered fragments are not merely limited to the superficial potential gaps in related fields or even entire "vacuum zone" faced new challenges as it evolves. The real issue lies in the coordination and operational logic between the various pieces inside the system. This systemic dilemma will be further elaborated upon in the following sections.

Types of spatial planning	Main leading department	Planning term	Planning target
National Socio-Economic Planning (NSEP)	The competent departments of the people's governments at or above the county level (Development and Reform Commission)	5 years	National economic and social development
National Main Function-Oriented Zone Planning (NMFOZP)	National Development and Reform Commission	10 years	Spatial layout
Urban and Rural Planning (URP)	(Urban-rural) construction planning bureau and professional planning and preparation agency	20 years	Urban and rural development layout
Land Use Master Planning (LUMP)	The competent departments of the people's governments at or above the county level (Land and Resources Bureau)	15 years	Various land use and conservation development
Environmental Protection Planning (EPP)	The competent departments of the people's governments at or above the county level (Environmental Protection Bureau)	5 years	Ecological protection and pollution control

Table 4.1 *The situation of multiple plans before the reform*
(Source: Lu & Xia, 2019, p. 26)

The land development rights in the central-local government relationship

In practice, it is necessary to ensure “the implementation of macro development strategies and diversified spatial governance goals” (Niu & Lv, 2023, p. 294), while avoiding the risk of “planning monopoly” and actively mobilizing local autonomy to

efficiently utilize territorial spatial resources, in particular territorial resources, in line with local circumstances, so that the design of the “central-local” power coordination relationship is especially critical.

Even though the state structure of China as a unitary system, it is not possible to describe the richly-connotated local administrative system of China with such a generalized concept as centralization, both in terms of laws and regulations as well as in terms of actual operation. Since The Reform and Opening Up of China in 1978, the central government, through the Constitution or constitutional laws/local autonomy laws, has implemented the vertical constitutional authorization of decentralization to the national regional autonomous areas and the special administrative regions with differently focused institutional principles, For ordinary districts, there is the “authorization-representation” type of decentralization, which does not have the initiative and immunity principles of the autonomous decentralization model (Chen M., 2021). The coordination of the three types of decentralization (Table 4.2) provides China's territorial governance and spatial planning a basic framework for the static configuration and a technical platform for the dynamic operation of planning rights.

Type of Local Institution	System Principle	Fundamental Legal	Central-Local Relation Mode	Authority Subject	Scope of Responsibilities
Ordinary Area	Democratic Centralism	Organic Law of the Local Congresses and Governments	Decentration (Authorization - representation)	Local Government	Local Legislative Power Administrative Power
Ethnic Regional Autonomous Area	Unified Multinational State	Regional National Autonomy Law	Delegation (Constitutional Mandate)	Autonomous Government	Regional Ethnic Autonomy Powers enjoyed in Ordinary Area
Special Administrative Region	One country, two systems	Hong Kong and Macao Basic Laws	Devolution (Constitutional Mandate)	SAR Government	High Degree of Autonomy Delegated Authority Granted Powers

Table 4.2 *Decentralization Between Central and Local Governments in China (Source: Chen, 2021 p. 34)*

“As a kind of macro-control power, the land development rights give legally binding effect to the content of specific territorial planning ” (M. Yang & Liang, 2020, p. 8). An important trend in the dynamic operation model of China's territorial spatial planning power is to give local governments a certain degree of autonomy in

planning and to revitalize the operation system of planning power (Zhang T., 2022), especially after the emergence of spatial planning with “invisible space” as the object.

Article 100 of the Constitution 1982 gives the People's Congresses of provinces, municipalities and cities divided into districts and their Standing Committees the power to enact local laws and regulations, not contravening the Constitution, laws and administrative regulations, and then report them to the Standing Committee of the People's Congress at a higher level for the record and approval before they come into force. Article 107 decentralizes the management and administration of urban and rural construction cause to local governments at all levels above the county-level in accordance with the prescribed authority (Table 4.3), in order to incentivize local governments to efficiently utilize local territorial spatial resources, and to prevent an imbalance in territorial planning at the local level, as well as overloading or underutilizing the development and utilization of territorial resources. The result is a “dualism” allocation of planning rights, which is between the “single system” of detailed implementation and the “parallel system” of autonomous planning (Table 4.4). It provides administrative and technical support for the construction and implementation of territorial governance and spatial planning system.

Legislative Subject	Type	Scope of Responsibilities
National People's Congress and Its Standing Committee	Law	1. Exclusive Legislative Power 2. Legislative Power for Other Affairs
The State Council	Administrative Regulation	1. Executive Legislation 2. Authorized Legislation 3. Delegated Legislation
Ministries of the State Council	Ministerial Rule	Executive Legislation
Provincial People's Congress	Local Regulation	1. Executive Regulation 2. Initiative Legislation - “Local Affairs”
Provincial Government	Local Government Rule	1. Executive Rule 2. Initiative Rule
Municipal People's Congress	Local Regulation	Affairs relating to urban-rural construction and management, environmental protection, historical and cultural preservation only
Municipal Government	Local Government Rule	Affairs relating to urban-rural construction and management, environmental protection, historical and cultural preservation only

Table 4.3 *The Division of Legislative Power Between Central and Local Authorities (Source: Chen, 2021 p. 36)*

	Monism	Dualism
Single System	Operation Mode 1: Complete Implementation The territorial spatial planning power is vested in the central government, the local governments carry out territorial spatial development and utilization activities in accordance with the content of planning.	Allocation Mode 3: Detailed Implementation Both the central and local governments have the right to national spatial planning, but local government planning is only a further refinement of the content of the central government's planning.
Parallel System	Allocation Mode 2: Selectable Implementation The territorial spatial planning power is vested in the central government, and local governments have the right to choose to implement or not to implement elements that are contrary to their own local public interest.	Allocation Mode 4: Independent Planning Both the central government and local governments have the right to territorial spatial planning, and local governments can enjoy a certain degree of autonomy in planning according to local realities.

Table 4.4 *Comparison of the Operation Mode of Territorial Spatial Planning Power (Source: Zhang, 2022 p. 10)*

The Dilemma of the Spatial Planning System and its legal system

The systemic dilemma of the spatial planning system principally stems from the lack of top-level legislation. Overall, China's current spatial planning legal system lacks comprehensive laws addressing broad spatial planning-related affairs. Due to the limitations of the subject and origin, even the obvious "spillover" of normative effect can never enable the Urban and Rural Planning Law to break through barriers and become the superior norm for all spatial planning. Moreover, in the new spatial planning system, the Urban and Rural Planning Law can no longer be applied to guide practice at the content level, and its external legitimacy has been eroded, and it may be replaced by “the Territorial Spatial Planning Law” (Sun Y. & Wang, 2022, p. 2976). Article 18 of the 2019 correction to the Land Administration Law clarified the legal status of territorial spatial planning and subsequently detailed relevant regulations in a dedicated chapter of the Regulation on the Implementation of the Land Administration Law. In reality, these were only temporary measures to integrate territorial spatial planning into existing legal system, which still has many limitations in various aspects. The National Territorial Space Planning Law has not yet been finished and implemented, the Urban and Rural Planning Law and the Land Administration Law remain the current guiding roles for controlling spatial planning activity.

Secondly, in terms of overall quantity, the non-planning legal norms involved in various sectoral plans occupy the vast majority of the spatial planning legal system. For example, Chapter 2 of the Water Law requires a series of water resource planning, including comprehensive water resource planning, comprehensive river basin planning, and basin section planning. Similarly, Chapter 3 of the Water and Soil Conservation Law offers extensive regulations on water and soil conservation planning. However, the Main Function-Oriented Zone Planning, which has already entered the official discourse system of spatial planning, has not yet acquired formal normative recognition. The "one planning, one law" legislative paradigm, on one hand, has not resolved the issue of the "paradoxical coexistence of legislative overlap and legislative gaps within the spatial planning legal system" (Sun Y. & Wang, 2022, p. 2977). On the other hand, different types of planning actually correspond to almost homogenized chapter structures and article contents, thus failing to achieve the effect of maximizing fine-tuning and differentiation for specific targets.

Moreover, various types of planning actually project the differences in governance concepts and goals of different rights holders, and the unclear division of responsibilities inevitably leads to internal systematic chaos within the planning practice. The internal conflicts of the spatial planning system and its legal system are specifically manifested as follows:

1. Various types of spatial planning, under the nearly ineffective and homogenized formalized provisions, have formed their own systems and even become self-enclosed. For various spatial planning, the entities responsible for preparation are diverse, the technical standards are varied, and the approval processes differ, and during the industrial internalization process, a closed technical system with gradually deepening specialization has evolved. The distinctive operational mechanisms and discourse systems have constructed insurmountable normative barriers. For example, from the legal level of the Land Administration Law to the administrative regulation level of the Regulation on the Implementation of the Land Administration Law, and then to the departmental rule level of the Measures for the Administration of Overall Land Use Planning, this self-derived closed system has raised the technical threshold for related spatial planning to connect with it (Sun Y. & Wang, 2022).
2. The interconnection clauses between various spatial planning legal norms remain merely symbolic and declarative, missing the necessary detailed regulatory support, it has been non-operational and left unimplemented for a long time. For example, in most cases, stipulated in Article 5 of the Urban and

Rural Planning Law, the urban master plan, town master plan, rural plan, and village plan should be formulated based on the National Socio-Economic Planning and need to be coordinated with the land use master plan. The reality is that various spatial planning documents have not replied in the form of evaluation reports or any other clear format. The confirmation of whether different plans are coordinated has always been ambiguous.

3. Within the seemingly collaborative but loose legal system structure, conflicts and contradictions between spatial planning legal norms are not uncommon, especially when numerous planning objects or implementation scopes overlap. The different emphases result from different starting point of sectoral interest, so that these various types of planning with obvious overlapping content are trapped in the quagmire of inefficiencies playing against each other. A typical case is that different plans have cognitive biases regarding a certain concept, which leads to contradictory regulations on the mandatory content of the same affair in practice.

In recent years, successive policy documents have defined territorial spatial planning as a guide for national spatial development, a spatial blueprint for perpetual utilization and sustainable development, and a fundamental basis for comprehensive utilization, overall protection and systematic restoration of all kinds of construction activities (Niu & Lv, 2023, p. 295). Due to the various drawbacks of the fragmented characteristic structure, the current spatial planning system and its legal system cannot provide an effective operational framework for this macro-level adjustments at strategic level, which means the system faces numerous challenges for comprehensive reconstruction.

Institutional reform and the new spatial planning system

Building a territorial spatial planning system is a practical need for the construction of ecological civilization in China and an important support for achieving the modernization of the territorial spatial governance system and governance capabilities (Yi et al., 2022). The fundamental logic behind the construction of China's spatial planning system, after years of exploration, focuses on the integration and redistribution of spatial development rights. This means combining the spatial planning-related authorities originally spread among multiple departments into a single department. The purpose is to exploit the integrated territorial spatial planning to increase the guidance and limitations on various special plans, while increasing synergy within the system (H. Pan & Zhao, 2019).

In the field of SGPS, academics and planning practitioners have performed

significant exploration and multifaceted practice around themes such as system conflicts, interest balance, ideological consensus, and cooperative mechanism, and have achieved beneficial results in areas such as concept iteration, theoretical foundation, content and issues, preparation practice, technical methods, legislative insights, education, and industry transformation (Niu & Lv, 2023).

In practice, spatial planning has progressed from the "two-plan integration" to "three-plan integration" and nowadays to "multiple-plan integration". However, it is not equivalent to a simple merger of various planning types. After many practices and academic discussions, Territorial planning (now spatial planning) is no longer limited to the narrowly defined natural material resources such as land, water resources, minerals, biology, climate, etc., but is the overall planning of three-dimensional spatial, economic and environmental structures (M. Yang & Liang, 2020), also including the emerging space domains such as noise, radio, intangible cultural heritage and other intangible commons. Naming spatial planning with "territorial" is intended to address the shortcomings of existing spatial planning practices, which lack the guidance of comprehensive territorial planning, resulting to disorder in spatial development and failure in spatial governance (Yi et al., 2022).

From conceptions to actions, from design to implementation, new changes are occurring within the spatial planning system. In the 2018 State Council institutional reform, the responsibilities related to the protection and utilization of natural resources were unified and integrated into the newly established Ministry of Natural Resources (MNR), with "establishing a spatial planning system and supervising its implementation" as one of its main responsibilities. The spatial planning functions such as the Main Function-Oriented Zone Planning, Urban and Rural Planning, and Land Use Planning have all been transferred to the Natural Resources and Planning Bureau (Table 4.5). After the departmental restructuring, the agencies and institutions responsible for spatial planning have become larger and exhibit stronger characteristics of comprehensiveness and integration compared to before. This provides political foundation and platform support to resolve the planning and management challenges of the "multiple authorities managing the same affair", with the aim of establishing a more rational, coordinated, and efficient SGPS.

	Before the integration and reform of SGPS	After the integration and reform of SGPS (still being adjusted)
Competent department	National Development and Reform Commission (NDRC), Urban and Rural Planning Bureau (URPB), Housing and Urban-Rural Construction Bureau (HURCB), Land and Resources Bureau (LRB), Environmental Protection Bureau (EPB)	Natural Resources and Planning Bureau (NRPB), Ecology and Environment Bureau (EEB)
Jurisdiction	NDRC leads macroeconomic construction matters, URPB and HURCB share responsibilities for urban and rural planning and construction management, and LRB oversees land development and protection, EPB oversees environmental protection and pollution prevention. Generally, they are organized into blocks, each responsible for their respective fields.	After the integration and establishment of the NRPB, it is responsible for managing natural resources (land, mountains, rivers, forests, fields, lakes, grasslands, and minerals), fulfilling the duties of territorial spatial use control, and playing a regulatory role in territorial spatial planning. After the integration and establishment of the EEB, it has taken over some responsibilities in areas such as water conservancy, agriculture, and marine affairs, in addition to EPB's original duties.
Planning duties	NDRC - NSEP, MFOZP; URPB and HURCB - URP LRB - LUMP EPB - EPP	NRPB integrates the responsibilities of the former LRB in formulating land plans NDRC organizes the formulation of MFOZP, and the urban and rural planning management responsibilities of the URPB and HURCB. EEB is still responsible for environmental planning affairs.
Planning Operations Section	NDRC: Development Planning Ofc, National Economic Comprehensive Ofc, Regional Economic Ofc, Rural Economic Ofc, Urban Development Ofc, Social Development Ofc, Policies & Regulations Ofc. URPB and HURCB: Policies & Regulations Dept., Development Planning Dept., Urban Construction Management Ofc, Villages and Towns Construction Management Ofc, Planning and Development Service Center. LRB: Planning Dept., Land Management Dept., Land Use Management Dept. EPB: Policies & Regulations Dept., Environmental Management Dept., Pollution Prevention Dept., Legal Affairs Dept.	NRPB: Master Planning Ofc, Farmland Protection Ofc, Cadastral Survey Management Ofc, Regulatory Ofc, Land Use Management Ofc, Planning Information Ofc (Center), Planning Formulation Ofc (Center) EEB: Policies & Regulations Department, Planning and Financial Department, Natural Ecology Department, Technical Inspection Department
Institutional scale	NDRC generally has 20-30 internal departments, while URPB HURCB and LRB typically maintain roughly 14-25 departments apiece, with each department having 3-5 staff.	NRPB has around 20 internal departments, EEB has about 10 internal departments, with 3-5 staff each.

Table 4.5 *Institutional reform changes*

(Lu & Xia, 2019, p. 24)

With regard to the top-level design of the SGPS, in accordance with the concept of “Multi-planning Integration” put forward by the relevant policies and regulations issued by the State, and the “Three-Determination Plan” of MNR, the intended SGPS can be summarized as “five levels, three categories and four sub-systems” (Figure 4.6), from top to bottom, vertically detailed implementation at five levels: state, province, city, county and township, the planning at each level corresponds to the competencies of government authorities at each level; horizontally organized at three layers; Master Planning, Detailed Planning and relevant Specific Planning; parallel establishing four sub-systems: preparation and approval, implementation and supervision, regulations and polices, technical standards, to ensure the scientific operation of the system (Hu et al., 2023). "From the basic logic analysis of institutional reform and policy agenda, a national spatial planning system has established from both vertical and horizontal dimensions to match the hierarchical authorization, top-down and bottom-up communication, and overall linkage of intergovernmental management models" (Niu & Lv, 2023, p. 300).

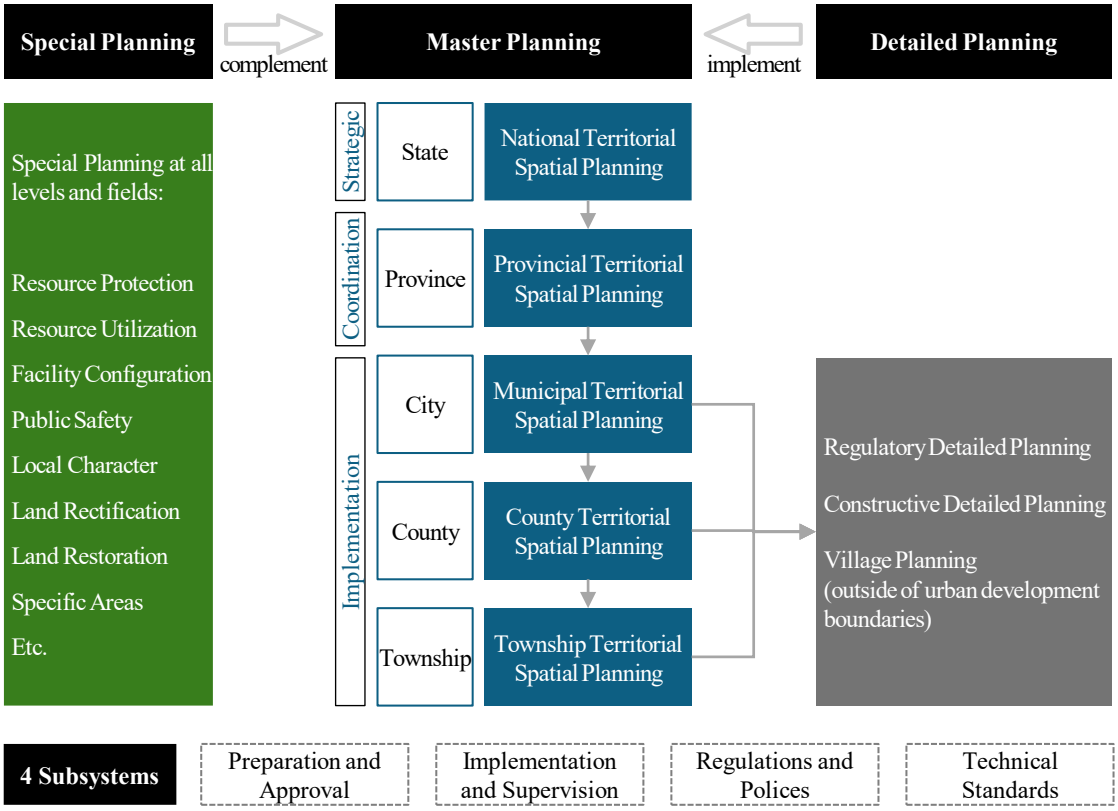


Figure 4.6 *Basic structure of territory planning system of China - “Eight Pillars, Four Beams”*
Source: drawn by the author (C. Li, 2023; Pan & Zhao, 2019)

Currently, the preparation of land and space planning from the national to the municipal and county levels is proceeding, but its theoretical framework and technical procedures urgently need improvement (Dang et al., 2020). Taking the regulations and policies subsystem as an example, the challenges faced by the aforementioned spatial planning legal system have not been overcome with the unification of planning authority and the restructuring of the planning system (Sun Y. & Wang, 2022). The formulation of the "Territorial Spatial Planning Law" has become a common consensus in both academic and practical circles. This law, which is crucial integrative law in the open and complex mega spatial planning legal system, is still under discussion and further revision due to the multiple concerns it involves. The absence of top-level legislation continues to persist.

4.2.2 Planning tools, between tradition and innovation

However, as it is still in the transitional period of reform, the Territorial Spatial Planning Law has not yet been finalized and put into practice, the Land Administration Law and the Urban and Rural Planning Law are still the guiding laws regulating the work of territorial spatial planning, the SGPS, especially in terms of its content, retains a lot of traditional features, which shows a phenomenon of the old and the new systems co-existing.

The new Land Management Law explicitly states that where territorial spatial planning has been prepared, Overall Land-Use Planning and Urban and Rural Planning will no longer be prepared. At the same time, the by-laws add that before the preparation of the territorial spatial planning, the Overall Land-Use Planning and Urban and Rural Planning approved by law shall continue to be implemented. With the establishment and implementation of the SGPS, Overall Land-Use Planning and Urban and Rural Planning will no longer be prepared and approved separately and will eventually be replaced by Territorial Spatial Planning. Therefore, the following section focuses on the main established territorial governance and spatial planning tools: Main Function-Oriented Zone Planning (MFOZP henceforth), Urban and Rural Planning (URP henceforth), Land-Use Planning (LUP henceforth) and Territorial Spatial Planning (TSP henceforth).

Main Function-Oriented Zone Planning (MFOZP)

The MFOZP is the planning of future population distribution, economic layout, land-use and urbanization pattern, based on the comprehensive analysis of different regions' resource and environmental carrying capacity, current development density and development potential. Its specific task is to divide the territorial spatial units with certain specific main functions based on the special differentiation of natural

environmental elements, social economic development level, ecosystem characteristics and human activities, so one of the main features is that the broken traditional administrative boundaries; the territorial space will be divided into four types of main functional zones according to the development intensity, namely, optimized development, key development, restricted development and prohibited development zone, and according to the main functions divided into three types of zones: urbanized zone, main (agricultural) production zone and key ecological function zone.

The MFOZP has been upgraded to a national strategy, which is an important basic system for gradually forming a development and protection pattern of territorial space in coordination with population, economy, resources and environment. “Opinions on the Preparation of national MFOZP” No.21 [2007] of the State Council clearly states that “national MFOZP is a strategic, basic and binding planning”. The six indicators (development intensity - %, urban space - million square kilometers, rural settlements - million square kilometers, arable land holdings - million square kilometers and forest coverage - %), is the basis for spatial development and layout of the plan for all elements such as national economic and social development, population, region, urban, land-use, environmental protection, ecological civilization construction, watershed, water resources, marine function, food production, transportation, disaster prevention and mitigation etc.. It also requires that “the preparation of the national MFOZP should be supported by the above mentioned plans and other relevant plans, and should be well connected in terms of policies, regulations, implementation and management”, and proposes polices and in 9 areas (finance, investment, industry, land, agriculture, population, ethnicity, environment and response to climate change), as well as differentiated performance assessment, to form a “9+1“ policy system (Z. Huang & Pan, 2020a).

The MFOZP is prepared at both national and provincial levels, consisting of the national MFOZP and the provincial MFOZP. The national MFOZP is prepared by the specialized Leading Group together with the governments of provinces (autonomous regions and municipalities), with rolling adjustments through midterm assessments. The main tasks of the national MFOZP are to analyze and evaluate the territorial space, to determine the number, location, and scope of various types of main functional zones, clarifies the orientation of different main functional zones, specifies the direction of development, controls the intensity of development, regulates the order of development and improve control principles, regional policies, etc. While provincial MFOZP is prepared by the governments of provinces (autonomous regions

and municipalities) organizing the governments at the city and county levels in accordance with the national MFOZP. There is no legal basis for the MFOZP, only administrative regulations issued by the State Council to guide its preparation and approval, and implementation opinions of the relevant main functional zones issued by local administrative departments, which shows that the MFOZP is non-statutory, but mandatory.

Land Use Planning (LUP)

Land Use Planning is the overall arrangement and strategic deployment to rationally adjust the land-use structure and layout based on the natural and historical characteristics of territory and the overall long-term interests of the sustainable development of regional society and economy, taking the whole territory in a certain region as the object. Macro-control and planning management of land-use "follows the principles of adaptation to local conditions and ecology priority" (C. Li, 2023, p. 127), focuses on sustainable utilization, and implements land usage regulation on development, utilization, governance and protection of land with regional differences, so as to achieve the goals of scientific coordination of public resources, enhancement the land utilization rate, correction of market failures and promotion of coordinated development of the national economy.

LUP, as comprehensive technical and economic measure for land resource allocation and spatial-temporal organization, starts from the perspective of total land resources, adheres to the guiding principle of regulating supply patterns to achieve constraints on resource utilization and to guide changes in demand for resource use (Xie, 2024). It combines the attributes of both development oriented and regulatory oriented planning, with the basic functions of control and coordination, but in practice, compared with the MFOZP, it "pays more attention to the physical space based on land parcels and the land resources it carries, especially the cultivated land resources, mainly performing the function of regulatory oriented planning", and "helps to control the negative externalities of land-use, protect public resources and maintain social fairness" (Yi et al., 2022, p. 150).

China's LUP system realizes the initial and final principle of protecting cultivated land resources and ensuring food security with the logic of bottom-line constraint, guarding the bottom line of agricultural production. The overall LUP carries out the control of land-use in China through the delineation of permanent basic farmland zones and the "three boundaries and four districts" (Yi et al., 2022, p. 149). The ecological conservation red line, the permanent basic farmland protection redlines, and the urban development boundary are known as the 'three boundaries/lines',

while the 'four zones' refer to ecological reserves, agricultural production zone, urban development zone, historical and Cultural reserves.

China's LUP consists of master planning, specific planning and detailed planning. national and provincial LUP for macro-control general planning, National and provincial LUP are macro-control master planning, whose main task is to arrange of various land and control the scale of urban construction land, on the premise of ensuring the dynamic balance of the total amount of arable land; the specific planning is a utilization planning of individual types of land or planning to solve a single problem in development, utilization, improvement and protection of land; LUP at the city, county or township level are implementing detailed planning.

According to the Land Administration Law, the planning term pf the overall LUP is stipulated by the State Council. In addition to the LUP program, the preparation procedure also includes pre-program analysis of the current status of land-use, land-use suitability evaluation, land production potential prediction, land population carrying capacity research, other research studies on basic thematic, reports on the problem presentation, study report of land-use strategy and the coordinated validation, review, approval and public notice requirements for planning programs. The State Council and the provincial governments implement two-tier approval for provincial LUP, which, once approved, must be strictly enforced and is statutory and mandatory. A lower-level LUP shall be prepared on the basis of higher-level LUP. Urban master planning and village-town planning shall converge with the LUP.

Urban and Rural Planning (URP)

According to the Urban and Rural Planning Law, “the URP is a spatial layout planning covering urban and rural settlements with the fundamental task of promoting comprehensive, coordinated and sustainable economic and social development in urban and rural areas, the promotion of the scientific utilization of land as the basis, and the promotion of a fundamentally improved human habitat as the purpose”. In fact, URP, in both disciplinary and practical fields, refers to the comprehensive deployment, specific arrangement and implementation management of urban and rural economic and social development, land-use, spatial layout, and various constructions within a certain period of time, taking the non-full-coverage urban and rural physical space as the research object (N. Li, 2024).

From a disciplinary point of view, the main purpose of its construction is to promote development and construction (unlike the LUP, which regulates the supply of sustainable resources), to form a “disciplinary connotation that emphasizes spatial quality, public policy and social practice” (S. Wang et al., 2022, p. 16). The theory of

URP is applied to study the variables that trigger changes in urban and rural physical space, such as ecology and environment, economy and industry, population and society, history and culture, to predicts the evolution of urban and rural construction space in conjunction with the suitability evaluation of urban and rural land-use, which is then transformed into the planning and design that provides the basis for the orderly construction and development of the urban and rural areas in practice, and which is applied to the planning zone and its affected neighboring areas. The so-called “planning zone” refers to the built-up areas of cities, towns and villages, as well as the areas that must be subject to planning control due to the needs of urban and rural construction and development. The specific scope of the planning zone shall be delineated by the relevant government concerned in the preparation of the Urban Master Planning, the County Master Planning, the Township Master Planning and the Village Planning, in accordance with the need for integrated urban and rural development, as well as the level of economic and social development of the corresponding planning zone.

URP shall be based on the Five-Year Plan for National Economic and Social Development, and shall converge with the overall LUP, with categories including Urban System Planning, Urban planning, County Planning, Township Planning and Village Planning. Urban Planning and County Planning are divided into master planning and detailed planning. Detailed planning consists of regulatory detailed planning and constructive detailed planning. With the continuous improvement of technical specifications for planning design and laws regulating the preparation and implementation of planning, The URP work is carried out in the process “analysis of the current situation - information collection - data analysis - scenario simulation - target decision-making - planning maps- planning text approval and implementation” (S. Wang et al., 2022, p. 17), gradually forming a system in which the municipal master plan is the backbone to realize the convergence of all levels of planning. Regulatory detailed planning is introduced below the municipal level to collaborate with specific planning for historical preservation, municipal engineering, public transportation, etc., focusing on creating quality cultural venues and public spaces, guaranteeing the quality and efficiency of public services, and jointly promoting the construction of human settlements. Prior to the reform of the spatial planning system, only the URP Law clarified the legal status of URP among the “Three Plans”, so URP is explicitly statutory and mandatory.

Territorial Spatial Planning (TSP)

TSP was proposed against the background, in which the Three Plans in the field

of territorial governance seem to have an orderly division of labor and cooperation, but in fact, competing in terms of authority with overlapping content amidst differences in interests. The government authorities believe that integrated spatial planning can help to solve the problems of disordered spatial development and ineffective spatial governance. In 2018, the CPC Central Committee and the State Council released the Opinions on the Unification of the Planning System to Better Play the Role of Strategic Orientation of National Development Planning, defining the orientation and role of territorial spatial planning in the national planning system, as well as its interrelationship with development planning, specific planning and regional planning.

TSP is a spatial and temporal arrangement for the development and protection pf the territorial space of a certain region, a basic basis for all kinds of development and protection construction activities, a guide for national spatial development and a spatial blueprint for sustainable development (N. Li, 2024). “The distinctive and prominent feature is the all-domain, all-encompassing, ‘trinity’ model of integrated planning for the development, protection and remediation of territorial space, which can be referred to as the ‘planning of planning’” (Yi et al., 2022, p. 151).

With the establishment and implementation of the spatial planning system, the MFOZP, the LUP and the URP will no longer be prepared and approved separately, but will eventually be replaced by the TSP. However, this does not simply mean that the disappearance and denial of MFOZP, LUP and URP, but the design and construction of the spatial planning system will integrate the above plans by defining the object as a broadly-defined space and “there exists a certain relationship of inheritance and sublimation” (K. Zhou, 2023, p. 1). In other words, in the era of integrated spatial planning, the MFOZP, LUP and URP no longer exist in the form of separate planning systems, but to improve and integrate the relevant planning contents into a unified and complete spatial planning system that serves the needs of practice under the unified system of objectives, logic and work (Yi et al., 2022, p. 152), becoming a part of the TSP.

In the systematic reshaping, the TSP inherits the strategic pattern of the MFOZP (Z. Huang & Pan, 2020a) and pays more attention to the policy innovation of spatial governance from the technical methods of spatial planning to emphasize the governance capacity of the whole spatial resources (S. Wang et al., 2022). “The nature of municipal governments is changing from ‘government control’ to ‘governance guidance’” (P. Zhao, 2015, p. 281); the TSP follows the organizational structure of LUP, including the “five-level and three-category” system, top-down

preparation process and the main structure of “zoning control + indicator decomposition + guarantee mechanism (Yi et al., 2022), coordinating the spatial relationships and maximizing benefits; in strengthening the planning objectives of ecological civilization, the TSP draws on URP, which has an advantage in creation of spatial quality and in explaining the symbiotic relationship between human beings and nature due to its complete theoretical system focusing on the scale of human habitation, and “guides the over-advancement or over-fulfillment of spatial value through the ‘pre-induction effect’” (S. Wang et al., 2022, p. 19). The planning content of the TSP includes the comprehensive protection and development utilization of natural resources with use control as the core, realizing the ecological protection based on bottom-line thinking through the delineation of “three zones and three lines” (ecological protection red line, urban development boundary and boundary of basic farmland protection zone), and also includes the regulation and control of the development construction for the purpose of habitat improvement, in order to realize the high-quality spatial innovation and “pre-governance“.

At the national level, the national TSP focuses on strategic, global arrangements for national territorial space to form the national TSP, which is the policy and general outline for the protection, development, utilization and restoration of national territorial space. It is organized and compiled by the MNR in cooperation with relevant departments, finalized and issued by the CPC Central Committee and the State Council. At the provincial level, it focuses on coordination, guiding the municipal and county TSP with provincial TSP for the implementation of the national TSP, organized and compiled by the provincial government and submitted to the State Council for approval after consideration by the Standing Committee of the NPC at the same level. The TSP at city, county and township level focuses on implementation, in addition to the comprehensive overall arrangements of the master plan, supplemented by detailed planning and village planning outside the urban development boundaries, and is a detailed implementation and specific arrangements for the requirements of higher-level planning in light of local condition. The TSP at city, county and township level can be complied jointly, or they can be complied for several townships as a unit and organized by the local government.

At all levels of TSP, specific planning with expand and clearly defined scope are carried out in parallel, including both the specific planning for specific areas developed jointly across administrative regions, the spatial planning for specific river basins, and the specific planning for certain fields involving spatial utilization, such as infrastructure facilities for transportation, energy, water conservancy, agriculture,

information, municipal engineering etc., public service facilities, military facilities, as well as specific planning for ecological and environmental protection, cultural relics protection, forestry and grassland, coastal zones, islands, nature reserves, mineral resources, and so on. Forestry and grassland, coastal zones, islands, nature reserves and mineral resources.

Scholars refer to the vertical organizational levels and horizontal organizational types of TSP as the “eight pillars” of the SGPS, and the sub-systems that guarantee the scientific operation of the system as the “four beams”. Combined with the emerging digital platform technology, the new type of spatial planning is committed to integrating the territorial spatial existing status map, the “eight pillars” planning content and the “four beams” supervision and implementation processes into a unified visualization platform, in order to build an information system that can be stacked up and opened from national level to village level, forming an overall coverage, dynamic updating, authoritative and unified efficient “One Map”. This is undoubtedly a nationwide cooperation and a test of the logic and rationality of the design of the SGPS, in which close cooperation among departments at all levels in all provinces within the system is indispensable, from the promotion of cognitive consensus on national SGPS to the definition of relevant spatial elements and the unification of the language used in the “One Map“.

4.2.3 Discourse on spatial governance and planning system

China’s spatial planning has undergone a long evolutionary process, even though “the planning principles for building cities were based on geomancy, Fenshui, I ching (Yi Jing) and Confucian (Kongzi) philosophy and the Rites of Zhou dating to approximately 1100–256 BC.” (P. Zhao, 2015, p. 275). The fundamental value and principle that state’s legitimacy should be maintained by a hierarchical system has led to the fact that “the physical form of a Chinese city does not usually reflect civic pride, but tends to symbolize state legitimacy” (P. Zhao, 2015, p. 276).

During the Republican era, China's attempts at western-style political system, public elections, constitution was created and independent modern legal system, reflected the strong demand for a shift in indigenous ideological discourse from imperial supremacy to an emphasis on civil society and the primacy of people's rights, in this way, war also exists to some extent as a form of cultural exchange. In the course of exploring the socialist road, one of the landmark practical achievements was the overthrow of the bourgeoisie under the leadership of the CPC in the period of New-Democratic Revolution. The Land Reform achieved initial results, which led to the abolition of feudal and semi-feudal land ownership system, the denial of the

hierarchical system, the implementation of the Collective Peasant Ownership and the shift from “leadership politics” to “legal system” in urban planning. Therefore, the discussion on the recent modern progression of China's territorial spatial governance is more meaningful (Figure 4.7).

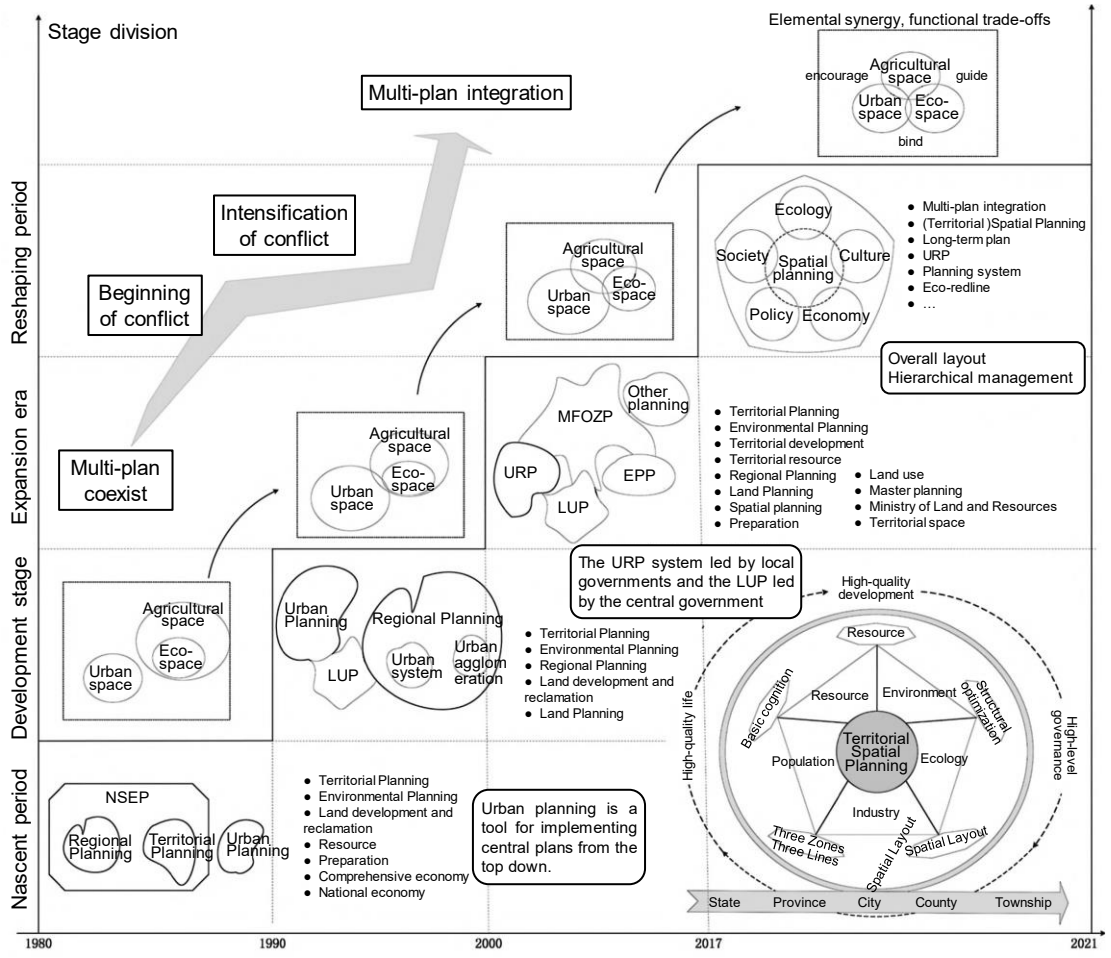


Figure 4.7 *Historical changes of Chinese spatial planning system (Source: Niu & Lv, 2023, p. 298)*

Nascent period: the Three Great Transformations of Socialism

The period from 1949 to the 1970s Is often summarized by scholars as the nascent period of China’s SGPS. When new China was founded in October 1949, it was an extremely backward agricultural Country. Half a century of turmoil had left the country faced with acute social contradictions, backward economic standards, currency devaluation, poor transportation and many other problems. Against this background, a communist society, which was a highly imitation of the Soviet Union’s model of industrialization, was rapidly established, in order to recover as quickly as possible from the post-war economic stagnation, to further advance the process of

land reform in the new liberated areas, which accounted for more than half of the country's population, and to prepare the conditions for the country's socialist industrialization and the socialist transformation of agriculture. The socialist urban planning system urgently built and serve as an important tool for the national construction and industrialization strategy.

In practice, all kinds of spatial planning responded to the strategic guidance of the Five-Year Plan in the form of various "decomposition actions", spatial interventions are transmitted and integrated the overall arrangement in the form of top-down command plans. "Concentrating resources on industrial development under a highly centralized planned economy and management system was the core strategic objective and value proposition at that time" (Zuo & Meng, 2022, p. 129). Economic development was identified as the urban main theme, economic and social development cannot bypass the topic of territorial spatial protection and utilization.

In practice, the urban planning system was brought into economic policies in the First Five-Year Plan for National Economic and Social Development (1953–58). […] Under this regime, factories, transport and power stations, for example, were given priority, while non-productive development, such as housing and improvements to living standards, were placed 'second'. This principle had such a profound influence on urban planning in China that it is a major reason for the current day growth-oriented policies throughout the cities of China" (P. Zhao, 2015, p. 276).

From 1953, China, which had completed land reform in the vast liberated areas of the country, began to carry out large-scale socialist industrialization, the socialist transformation of agriculture, handicrafts and capitalist industry and commerce (i.e., the Three Great Transformations), marking the China's gradual transition from New Democracy to Socialism. The traditional "consumptive cities", which was regarded as a symbol of feudalism and colonialism, naturally became a carrier for socialist industrialization. With the nationalization of urban land, they were transformed into "productive cities", to "achieve socialist industrialization and reflect the ruling position of the proletariat, such as workers, intellectuals and farmers" (P. Zhao, 2015, p. 276).

Meanwhile for the vast rural areas, after the land reform changed the feudal land ownership system into collective peasant ownership, the CPC, based on the Marxist theory of cooperativism and considering the actual situation of China at that time, began to explore communism and guide the peasants towards the road of corporatization. However, both the subsequent Cooperative Team and People's Commune were detached from the actual level of productivity development in rural China, coupled with highly centralized labor mode and egalitarianism in distribution,

the peasants' motivation to produce that had originally been mobilized receded, and the development of the rural economy was constrained instead.

On the evening of November 24, 1978, a secret meeting of 18 peasants in Xiaogang Village, Fengli Commune, Fengyang County, Anhui Province, to establish the "farmland to households", was the first shot of the second land reform, and the starting point of the bottom-up reform of the national territorial planning system. The various systems of responsibility practiced throughout the country did not fundamentally change the nature of collective ownership of rural land, but only separated the land ownership and management rights. Ownership remains collective, while management rights are subcontracted by the collective economic organization to farmers on an equal basis for independent management, with the collective economic organization having contractual responsibilities of supervisory, the unified arrangement, use and scheduling of public facilities, and the adjustment and distribution of land. As a result, a two-tiered management system with combination of centralization and decentralization has been formed, bringing into play both collective superiority and individual initiative.

In order to safeguard the land management rights of peasants, the Constitution 1982 adopted at the Fifth Session of the Fifth NPC clearly defines state-owned land and collective-owned land; Document No. 1 of 1983 marked the formal establishment of the "household contract responsibility system" as a strategic decision in rural reform, correcting the long-standing shortcomings of the highly centralized management and the excessively monotonous mode of operation, turning peasants from mere laborers into both producers and operators in the collective economy, thus greatly mobilizing their productive enthusiasm, giving better play to the potential of their labor and the land to solve the subsistence problem and serve as a solid backup for the subsequent vigorous development of the secondary and tertiary industries. "The legislative logic of modern land law has changed from taking land ownership as the dominant center to taking land-use right as the core" (M. Yang & Liang, 2020, p. 5), completing the adjustment and sorting out of land-related rights, which maximizes the guarantee of the state's macro-control ability and individual enthusiasm, greatly improves the efficiency of the state's economic construction from decision-making to implementation. It also lays the foundation for the construction of a nationally appropriate SGPS.

Development stage: Reform and Opening-Up, socialist market economy

In December 1978, the Chinese eleventh CPC Central Committee Third Plenary Session decided to start to implement the policy of Reform and Opening-Up (ROU

henceforth, domestic reform and external opening-up), if we say the historic meeting in Xiaogang village raised the curtain on domestic reform in the ROU, then the policy of “establishing the socialist market economy system”, was seen as a major pillar for external opening-up of the ROU. ROU is a great turning point in China's history with far-reaching significance, and the 20 years from 1978 to 2000 have been summarized as the development stage of China's SGPS.

During this period, China's economic system completed the transition from commodity economy to socialist market economy; the components of the national economy gradually became more active, with the autonomy of production and operation of all kinds of subjects gradually stimulated. “This also stimulated the creation and supply of various types of spatial development planning” (Zuo & Meng, 2022, p. 129), triggering the demand for an overall mapping of China's population and resources. Territorial planning and regional planning emerged as the times required, guided by the Outline of the National Territorial Master Planning and the Measures for the Preparation of Territorial Planning, which were completed successively in 1984-1987 one after another (Niu & Lv, 2023).

In addition, environmental pollution and ecological damage triggered the attention to the concept of sustainable development, decision-makers began to realize that the basic conditions of resources and environment were closely related to economic development, and the bottom-line control with elemental or indicative aggregate limits is imminent (Zuo & Meng, 2022). With the promulgation and implementation of the Land Management Law in 1986, the overall LUP became an important part of the territorial spatial planning (Niu & Lv, 2023). The socialist market economic system, with public ownership as the mainstay and the common development of multiple economic components, took shape under the continuous driving force of the “troika” of investment, consumption and export (Zuo & Meng, 2022).

In response to rapid urban growth, the central government enacted the Urban Planning Law of China in 1989, “which marked the commencement of the ‘legalized planning system’ era of urban planning in China” (P. Zhao, 2015, p. 277). In 1990, the Interim Regulations of China Concerning the Assignment and Transfer of the Right to the Use of the State-owned Land in the Urban Areas was promulgated, defining the implementing measures for land marketization in terms of granting, transferring, leasing, mortgaging and terminating the land-use rights (Niu & Lv, 2023). The complexity of land affairs and the active flow of capital in the market prompted the central and local government to think about “economic decentralization”. The

systematic innovation represented by the Tax Sharing decentralized the development right and gradually weakened the vertical directives in specific fields, releasing more maneuverable space for local governments.

The impacts and opportunities brought by the market economy, presented in the form of the “urban management” model represented by land finance. The pursuit of GDP growth across the country made urban planning an effective tool for economic development and spatial governance for local governments in the competition for regional spatial resources. “Urban planning rapidly became the backbone of the spatial planning system in this period, serving regional economic and social development together with regional planning and land planning in the previous period” (Niu & Lv, 2023, p. 297). As a result, the construction of the traditional “Three Plans” was basically completed, which improved the framework of SGPS from the perspective of planning content, and made a greater contribution to guiding the protection, development and utilization of resources, urban construction and regional coordinated development, etc., typically laying out the long-term development axes in the Yangtze River Delta and the Pearl River Delta (Niu & Lv, 2023).

Era of the expansion: Diverse spatial planning and authorities

With the deepening of market-oriented reforms and globalization in the 21st century, the era of the Big Bang has been ushered in in various fields. From 2000 to 2011, China’s land spatial planning has undergone a decade of transformation, in which, on the one hand, spatial concepts expanded under the influence of factors such as land, labor, capital, technology, and data, giving rise to nascent spaces such as “Metropolis”, “Fuzzy Space”, “Border Area” and “Enclave and Exclave”, etc., as well as a set of up-to-date spatial theories, and a series of up-to-date spatial theories like “Urbanization“, “Gentrification“, “Reterritorialization“, etc.; on the other hand, decentralization has set off the GDP “tournament”, the emergence of profit- and growth-oriented governments triggered the disorder and inefficiency caused by the local (for regional resources) and sectoral (for authority of planning affairs) competition.

In addition to the traditional “Three Plans”, with the expansion of spatial authority, there was also a proliferation of various types of planning under the responsibility of different departments, which had their own duties and competing with each other in a context where the overall legal framework was not yet complete and hierarchical categorization was not sufficiently clear, even so, there was still a vacuum, especially when it comes to the matters related to inter-provincial, national or even international cooperation. Against this background, there is an urgent need to rationalize the

overall framework of SGPS, so that “the development, utilization, guidance and control of nascent space have forced spatial planning to transform from traditional management tools to a new spatial function morphology theory, with a view to realizing the co-ordination and integration of planning at different scales” (Niu & Lv, 2023, p. 296).

During this period, research in developed countries has elevated spatial planning to an emerging methodology, emphasizing that taking into account the interests of multiple land-use actors in the context of economic integration is as important as the integration of land strategies at the spatial level, spatial planning gradually evolved into a comprehensive conceptual system that promotes the coordinated development of man-land relationship, and nested the existing development strategies and related policies into various types of territorial spaces at various levels.

The rapid development of cities during this period made scholars realize dialectically the inflexibility of the formal statutory approach, the strategic planning emerged as the times required. “Comparing with the statutory plan, the formation of a strategic plan only requires a few months and is more likely to involve non-government owned planning agents or firms” (P. Zhao, 2015, p. 279). As a type of planning that is more adaptable to investments and changes in the urban territory, strategic planning is characterized by greater flexibility and shorter cycles, but is susceptible to personal opinion; in 2008, the Urban and Rural Planning Law was promulgated and implemented; between 2007 and 2010, the Opinions on the Preparation of the National MFOZP and the National MFOZP were issued one after the other, further expanding the scope of national spatial planning, each of these plans reflects the trend of strengthening the comprehensiveness of the spatial planning system and the gradual upward shift of the center of gravity, while at the same time reflecting the strengthened comprehensive trend and gradual upward shift in focus of spatial planning system. Planning levels and categories have also been enriched, gradually penetrating all aspects of multi-scale spaces such as urban streets, central neighborhoods and metropolitan areas.

Land assets became a bargaining chip for governments to activate bank credit to obtain future cash flow capacity to invest in infrastructure to stimulate rapid economic development. The various economic development zones, high-tech development zones and city clusters created by comprehensive strategic plans such as “Beijing-Tianjin-Hebei“, “One Belt, One Road”, made the “relevant government departments realize once again that territorial spatial planning has become a ‘special platform’ for safeguarding departmental authority and interests and dominating the allocation of

resources“ (Niu & Lv, 2023, p. 298).

Period of reshaping: Multiple-Plan integration

The period from 2012 to the present has been described as a period of reshaping China's SGPS. In 2013, the Third Plenary Session of the 18th CPC Central Committee proposed for the first time to “promote the modernization of the country's governance system and governance capacity”, i.e., to be holistic, systematic and coordinated (Niu & Lv, 2023). However, the authorization procedure for the statutory plan and the obtainment of development permit with respect to the planning process, are still time-consuming processes due to the invisible games of different departments and the possible contradictions in the contents of various upper planning, and the ensuing corruption and inefficiency constrains the effectiveness of territorial spatial planning to a certain extent (P. Zhao, 2015, p. 279). In the context of the new era, the goal of territorial spatial governance has long been gradually transformed from a single socio-economic development to a multi-dimensional deconstructed compressed package, with a series of themes such as ecological civilization construction, national food security, regional coordinated development, rural revitalization, urbanization, the transformation of the basic contradictions in society and the comprehensive green transformation of economic and social development, etc., becoming the focus of various types of strategic planning.

In 2014, 28 regions across the country carried out pilot work on “Multi-Planning Integration”, to harmonize various types of planning with different strategic dimensions by means of the output of the “One Blueprint” mechanism, which is jointly constructed by various types of information and integrated with management elements. However, the government soon realized that the reason why the implementation of “Multi-planning Integration” was still difficult is the lack of a top-level design that pays more attention to the use of macro-control and market-adjusted integrated management tools (Niu & Lv, 2023). To improve the capacity of territorial spatial governance, it is necessary to establish a unified system for the management of natural resource assets and to consolidate the rights basis for territorial spatial development and protection, therefore institutional reforms to sort out the relationship between rights and responsibilities are imperative in order to promote the implementation of major natural resource scientific projects, groundwork and special scientific research projects.

In February 2018, the Decision of the Central Committee of the CPC on Deepening Reform of Party and Government institutions (the “Decision” henceforth) finalized the plan for adjusting the constituent departments of the State Council,

setting up MNR and no longer retaining the Ministry of Land and Resources (MLR), the State Oceanic Administration (SOA) and the State Bureau of Surveying and Mapping (SBSM). The Decision proposed that the MNR should “uniformly exercise the responsibility of owner of all natural resource assets and uniformly exercise the responsibility of utilization control of all territorial space, as well as ecological protection and restoration” and “strengthen the guiding and constraining role of spatial planning on various specific plans, promote ‘Multi-Planning Integration’, realize the organic integration of LUP, URP, etc.”.

In August 2019, the 12th session of the 13th NPC deliberated and passed an amendment to the Land Management Law, adding Article 18: The State establishes SGPS and clarifies the status of territorial spatial planning as the basic basis for all types of development, protection and construction activities; MNR issued the Opinions of the State Council of the Central Committee of the Communist Party of China on Establishing a SGPS and Supervising Its Implementation, which initiated the exploration of the reshaping of the SGPS in the mode of “Multi-Planning Integration“.

4.2.4 Practice of spatial development in local implementation

The typicality of the Pearl River Delta as a planning practice case

The Pearl River Delta is in the lower reaches of the Pearl River in the central-southern part of Guangdong Province. It is composed of two deltas formed by the sedimentation of the Pearl River as it flows into the sea. Adjacent to Hong Kong and Macau, and facing Southeast Asia across the sea, it has convenient land and sea transportation and is known as China's "Southern Gateway." As a pioneer region in China's reform and opening-up, less than one-third of Guangdong Province's land area gathers 53.35% of the population and 79.67% of the GDP of Guangdong Province, the largest economic province in the country. The Pearl River Delta has become one of China's major economic zones and manufacturing centers, playing a significant role in driving the overall economic and social development and reform and opening-up efforts across the country, and holding a crucial strategic position (Y. Li, 2010).

In the early 1980s, the country promoted a spatial pattern of "special zones—coastal areas—interior" through policy experiments. As the first round of economic growth, the central government launched the reform and opening-up policy. Among the first four special economic zones, three were located in Guangdong Province, with Shenzhen and Zhuhai later becoming sub-core cities of the Pearl River Delta (Cheshmehzangi & Tang, 2022). Subsequently, in 1984, the State Council approved

the first batch of fourteen cities in the country to be opened to the outside world. Guangzhou, as one of these port cities and an extension of the special economic zones, began to implement certain special policies of the special economic zones in its foreign economic activities (L. Li et al., 2024). In fact, even earlier, in 1757, when the Qing government closed four of the five customs ports for foreign trade imports that had been forced open by the Treaty of Nanjing (Xiamen, Fuzhou, Ningbo, and Shanghai), Guangzhou was still retained as the only legal port for foreign trade in the country (Canton system), leaving behind many remnants of the Maritime Silk Road. Due to its unique geographical advantages, favorable business environment, and strong commercial foundation, this long-standing "golden port" for foreign trade in China has naturally become the most important core city in the Pearl River Delta. From a millennium-old commercial hub to an international nexus, Guangzhou has witnessed the great journey from maritime trade connectivity to mutually beneficial cooperation with countries around the world.

The southeastern coastal regions became an important window for New China to break through Western economic blockades and political isolation, opening the door to the world. Cities that led the national average development level became convergence points for various "flows" (including capital, policies, people, information, etc.) both domestically and internationally (X. Liu & Zhou, 2012), entering a cycle of economic takeoff. The spatial pattern gradually unfolds dynamic transformations in the form of points, lines, and planes, forming a series of urban agglomerations with close economic ties and industrial division of labor and cooperation (L. Li et al., 2024). The "Pearl River Delta" was first proposed in the early 1990s under the name "Pearl River Delta Economic Zone". With the coordinated and integrated development of the region, the scale of cooperation within this economy is continuously expanding, and its influence is extending further, giving rise to the concepts of "Small Pearl River Delta", "Large Pearl River Delta", and "Greater Pearl River Delta" (X. Liu & Zhou, 2012).

The Pearl River Delta is like a pioneer in the field of spatial governance and planning, where various planning policies are piloted. The continuous influx of different "flows" has accelerated the evolution of the spatial pattern of the Pearl River Delta through cycles of planning system changes. Therefore, the Pearl River Delta region has accumulated the most spatial attributes and has, to some extent, become a microcosm of the evolution of China's spatial governance and planning system. The 1994 "General Plan for the Pearl River Delta Economic Zone" proposed the direction of regional economic integration and infrastructure connectivity, involving

cross-administrative spatial governance and planning. The 2014 "Outline of the Plan for Reform and Development of the Pearl River Delta Region (2008-2020)" emphasizes regional coordinated development, urban-rural integration, and industrial upgrading . In 2017, the state released the "Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area," proposing to jointly develop the Pearl River Delta region with Hong Kong and Macau into a world-class city cluster, forming a regional collaborative innovation system (Cheshmehzangi & Tang, 2022; L. Li et al., 2024). Additionally, the Pearl River Delta is one of China's model areas for ecological governance .

In summary, the following characteristics have made the Pearl River Delta a comprehensive and typical case of planning practice in China:

1. Institutional innovation and policy flexibility. The Pearl River Delta region has implemented large-scale pilot projects in special economic zone policies, land use reform, and corporate autonomy, accumulating valuable experience. This has provided a demonstration effect for reforms in other regions of the country and has promoted the improvement of the national spatial governance system (X. Zhang & Wang, 2021).
2. Regional coordinated development and integration. The Pearl River Delta has explored cross-administrative planning and governance mechanisms, particularly in infrastructure connectivity and industrial collaboration, forming a cooperative and win-win regional governance model.
3. Integration of multiple plans and efficient utilization of spatial resources. By integrating land use, urban and rural planning, and main functional area planning, the Pearl River Delta has achieved the integration of multiple plans, involving the consolidation of multi-level and multi-category plans and relevant departments.
4. International perspective and open cooperation. The Pearl River Delta draws on advanced international planning concepts (such as the TOD development model and smart city technologies) and strengthens cooperation with Hong Kong and Macau under the "one country, two systems" framework, enhancing the global competitiveness and adaptability of regional planning (Cheshmehzangi & Tang, 2022).
5. Ecological protection and green development. The Pearl River Delta is vigorously promoting comprehensive watershed management and urban ecological restoration, continuously improving the quality of the ecological environment, achieving a balance between economic growth and ecological

protection, and providing a model for the construction of ecological civilization nationwide (J. Li, 2012b).

The 5 upward explorations of the regional planning in the Pearl River Delta

In July 1994, the Guangdong Provincial Committee proposed the strategic concept of building the Pearl River Delta Economic Zone at the Third Plenary Session of the Seventh Provincial Committee. The initial Pearl River Delta Economic Zone covered nine cities, namely Guangzhou (the provincial capital), Shenzhen, Foshan, Zhuhai, Jiangmen, Zhongshan, Dongguan, Huizhou, and four districts and counties in Zhaoqing.

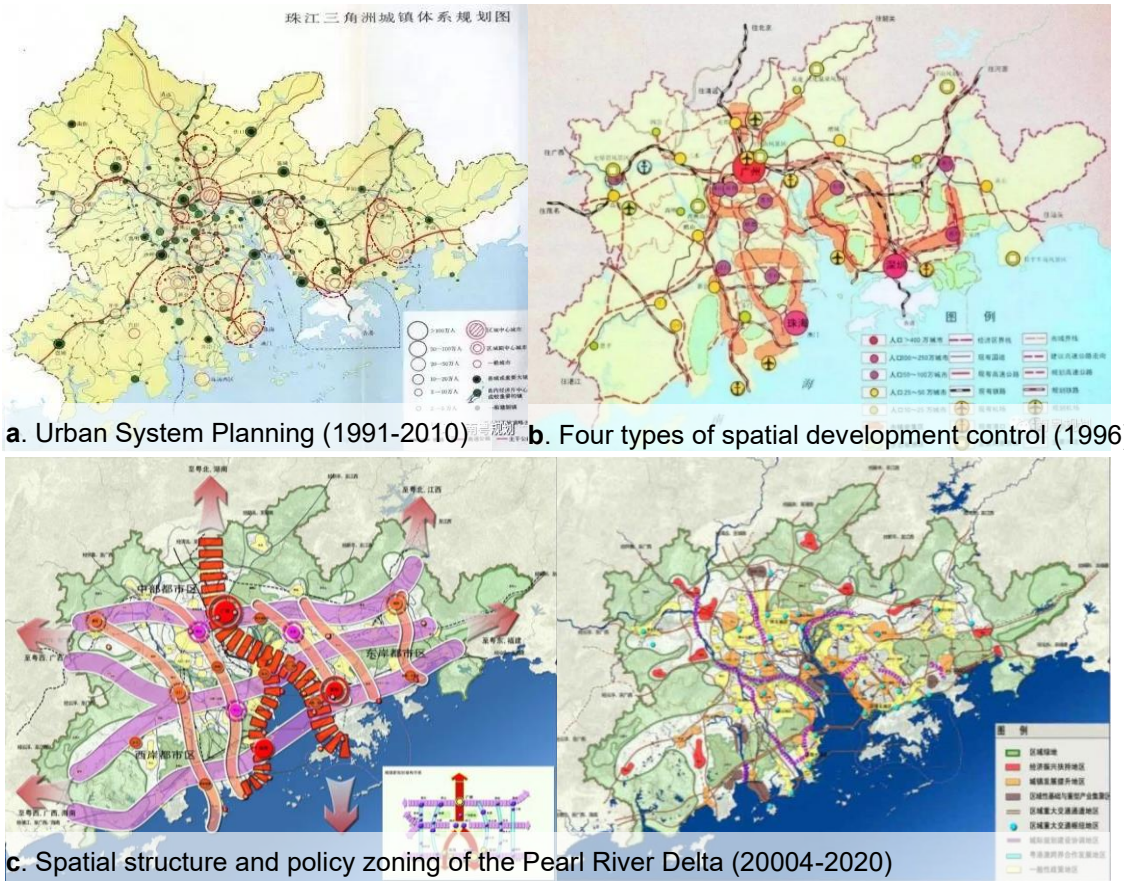
Over the past 30 years of reform and opening up, the Pearl River Delta has leveraged its geographical advantage of being adjacent to Hong Kong and Macau, taking the lead in opening up, and vigorously pursuing reform. It has rapidly achieved a historic leap from a traditional agricultural economy to an urban economy, and from an agricultural society to an urban society, becoming one of the regions in the country with the highest level of urbanization, the most continuous urban development, and the most prominent development contradictions (J. Li, 2012a).

With the advancement of urbanization, the "Greater Pearl River Delta" region, composed of the Pearl River Delta plus Hong Kong and Macau, is gradually forming an urban area closely linked to the global economy, presenting new challenges for regional management. First, there is an urgent need to establish a regional infrastructure network that adapts to the trend of urbanization; second, it is necessary to prevent the loss of arable land and environmental degradation caused by rapid industrialization; third, it is important to alleviate the vicious competition and market segmentation among cities in the context of fiscal decentralization. To address the above issues, the Guangdong provincial government began implementing two comprehensive regional development plans (1994, 2008) and one spatial plan aimed at urban agglomeration (2004) in the Pearl River Delta starting in 1994. In 2006, in collaboration with the governments of Hong Kong and Macau, they initiated a joint planning action to promote coordinated development of the Greater Pearl River Delta urban agglomeration (J. Li, 2012a, 2012b; X. Liu & Zhou, 2012). Since the late 1980s, the Pearl River Delta has consecutively advanced five explorations of regional planning (Figure 4.8).

In 1989, the Guangdong Provincial Construction Committee (subsequently the Department of Housing and Urban-Rural Development, now restructured) organized the preparation of the Pearl River Delta Urban System Planning (1991-2010), aiming to guide the development of several small and medium-sized cities and central towns

through planning and main infrastructure allocation, thereby promoting the cultivation of the regional urban system (L. Li et al., 2024). The concepts of "cultivating regional growth poles" and "constructing a hierarchical urban structure system" emphasized in this plan provide a solid research basis for improving the urban system structure and developing the urban agglomeration layout in the Pearl River Delta.

In response to the issues of farmland erosion, environmental pollution spread, and the "feudal economy" to do things each in one's own way caused by extensive development, the concepts of sustainable development and urban-rural integration theory have gradually been introduced domestically (Cheshmehzangi & Tang, 2022; L. Li et al., 2024). The Pearl River Delta Economic Zone Urban Agglomeration Plan (Guangdong Provincial Committee of Construction, 1996), as one of the supporting sectoral plans, innovatively completed the first urban agglomeration plan in the country, building on the technical methodology of urban system planning and incorporating foreign experiences, pioneering completion of China's first urban agglomeration plan.



a. Urban System Planning (1991-2010) **b**. Four types of spatial development control (1996)

c. Spatial structure and policy zoning of the Pearl River Delta (20004-2020)

Figure 4.8 *Planning Maps of the Pearl River Delta*
(Source: created by the author based on publicly available data)

In 2004, the Guangdong Provincial Committee, the Provincial Government and the Ministry of Housing and Urban-Rural Development decided to jointly organize and compile the Pearl River Delta Urban Agglomeration Coordinated Development Plan (2004-2020)", making it the first regional plan in China to be a collaboration between a ministry and a province. For the first time, the goal of a " world-class city cluster" was proposed, along with the "networked axial spatial structure", nine types of "spatial policy zoning" and the "action plan for planning implementation", which provide spatial guidance for coordinated regional development and urban-rural integration (Y. Li, 2010). Additionally, the Regulations on the Implementation of the Coordinated Development Plan for the Pearl River Delta Urban Agglomeration", passed in 2006, marked the legalization of regional planning.

The Outline of the Plan for the Reform and Development of the Pearl River Delta Region (2008-2020) was officially issued at the critical historical juncture of the 30th anniversary of reform and opening up. It proposed development requirements such as "reform and innovation development", “five-point proposal”, and "Guangdong-Hong Kong-Macao cooperation to build a high-quality living circle" etc. (J. Li, 2012a), aiming to achieve the integration of the three main metropolitan areas through differentiated strategies (Figure 4.9).

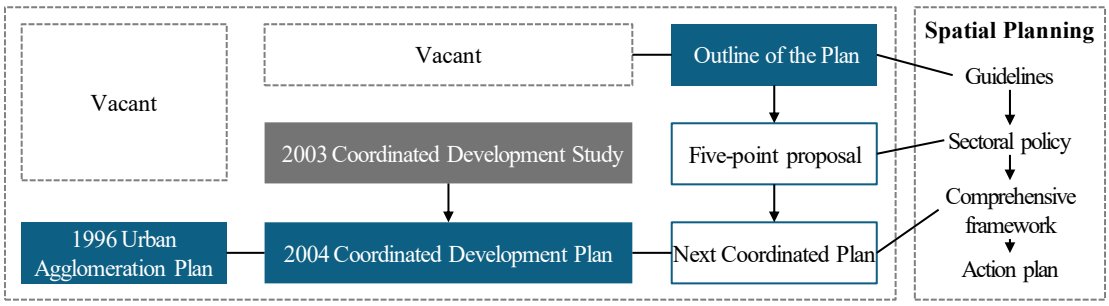


Figure 4.9 *General relationship diagram of 1996, 2004 and 2008 Planning (Source: X. Liu & Zhou, 2012 p. 122)*

In order to shift the past "non-institutional" cooperation led by the market to "institutional" cooperation driven by both government and market, with the consent of the Hong Kong and Macao Affairs Office of the State Council and the governments of Guangdong, Hong Kong, and Macao, the department of urban and rural planning of the three regions cooperated in 2006 to conduct a strategic regional planning study – the Planning Study on the Co-ordinated Development of the Greater Pearl River Delta Townships, focusing on areas with "cross-border" cooperation significance. The various implementation plans proposed subsequently mark the transition of the

Guangdong-Hong Kong-Macao spatial planning cooperation from strategic planning coordination research to implementation-oriented action plans.

Practices of local innovations for flexible adjustment

In the process of transforming urban spatial governance in China, Shenzhen and Guangzhou, as pioneering cities of reform and opening-up, have explored spatial governance paths with local characteristics through institutional innovation and technological empowerment within the framework of the statutory planning system (Cheshmehzangi & Tang, 2022; L. Li et al., 2024). This section selects typical cases from two regions in the fields of the three zones and three lines, industrial spatial restructuring, historical district revitalization, and cross-border cooperation zone development. By examining their institutional design and implementation mechanisms that break through traditional planning paradigms, it aims to understand the "centralized rigid control + local flexible adjustment" collaborative governance framework of China's SGPS.

Cross-border collaborative unit development model – Shenzhen Qianhai

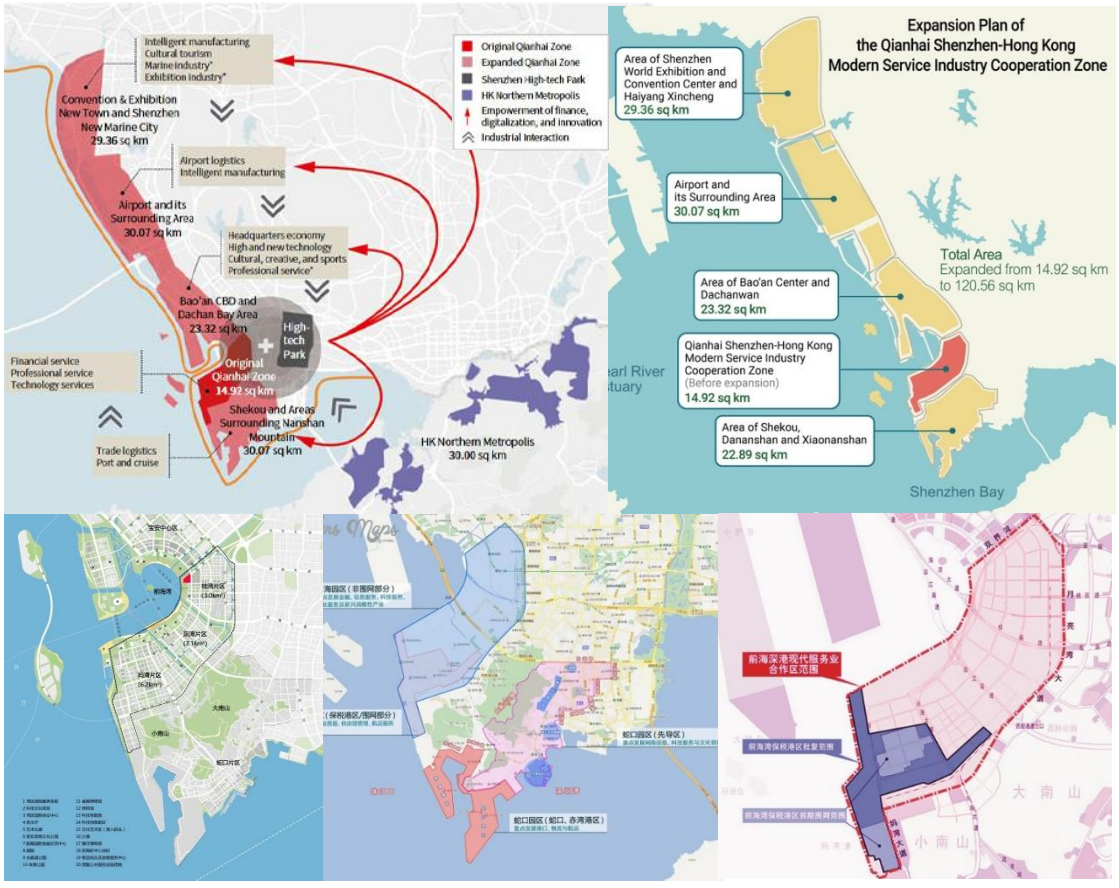


Figure 4.10 *Planning of Qianhai Shenzhen-Hong Kong Modern Service industry Cooperation Zone*

(Source: created by the author based on publicly available data)

The Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone has innovatively introduced a "unit development + statutory plan" dual-track system within the spatial planning system, dividing the 15 km^2 into 22 development units (Figure 4.10). Each unit implements a mechanism of "planning coordination + market leadership + government-enterprise interaction" (Michael, 2022). This model breaks through the rigid control of traditional regulations, allowing developers to mix land functions and dynamically adjust development intensity within units (Yong, 2019).

The Qianhai unit plan, through the development rights transfer system, absorbs 40% of the incremental revenue into the regional coordination fund, establishing a land value increment revenue sharing pool. This provides a balance in infrastructure construction funding across units (W. Ye & Huang, 2013), effectively resolving the budget challenges for public facility support. In addition, in the sectors of building setbacks and fire safety laws, the alignment with Hong Kong's planning requirements has achieved cross-border institutional integration.

Flexibility in industry and urban integration - Guangzhou Pazhou

The Pazhou Digital Economy Experimental Zone has built a flexible operation system that adapts to the characteristics of the digital economy by creating a combination policy tool of "dynamic land transfer + flexible planning conditions" (Y. Sun et al., 2024; Y. Ye et al., 2024).

Its innovation is reflected in: first, establishing a M0 compatibility system for industrial land, allowing R&D land to accommodate 30% commercial office functions (C. Liu et al., 2021; Yao et al., 2021), and achieving autonomous function conversion outside the negative list through a whitelist mechanism for building functions; Secondly, adopt a full lifecycle management model to dynamically match the land transfer period with the industrial cycle, and simultaneously use the BIM reporting system to implement real-time monitoring of development intensity (Zhitong et al., 2019); Moreover, by constructing a dynamic adjustment mechanism for rail transit connection plans through a digital twin platform, the temporal and spatial adaptation between infrastructure supply and urban development is achieved (Y. Wang et al., 2023). This flexible management mechanism effectively reduces the initial investment costs for enterprises and improves the efficiency of spatial resource allocation.

Historical spatial renewal of multi co-governance - Shenzhen Nantou

Shenzhen Nantou Ancient City Renewal Project breaks through the traditional single-entity model of urban renewal, forming a collaborative governance framework of "government guidance + professional institution operation + local resident

participation", as well many other multiple breakthroughs in the field of historical space reproduction (Gu et al., 2023).

As for the institutional design, the mechanisms of property freezing and space use rights exchange, preserved 70% of the indigenous residents' living rights, forming a path of cultural capitalization (Ling & Wang, 2024; Nikodijevic & Grujic, 2021) (Figure 4.11); at the technical specification level, the Technical Guidelines for the Revitalization of Historic Architecture are formulated, establishing the principles of adaptive reuse and breaking through the traditional paradigm of original restoration (C. Huang & Yu, 2019); in terms of the implementation mechanism, establish a feedback mechanism for the earnings of intangible cultural heritage workshops and creative markets, and ensure the substantial bargaining power of indigenous people through a resident community planner system (Gu et al., 2023; C. Huang & Yu, 2019). This multi-stakeholder governance model provides dual sustainability of cultural preservation and community development.

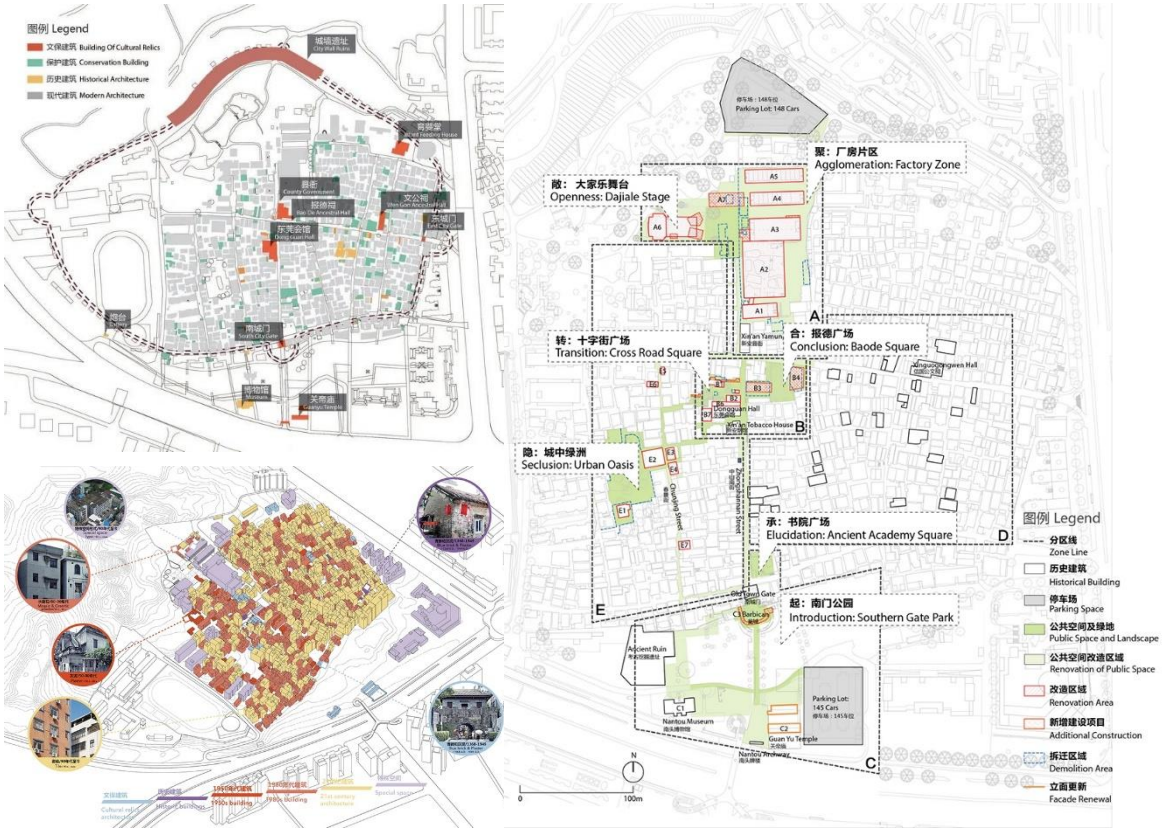


Figure 4.11 *Nantou Ancient City Renewal Project*
(Source: created by the author based on publicly available data)

Adaptive construction model for ecological red line – Shenzhen Dapeng

As a core area for ecological protection in Shenzhen, Dapeng New District has

completed the construction of marine monitoring stations through innovative institutional design while strictly adhering to ecological red lines (Hou et al., 2016). This example exemplifies the "baseline control + precise exemption" mechanism for infrastructure construction in ecologically sensitive areas, providing a local practical example of the dynamic balance between ecological protection and facility construction for the implementation of necessary public service facilities within ecological spaces.

"The temporary public infrastructure access criteria" combine annual ecological impact assessments to achieve dynamic access, ensuring the compatibility of facility operations with ecological protection goals. The Technical Guideline for Construction in Ecologically Sensitive Areas promotes prefabricated building technologies, non-powered sewage treatment systems, and biomimetic camouflage designs with low-impact construction techniques. In addition, establish a tripartite governance framework of "government - research institutions - community," relying on the decision-making mechanism of expert committees, the community supervisor system, and a data-sharing platform to operate a multi synergistic governance network (Liang & Li, 2020).

Dimension	Qianhai Model	Pazhou Practice	Nantou Ancient City path	Dapeng New District Experience
Core contradiction	Cross-border rule conflicts	Industrial space adaptation	Historical preservation and renewal	Balance between ecology and construction
Policy tools	Transfer of development rights	Flexible land use policy	Property exchange mechanism	Dynamic access permission
Technological innovation	3D cadastral management	Digital twin platform	Micro-renewal standard system	Low-impact construction technology
Governance breakthrough	Cross-border system coordination	Matching the production and urbanization cycles	Path of cultural capitalization	Scientific Decision-Making Community

Table 4.6 *Comparative Analysis of Institutional Innovation*
(Source: summarized by the author)

The above scenario shows that at the local level (Table 4.6), through the innovative path of "policy experimentation - rule transformation - institutional solidification", a resilient adaptation mechanism has been constructed within the

spatial planning system. Its experience indicates that effective spatial governance requires the establishment of a policy toolbox with "rigid baseline + flexible guidance", and dynamic feedback adjustments through a digital governance platform.

Chapter 5

Positioning China's spatial governance and planning system

This chapter carries out a systematic attempt to position China's SGPS in the international classification context, with particular reference to EU Compendium, focusing on its institutional uniqueness and operational logic. Based on the conceptual framework of "institutional technology" and the related typology derived from ESPON COMPASS, the sections that follow evaluate China's SGPS against two critical dimensions: (1) mechanisms for the allocation of land use and spatial development rights, and (2) state-market dynamics in guiding spatial development decisions. It does so by integrating qualitative institutional analysis with quantitative scoring methodologies regarding how the hybrid governance model of China, one of strategic centralization and adaptive decentralization, breaks the convention of Eurocentric classifications, such as the ideal types in the EU Compendium.

In a comparative framework, the scoring system of X-Y, as developed by Berisha et al.(2021), is applied: the X-axis refers to the degree of conformity between binding plans and negotiated project approvals, while the Y-axis sets the balance between state-led and market-driven spatial development. In the comparative perspective, this makes the Chinese SGPS a very specific "strategic-performative" hybrid, with an X = 3 (binding general plans with negotiated adjustments) and a Y = 2 (market-dominated spatial development with selective state intervention). This rebuffs the traditional dichotomy between "conformative versus performative" systems and allows showing in China how institutional adaptability gives room for dynamic equilibriums between top-down control and experimentation by local levels. Operationalization of this model, such as enforcement through satellite monitoring of ecological redlines and cross-jurisdictional quota trading, draws meaning from practice studies in the Pearl River Delta.

This chapter further points out how existing comparative methodologies fall short in representing the logics of governance from the non-Western world. Setting the Chinese SGPS in juxtaposition with European typologies-the neo-performative system of Germany and the French conformative model-it examines significant gaps within current analytical frameworks, notably underrepresentation of unitary state coordination mechanisms and multi-scalar policy experimentation. These findings do not only enrich global comparative planning theory but also give a methodological template toward incorporating more varied institutional contexts within transnational policy dialogues.

5.1 Positioning China’s SGPS by EU Compendium

The four ideal types of European SGPSs defined by the EU Compendium of

spatial planning systems and policies illustrate the variances among countries in terms of planning objectives, power allocation, policy instruments, and governance models. China's SGPS exhibits unique characteristics, incorporating functions of strategic guidance, integration, and stringent land management, as determined by the evaluation of the 7 variables proposed by EU Compendium (Table 5.1). This functional complexity exceeds the definition of any single type within the four ideal types, emphasizing the combination of public interest and strategic rigidity, so establishing a distinctive "central coordination + local implementation" dual-track logic.

EU compendium's variables		Characteristics of China's SGPS	Comparison with represent SGPSs
1	Scope of the system	Covering comprehensive multifunctional governance that integrates economic, ecological, and social objectives (such as the "three zones and three lines" framework: ecological protection zones, permanent basic farmland, and urban development boundaries).	Surpass the "Regional Economic type" (focuses primarily on economic objectives) and the "Comprehensive Integration type" (limited to administrative integration) by establishing dynamic balance of numerous goals through "rigid bottom line + flexible substitution".
2	Extent and type of planning at national and regional levels	Strategic plans are formulated at national level (e.g., the National Territorial Spatial Planning Outline), while along the administrative structure, they are detailed and implemented through inter-provincial collaboration at regional level (such as the Pearl River Delta / Yangtze River Delta Integration Plan) and "three levels and three types" of plans (overall, sectoral, and detailed) at local level.	In contrast to the French comformative-based centralization, China permits local innovation within its framework (e.g., flexible infrastructure adjustments within Shenzhen's Eco-redline). Unlike the German performative-based local autonomy, China maintains the authority to allocate quotas, (the state reserving 10% of construction land).
3	Locus of power	"Strategic Centralization + Adaptive Decentralization": The central government sets rigid constraints (such as Eco-redlines covering 25% of China's land area), while local governments flexibly adjust through pilot policies (such as Zhejiang's ecological compensation mechanism).	Unlike the centralized system in France or the local autonomy in Germany, Switzerland, China has established a spiral coordination path of "pressure transmission - policy experimentation - institutional absorption".
4	Relative roles of public and private sectors	The state leads the allocation of core resources (such as the land quota trading market being regulated by the state), while the private sector participates in infrastructure construction through the PPP model (such as the development of Xiong'an New Area).	Market engagement is stronger than in the comformative model of France, Denmark etc. (public sector-led), but the amount of state intervention significantly exceeds that of the performative model of Portugal, Switzerland etc. (e.g., satellite monitoring restricting private illegal development activities).

5	Constitutional provisions and administrative traditions	The constitution stipulates "land state(public) ownership", while the administration traditionally emphasizes "concentrating efforts to accomplish major tasks" (such as the China Western Development).	Unlike the federal constitution of Germany and Switzerland that focuses on local autonomy, the Italian laws prioritize the protection of cultural heritage, as well the traditional centralization in the Czech Republic, Chinese centralization strengthens effective implementation of plans through "the Party leads everything".
6	Maturity or completeness of the system	The system is being dynamically improved (such as the addition of low-efficiency land policies in 2023), with advanced digital governance tools (such as the "One Map" platform for territorial spatial planning), but there is insufficient consistency in execution (with significant differences between coastal and inland areas).	Still in the exploratory development stage, especially with the legal framework's maturity far below that of European countries. Switzerland's RPG have been in effect for over 40 years, with standardized local tools and a highly mature system. The Czech Republic has a well-established regulatory framework, while Italy has a wealth of historical experience, with Venice's urban renewal system having been in operation for a century.
7	Distance between expressed objectives and outcomes	The overall goals and outcomes are converging (e.g., the area of illegal construction within the Eco-redlines has decreased by 89%), but there are local deviations (e.g., certain cities have negatively exceeded development boundaries, while others' break were proved without impact).	The efficiency of achieving goals is higher than that of the "Regional Economic type" (which is easily impacted by market fluctuations), having already overcome the ecological bias caused by prioritizing economic goals, while also avoiding the suppression of market vitality typical of "Urbanism type".

Table 5.1 *Evaluation and Comparison of China's SGPS Based on the 7 Variables of the EU Compendium*

（Source: summarized by the author）

The previous analysis of China's SGPS based on institutional technology has already addressed the first five variables related to structure, tools, and practice. The following section will outline the core characteristics of China's SGPS from the perspective of maturity or completeness of the system and distance between expressed objectives and outcomes, in order to complete the evaluation of China's SGPS and position it within the comparative framework of the EU Compendium Project.

5.1.1 The governance logic of multi-objective collaboration

Currently, China's SGPS increasingly stresses the coordination and balance of holistic aims, pushing beyond the traditional paradigms of single objectives such as

economic growth or environmental conservation. It is increasingly shifting towards a Red Line (minimum standards that must be met) thinking logic with ecological priority to reach a "community of life" governance model for sustainable development. The theoretical value of this paradigm lies in its provision of an institutional example for developing countries to break through the "ecology-development" binary dilemma, offering Chinese experience in institutional innovation for global sustainable urbanization. Specifically, China's SGPS integrates national strategies such as regional economic development, ecological civilization construction, and rural revitalization into the spatial governance framework, thereby strengthening the government's core role in coordinating public interests.

The fundamental mechanism of this governance logic lies in the state's reconstruction of spatial production relations to coordinate the relationship between ecological rationality and market rationality, ensuring the sustainability of resource allocation and land use. In other words, China's SGPS not only focuses on urban expansion and industrial agglomeration but also ensures that the logic of ecological priority dominates market decisions through higher-level government intervention. This model differs from the western either-or planning systems and aligns more with a "hybrid model" of government-market coordination, possessing unique advantages in terms of integrity and dynamic adaptability (Knieling & Othengrafen, 2016).

In the course of historical development, China's planning system has undergone several stages of evolution. From the industrialization-oriented planning during the planned economy period, to the regionally dominated model in the late 1980s, and then to the integrated governance with multi-objective collaboration, China's SGPS has continuously adjusted to meet the needs of different stages of development (J. Shen, 2002). Under the leadership of regional policies, rapid urbanization has mainly concentrated in coastal port cities. Subsequently, driven by national regional coordination policies (such as the China Western Development Strategy and the Rise of Central China Strategy), the spatial development model has steadily evolved from "efficiency priority" to "regional equity". In recent years, the introduction of national-level regional strategies such as the Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, the plan of integrated development in the Yangtze River Delta, and the Shandong Peninsula Urban Agglomeration has signed China's efforts to avoid the path dependency of Western mega-city expansion (e.g., Los Angeles-style urban sprawl) through regional planning (Y. Liu & He, 2024).

Similar to the Regional Economic Model, China's SGPS places a high emphasis on regional integrated economic development and coordinates economic policies

and land resource allocation through spatial planning, promoting infrastructure layout, industrial agglomeration, and regional competitiveness enhancement (S. Sun, 2023). However, unlike traditional Regional Economic Model, China's SGPS also embodies the characteristics of the Comprehensive-Integrated type, with its core emphasis on the planning system integration, multi-objective coordination mechanisms, and hierarchical interactions. This model, through national strategical development planning, ensures the dynamic balance of economic, social, and ecological three-dimensional goals, achieving coordinated governance across administrative regions. Under this system, spatial planning is not only a land management tool but also an important component of national development strategy, laying the foundation for the construction of a modern urban system.

The maturity characteristics of China's SGPS can be described as a "technology-driven dynamic system" - the advancement of tools masks the lack of institutional stability, which needs to be compensated for by continual policy iteration. However, the current legislative process is lagging behind, and the spatial planning legal system still relies on several scattered laws (such as the Land Administration Law, Urban and Rural Planning Law and Environmental Protection Law). Since the launch of the "Territorial Spatial Planning Law" legislation in 2019, the draft is still in the consultation stage, and local planning practices have been forced to rely on temporary policies, leading to insufficient coordination between planning goals and policy tools, thereby exacerbating execution uncertainty. As a result, the overall maturity of the SGPS still lags behind that of European countries.

5.1.2 The effectiveness of central-local coordination dynamic balance

The central-local relationship in China's SGPS exhibits a unique dynamic balance characteristic. Its essence lies in constructing a "rigid control - flexible adjustment" collaborative governance framework through institutional tension, achieving a dialectical unity between national strategic intentions and local development demands.

At the central level, governance rigidity is established through the transmission chain of "strategic goal - indicator quantification - boundary legalization". Taking the "Three Control Lines" as an example, the Ecological Conservation Redline (Eco-redline/ECR, 3.19 million km^2 nationwide) and the Permanent Basic Farmland (1.03 million km^2) serve as non-negotiable bottom-line indicators, with full lifecycle monitoring implemented through satellite remote sensing; the Urban Development Boundaries, on the other hand, adopt a "rigid total + flexible layout" composite control. The central government approves the total scale of construction land for each

province (e.g., nationwide control within 47,000 km^2 by 2035), and local governments can make adjustments across administrative regions under provincial coordination. However, Shenzhen's innovative practices illustrate that within the Eco-redline, the necessary infrastructure is allowed (such as the construction of a marine monitoring station within the Eco-redline in Dapeng New District in 2022), achieving spatial function replacement through "occupation-replacement balance + ecological restoration". This "adaptive governance under framework constraints" has boosted local development resilience by 23%.

In the interaction between the central and local governments, a spiral route of "pressure transmission - policy experimentation - institutional absorption" has emerged. The central government has established a dynamic monitoring system through annual National Land Change Surveys and the assessment of implementation of the plan (with 56,000 monitoring stations set up nationwide), implementing "veto right" for construction behaviors that break rigid constraints. Local governments are seeking flexible institutional space through pilot policies. For example, Zhejiang established the Chinese first inter-city ecological compensation mechanism, and after incorporating GEP growth into performance evaluations, it was adopted by the central government as a provision in the Regulation on Ecological Protection Compensation.

This mutual interaction has given rise to a new governance tool: the implementation of a three-tier allocation model for construction land indicators from Code of practice for territorial and spatial planning at provincial-level (TD/T 1055-2019), with "10% reserved by the state + 30% coordinated at the provincial level + 60% allocated by cities and counties". This model not only ensures the realization of significant national strategic initiatives but also grants local authorities the power to revitalize existing land resources (in 2023, provinces have supplemented indicators over 400 km^2 through the redevelopment of inefficient land). Data demonstrates that this mechanism has improved land space utilization efficiency by 17%, while the encroachment rate on ecological space has decreased to below 0.3% (Z. Liu, 2025).

Compared to the western "local autonomy-led" decentralization model, China's SGPS has developed a more resilient "strategic centralization - adaptive decentralization" framework (Allmendinger & Haughton, 2010; F. Wu, 2017a). Its theoretical core lies in breaking through the zero-sum dilemma of the traditional central-local game, transforming the "political potential" of central authority into the motivation of local governance through institutional flexibility. This dynamic balance mechanism not only ensures the achievement of national redline goals such as

ecological security, reducing the area of illegal construction in ecological redline zones by 89% compared to 2015, but also stimulates local innovation vitality (Since 2020, local explorations have resulted in the formation of 127 innovative spatial governance cases). Its institutional advantages are becoming increasingly prominent in the process of new-type urbanization - 19 national-level urban agglomerations, within the development boundaries set by the central government, achieve a synergistic effect of a 35% increase in economic density and a 28% decrease in carbon emission intensity through differentiated functional division (Z. Zhang et al., 2022). This governance wisdom provides a Chinese paradigm for transitional countries to handle the central-local relationship.

5.1.3 Necessity of the new type definition and theoretical contributions

China's SGPS exhibits composite characteristics across 7 variables: it surpasses the single oriented "Regional Economic" type through "multi-objective collaboration" and exceeds the "Comprehensive Integration" type in terms of the completeness by "digital governance tools". Consequently, it is necessary to define a new type of "central coordination + local implementation dual-track system" outside the EU Compendium framework, with its core characteristic being the "institutional symbiosis of rigid baseline constraints and flexible experimental space".

This definition not only fills the academic deficiency in non-Western institutional logic but also provides a "Chinese paradigm" for global sustainable development. The "institutional symbiosis" of China's SGPS enriches comparative theory. Its distinctiveness not only challenges the universality of current classification frameworks but also proposes new classification criteria. The comparative theory of SGPSs shifts from the typological static division paradigm to the institutional dynamic evolution paradigm, promoting the inclusion of more non-Western cases in global comparison, thereby breaking the confines of the dominant narrative.

5.2 Actual capacity to control spatial development that the system awards the public authority

Land, as a fundamental resource and spatial carrier for human survival and development, possesses both planning and market attributes. Therefore, land systems and the allocation of land resource elements are crucial perspectives for studying and interpreting the corresponding SGPS. The land system, as an important institutional force to invigorate economic vitality, has continuously innovated around the issue of land "empowerment" to satisfy the social productivity development

requirements under specific historical conditions. The property rights structure dictates the operational mechanism and efficiency of land market. Clear property rights definitions and protection mechanisms can promote the healthy development of the land market and contribute to effective implementation of spatial planning under the dual influence of governmental regulation and market orientation in the land resource allocation.

The transformation of physical space based on property rights visualizes the intrinsic mechanisms and operational processes of land element market allocation under the spatial planning system. This section will examine China's SGPS from two perspectives: the allocation of physical space use and development rights (X Score), and the operational mechanism of land element allocation (Y Score). It will then enable positioning into the X-Y table built by Berisha et al. to explore the potential significant insights this classification provides for comprehending the uniqueness and international comparability of China’s SGPS.

5.2.1 Land systems and marketization in China

The class foundation of the worker-peasant alliance in China's national polity and regime has made promoting economic development, addressing the extensive land use, protecting farmland, and safeguarding farmers' interests the main reasons for changes in land policy. China's land system has undergone several reforms, including administrative allocation, the separation of land ownership and use rights, compensatory transfer of land use rights, and the separation of three rights. Additionally, based on the different economic attributes and development goals of rural and urban land, it has differentiated into targeted property rights structures and land markets. Pu et al. integrated the reform process of land system and land marketization and divided it into three stages, analyzing the logical framework of land system evolution and land marketization development.

Shortly after the PRC was founded, the exploration of land system began with the first large-scale land reform in rural areas (Figure 5.1). The government organized the confiscation of landlords' land and allocated it to farmers free of charge to protect farmers' interests and encourage agricultural production. The implementation of the first Five-Year Plan in 1953 shifted agricultural production from individual operation to production socialization with collective operation. Subsequently, the status of the Collective Ownership System in rural China, which had begun to take shape, gradually stabilized with the official establishment of the People's Commune. The rural economy has shifted from land privatization to planned control, but the severe suppression of farmers' incentive to produce by egalitarianism

has gradually revealed the drawbacks of collective operation. In 1978, the Contract System, explored from the bottom up by villagers, effectively mobilized rural production enthusiasm by separating contractual operation right from land ownership, and gradually drawn the prelude to land marketization reforms. The accompanying legalization continuously regulates and encourages farmers to explore and engage in diversified forms of land transfer and management. In 2013, with the establishment of a unified urban-rural construction land market, the experience gained from the

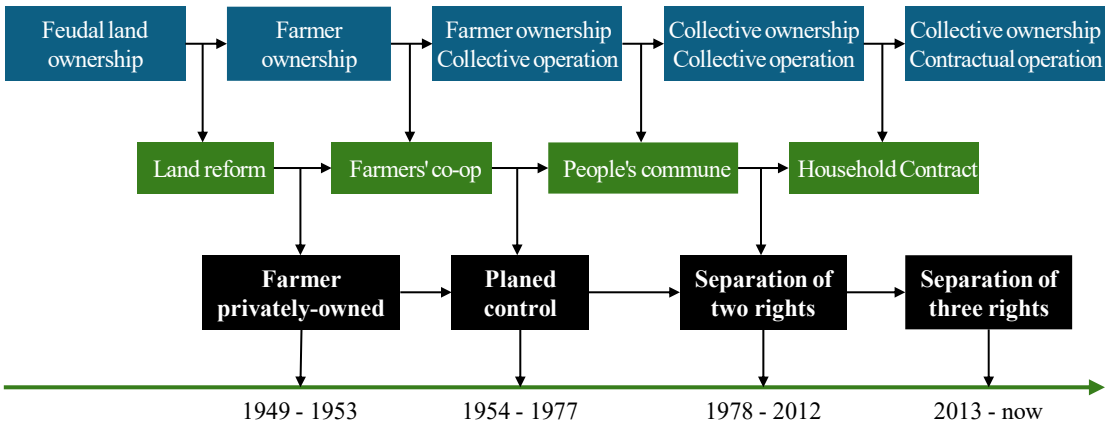


Figure 5.1 *The logical framework for the evolution of rural land system in China (Source: Pu & Jin, 2022 p. 34)*

urban-rural land market led to a series of pilot reforms related to rural land, such as the "Three-District Land" reform and the "separating ownership rights, contracting rights, and management rights" of homestead land, providing reference and safeguards for integrated development of urban and rural areas.

For urban area, the evolution of land system has been quite different (Figure 5.2). In 1954, China, in order to apply the socialist public ownership system, nationalized urban land through various measures such as confiscation and redemption, terminating the leasing administration of urban land and beginning to implement a highly centralized mode of planned administration combined with a planned economy. Therefore, the main form of urban land use is administrative allocation, characterized by the obvious "three no's" (no cost, no duration, no transfer). However, this has led to issues such as low land use efficiency and serious waste of land resources. In 1981, various regions successively carried out practices of paid use of state-owned land, and discussions on the direction of reform mostly revolved around the relationship between planning and market. China's economic system began to transition from "planned economy" to a socialist market economy, "maintaining the primary role of the planned economy whilst giving play to the supplementary role of

market forces in economic regulation". In 1987, the first transaction of a 50-year use right for state-owned land in Guangdong Province marked the beginning of the market-based allocation of land resource elements, with land leasing, sharing operations etc. becoming active. The 1988 corrected Land Administration Law clarified the legal status of the paid use system of state-owned land and the state-owned land market. “From 2005 to 2013, the scale, price, and level of marketization of the land market increased by 113.66%, 274.09%, and 37.07%, respectively” (Pu & Jin, 2022, p. 35). The assignment of state-owned land use right by "Bidding, Auction and Quotation" is gradually maturing, and the land “acquisition - reserving - development - assignment" mechanism has transformed the characteristics of state-owned land use into being paid, limited duration, and transferable.

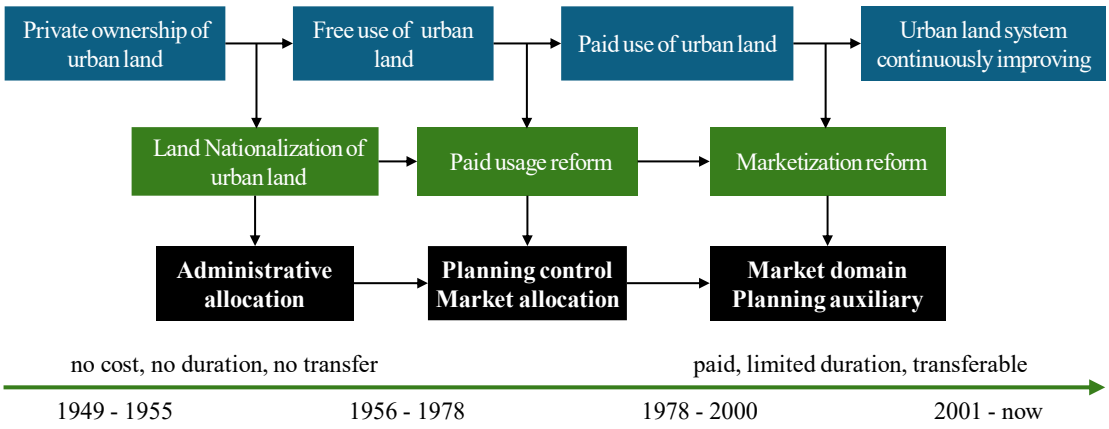


Figure 5.2 *The logical framework for the evolution of urban land system in China (Source: Pu & Jin, 2022 p. 34)*

China's land system and marketization reforms have always adhered to the socialist public ownership system, emphasizing the creative spirit of farmers, fully respecting the principal status of farmers, and seeking benefits for farmers. This has ultimately resulted in a land ownership system coexisting in two forms: state ownership (public ownership) and collective ownership. With the progressive advancement of legal construction and the emergence of new economic development needs, the focus of China's land market system development has shifted from revenue and property to price and public platforms. The unique land system, continuously optimized over the past 70 years, has created a model where local governments seek development through land (Pu & Jin, 2022). The operational logic of this model is usually reflected in the land resource allocation process within spatial planning, which will be further elaborated upon below.

5.2.2 The allocation mechanism of land use and spatial development rights in China (X Score)

According to the assessment methodology by Berisha et al. (Table 3.4), X score of China's SGPS is 3. The spatial development of China includes both hierarchical control of Conformative model and goal orientation of Performative model. Chinese public authority allocates land use rights through general plans, and spatial development rights through detailed binding plans (Wu, 2016). These two are allocated at different planning levels but are interconnected. Land use right provide the foundation and overall framework for development, while spatial development right specify the detailed implementation conditions for projects within the planning operation (Knieling & Othengrafen, 2016).

Land use rights are determined by the Master Territorial Spatial Planning and Land Use Planning, which clarify the functional use of land through comprehensive use control and layout (such as Urban Development Boundaries, ecological protection red lines, basic farmland, etc.). Its legal enforceability is mainly reflected in the overall control before the delivery of land use rights. Land use rights are assigned through four methods: bidding, auction, quotation, and agreement-based assignment. The government clearly defines the relevant requirements such as urban design, construction project plans, functional operations, and infrastructure construction in advance, and incorporates these conditions as prerequisites for land transfer into the Contract on the Assignment of the State-owned Land Use Right or the Decision on Assignment of the State-owned Land, thereby granting contractual empowerment (F. Li, 2024). The assignee or project unit must hold the national approval documents and the construction project documents that comply with the contract (such as the proposal for construction project site, reconnaissance demarcation map, environmental impact assessment report) to apply for a designated application to the administrative departments of urban and rural planning. After evaluation of the construction project based on the specific regulations of detailed binding planning for development activities (such as building height, density, plot ratio, etc.), the construction land planning permit, the construction project planning permit and the construction permit are further issued. This completes the second control in the process of spatial development rights delivery, allowing the project development and construction to commence.

China's SGPS can be considered as a "technology-empowered strategic adaptive" Neo-performative model. Unlike the European Neo-Performative model, which emphasizes decentralized collaboration (such as Public-Private Partnership

and regional consultation), China's SGPS possesses stronger central governance capabilities (based on public ownership) and an eco-priority orientation, allocating land use rights through hierarchical planning based on dynamic adjustments (Othengrafen, 2016). However, the commonality is that all through both technology and market tools to break through the rigid constraints of traditional planning.

After the exploration of the Five-Year Plans during the planned economy period under the Performative model and the traditional land use planning under the Conformative model, technological empowerment and market collaboration have become two important new dimensions in the reform of spatial governance paradigms. Digital tools (remote sensing, blockchain, etc.) break down hierarchical barriers, achieving transparent dynamic feedback and precise regulation for dynamic governance. For example, the "one map" for territorial spatial planning, using satellites to monitor the "non-grain" of farmland, etc. Introduce marketization tools (such as trading and transfer of land quotas surplus, carbon emissions trading) within the administrative framework to encourage efficient benefit conversion under a stable institutional framework.

This model ensures vertical coordination between strategic planning and detailed planning, emphasizing that national strategies such as "ecological civilization" take precedence over partial market efficiency. The separation of land ownership and use rights in China provides the government with a powerful strategic flexibility mechanism, achieving marketization while maintaining the rigidity of ecological protection. Planning, through forecasting and macro-control, has avoided the situation where purely market allocation, by focusing only on short-term benefits, leads to the chaotic outbreak of negative externality land supply. This helps achieve the optimal land resources allocation and the effective implementation of spatial planning.

To explore the dynamic balance between central objectives and local innovation in China's technology-empowered strategic adaptive Neo-performative model, the following section will analyze the operational mechanisms of rigid control and flexible adjustment in China's spatial planning system from the perspective of "planning-market" coordination, focusing on how they affect the allocation of land resource elements.

5.2.3 Operational mechanism for the "planning-market" synergy in allocation (Y Score)

In fact, in the analysis of China's SGPS, it is rare to set state and market as two parallel main variables. Instead, planning and market are regarded as two

indispensable important tools for the state to optimize land element allocation. This makes it easy to superficially categorize China's SGPS as state-led, thereby placing it in Type A, similar to many SGPSs found in Northern Europe. However, a comprehensive analysis of the fundamental mechanisms governing land element allocation in China, exploring the essence of "planning-market" synergy, and enhancing comparability by eliminating the conceptual differences between China's "planning-market" and the "state-market" proposed by Berisha et al., will produce completely different conclusions.

Reviewing the evolution of the operational mechanism for land element allocation in China's spatial planning, planning and market interacted as wane and wax. It is a process in which the market gradually takes over the decision-making role of land resource allocation from planning, going through three stages: "the auxiliary role of the market" - "the fundamental role of the market" - "the decisive role of the market". The objects of complex planning systems possess inherent characteristics such as randomness, interactivity, chaos, and mutagenicity etc. Therefore, "the overall allocation of land elements must be underpinned by planning, while the market needs to continuously activate development momentum" (Y. Wu et al., 2023, p. 2). The new spatial planning system, ranging from the national macro level to the local micro level (Table 5.1), integrates the "top-down" planning concept of the Main Function-Oriented Zone Planning, the "bottom-up" market behavior of the Urban and Rural Planning, and the "middle synergy" function of the Land Use Planning, achieving the effective allocation of land elements.

Space scale	Allocation tool	Theoretical logic	Allocation orientation	Effective allocation condition
Regional/ Local	Market	Individual rationality	Efficiency led	Clear property, lower transaction costs
National	Planning	Public rationality	Equity led	Scientific argumentation; balance of interests; supervision and balances
Overall	Planning-Market synergy	Individual and public rationality	Combination of equity and efficiency, coordination of development and security	Connection and integration of planning rigidity and market flexibility

Table 5.2 *Comparison of land factor allocation means*
(Source: Y. Wu et al., 2023, p. 29)

At the national level, the "planning-market" synergy in land element allocation operation mechanism focuses on breaking through the cross-regional reallocation channels of land indicators under the top-level Main Function-oriented Zone Planning

(Figure 5.3). By constructing a cross-regional trading guidance model for land indicators, it balances and adjusts construction land indicators between developed and underdeveloped areas, and supplements farmland indicators etc. The primary distribution of land indicators emphasizes equity (land guarantee, cultivated resources protection, and eco-environmental stability), while the reallocation shapes a new pattern of coordinated regional development with complementary advantages through the inter-regional flow and exchange of indicators and funds (Y. Wu et al., 2023).

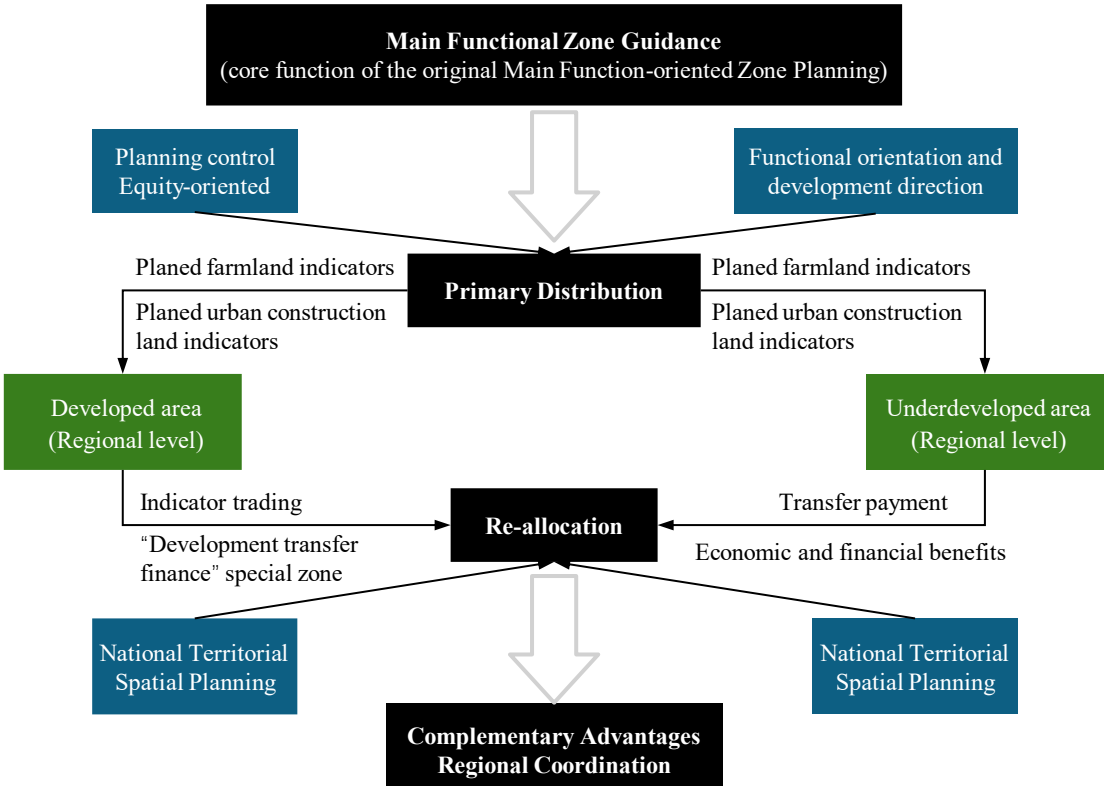


Figure 5.3 *The guidance mode of interregional transaction of land quotas led by development priority zoning*

(Source: Y. Wu et al., 2023, p. 32)

This operational mechanism at the regional level focuses on promoting the empowerment of stock revitalization and the interconnection of urban and rural construction land markets. This is mainly based on the establishment of a driven model for the increase and decrease linkage of construction land between urban and rural areas (Figure 5.4). The "double evaluation" (the Suitability of Land Spatial Development Assessment, the Resource and Environmental Carrying Capacity Assessment) is an important prerequisite to ensure the effective operation of this model within the quantitative constraints and spatial boundaries of urban construction

and agricultural production spatial functional zoning within the provincial area. The overall comprehensive land consolidation is based on the logical routine of "tapping and reusing potential – realignment and acceptance - re-empowerment of property - market transfer of surplus indicators", achieving the appreciation of farmers' land property. This process, which breaks through the dual urban-rural land market, balances the dynamic equilibrium of farmland, the stock supply of urban construction land, and the funding support for rural revitalization.

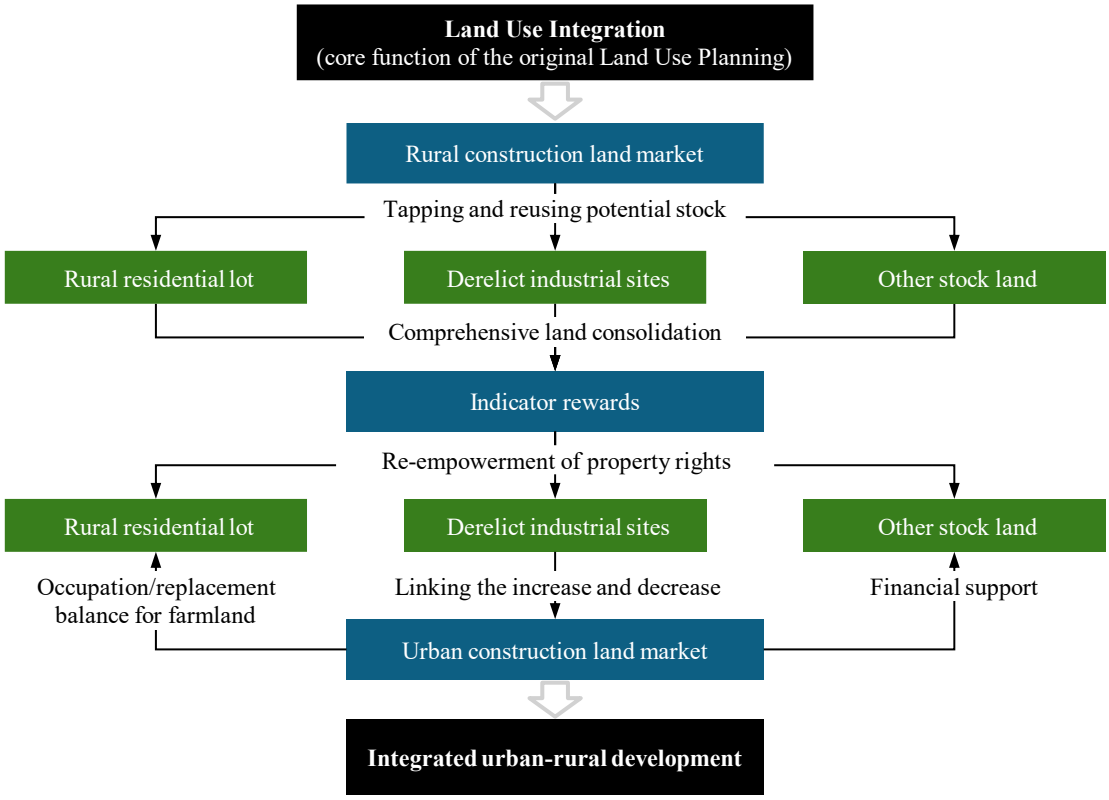


Figure 5.4 *The driving mode of linkage between urban land taking and rural land giving integrated by land use*
(Source: Y. Wu et al., 2023, p. 33)

At the local level, the supply-side structural reform serves as the principal line of this operational mechanism (Figure 5.5). Planning guides and regulate market behavior from the supply side by properly setting industrial structures, scientifically coordinating industrial synergy, and uniformly deploying spatial layout. This is combined with a differentiated supply price structure and reward-punishment mechanisms for land and other resource elements, fully leveraging the market's regulatory function and decisive role. The output efficiency of land use is continuously improving through spontaneous replacements and eliminations of

market. Policy tools assist in expanding the flexible space for land supply, reducing transaction costs for flexible adjustments in land use from aspects such as transfer methods, supply duration, and conversion of use types, thereby achieving a long-term balanced model for high-quality intensive land use within construction land.

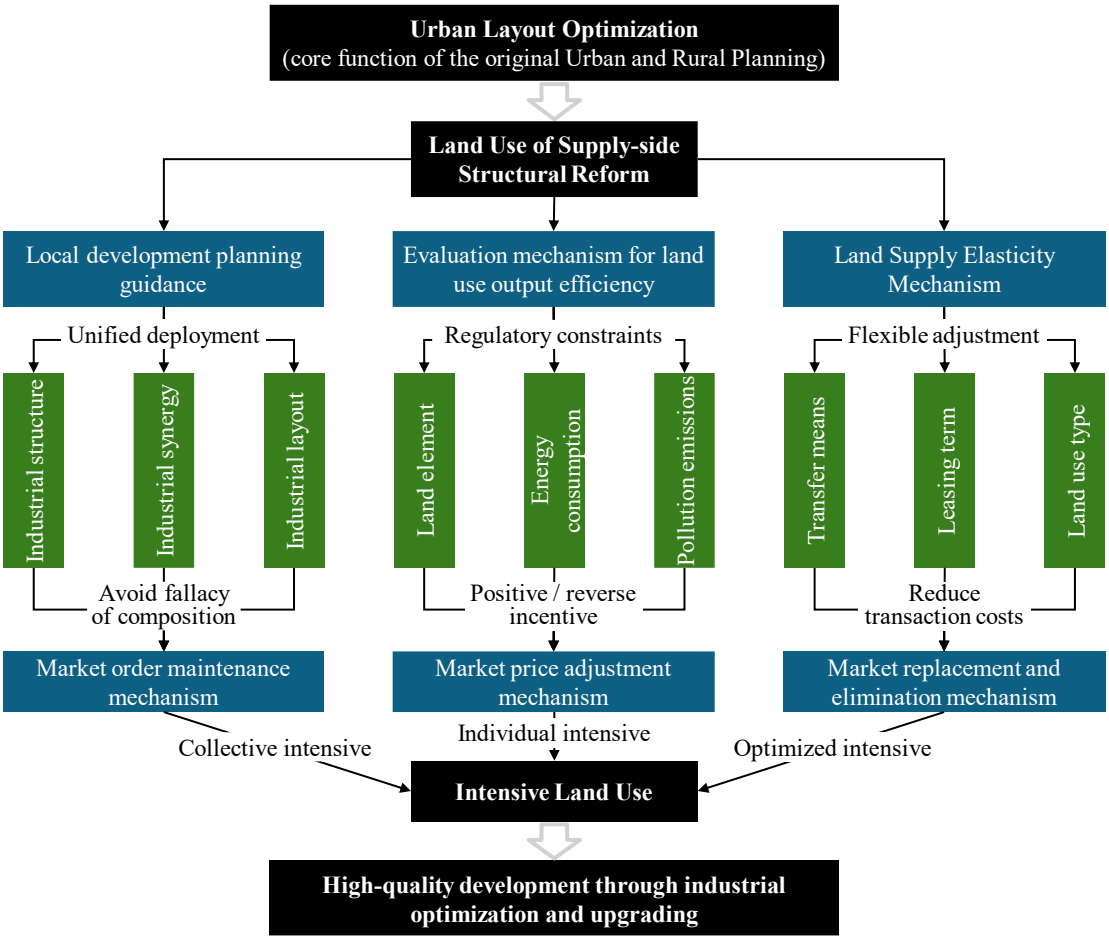


Figure 5.5 *The regulatory mode of intensive land use optimized by urban layout (Souce: Y. Wu et al., 2023, p. 34)*

PPP Model: Collaborative Innovation Between Market and Government

Public-Private Partnership (PPP) are an essential practical tool for the "planning-market" synergy in China's SGPS, originating from the financing mechanism of "public-private partnership" in the UK. The PPP model is widely employed in urban infrastructure projects, such as transportation, energy, water conservancy, and environmental protection. Its core is to integrate the strategic goals of the public sector with the efficiency advantages of the private sector through a contractual framework, where both parties share benefits, bear risks, and engage in long-term cooperation, ultimately achieving results that are more favorable than if they acted

separately.

Unlike German PPPs, which relies on local council consultations (such as the need for a public vote on the development of Hamburg's new port city), China emphasizes market access within a central framework, with dynamic supervision of the PPP project database by the National Development and Reform Commission. France's PPPs are strictly regulated by the Public Procurement Laws and Regulations (e.g., contract periods ⩽ 25 years), while China encourages innovation through a "negative list + fault tolerance" mechanism (e.g., Xiong'an allows social capital to participate in the sharing of ecological restoration profits).

This model not only assures the rigidity of national strategies (such as the "sponge city" target) but also activates market vitality. A typical case is the Xiong'an PPP projects garnered over 200 billion yuan in social capital from 2021 to 2023. In terms of the infrastructure development of the Xiong'an New Area: the government sets Eco-redlines and functional zones (e.g., a rigid constraint of 30% green space rate) through overall planning, while private enterprises undertake the construction of underground utility tunnels, smart transportation, and other projects through bidding, and enjoy a franchise period of 20-30 years (Xiong'an New Area Management Committee, 2023).

PPP Project types	Typical case	National regulatory tools	Market participation
Infrastructure (such as rail transit)	Beijing Subway Line 16 (operated in partnership with MTR)	The government sets a cap on ticket prices and service quality criteria	Social capital holds 49% of the shares and dominates daily operations
Ecological Restoration (e.g., mine reclamation)	Xuzhou Pan'an Lake Wetland PPP Project	Ecological performance is linked to fund disbursement	Private enterprises bear 90% of the investment and enjoy 30 years of operational rights.
Industrial Parks (e.g., innovation parks)	Qianhai Shenzhen-Hong Kong Cooperation Zone	Planning limits the types of leading industries (finance, technology)	The company autonomously seeks investment, and the profit-sharing ratio is arranged

Table 5.3 *PPP model cases*

(Source: summarized by the author)

Y score attributed to China's SGPS

In summary, from the perspective of the operational mechanism of land resource allocation, China's spatial development is driven by the market and guided by planning. The PPP model confirms China's hybrid positioning—market-driven resource allocation, while the state retains strategic control through PPP contract provisions (such as performance reward and penalty mechanisms, "Risk- and profit-

sharing" mechanism). Actually, it is very difficult to completely separate planning from the market. Essentially, the rigid control of state, presented in the form of baseline control with planned indicators, is also based on market demand forecasts with positive externalities (population increase or decrease, living environment protection, pollution prevention targets, etc.), to ensure equity and justice, environmental sustainability, and scientific overall layout. Therefore, China's spatial development is primarily driven by the market, with a Y Score of -0.5.

Theoretically, such a conclusion does not align with the traditional impression of the SGPS in a unitary state with centralization government, similar to France and the United Kingdom. However, the specific manifestations of China's political system and state system can essentially explain this phenomenon. The essence of the socialism with Chinese characteristics is people's democracy. The people, as the masters of the country, enjoy all rights and assign part of them to state, exercised by elected organs of state power, with the fundamental purpose of serving the people wholeheartedly. Despite the occurrence of some unavoidable corruption and embezzlement, national decision-making always revolves around the strategic goal of common prosperity for all people. The rigid control conveyed by planning tools in China's SGPS is also aimed at pursuing spatial development that meets the market demand of collective interests, starting from the perspective of benefiting the people and safeguarding their rights and interests. Therefore, in China, the planning variable representing rigid state control in the form of a social-oriented market counterbalance the capital-oriented market. Ultimately, China's spatial development is primarily driven by the market.

Similarly, this can also explain the situation where Chinese citizens rarely participate in planning. The trust established between the government and the people over a long period of practice makes people more inclined to entrust planning, which requires extensive interdisciplinary knowledge, to the relevant professional national institutions, so that spatial-related powers can be exercised in a scientific and reasonable manner. Even though the government opens various channels to collect public opinion during the local planning process, in reality, it often has little effect due to the public's lack of awareness and participation in this regard. On the surface, China's spatial planning has to a certain extent neglected citizen participation, but from another perspective, it can actually be understood that the public's involvement in many affairs, including planning, has been preemptively integrated into China's institutional framework. Nevertheless, the government and academia are still exploring effective ways to promote citizen participation.

Another piece of supplementary indirect evidence is that China's theoretical formation and practical implementation of SGPS have drawn on the experiences of multiple countries, particularly the planning systems of Germany, France, and the Soviet Union. Its structure and operational mechanism have gradually evolved to integrate with Chinese characteristics. Even though it is easily mistaken for a typical Conformative Model due to differences in institutional concepts, the position of China's SGPS on the X-Y diagram is still close to that of Germany's SGPS (Figure 5.6), which belongs to the Neo-performative model, exhibiting market-led characteristics.

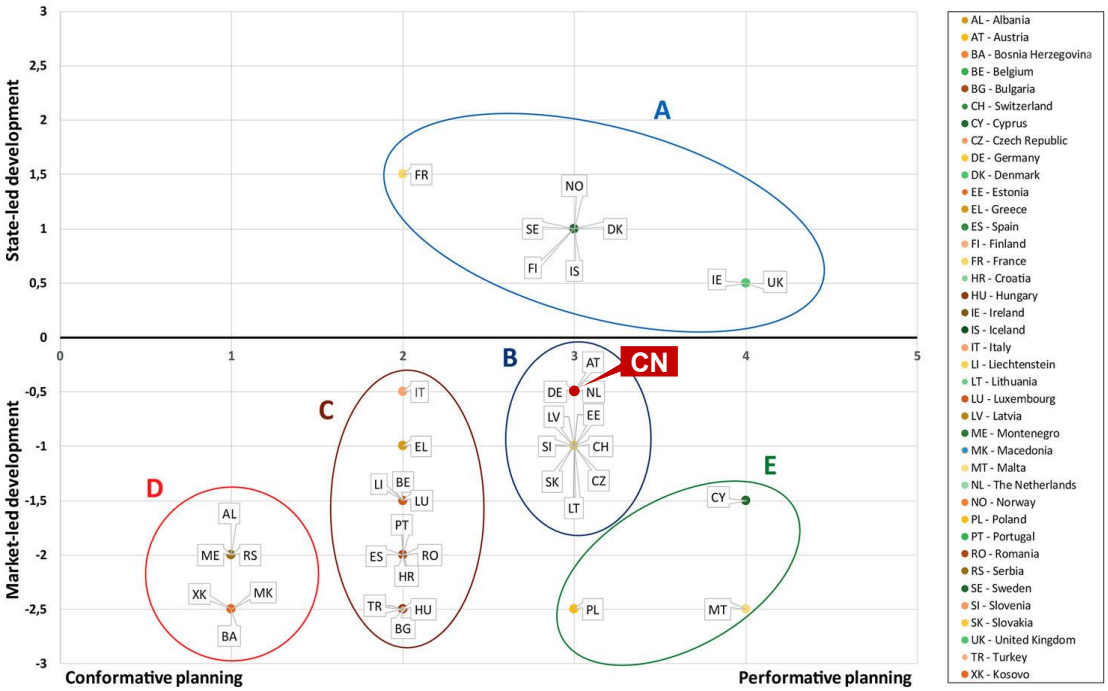


Figure 5.6 *Positions of China's SGPS with respect to the models (X) of spatial planning and (Y) of spatial development*
(Souce: Berisha et al., 2021, p. 192)

China's SGPS exhibits significant market-driven characteristics (with cross-regional trading of land indicators and widespread application of PPPs). The state retains decision-making power in fundamental fields through a "baseline control + dynamic adjustment" mechanism. Its essence is "the market-led resource allocation under national strategic boundaries" aligning with the new type definition in section 5.1. This highlights the uniqueness of China's "strategy-adaptability" governance model - incorporating national resilience into the process of marketization, contributing non-Western institutional innovation cases to global planning theory.

Chapter 6

Conclusion

Chapter 6 synthesizes theoretical, empirical, and comparative insights from previous chapters and articulates actionable policy recommendations with forward-looking research trajectories. Situated in the dual-track logic of China's SGPS-the strategic rigidity at the macro level versus the adaptive flexibility at the micro level-the conclusion stresses how this can balance ecological preservation, economic growth, and social equity by promoting institutional innovation. This chapter has answered three key research questions previously mentioned.

Policy proposals are set along three pillars of action, namely, legislative integration, interdepartmental synergy, and incentive realignment. The recommendations put forward a hybrid governance architecture that sets legal rigidity-as in the case of a single National Territorial Spatial Planning Law-along with market-enabled flexibility through, for example, the introduction of securitized land quotas or blockchain-based approvals. Most importantly, the chapter also introduces new devices, such as Spatial Performance Contracts and Ecosystem Service Futures, aimed at decoupling local fiscal health from land-dependent growth. It recognizes several big challenges-things like fragmented data governance, path dependencies related to land finance-but proposes, as antidotes, an AI-driven monitoring platform and cross jurisdictional ecological compensation markets.

Looking ahead, the chapter charts four interdisciplinary research frontiers: (1) theorizing non-Western planning epistemologies through frameworks like the Country Capability-Market Vitality Social Resilience (CMS) model, (2) simulating institutional evolution via system dynamics and machine learning, (3) deconstructing policy experiments for context-sensitive transplantation, and (4) harnessing emerging technologies like neuro-urbanism and metaverse-enabled participatory planning. By advocating for a shift from unidirectional "policy transfer" to bidirectional knowledge symbiosis", the conclusions reposition China not merely as a case study but as a co-creator of global spatial governance paradigms. This chapter ultimately frames spatial planning as a living laboratory for addressing the existential challenges of the Anthropocene.

6.1 Concluding remarks

This study systematically analyzes China's Spatial Governance and Planning System (SGPS), combining the EU's "institutional technology" theoretical framework and the ESPON COMPASS classification method, revealing its unique position within the international classification system. Research has indicated that China's SGPS exhibits a dual-track logic of "strategic centralization and adaptive decentralization" (J.

Xu & Yeh, 2005), combining the strategic rigidity led by the state with the flexible innovation of local practices (F. Wu, 2017b). In terms of institutional technology, China's SGPS has successfully integrated multi-level governance objectives through the interactive evolution of "structure-tools-discourse-practice." However, it still faces challenges in matching the powers and responsibilities between the central and local governments at the policy implementation level. The answers to the core research questions are as follows.

6.1.1 China's SGPS from the institutional technology perspective

Institutional Characteristics

Under the political science framework, the hierarchical construction of China's SGPS with its "five levels, three categories and four sub-systems" can be categorized as follows:

- Foundational Institutions: Comprising the People's Congress system, public land ownership, and comprehensive Communist Party leadership, which endows public power of spatial planning with jurisprudential basis and authority.
- Organizational Institutions: Integrating multiple planning systems through "Multi-Plan Integration" to achieve vertical coordination in planning formulation, approval, and implementation (S. Sun, 2023; P. Xu & Xu, 2024).
- Operational Institutions: Diverse approaches in local practices, incorporating technical instruments such as blockchain-based approval system and spatial performance contracts, driving marketization and intelligentization of planning implementation (P. Xu, 2024; J. Zhu et al., 2024).

The institutional evolution of China's SGPS demonstrates distinctive characteristics of "synergistic innovation between jurisprudential construction and administrative technology", forming a unique “three in one” institutional paradigm: intensive land development, categorical protection, and comprehensive remediation (P. Xu & Xu, 2024; J. Zhu et al., 2024). With the establishment of the MNR in 2018 as a watershed, the institutional system undergone a transition from fragmented governance to integrated governance, elevating strategic deployments like the "Three Zones and Three Lines" to statutory enforcement level, while local governments employ informal negotiation mechanisms to flexibly adjust land resource allocation, balancing unity of national strategic with diversity of local development demands (S. Sun, 2023).

China's spatial planning legal framework exhibits an "umbrella structure", where top-level legislation (the Territorial Spatial Planning Law) remains incomplete but

progressively constructs a statutory governance framework through decentralized legislation such as the Land Administration Law and Rural Revitalization Promotion Law (J. Zhu et al., 2024). The "One Plan – One Law" reflects dynamic adaptation of Chinese laws and policies to spatial planning. While this "bottom-up" legislation path ensures flexibility, it also leads to confusion of legal hierarchies and conflicting norms (S. Sun, 2023; P. Xu & Xu, 2024).

The dual-driven of legal empowerment and institutional restructuring have essentially resolved historical dilemmas of dispersed planning authority (powers and responsibilities). Through the Inter-Ministerial Joint Meeting System and inventory-based administrative of central-local authorities, the system has transitioned from traditional "fragmented governance" to "collaborative governance". The public authority of planning reveals a composite role, not only involving land allocation and public goods provision but also multi-stakeholder interest coordination. Its functions encompass "strategic guidance" (e.g., Main Function-oriented Zones), "rigid control" (e.g., "Three Zones and Three Lines"), and "dynamic adjustment" (e.g., policy pilot mechanism), reflecting the instrumental demands in the modernization of spatial governance.

The deep embedding of technological governance paradigm has reconfigured institutional operational logics. The dual-track characteristics of "strategic centralization" and "adaptive decentralization" have given rise to a jump in the modernization of governance capacities. The systemic integration of unified land use classification standards [CJJT 397-2021]) with territorial spatial information platforms has transformed multi-source heterogeneous data integration from physical superposition to chemical fusion. Even more revolutionary is the institutional implantation of AI algorithms, where technological institutionalization is reconstructing power structures in planning decision-making (P. Xu, 2024).

The closed-loop design of the new implementation mechanism signifies advanced progress in institutional maturity. More crucially, the institutional rigidity of performance evaluation, with 18 binding indicators such as farmland protection closely linked to the performance assessment in ecological civilization construction, transforms institutional efficacy into political motivation. This stimulates local institutional innovation practices, achieving a complement to strategic rigidity through market flexibility, and initiating a new cycle of institutional-technological evolution (S. Sun, 2023; J. Zhu et al., 2024).

Achievements of the “multi-plan integration” reforms

China's SGPS has achieved preliminary vertical integration of the system

through the "Multi-Plan integration" reform, encompassing institutional framework restructuring and technical standardization. The establishment of the MNR in 2018 ended the previous situation of "multi-plan coexistence". By creating a unified spatial planning system, it integrated 16 types of plans, including Land Use Planning and Urban-rural Planning, which were previously under different departments, into "One Map" (S. Chen, 2019). The implementation of the national Unified Land Use Classification Standard (GB/T 21010-2021) streamlined original 432 land use categories into 138 categories and accomplished real-time integration of 28 ministry databases through the "One Map" system (Xiang, 2024).

The Land supply-side reforms structurally optimized land markets through quantitative, spatial, and temporal adjustments. Under the "Three Zones and Three Lines" regulatory mechanism, the establishment of rigid boundary delineation and dynamic monitoring systems, the identification of land supply-demand imbalance patterns through information entropy and principal component analysis, the identification of land supply-demand imbalance patterns through information entropy and principal component analysis, the construction of land spatial development intensity scenario models, and the optimization of land use indicator allocation (Qin, 2016); The quality enhancement of current land stock relies on policies, such as inefficient land redevelopment through the "increase-decrease linkage" mechanism, mixed-use land innovation (S. Chen, 2019); The land security for new industries and new business formats has been achieved through the flexible construction site system, composite infrastructure land etc.; The market entry of collectively operated construction land and the separation of the three rights of homestead have realized a mechanism breakthrough in urban and rural land elements (Qin, 2016). Adopting the MOP-GIS model to analyze spatial development patterns, achieve "point-line-surface" spatial optimization configuration and ecological-economic coupling layout, balancing ecological protection and economic development. The related dynamic maintenance is achieved through the "task analysis - planning simulation - effect simulation" dynamic model, enhancing the scientific nature of planning and addressing the planning lifecycle discrepancy issues.

These institutional innovations and technological empowerments have achieved significant results. By the end of 2023, 89% of prefecture-level cities had completed new spatial planning, resolving 273,000 planning conflicts involving approximately 48,000 km² of land. The number of planning documents decreased from over 12,000 in 2018 to 3,500 in 2022, with approval efficiency increasing by 40% (Ministry of Natural Resources, 2023). The introduction of digital platforms such as blockchain

and smart contracts has increased the efficiency of project site compliance evaluation by 65%. Land output intensity, land conservation rate, infrastructure coverage, and land fiscal revenue have all significantly improved (Xiang, 2024).

Multidimensional challenges

China's SGPS presents a significant "systemic complexity dilemma" during the process of institutional transformation, with its challenges rooted in the unique development paradoxes and path dependencies of institutional change during the transition period. The rigid characteristics of this institutional structure fundamentally contradict the inherent demand for spatial flexibility brought forth by rapid urbanization. The current governance structure is facing multiple pressures from "institutional structural tensions".

- At the vertical intergovernmental level, the rigid constraints of central-local power allocation and the demands for local development autonomy are increasingly conflicting (Zhou L., 2017). This is obviously represented in the strategic imbalance in the allocation of construction land indicators and the asymmetrical coverage of the transfer payment mechanism(Wang H., 2013). For example, the "protection - development" imbalance in resource-based cities in the central and western regions due to insufficient ecological compensation.
- In the dimension of horizontal coordination, the failure of planning alignment and data standard heterogeneity caused by departmentalism have evolved into systemic governance costs. A typical example is the standard conflicts in cross-border infrastructure projects in the Yangtze River Delta, which have resulted in a 24%-37% reduction in construction efficiency (J. Zhang et al., 2024).

In the "governance efficiency transformation interface", it is expressed as the deep barriers to the market-oriented reform of land factors and the persistent path dependence of traditional administrative control models. Although the pilot program for the market entry of collectively operated construction land has expanded to 33 provinces, the transaction friction coefficient $\theta = 0.68$ caused by the incomplete property rights system is significantly higher than that of the state-owned land market $\theta = 0.22$ (S. Liu, 2018), reflecting the real dilemma of over 30% dispute occurrence rate in the market-entry plots. The institutional inefficiency in the industrial land sector has become more evident, with the idle land rate in development zones still maintaining a positive correlation with land consumption per unit of GDP ($R^2=0.71$) (Z. Huang & Pan, 2020b). This institutional lock-in effect has created a unique "mixed

governance" model in the spatial production field: neither entirely market-driven nor purely state-led, resulting in a continuous decline in the marginal utility of resource allocation (Ostrom, 2011).

The "paradox of modernity in technological governance" is reflected in this field as the bidirectional alienation of digital tools. On one hand, the construction of intelligent spatial planning platforms has entered a stage of computational power arms race, with key cities investing over CNY ¥ 800 million annually in digital twin systems. However, the concealed biases in algorithmic decision-making have led to a 9.7 percentage point decrease in the Spatial Justice Index (SSJI) of facility services (Fainstein, 2010). On the other hand, the present technological standards system and the rapidly evolving urban innovation demands have created an intergenerational gap (Z. Wu, 2021). 64% of the Wit Park construction standards still follow the 2015 version, with less than 60% compatibility with the foundational protocols of the IoT 3.0 era. This coexistence of technological empowerment and technological obstruction reveals the limitations of the cognitive framework in the transformation of the governance system.

In the dimension of social space creation, "the institutional inertia of participatory governance" and "the intergenerational transfer conflict of spatial rights allocation" are reshaping the legitimacy foundation of governance. The formalism operation of the planning public notice system has caused the Public Impact Index (PII) to linger between 0.08 and 0.12 for a long time, showing a significant disparity compared to the OECD benchmark value of 0.35 (S. Sun & Zhu, 2010). The phenomenon of "gentrification migration" observed in metropolis renewal (with an average return migration rate of 41%) is essentially a topological mapping of the defects in the spatial increment income distribution system (Peng, 2018). Such contradictions are further exacerbated on an intergenerational level, with the spatial demand dispersion of the new generation of citizens ($\sigma^2=5.7$) exceeding the design capacity of the present planning response mechanism.

The field of ecological security presents a unique "institutional nesting risk", where the rigid control of ecological protection red lines and the spatial demands of new energy development create structural conflicts. In 2023, the area of overlap between photovoltaic projects and ecologically sensitive areas reached 0.45% of the national territory (Fan & Zhou, 2021), exposing the continual financial dilemma of the current ecological compensation mechanism - the fiscal expenditure elasticity coefficient for every CNY ¥ 10,000 increase in ecological value reached -1.3, indicating an inverse relationship between the intensity of compensation and the

effectiveness of protection (Peng, 2018). The technical inaccuracy of the carbon sink measurement system (average error ±35%) further weakens the low-carbon regulatory effectiveness of spatial planning, resulting in 61% of low-carbon city pilot projects failing to achieve their carbon emission intensity reduction targets (W. Liu & Weng, 2020).

In the context of globalization, "institutional interface friction" is reshaping the challenges of local adaptability to international rules. The parameter coupling degree between China's planning standards and international SDGs only reaches 78% of the critical threshold, resulting in an average institutional transaction lag of 14 months in "Belt and Road" construction projects. A more basic challenge arises from the generational gap in the spatial governance knowledge system. The digital skills proficiency rate among registered planners is less than 40%, creating a 180° phase difference with the knowledge requirements for smart city construction. The intertwining of such contradictions makes the reform of the SGPS reflect typical fractal evolution characteristics - each level's institutional breakthrough deconstructs the old system while constructing new forms of contradictions. This requires the injection of necessary tolerance for ambiguity and fault tolerance thresholds into the design of resilient institutional frameworks (Ni & Li, 2021).

6.1.2 The applicability of international comparative methodology

The EU's "institutional technology" framework can effectively analyze the dynamic evolution of China's SGPS, however the existing classifications do not fully encompass the characteristics of China's "planning-market" hybrid model.

The current international comparative methodology suffers limitations such as static nature, Eurocentrism and quantitative simplification when describing non-Western SGPS. It is necessary to enhance the explanatory power in non-Western contexts by expanding or adding variables (such as policy experimentation mechanisms). By deepening dynamic institutional technical model, constructing cross-cultural frameworks, strengthening power relations analysis and policy implementation orientation, the global applicability of the methodology can be enhanced.

Core limitations of the current methodologies

Current classification methodologies (such as legal family and the "ideal types" of EU Compendium) are largely based on static structural characteristics like legal traditions and administrative hierarchies, making it difficult to capture the dynamic evolution of SGPSs. Although with the supplementation of “institutional technology” (continuous evolution of practice, discourse, structure, and tools), the ESPON project

2.3.3 and the ESPON COMPASS project have already provided methodologies to address the disconnection between static classifications and dynamic realities, to a certain extent, allowing for a clear distinction between the planning traditions and dynamic adaptability of European countries.

Current systematic comparative studies (such as the ESPON projects) attempt to extend to Central and Eastern European countries, but their analytical frameworks are still rooted in European experiences, insufficiently considering the uniqueness and complexity of non-Western systems (Reimer, 1824). Their implicit assumption is the linear evolution logic of the "state - market - society" relationship, which still cannot explain the nonlinear interactions between state capacity and market vitality in non-Western countries during rapid urbanization and political - economic transformation. For example, China's SGPS centers on the territorial spatial planning, featuring characteristics of both centralization and local experimental governance (such as the “multi-plan integration" reform), making it impossible to directly apply the European "Regional Economic" or “Urbanism" classifications (Chapter 5.1). This Eurocentric contextual restriction marginalizes the uniqueness of non-Western systems, weakening the global explanatory power of comparative studies.

Some studies (such as Berisha et al.'s quantitative scoring model) achieve cross-national comparisons through the simplification of partial quantitative indicators, but inevitably neglect qualitative contexts, which may obscure deep-seated differences in cultural, historical, and political-economic backgrounds (Acharya, 2016). For example, China's SGPS may be classified as a "state-led system" (De Lombaerde et al., 2013), because of the land use and spatial development rights delivery model. But its qualitative characteristics, such as the interplay between local and central governments and the flexibility of policy pilots, are difficult to capture through standardized metrics (see Chapter 5.2).

Moreover, current policy transfer remains disconnected from practice due to its complexity. The studies emphasized the necessity of drawing on international experiences but has not adequately investigated the issues of institutional friction and cultural adaptability in policy transfer. For example, the concept of "public participation" in Western planning theory needs to be reinterpreted in the Chinese context by integrating the local practice of "social collaborative governance" (Healey, 1997a).

Theoretical expansion path

To further break through the static classification logic and Western-centric tendencies, the expansion of global comparative theory needs to be centered on a

dynamic "institutional technology" model, integrating cross-cultural sensitivity analysis and multi-dimensional power relationship examination to construct a more inclusive and explanatory analytical framework.

In the structure dimension, attention should be paid to the stability of the constitutional framework and the triggering mechanisms of institutional reform (North, 1990); in the tool dimension, the focus should be on the actual effectiveness of planning tools and their adaptability to local governance traditions; in the discourse dimension, it is necessary to deconstruct the historical path dependence of policy evolution; in the practice dimension, special emphasis should be placed on the feedback effects of policy pilots and local innovations, revealing the adaptability of system to complex micro-dynamics.

The construction of a cross-cultural comparison framework needs to break through the variable system dominated by European experiences and systematically integrate essential elements in non-Western contexts: characteristics of political systems (such as the central role of political parties in planning and decision-making), cultural values (such as the shaping of public participation models by collectivist traditions), and historical institutional legacies (such as the impact of planned economy legacies on land property rights systems). The introduction of such variables can compensate for the simplification of qualitative contexts in existing quantitative models, producing "thick description" through mixed research methods, combining quantitative indicators with in-depth case studies (Geertz, 1973). For example, China's “strategic rigidity - market adaptation" model may be misinterpreted as a "state-led system" at both quantitative and qualitative level. But in its actual operation, a dynamic negotiation between local government "policy adaptations" and central "top-level design" can only be completely presented through qualitative analysis of local planning conflict cases (such as the contradictions between farmland protection and development construction expansion).

Furthermore, the analysis of power relations needs to start from the "vertical-horizontal relationship" indicators of ESPON COMPASS and extend to the interactive mechanisms of supranational policy penetration and local institutional responses (L. Zhou, 2014). In the vertical dimension, the flexible boundaries of central-local power distribution should be deconstructed (e.g., how the decentralization of land approval authority affects the effectiveness of planning execution); in the horizontal dimension, the institutional barriers to inter-departmental collaboration need to be analyzed (e.g., conflicts in technical standards between ecological protection and infrastructure planning).

At the same time, it is necessary to transform the analytical paradigm of the EU cohesion policy into a global governance perspective, exploring how supranational agendas such as the OUN Sustainable Development Goals (SDGs) penetrate non-Western SGPS through policy discourse reconstruction (e.g., integrating " Carbon Peaking and Carbon Neutrality Goals" into spatial planning), technical standard transplantation (e.g., ecological security pattern assessment methods), and financial incentive mechanisms, forming a complex picture of "global-local" policy nesting .

Ultimately, the theoretical shift in methodology should employ the effectiveness of policy implementation as a value anchor, leading comparative research from "systematic classification" to "effectiveness evaluation". This requires the construction of a multidimensional evaluation system that encompasses environmental performance (such as the ecological space fragmentation index), social equity (such as emphasis on differences in public service accessibility), and economic resilience (such as the optimization process of industrial spatial layout) etc. (Ni & Li, 2021), while also focusing on the system's adaptability to uncertainties (such as the health space planning innovations spurred by the COVID-19 pandemic).

By incorporating the dynamic nature of institutions, cultural particularities, and implementation effectiveness into a unified analytical framework can we transcend the limitations of current methodological instrumental rationality, providing a more critical and practice-oriented theoretical support for the knowledge production and policy mutual learning in global spatial governance.

6.1.3 China's SGPS in global comparison

China's "multi-plan integration" reform in the field of spatial governance has achieved breakthrough progress through institutional restructuring. It has integrated the previously fragmented responsibilities of land use, urban-rural, and ecological planning into the institutional design of the MNR, constructing a governance framework with hierarchical transmission characteristics known as the " five levels, three categories and four sub-systems" framework. This systematic planning integration mechanism provides an innovative solution to the problems of coexistence of multiple plans and departmental fragmentation.

In terms of technological empowerment (Rong, 2023), the deep application of the "One Map" information platform and digital twin technology has given rise to governance innovations such as the dynamic access mechanism for Eco-redlines in Shenzhen's Dapeng New District and the full lifecycle land administration in Guangzhou's Pazhou, showcasing the practical path of digital technology enhancing governance resilience. More critically, through the scientific definition of the bottom

control boundaries of the "three zones and three lines", a dynamic balance framework between development and protection has been established in the rapid urbanization process. This governance logic based on spatial constraints not only provides institutional references for emerging economies like India and Brazil, which face similar contradictions, but also offers a beneficial supplement to the governance paradigm in traditional Western planning theories that assume a steady-state society.

It is worth noting that the adaptive regulatory mechanisms formed between marketized element flows and public interest protection in China, as well as the local innovative practices derived from them, have not only enriched the empirical sample library of global urban policy transfer research but also provided transformative experiences that can be referenced for urban renewal in East Asian and Southeast Asian countries. This, in turn, has contributed a differentiated development paradigm to the global spatial governance system from the dual dimensions of institutional innovation and technological application.

Global reference value and policy transfer potential of Chinese experience

China's SGPS can provide developing countries with a non-Western model. It is neither the decentralized, market-driven planning tradition of European countries and the United States nor the finely categorized control of East Asian countries (such as Japan and South Korea). Instead, it achieves rapid institutional transformation through a "dual-track system" of central coordination and local experimentation (Q. Pan, 2018; Z. Shen, 2018). This model can provide a policy toolbox for developing countries confronting rapid urbanization and resource constraints (such as Vietnam and Indonesia), especially in fields like land system reform and inter-departmental coordination.

Chinese practices can inspire the expansion of themes in global comparative research. They challenge the "state-centrism" framework in traditional policy transfer theory, highlighting the importance of cities as subjects of policy flow (e.g., the cross-border cooperation between Shenzhen and Hong Kong).

The characteristics of China's SGPS indicate the bidirectionality and complexity of policy transfer. China not only absorbs international experiences (the forward-looking planning techniques of the United States, the ecological protection principles of Europe etc.) but also exports distinctive models through local innovations (Q. Pan, 2018). This bidirectional interaction provides a case of "hybrid policy transfer" for global comparative studies (Marsh & Sharman, 2009), emphasizing that policy transplantation needs to be adjusted to fit the local institutional context rather than being a pure replication.

As a typical case revealing the universality of institutional obstacles, the challenges faced by China's SGPS (such as legal fragmentation, inter-departmental interest conflicts and insufficient public participation) are not unique but rather common issues encountered by many countries in planning integration. For example, the issues faced by the UK in regional planning coordination and by Brazil in standardizing land classification are extremely similar to those in China. These common issues can drive cross-national comparative studies to focus on deeper subjects such as "institutional adaptability" and "path dependency of reforms".

Implications for global comparative research and policy transfer

At the theoretical level, the Chinese experience demands for a reconstruction of the analytical framework for policy transfer, incorporating dimensions such as "central-local interaction" and "technology-institutional synergy", moving beyond the traditional "state-market" binary perspective. The "flexible control" approach may give rise to a new theoretical perspective on "Adaptive Governance".

In practice level, China's local innovations (such as the construction of digital platforms) can provide other countries with actionable technical tools (Z. Wu, 2021), but their success relies on localized institutional support (such as the integration of functions within the MNR). This suggests that policy transfer needs to balance "tool transplantation" with "institutional adaptation" (Evans, 2004).

At the methodological level, Chinese case supports the "comparative transfer analysis" method, which involves dynamic cross-national comparisons based on three elements: policy instruments, spatial levels, and temporal dynamics. For example, comparing China's "multi-plan integration" with the European "Spatial Planning Directive" can reveal the similarities and differences in planning coordination under different political systems.

6.2 Policy recommendations

The optimization of China's Spatial Governance and Planning System (SGPS) requires synergistic reforms across institutional design, technical tools, and governance models. Drawing on international experiences and China's specific context, the following systemic recommendations are proposed:

6.2.1 Enhancing the Legislative Framework

To establish a robust legal framework for territorial spatial governance, a hybrid legal system with "rigid frameworks + flexible rules", integrating national legislation and local innovation is essential (Cai et al., 2017; Sun Y. & Wang, 2022).

At national level, accelerate the enactment of the National Territorial Spatial Planning Law to establish its primacy as the "umbrella legislation" for spatial governance (X. Huang & Wang, 2021). Integrate conflicting clauses from existing laws (e.g. Land Administration Law and Urban and Rural Planning Law), particularly regarding land quota allocation mechanisms. Introduce a dedicated chapter on "Spatial Planning Conflict Resolution" to formalize judicial procedures for interdepartmental disputes.

As for the local legislative innovation, pilot region-specific legislation in areas such as the Guangdong-Hong Kong-Macao Greater Bay Area and the Yangtze River Delta Integration Demonstration Zone. For instance, empower Shenzhen to experiment with a "negative list + positive incentives" model, allowing ecological land replacement mechanisms (e.g. marine use rights trading for terrestrial development quotas) to be codified in local regulations.

A dynamic legal adaptation mechanism combining periodic evaluations and real-time revisions must be implemented. By 2025, conduct the first nationwide assessment of territorial spatial plan implementation, focusing on the effectiveness of the "Three Zones and Three Lines" (ecological conservation redlines, permanent basic farmland boundaries, and urban development boundaries). Resolve operational ambiguities through legislative interpretations (ecological conservation redlines, permanent basic farmland boundaries, and urban development boundaries). Resolve operational ambiguities through legislative interpretations or supplementary provisions.

6.2.2 Strengthening Interdepartmental Coordination

The transition from physical integration to chemical fusion in interdepartmental coordination requires comprehensive institutional restructuring and technological innovation. A key initiative involves establishing a National Territorial Spatial Planning Committee under the Ministry of Natural Resources, incorporating representatives from ecology, agriculture, and transportation sectors. Grant veto power over projects violating ecological redlines (e.g., provincial committees rejecting municipal transport plans encroaching on protected areas).

Central to this transformation is the development of a National Smart Spatial Governance Platform designed to overcome data silos (Jiang et al., 2017). It's necessary to develop a National Smart Spatial Governance Platform with three core functions: standardizing multi-source data (e.g. natural resource inventories ecological monitoring networks, BIM systems); using unified formats (e.g., GeoJSON); deploying satellite remote sensing and IoT sensors to track construction

land expansion and ecological quality changes (e.g., NDVI indices) (Qin, 2016).

Predictive analytics form the platform's proactive dimension, with AI models forecasting spatial planning conflicts (e.g., industrial park expansions risking PM2.5 exceedances by 2030) and triggering cross-departmental consultations proactively (L. Zhu et al., 2020). Complementing these technical solutions, a performance evaluation system institutionalizes collaboration through quantifiable metrics, including a mandatory weighting for the Planning Coordination Index (PCI) in annual assessments. This index measures operational effectiveness through indicators like cross-departmental policy co-issuance rates and data-sharing response times, creating structural incentives for sustained interagency cooperation.

6.2.3 Optimizing Local Incentives

The transition from "land finance" to "spatial value innovation" involves optimizing local incentives through a series of policy measures aimed at fostering sustainable development and ecological security.

Ecological Fiscal Reforms

One key approach is ecological fiscal reform, which includes vertical compensation mechanisms such as the establishment of a National Ecological Security Fund under central finance (Ostrom, 2010). This fund would allocate resources based on provincial ecological redline areas (40% weight), carbon sequestration gains (30%), and biodiversity indices (30%), with a target allocation of 0.5% of GDP by 2025 (G. Liu et al., 2021). Additionally, horizontal trading mechanisms could be implemented, allowing overdeveloped regions to purchase "spatial rights quotas" from ecologically rich provinces, such as Jiangsu buying forest carbon credits from Yunnan at prices linked to national carbon markets (Yu, 2022).

Marketization of Land Quotas

Another critical measure is the marketization of land quotas, which includes pilot programs for land quota securitization. For instance, "construction land quota futures" could be launched in cities like Shanghai and Chongqing, enabling local governments to trade future saved quotas with insurance-backed risk hedging (Y. Yang & Kang, 2021). Furthermore, mixed-ownership development models could be tested in areas like the Xiong'an New Zone, combining state-owned and collectively owned land (e.g., 70% state-owned + 30% collective-owned land). This approach would allow rural collectives to share in the revenues generated by industrial parks through equity participation.

To ensure accountability and performance, Spatial Performance Contracts (SPCs) could be introduced, binding municipal leaders to specific targets such as

"land-use efficiency per GDP unit" and "urban heat island mitigation". Underperformance would result in penalties, such as reductions in land sale revenue shares. These measures collectively aim to create a more sustainable and equitable framework for spatial value innovation while addressing the challenges associated with traditional land finance models.

Chapter 7

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