Chapter 1
Introduction

1.1 Background

1.1.1 Challenges in Spatial Governance in City/County Territory

1.1.1.1 Increasingly Complex Human-Land Relationship Requires More Systematic Spatial Governance Approach

The spatiotemporal compression of human-land contradictions under rapid development On one hand, China has entered the industrialization and urbanization stage at an extremely rapid pace, and its economic takeoff in the past 40 years has crossed the hundred-year process of many developed countries and regions in the West. As a matter of fact, many long-term man-land contradictions cannot be resolved in a timely and coordinated manner. When the 18th CPC National Congress proposed the Reform of Developing an Ecological Civilization, a series of contradictions and problems became more prominent. On the other hand, multi-stage and multi-level spatial governance issues exist simultaneously in different regions of China, resulting in distinct spatial compression phenomena. For example, some developed cities face problems such as population crowding, land scarcity, development transformation, and urban disease control, while some underdeveloped region cities/counties face problems of shrinkage issue like idle land and assets, "empty buildings", and so on. Therefore, it is urgent to govern these problems through scientific and systematic policy measures as soon as possible.

The intertwined multiple human-land problems in China Firstly, socio-economic activities in territorial space are more diverse and complex than ever before. Territorial space is witnessing increasingly diverse patterns of land use and development, accompanied by an equally diverse range of production and lifestyle modes. Secondly, the carrying capacity of resource and environment is limited by multiple types and levels

of constraints. At the macro level, China's resource carrying capacity remains severe [1], and at the city/county levels, the imbalance and differentiation of ecological carrying capacity are more pronounced [2–4]. In addition, the capacity of environmental factors is being threatened to varying degrees [5–7]. As a result, the potential constraints and pressures on territorial development are increasing. Thirdly, people's intervention in nature is deepening and expanding, resulting in inherent contradictions and landscape interweaving between urban spaces, surrounding agricultural spaces, and ecological spaces, including the sprawl and the encroachment on high-quality farmland or forest land, ecological degradation such as land desertification, forest degradation, soil erosion, and environmental deterioration [8]. On the other hand, the close interconnection between cities has also led to the increase of negative externalities, such as the selection of avoidance facilities, the transfer of basin pollution, cross-border pollution, and the fragmentation of ecological spaces [9]. Therefore, it is necessary to adopt more systematic spatial governance methods and approaches to address these problems.

The complex and tense human–environment relationship pose important challenge to the local spatial governance On the one hand, the constraint on land and resources development are constantly tightening, and on the other hand, people's demands for the well-being of livelihoods are increasing. The combination of these factors has led to an unbalanced direction in the spatial governance strategies of many cities and counties [10]. Therefore, effectively transforming and addressing the imbalances and inadequacies in the human-land relationship scientifically, and properly managing the multi-relationship between development and conservation, has become a critical and urgent agenda in China's spatial governance system.

1.1.1.2 Green Development and Ecological Civilization as a Key Strategy for Spatial Governance

China has entered a new stage of ecological progress. Ecological civilization advocates for coexistence and mutual harmonious among nature, humans and society. Achieving ecological civilization necessitates adopting a green development model, wherein nature and ecological assets are regarded as key factors for sustainable development. Spatial planning and governance enter a new stage focusing on achieving the sustainable development of economy, society and environment. Given this context, green development and ecological civilization have represented critical ranking indicators for city/county governments. In view of adverse ecological conditions significantly harming urban–rural quality of life, a healthy eco-environment has become an invaluable strategic asset for cities. In the long run, integrating the governance objectives of ecological civilization into spatial development and embedding them into the governance framework, constitutes a crucial long-term task in the spatial governance of city/county territories.

1.1.1.3 The Allocation of Public Resources Requires Fairness and Humanization

In the ongoing process of urbanization in China's cities/counties, people aspire to continuously improve their living standards. The development history of spatial planning systems in developed countries indicates that the essence of spatial planning increasingly emphasizes a robust resource redistribution strategy, supported by the continuous evolution and enhancement of public policies. Same as current direction of China's reforms, for city and county, we should adopt multi-dimensional and composite governance instruments to intervene, achieving fairness and humanization through spatial planning.

1.1.2 Proliferation of Spatial-Related Plans with Insufficient Compatibility

Since the beginning of the new century, spatial related planning has been undergoing a process of "professional specialization" and diversification of plan types. At the same time, the relevant administrative departments at various government levels have continuously undergone restructuring, including mergers, abolitions, and reforms [11]. During this process, each department has independently established its own spatial planning system tailored to its specific needs, including laws and regulations, standards, planning content, and compilation procedures. This has gradually led to the fact of extending of "planning family". According to a survey from the Ministry of Housing and Urban–Rural Development in 2004, the categories of plans by law already reached 83. After that, the number is still growing.

A large number of spatial-oriented and spatial-related plans are dispersed across various government levels and their respective departments, each with different requirements, inconsistent standards, and poor compatibility. This has led to insufficient horizontal coordination among administrative departments within the same territory or government, resulting in a certain degree of fragmentation. In particular, the lack of unified and synchronized institutional regulations, as well as technical inconsistencies and disconnections in planning and implementation, has frequently caused issues such as redundant construction, duplicated investments, and even conflicts in practical work. These problems have had many adverse effects on socio-economic development, investment efficiency, and people's livelihoods, leading to significant and often irreversible losses.

1.2 Literature Review

1.2.1 The Progress of Spatial Planning and One Blueprint Research in China

1.2.1.1 Emerging Period (1980s–2000s)

From the period of reform and opening up to the turn of the twenty-first century, China experienced a rapid acceleration in urbanization. The requirement of coordinating development, resources and environment through planning is increasing. As a result, the relationships and coordination among various types and levels of spatial planning emerged as significant research issues.

The earliest researchers began to focus on the "two-plan" (urban plan and land use plan) relationship issue [12, 13], specifically whether there is a primary-secondary or precedence relation between them [13, 14]. With the pilot and revision of the third round of land use master plans, academic voices advocating for the "two-plan integration" increased significantly. Studies began to explore the coordination between them from technical aspects [15] and from the perspectives of drafting, approval and management [16]. Other planning coordination issues have also gradually attracted academic attention, such as the relationships between territorial planning, regional planning, and urban planning [17].

Meanwhile, numerous domestic scholars have noted the progress in spatial planning abroad, leading to a wave of research introducing the spatial planning practices of developed countries, thereby expanding the scope of planning research and work in China. The primary national studies focus on planning system include Germany [18, 19], the United Kingdom [20, 21], France [22, 23], The United States [24], Japan [25], Singapore [26] and other representative developed countries.

Additionally, some studies emphasize the perspectives of planning institution and planning law [27–34]; they also introduce planning instruments and methods such as zoning and development control [35–37], and planning monitoring instrument [38] for reference.

1.2.1.2 Formation Period (2000s–2010s)

Following 2007, the introduction of the Scientific Outlook on Development led to an increased emphasis on the integrated development of human-land relationships. In response, national authorities have established numerous laws, regulations, and spatial governance systems. The promulgation of *Property Law* (2007) prompted a reevaluation of public intervention in planning concerning public interests [39]. The *Law on Urban and Rural Planning* (2008) replaced the *City Planning Law* (1989) as a milestone, facilitating the progression of multi-planning issue research activities.

Given this context, the scope of spatial oriented planning has expanded considerably. Wang and Liu provided the first systematic review and summary of China's

"multi-department, multi-plan" situation [40]. Theoretical studies on the relationships between multi-planning and the spatial planning system began, resulting in various coordination theories for spatial oriented planning [41–44] and summaries of spatial planning system models [45]. These efforts led to ideas for constructing spatial planning systems through the theory of system analysis [45, 46].

Chinese researchers consistently tracked developments in spatial planning abroad [47–50] and also organized the translation and publication of classic works such as Cullingworth's *Urban and Rural Planning in the UK* (14th edition) and *Planning in the USA: Policies, Issues, and Processes* (4th edition). Building on these advanced foreign experiences, they have undertaken a series of theoretical research projects that are adapted to China's unique national context.

1.2.1.3 Contention Period (2010s–2018)

Around 2014, with the opportunity window in spatial planning research and practice reform in China, *National New-Type Urbanization Plan* (2014–2020) introduced the concept of "multi-planning integration". Over the following 3–4 years, the top-down pilot reforms for this integration provided practical scenarios. This ushered in a period of academic debate on spatial planning reform, leading to greater discussions on multi-planning integration and creating *One Blueprint* approach. Researches during this period focused on the following areas:

Firstly, a deeper analysis of the relationships and conflicts within the multiple plans. This included conflicts and disconnections from the perspective of planning content and technical aspects [51], the view that multi-plan conflicts arise from a lack of unified coordination of overall goals from a systems theory perspective [52], and the perspective that conflicts stem from the allocation and competition of land development rights [53, 54]. Additionally, the multi-layered interest patterns behind the planning system were also discussed [55].

Secondly, there were academic discussions on the future vision of China's spatial planning from multi-scope, including the scope of scholars in economics [56], management [57], and government reform theory [58]. Some scholars explored the future of China spatial planning system through "problem summary—overseas reference—conception framework" approach [59, 60]. Meanwhile, Gu proposed a comprehensive technical system for "multi-planning integration" at the regional level through historical synthesis [61, 62].

In conclusion, the research during this period established the topic of *One Blueprint* for spatial planning as a significant planning research issue, forming an agenda of spatial planning research within China context.

1.2.1.4 Innovation Period (2018 to Now)

Since 2018, with the implementation of institutional reforms (such as the establishment of the Ministry of Natural Resources of the PRC) and the establishment of

territorial and spatial planning system, China has officially embarked on the reform process of a unified spatial planning system, resulting in significant changes in the research context. Cross-disciplinary and multi-perspective researches emerged, with the primary objective being directed toward how to build a new spatial planning and its model and system, rather than continuing to harmonize multi-plan:

(1) Researches on problem-solving and providing suggestions for territorial and spatial planning: on one hand, many scholars have reviewed and synthesized the development trajectory of China's planning system [61, 63–65], the evolution of spatial policies and institutional characteristics [66–69], and the evolution of planning theoretical thoughts [70, 71]. These reviews have led to insights and prospects for the development of territorial and spatial planning [72–74]. On the other hand, other scholars have offered top-level design proposals for territorial and spatial planning system, by national policy interpretations [75, 76], by proposing and structuring critical planning systems based on fundamental logical relationships [77], and even by proposing visionary theoretical frameworks [78].
(2) Exploration of foundational spatial issues. Numerous studies have focused on the reclassification of land use or territorial space [79–83]. Chen et al. summarized and proposed a unified framework for resource classification from the perspective of natural resource management [84]. Yi Bin et al. proposed a comprehensive classification framework for city and county areas, based on the perspectives of human-land relations, urban residents, and managers [85]. Lin Jian et al. proposed a "regional-element" dual-dimensional spatial cognitive model to coordinate planning systems and development protection systems [86, 87].
(3) Focusing on the fundamental evaluation (spatial analysis) and spatial zoning innovation of *One Blueprint* for spatial planning. Gu et al. concluded that Dual-evaluation ("evaluation of the carrying capacity of resources and environment" and "evaluation of the suitability of territorial space development") and the delineation of the "Three Control Lines" are the foundation territorial and spatial planning in the new era [88, 89]. Accordingly, the academic community has engaged in theoretical reflections on the foundational aspects of evaluation of the carrying capacity [90–93] and summarized multiple methods [94]. This has led to practical explorations in city/county level cases in Guangdong [95, 96], Fujian [97], Hubei [98], and Gansu [99].
(4) Exploratory research on restructuring the institutional and legal system of spatial planning. Firstly, during the legislative period for new laws such as the *Law on Territorial Spatial Planning Law (incoming)*, researchers reviewed the legal pathways of spatial planning in China [100], examined the characteristics of other countries [101], and based on China's institutional structure, practical needs, and goals, analyzed the basic issues of new legislation [102]. Some studies proposed different legislative pathways for various scenarios [103], while others provided suggestions for the legislative logic, framework, and content system of the *Law on Territorial Spatial Planning Law* [101, 104]. Secondly, reflections

and proposals were made from the perspectives of institutional environment [105] and the structure of power and responsibility in planning and implementation [106]. Additionally, some scholars discussed the fundamental significance of managing natural resource assets for spatial planning and proposed "meta-rules" for forming effective and beneficial "rights" for the public based on natural resources, thus restructuring a new "HarmonyOS" for spatial planning resource allocation [78].

(5) Introduction and innovative research on the instrument systems of foreign spatial planning. Besides sorting out and benchmarking the spatial planning systems of typical countries [107–112], some research has focused on providing overseas references based on current key issues of planning reform. This includes the innovative introduction of foreign planning instruments: including planning instruments for ecological space and green infrastructure [113–116]; the combination of water security and water governance tools and planning [117]; experiences in disaster prevention and mitigation [118, 119]; analysis and reference of instruments for defining development boundaries and regulation [120, 121]. Specific land use and environmental issues include instruments for the ecological restoration [122], and instruments for the remediation and regeneration of polluted/abandoned land [123, 124]. Additionally, there are innovations in planning instruments oriented towards welfare, aimed at improving people's well-being, including the planning embodiment of "life circles" [125, 126], and planning assessment instruments from a healthy city perspective [127, 128].

Reviewing China's research and exploration in the field of spatial planning, several key evaluations and insights emerge:

(1) The shift from "multi-planning conflicts" to "multi-planning integration" in spatial planning has unified various related fields into a common academic discourse. This exploration from different perspectives and systems has pushed for new innovations and represents an interdisciplinary and cross-knowledge academic field.

(2) The researches have provided significant foundational and inspirational value for both theory and practice for spatial planning *One Blueprint*. From the perspective of spatial intervention instruments, evaluation and monitoring instruments, spatial regulation instruments, resource management and allocation instruments, and ecological environment restoration instruments will be key options for public intervention in spatial planning in the new era. Additionally, the integration or reconstruction of a unified discourse and knowledge system for spatial planning has become an inevitable trend.

(3) A new phase of original spatial governance models has begun in China. This exploration of China's characteristic *One Blueprint* for spatial planning could, in the foreseeable future, provide valuable theoretical paradigms and practical models for the international field of spatial planning.

1.2.2 Development of Spatial Planning and One Blueprint Related Issues in International Context

Spatial planning (especially multi-planning integration) and *One Blueprint* are specific topics within the context of China's institutional environment, and thus, there is limited international literature on them. However, the coordination of spatial planning systems and the innovation of spatial governance frameworks are prominent international issues. The common challenge of multi-planning integration lies in the coordination of planning components and the construction of governance frameworks. Therefore, relevant international research can provide valuable insights and references for China's *One Blueprint* in spatial planning.

1.2.2.1 Development of Spatial Planning and Spatial Cognition Abroad

The constantly evolving context and system of spatial planning As early as 1983, *Torremolinos Charter* established a fundamental definition of spatial planning: "Spatial planning is the reflection of economic, social, cultural, and ecological policies in the geographical space dimension. Regional/spatial planning, based on an overall strategy, promotes balanced regional development and physical spatial organization through the integrated application and cross-integration of scientific principles, administrative measures, and policy tools."[1] Other countries have also provided different interpretations in their respective documents (Table 1.1). In fact, the development and differentiation of various social needs and institutional structures have largely shaped the content, perception, and framework of different spatial planning systems [129–135], which are also reflected in different forms [136, 137].

Spatial planning system and spatial cognition in typical countries Examining the characteristics of spatial planning system and spatial cognition in countries such as the UK, USA, Australia, France, Germany, the Netherlands, Japan, and Republic of Korea, several aspects of Japan and Germany's spatial planning align closely with China's expectations.

Spatial planning system in Japan nowadays is primarily governed by its *National Spatial Plan* (国土形成計画) and *National Land Use Plan* (国土利用計画), which integrates urban planning and various sectoral planning systems. This "ubiquitous" planning system has been continuously adjusted and harmonized over several decades to ensure effective operation [138]. The *National Land Use Planning Act* (国土利用計画法) and other legal frameworks serve as the statutory basis for delineating and supervising different types of spatial areas.

The overarching framework of territorial spatial zoning and classification in Japan is structured around the concept of "five categories and two levels." First, the five categories refer to the primary types of national land use regions defined by the *National Land Use Planning Act* (国土利用計画法), which divides the entire territory of

[1] According to *European Spatial Development Perspective* issued in 1997.

Table 1.1 Definitions of spatial planning in selected regions/countries

Regions/countries		Definition or explanation	Characteristics and insights
The European Conference of Ministers Responsible for Regional Planning (CEMAT) (1983)		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	Geospatial expression of policies; Interdisciplinary and comprehensive approach; Integration of multiple knowledge systems; Physical organization of space
The European Commission (1997)		Public policies and actions that influence the distribution of activities and their spatial connections. It involves three levels: EU, national, and local, including land use planning and regional policies	Multi-scale and multi-level governance; comprehensive content centered on land use planning
Federal systems	Germany	In the German context, "Raumplanung" (spatial planning) is composed of "Raum" (space) and "Planung" (planning). German spatial planning is generally understood as an umbrella term for spatial master plans at different levels and sector-specific technical plans (e.g., transportation planning, landscape planning)	Germany's spatial planning is a self-integrating and coordinated planning system
	Switzerland	The definition of spatial planning is similar to that of Germany, encompassing all spatial planning by public authorities at various levels (federal, state, municipal) and across all spatially related disciplines (transportation, environment, economy, society, etc.). According to Swiss law, the task of spatial planning is to coordinate spatial demands at different levels (federal, state, municipal) and across different aspects (transportation, environment, population, economy), reduce conflicts, and reserve space for future development	Implementation is subject to the sovereignty of each state, leaving cities considerable autonomy in planning

(continued)

Table 1.1 (continued)

Regions/countries		Definition or explanation	Characteristics and insights
Unitary systems	Netherlands	A process of sustainable decision-making that allows various functions and activities to adapt to the physical living environment Dutch spatial planning refers to national strategies and policies for the allocation of land and water resources aimed at sustainable socio-economic development	Horizontal and vertical integration of policies across departments and judicial bodies
	Japan	Shen et al. [138] define it based on recent Japanese planning practices that shape spatial development patterns and cross-administrative infrastructure construction, rooted in legal frameworks such as the *Basic Act for Land* (土地基本法), *National Spatial Planning Act* (国土形成計画法), and *National Land Use Planning Act* (国土利用計画法), the core of planning system in Japan includes *National Land Use Plan* (国土利用計画), *National Spatial Plan* (国土形成計画), and related planning efforts at different spatial scales. Gao and Tan [107] further argue that these multi-scale plans include five specific types of plans (incl. 都市計画urban planning, 農業振興地域整備計画agricultural promotion area planning, 地域森林計画forest planning, 自然公園計画national park planning, and 自然環境保全地域に関する保全計画 conservation planning for the nature conservation area) as implementation tools for basic land use planning (土地利用基本計画), as well as regional comprehensive planning (広域地方計画)	Spatial planning is a systematic combination of various spatial plans, with its rationality and feasibility based on a comprehensive legal framework

Japan into urban territory (都市地域), agricultural territory (農業地域), forest territory (森林地域), natural park (自然公園地域), and nature conservation territory (自然保全地域). Second, the two-level regional subdivision scheme begins with the basic five territories as the first level. The second level of zoning and classification further refines these categories based on laws such as the *Urban Planning Act* (都市計画法), *Agricultural Promotion Areas Development Act* (農業振興地域の整備に関する法律), *Forest Act* (森林法), *Natural Parks Act* (自然公園法), and *Nature Conservation Act* (自然環境保全法). For example, the *Urban Planning Act* stipulates that urban territory should be further divided into "urbanized areas" (市街化区域) and "urbanization adjustment areas" (市街化調整区域). Thirdly, in the basic land use plans (土地利用基本計画) of prefectures, the blueprint for the "five categories and two levels" feature is drawn up and further detailed in the corresponding