

# Urban and Rural Land Use Planning Evolution in Modern China from the Perspective of Land Management System

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**Abstract:** As the carrier of all living and production activities, land is the basic object and land use is the essential content of a variety of planning. Land management system directly determines a series of significant issues such as the supply of urban and rural construction land, the land use efficiency, the allocation of land value appreciation, and so on. Therefore, it influences the philosophy and implementation of planning. In China, there are diverse plans of urban and rural land use managed by multiple agencies. In the early years after the foundation of the PRC, land was allocated by plans with no charge. After the Reform and Opening-up, paid use of land and land market was introduced, followed up by the establishment of a land use planning system including territorial planning, urban and rural planning, and land use planning. Recently, exploration of building a unified territorial/spatial planning system is undergoing since the Third Plenary Session of the 18th CPC Central Committee. The evolution of planning manifests the modernization of state governance system, from direct control of land by the state, to the decentralized management of development rights under the separation of land ownership and use rights, to the central-local two-layer management of land development rights in the context of protecting resources and environment, all the way to the unified management of land development rights under the Ecological Civilization. On the basis of reviewing the evolution of urban and rural land use planning in the past 70 years, this paper explores the reforms of the land management system with Chinese characteristics and their impacts on urban and rural land use planning. This paper explains the evolution path of urban and rural land use planning and interprets the transition of planning focus of “construction management—asset management—resource management—ecology management”, as well as the corresponding streamlining process of governments functions.

**Keywords:** Urban and Rural Land Use, Planning, Evolution, Land Management System, Land Development Rights, Territorial Space, China

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Land is an important source of productivity in human society, and a carrier of all living and producing activities. Land use is a general term for all type of activities when people develop, use, improve and protect land based on the inherent attributes and functions of land resources. It also refers to the approaches, extents and effects of the utilization of land, a capital goods <sup>[1]</sup>. Planning can be understood as a process and channel to achieve future goals in land use and management, or in terms of political behaviors, as a process of implementation, comprehensive coordination, rational thinking, conflicts resolution, and problem-solving <sup>[2]</sup>. In China, land use planning, urban and rural planning, and territorial planning have the greatest influences on the urban and rural land use. Therefore, this article will mainly review the development of these three kinds of planning since the founding of the PRC. It explains the path and internal logic of urban and rural land use planning evolution, taking into account land management system reforms.

## **1 Planning evolution of urban and rural land use in modern China**

### **1.1 1949-1977: Commanded land supply in planned economy**

At the beginning of the founding of China, there were both state-owned and privately-owned urban lands. In 1950, the “Agrarian Reform Law” introduced peasant landownership, which greatly liberated rural productivity and promoted the development of the agricultural economy and the stability of the political power. Land in urban areas all turned in the hands of the state by 1956. The General Bureau of Urban Construction was expanded to the Ministry of Urban Construction, for united management of urban planning and urban construction throughout the country. Meanwhile, the Ministry of Land Reclamation was established from the General Bureau of Land Use and became responsible for the construction on the uncultivated land and state-owned farms. Thereafter, China started its dual-agency urban-rural land management system. State-owned land was then supplied through administrative allocation, with no term, cost, or condition, resulting in a serious waste and inefficient use of urban land resources. In 1956 and 1958, the State Council successively issued documents to correct and prevent excessive land acquisition in national construction; however, a large number of infrastructure constructions emerged again in the Great Leap Forward. In 1960, the state began to limit the expansion of urban land, and urban land shortage became worse. During this period, the development of urban planning and land use planning both experienced fluctuations.

#### **(1) The start-up, volatility and stagnation of urban planning**

The first planning boom occurred during the First Five-Year Plan in

order to support urban industrialization. Planning of urban land use was embedded in urban planning, particularly for site selection of major projects and land facility provision for industrial production. Eight major industrial cities, such as Xi'an, Lanzhou, and Taiyuan conducted urban planning. Thereafter, under the strong political fashion, urban planning was integrated into the Great Leap Forward and the People's Commune Movement. In order to speed up planning compilation and revision, two national urban planning symposia were held in 1958 and 1960, focusing on the distribution of industrial, zoning of agricultural, and layout of residential areas<sup>[3]</sup>. Since 1960, urban planning ceased for three years and suffered much volatility. During the Third Front Movement, Chinese planning professionals created a new model of industrial city in Daqing, a mountain city model in Panzhihua, and so on. At the same time, the idea of territorial production complex was introduced, and a number of comprehensive residential areas such as company-shared neighborhoods were built. However, there were some problems with these residential areas, such as disordered land use layout and functions. During the turbulent decade that followed, planning was largely stalled.

(2) The characteristic of land use planning was to ensure agricultural production

The vision on heavy industrialization required the agricultural sector to support the industrial on. Accordingly, land use planning in this period aimed at improving agricultural capacity, and its main components were: the site selection of rural residential areas and business centers, the allocation of agricultural lands, arrangement of rural road networks and irrigation networks, as well as detailed planning of various agricultural production areas. Since 1954, some state-owned farms in Heilongjiang, Xinjiang, Hainan, and other provinces carried out land use planning successively<sup>[4]</sup>, providing suitable land resources for socialist agricultural enterprises<sup>[5]</sup>. In 1956 and 1957, the Ministry of Agriculture issued two notices requesting agricultural cooperatives to carry out land planning works to eliminate unreasonable land use. Over the same period, the land planning for new villages of immigrants, responding to the requirements of nationwide reclamation, played a positive role in guiding the similar productions and constructions. From 1958 to 1962, people's commune planning was widely carried out under the 2nd Five-Year Plan, mainly to support the development of new labor organizations, and production mechanization and electrification<sup>[4,6]</sup>. During the 3th Five-Year Plan, pilots of land use planning helped inventory land resources and provide suitable land conditions for rural technological reform. After the "Learning from Dazhai in agriculture" Campaign in 1963, land use planning turned into comprehensive arrangement of mountain, water, farmland, forest, roads, and villages in rural areas.

## 1.2 1978-1997: Charged use of state-owned land under economic structure reform

In 1978, the establishment and promotion of the rural contract responsibility system greatly stimulated agricultural productions, and the separation of agricultural land ownership and development rights became a useful reference for the reform of urban construction land use system. In 1979, “Law of the People’s Republic of China on Chinese-Foreign Equity Joint Ventures” stipulated that joint ventures should pay for obtaining the right to use a site. In 1981, Shenzhen Special Economic Zone first began to levy land use fees and advocated it nationwide, which marked the start of urban land use system reform. The 1982 Constitutional Amendment clarified urban land ownership by the State and rural landownership by the collectives. “Land Administration Law” was promulgated in 1986, followed by the establishment of National Land Administration Bureau, marking a new stage in which China’s land management turned from single administrative approach to a comprehensive management integrating administrative, legislative and economic means. In 1987, the State Council approved pilots of land use reforms in Shenzhen, Shanghai, Tianjin, Guangzhou, Xiamen and Fuzhou, in order to change the existing land use system with no fees, no term, and no transfer. Shenzhen took the lead in transferring state-owned land use rights of three lots by means of agreement, public bidding and public auction, and put the land use system reform into practice. The 1988 Amendment stipulates that the right to the use of land may be transferred according to law. Thereafter, the National People’s Congress made the first amendment to the Land Administration Law, proposing that state-owned land and collectively owned land use rights may be transferred in accordance with law, and the state practiced the system of paid-for use for state-owned land in accordance with law<sup>[7]</sup>. The “Interim Regulations of the PRC Concerning the Assignment and Transfer of the Right to the Use of the State-Owned Land in the Urban Areas (1990)” clearly made clear provisions on the assignment, transfer, lease, mortgage, and allocation of urban land use rights. The promulgation of these legislative and regulatory documents provided sufficient and specific legal basis for the formation and development of land market<sup>[8]</sup>.

### (1) Urban planning institution was restored immediately

After the Third Plenary Session of 11th Central Committee, CPC and the state government shifted their focus to economic development. Urban planning was among the first to draw the attention from the state government. The State Council held the Third National Conference on Urban Work in 1978, which stressed that “serious attention should be given to urban planning”, resulting in the resumption of urban

planning after years of suspension. In 1980, the National Urban Planning Conference was held, in which it was resolved that all cities should make or revise their master plans and detailed plans. The “Urban Planning Law” promulgated in 1990 stipulated that urban master planning must be in line with the land use master planning and the territorial planning. The Law also established the system of “one letter and two permits” in planning management, through which the area, nature, development intensity, and other technical criteria of land development programs were regulated <sup>[9]</sup>. A prototype of regulatory detailed planning subsequently took shape in land assignment and transfers for urban development projects, which centered on quota control as measures to align the planning implementation with such land transfers. Regulatory detailed planning involved plot boundaries, land use categorization, development intensity, and stakeholder interests, etc. <sup>[10]</sup>, making itself the most relevant type of urban planning for land use purpose. Moreover, planning professionals made extensive exploration of technical codes and standards for urban construction land. The first major codes of this kind in China was “The Urban Land Categorization and Standards for Urban Construction Land”, compiled in 1990, which became the most-used reference for land use planning in urban master planning <sup>[11]</sup>. As the reform in housing policy and the commercialization of land use rights gave rise to a boom in housing development, the practice of detailed planning for residential compounds was promoted <sup>[12]</sup> in order to ensure compliance to the master urban plan and to the policy of paid use of land.

## (2) Master land use planning started to take its form

Back then the land use policy was one of the incentives of economic growth, urban and rural development, as well as attracting investment. As a result, a large area of farmland was repurposed. In 1981, the State formulated a clear provision requiring master land use planning to be compiled for the nation, province and county, separately <sup>[13]</sup>. In the year that followed, the central government made it a state policy that every single inch of land must be cherished and used in reasonable ways, and farmland should be carefully protected. The first “Land Administration Law”, promulgated in 1986, stipulated that governments at all levels should draft master land use planning. Accordingly, the National Land Administration Bureau was set up in a bid to change the decentralized, inefficient practices in land management. “The Notice on Conducting Land Use Master Planning” issued in 1987 defined three levels of master land use planning. It was in the same year the first attempts were made in drawing up the national land use plan. Later in 1993, “Outline of the National Master Land Use Planning (1987-2000)” was approved by the state council. By the end of 1996, most of China’s provinces, autonomous regions, and direct-administered municipalities have finished the compilation of the

first round master land use planning, establishing a framework of planning system, procedures, and methodology. Planning at the prefecture, county, and township-level was also carried out extensively. Thenceforth, the second round master land use planning commenced in 1997 under the guidelines of prioritizing farmland protection and strictly controlling urban sprawl<sup>[14]</sup>.

(3) Experiments of territorial planning were carried out extensively

Summarizing the lessons learned from land development and utilization since establishment, China began to deploy and carry out territorial planning in all respects since 1981. The 97th meeting of the Secretariat of the CPC Central Committee proposed to improve land consolidation and engage legislation and planning. Subsequently, the “Report on the Implementation of Territorial Land Consolidation” defined the connotation of land consolidation for the first time, including investigation, development, utilization, governance, and protection of land resources, and possibly the entire territorial environment. From 1982 to 1984, pilot projects for regional territorial planning were carried out in more than 10 areas including Beijing-Tianjin-Tangshan and Yichang, Hubei<sup>[15]</sup>. In 1987, “Measures for Formulating Territorial Planning” proposed that coordination of land development, utilization, consolidation and protection, based on regional circumstances, as the basic task of territorial planning, so as to boost the comprehensive development of regional economy. Territorial planning aimed to define scale of natural resources development and direction of economic development, coordinate regional major infrastructure construction, arrange population, production and urban layout, and conserve natural environment<sup>[16]</sup>. In 1990, the draft of “The Outline of General National Territorial Plan” was completed. However, it was not approved by the State Council due to various reasons including lack of explicit implementation approach, resulting in the stagnation of follow-up work.

### **1.3 1998-2007: Land use regulation system under the national policy of arable land conservation**

The “Land Administration Law” amended in 1998 proposed to pursue the sustainable development of social economy, to establish a fundamental national policy of seriously cherishing, rationally utilizing, and effectively protecting arable land, as well as to implement land use regulation system. A new land management system centering the land use regulation was officially and legally established. Since 2006, the State Council issued a series of documents such as the “Notice on Strengthening Land Regulation and Control Issues” to further implement “scientific outlook on development”, calling for more rigid controlling measures to enhance

land regulation. The Outline of the 11th Five-Year Development Plan for the National Economy and Society proposed to define major functional zones, namely optimized, prioritized, restricted and prohibited zones, to regulate development intensity and to strengthen the coordinating and guiding function of planning policies.

(1) Urban planning performed increasingly as a public policy

In the 1990s, urban development and construction took place at the expense of resource exploitation, resulting in the destruction of the ecological environment and cultural heritage. Given such situation, the “Notice of Strengthening Urban Planning”, promulgated in 1996 by the State Council, required governments at all levels to regulate urban land and spatial resources through urban planning. Controlling expansion of construction lands and regulate urban constructions effectively became one of the central government’s primary goals of macro-control <sup>[17]</sup>. Accordingly, the Ministry of Construction issued “The Interim Measures for Recent Construction and Planning Programs” and “The Interim Provisions on Mandatory Contents of Urban Planning” successively. A “four lines and three zones” approach of spatial regulation formulated, where four lines referring to urban green, purple, yellow, and blue lines, and that three zones referring to no-build, control-build and buildable zones. “The Measures for Formulating City Planning” effective in 2006 emphasized the positioning and functional changes of urban planning. In particular, the statutory master plans and regulatory detailed plans have become primary public policies to administer urban spatial resources <sup>[18]</sup>.

(2) The system of master land use planning was established

With the amended “Land Administration Law” enacted in 1999, land use regulation system was installed by legislation, and the State Council approved the “Outline of the National Master Land Use Planning (1997-2010)” at the same year. By the end of 2000, the five-level plan from the State to towns has been largely completed for implementation. Thus far, China has established a planning preparation system with top-down supervision, controlling land demand by supply limit, arable land protection as the basic objective, and the planning implementation system centered on land use regulation. In 2004, the “Decision of the State Council on Furthering the Reform and Intensifying the Land Administration” marked the start of the third round of master land use plan revision. The plan aims to strengthen the macroeconomic control role of land management, guarantee arable land lines, optimize the land use structure, utilize land in a scientific and rational manner, and protect ecology <sup>[19]</sup>. Land use planning was not any more merely about land, but interactions with economic development and environment protection.

### (3) The functions of territorial planning were adjusted

After the State Council institutional reform in 1998, the newly formed Ministry of Land and Resources took over responsibilities of territorial planning. Upon the issuance of “Notice on Issues Related to the Territorial Planning Pilots” in 2001, planning pilots resumed in Shenzhen, Tianjin, Guangdong and some other provinces. The accomplishments innovatively put forward a conception to take allocation of territory resources and regulation of territory utilization as a leverage for territorial planning <sup>[20]</sup>.

### (4) Experiments of integration of multiple plans exploration took place

In response to the problems caused by complicated planning system, divergent regulation measures, and conflicting spatial layout, experiments of multiple plans integration carried out across the country. In 2003, Qin Zhou, Guangxi, took the lead of reform practice by integrating national economic and social development planning, land use planning and urban planning. In 2006, Zhejiang began to make and implement the county-level planning, following the requirements of integrating urban planning and land use planning, to coordinate urban and rural spatial layout, and to arrange construction activities as a whole <sup>[21]</sup>. Afterwards, some municipalities explored how to coordinate the preparation and management of various planning, as well as integrate functions of different institutions. For instance, Shanghai merged with its land and planning management departments, and integrated two planning in the process of land use planning compilation. Chongqing integrated ecological and environmental protection planning with development planning, urban planning and land use planning. In Guangzhou, integration of three planning was launched to achieve regulation by one blueprint without changing existing administrative structure.

## **1.4 2008-present: Unified territorial space use regulation under urban and rural land use planning and management reform**

### (1) Urban and rural planning featured regionalization and urban-rural integration

With the changes in the economic system and social context, the “Urban Planning Law” and “Administrative Regulation on Village and Market Town Planning and Construction” that used to regulate urban and rural planning and construction were hardly accommodated to urban-rural integrated development in the new era. On January 1, 2008, the “Urban and Rural Planning Law” was officially implemented after ten years of preparation. It announced urban system planning, urban planning, town and township planning, and village planning to be components of urban

and rural planning system, which not only guided urban development but also construction activities in rural areas<sup>[22]</sup>. The implementation of “Urban and Rural Planning Law” introduced new changes to the field of urban planning. First of all, it explicitly proposed the scope of administrative responsibilities of planning competent authorities to be construction areas defined by planning. Secondly, it further strengthened the idea of regionalized management and paid more attention to the spatial relationship among cities and towns at different levels, which was required by implementing Scientific Outlook on Development and integrating urban-rural development<sup>[23]</sup>. The implementation of rural construction permit, in addition to existing “one note and two permits”, validated planning in rural areas and prohibited misuse of rural land. Finally, it emphasized the public-policy-oriented function of urban and rural planning, and identification of stakeholders’ obligations and their interrelationship<sup>[24]</sup>.

### (2) Land use planning enhanced spatial regulation of construction land

The “Land Administration Law” clearly stipulated that the preparation of master urban planning, master town planning, and township and village planning should be consistent with master land use planning, which spotlighted the fundamental guidance role of master land use planning. This provision proved to be a great support to rural land planning management and legislative supplementary to arable land conservation. As the market economy improved, the goal of land use planning shifted from arable land protection to sustainable development of society, economy and ecology. In 2008, the “Outline of the National Master Land Use Planning (2006-2020)” approved by the State Council proposed to extend the conception of land use regulation to construction space regulation. Four spatial regulation zones—areas suitable for development, areas for conditional development, areas for limited development, and areas prohibited for development—were defined by three lines—scale boundary, expansion boundary, and non-construction boundary. Up to date, quota allocation, land use regulation, and construction land control were three administrative measures of land use planning. Their implementation was guaranteed via annual plan, use change of farmland, pre-examination of land used for the construction projects, and monitoring and enforcement, with particular emphasis on monitoring scale of arable land, prime farmland and construction land.

### (3) The Outline of National Territorial Planning was approved

The preparation of the “Outline of National Territorial Planning (2011-2030)” began in 2011. Under the new circumstance and the new system, the national territorial planning focused on rational development and protection of resources, rather than the distribution of productive forces. The “Outline of National Territorial Planning (2016-2030)”, approved by

the State Council in early 2017, proposed the national territorial plan to be a strategic, comprehensive, and fundamental. It made overall arrangements of the territory development, resource and environment protection, land consolidation, and supportive system construction. It guided and regulated various activities involving the development, protection, and remediation of territory. It also led and coordinated all other specialized territory planning <sup>[25]</sup>. Based on the resource and environmental carrying capacity, the territorial planning in effect is the top-level spatial comprehensive planning to realize the optimization of territorial spatial development and conservation.

(4) The national pilot of multiple planning integration carried out, and the State decided to build a unified territorial spatial planning system

The “Decision on Major Issues Concerning Comprehensively Deepening Reforms (2013)” put forward to establish the spatial planning system, and thereafter multiple planning integration continued to move forward. In 2014, the “Notice of Implementing Pilot Projects of Multiple Planning Integration at City and County Levels” listed 28 pilots across the country to explore different models of integration, which was impacted by leading departments. Pilots led by housing and construction departments aimed to build a general space regulatory system on the basis of master urban and rural planning. Those led by land departments rooted in master land use planning and implementation of territorial space regulation. The ones led by development and reform commission and environment protection departments advocated incorporating individual planning into the five-year economic and social plans. Later on, the Central Comprehensively Deepening Reforms Commission Office started to deploy provincial-level pilots, based on city and county experiences. In 2016, the State Council issued the “Opinions on Further Strengthening the Management of Urban Planning and Construction”, calling to draw a blueprint for integration of master urban planning and land use planning. In 2018, the Ministry of Natural Resources was established in order to unify the duties of the people who act as the owners of public natural resources and to unify the power over national land and space utilization. It shall perform territorial space use regulation, establish, implement and monitor spatial planning system, and organize implementation of the strictest arable land protection system.

## **2 Land management system reforms and their impacts on urban and rural land use planning**

In China, the planning evolution of urban and rural land use is deeply influenced by the reforms of land management system. On one hand, the reforms and improvements of land management system advanced planning

ideas, and provided institutional foundation for rational arrangement and planning management of various land development and construction activities. On the other hand, planning played an important role as policy and technical supports for the improvement of land management system.

## **2.1 Unpaid use of urban land**

Urban land was used free of charge for a long term after the PCR was founded. The 1956 “Opinions on the Current Situation of Urban Private Real Estate and Socialist Transformation” stipulated that urban land was allocated by governments without levying land use tax. Use of urban land with no cost, no term, and no transfer reflect characteristics of planned economy<sup>[8]</sup>. Influenced by the Soviet planning model, the location and layout of agricultural and industrial production were determined in the development plans. As the spatial implementation of economic plans, land use planning secured agricultural production and industrial construction to be more rational and well-planned. Since the state controlled land directly, prohibition of speculation guaranteed land needs for various development in the early state of socialist construction. However, the market mechanism was overlooked in land allocation, resulting in inefficiency and deficiency of land use. Sectors and fields concentrated in large cities, causing mindless development and expansion in urban areas<sup>[26]</sup>. While urban construction layout turned to be disorderly, the rural residential sites lacked planning and eroding farmland<sup>[27]</sup>. Moreover, the state did not acquire monetary benefits by owning the land, and urban development was not financially supported. Additionally, land allocation was not equal to all users because work units were more likely to obtain land through administrative assignment, leading to excessive industrial land but a shortage of residential areas. Moreover, spaces for infrastructure such as transportation were not adequately reserved for future developments<sup>[28]</sup>.

## **2.2 Paid use of urban land**

Paid-use of land improved efficiency of such production factor, which had a profound impact on urban development policies and adjustment of urban land use structure<sup>[11]</sup>. The urban land use planning determined the function pattern and development intensity by analyzing benefits of land use, and utilized price as a leverage to guide the investment location and quota assignment, achieving optimal allocation of land effectively<sup>[12]</sup>.

The paid-use of land and establishment of the land market gave birth to the practical application of regulatory detailed planning. Traditional detailed planning, largely depending on indicators and form design, was hard to satisfy requirements of market development and construction

management. Under this circumstances, a prototype of regulatory detailed planning subsequently took shape in land assignment and transfers for urban development projects, which centered on quota control as measures to align the planning implementation with such land transfers <sup>[29]</sup>. Regulatory detailed planning greatly enhanced the feasibility and applicability of urban planning, and became an important means of achieving paid-use of land <sup>[30]</sup>. However, it was regarded as an incentive to urban sprawl in that a large number of regulatory detailed plans were made to meet the needs of attracting investment <sup>[29]</sup>.

Redevelopment of central city received increasingly attention of planning field because of considerable returns of investment in central locations, given paid-use of land. After urban land marketization and housing commercialization, people started to care more about living environment and behavior, driving rapid development of residential district planning and optimization of residential layout <sup>[17]</sup>.

### **2.3 Establishment of land use regulation**

The “Land Administration Law” prior to amendment in 1998 failed to clarify the principles of compiling master land use planning and lacked applicability <sup>[19]</sup>. Thus, it failed to effectively control mindless assignment of construction land and development zones, neither misuse of arable land. The new Law, on the contrary, explicitly required that master land use planning should divide land into agricultural land, construction land and undeveloped land. Planning accomplishments should meet all needs of land use regulation, and the entire process should be timely monitored <sup>[31]</sup>. A new land management system centered on land use regulation was established, which enhanced the validation of master land use planning and annual plans. It also played a significant role in arable land protection, intensive land use and environmental protection, leading a fundamental reform of land management approach in China <sup>[32]</sup>. Nevertheless, land use regulation is essentially a top-down means to allocate land resources. Superior governments could barely find out the actual land use situation and needs at inferior level <sup>[33]</sup>, which may reduce the rationality of planning and efficiency of land resource allocation.

### **2.4 Exploration of territorial space use regulation**

Under the ecological civilization reform, land use regulation turned out to be incomprehensive regarding scope, unsystematic in terms of means, and uncoordinated for policy-making. “Decision on Major Issues Concerning Comprehensively Deepening Reforms (2013)” brought up to build a spatial

planning system, define producing, living and ecological spaces, and unify the power over national land and space utilization. The report of the 19th National Congress of CPC clearly proposed to implement territorial space use regulation, marking a transformation from two-dimensional land control to three-dimensional territorial space control, from single subject control to a comprehensive control the whole biosystem, and from arable land and forest land control to ecological space control <sup>[34]</sup>. After recent State Council institutional reform, the Ministry of Natural Resources, responsible for spatially planning such as urban and rural planning, land use planning and major functional zoning planning, was established in order to unify the duties of the people who act as the owners of public natural resources and to unify the power over national land and space utilization.

Territorial spatial planning is the fundamental basis of implementation of territorial space use regulation. The planning stipulates regulatory boundaries, use and conditions for each type of space at all levels, monitors all owners and users to use territorial space coherent with planning, so as to ensure rational utilization and optimal allocation of territorial spaces <sup>[10]</sup>. In particular, it is essential to clarify the ecological redline, permanent prime farmland line and urban growth boundary.

### **3 Interpretation of the evolution path of urban and rural land use planning in modern China**

From the unpaid use and administrative allocation in the early stage, to the introduction of paid use and land market after the Reform and Opening-Up, and then to the land use regulation centered on comprehensive benefits of land resources in the 21st century, until the establishment of territorial space regulation under Ecological Civilization, the system of urban and rural land use planning and management in China has been gradually taking form, incorporating master urban planning, regulatory detailed planning, land use planning and territorial planning. Now it started to explore an integration of various planning. The focal points of planning management shifted over time, from construction to asset, resource, and ecology. With these focal points added along the evolution path, the function of planning as a public policy is continuously enhanced and embodies the improvements of the socialist public ownership of land. The realization of public land ownership transformed from direct control of land by the state to the separation of the ownership and development rights, and then to the management of development rights, representing the constant modernization of state governance system.

### **3.1 Construction-management oriented: Planning was component of the national economic construction management**

In the early days of PRC, land was regarded as a carrier of economic activities, and land use was directly controlled by the State, subject to the overall arrangement of national economy planning. Under planned economy, urban planning served as spatial implementation of production construction, and land use planning aimed to provide farmland planning and agricultural production with good facilities <sup>[35]</sup>. With construction management as the focal point, planning of land use was characterized as engineering techniques. The awareness of rational utilization and protection of resources was to be raised.

During the First Five-Year Plan, urban planning launched of all aspects to back up industrialization. After 1958, urban planning was carried out in accordance with the Party's guidelines, policies and the national economic plans, to support industrial and agricultural production and development <sup>[36]</sup>. As agricultural cooperatives developed, particularly during the People's Commune Movement, land use planning of agricultural lands concentrated on surveying, planning, and design implementation, so as to provide land conditions for consolidation and development of the rural collective economy <sup>[37]</sup>. As commented by the *People's Daily*, land use planning is an important measure to use land rationally, increase potential productivity, improve labor force productivity, and raise output and earning of production <sup>[38]</sup>. The land use planning in the 1960s focused on strengthening rationality of agricultural production and farmland infrastructure construction, to safeguard accomplishment of agricultural modernization <sup>[39]</sup>.

### **3.2 Asset-management oriented: Implicit management of land development rights emerged**

After the Reform and Opening-Up, land ownership and development rights were separated to address inefficient land resources. That said, the State no longer controls land use directly, but encourages market entities to make investment. The asset attribute of land motivated stakeholders, and to a degree stimulated economic development. With ownership and development rights separated, the power of land management was decentralized, and the right of land use was transferred to market entities. In this context, protecting the rights and interests of investment entities and developing the economy became primary tasks. Therefore, the State greatly emphasized the asset attributes of land, focusing on the protection of land ownership and the maximization of land use benefits.

The capitalization of land resources facilitated to establish the land asset management system <sup>[40]</sup>, increased the circulation of urban land, promoted effective allocation of land resources <sup>[9]</sup>, and significantly impacted ideology and institution of urban and rural land use planning. Driven by asset management, the governments regulated urban land use behavior of market entities through “one note and two permits”, enacted by urban planning, which leads to the emergence of land development rights management. On the contrary, competition for land assets by urban governments contributed to a large reduction of arable land resources and gradual deterioration of ecological environment. Urban planning, therefore, became an administrative tool for rapid and mindless urban expansion <sup>[29]</sup>. To this end, the State established the National Land Administration Bureau and promulgated the “Land Administration Law” in 1986, attempting to intervene in the land management through the unified management of urban and rural land and the reconstruction of land use plans. Unfortunately, the responsibilities of National Land Administration Bureau approved by the State Council in 1994 showed that attention on asset outweighed attention on resource over this period <sup>[41]</sup>.

### **3.3 Resource-management oriented: A unique two-level land development rights system was established**

At the end of the 20th century, decline of arable land and deterioration of ecological environment has attracted unprecedented nationwide concern. The Ministry of Land and Resources and the State Environmental Protection Administration were established to achieve resources and the environment conservation regarding land use issues. In the “Land Administration Law”, revised in 1998, land was emphasized as a type of resource. It required land resource protection and utilization to be coordinated with social and economic development, and reconcile short-term and long-term, overall and partial interests, indicating a qualitative leap of land management system from the perspective of legislation <sup>[19]</sup>.

The new law clarified land use regulation system at the national level for the first time, under which the authority of new construction land approval by local governments were centralized to central and provincial governments. Meanwhile, a system of master land use planning, land use annual plan, approval of farmland conversion, pre-examination of land used for the construction projects, and supervision and enforcement was installed to monitor local land use level by level. The two-level management system of land development rights formed adhere to the principle that power and responsibility for regulating new construction land is granted

to central government, while power and benefits of redevelop existing land is granted to local governments. Specifically, management of primary land development rights is embedded in the development permit issued to local or inferior governments by central or superior governments, and implemented through land use regulation and master land use planning. Management of secondary land development rights is embedded in building permit granted by local governments. It involves a process of allocating development rights from superior governments to individuals, collectives, work units, and other land users, implemented through project location permission note, development permit, and pre-examination of land used for the construction project <sup>[42]</sup>. Therefore, the master land use planning embodies central management of primary land development rights, and the urban and rural planning embodies the local management of secondary land development rights. The two planning jointly constitute the land management system with centralized leadership and local hierarchical management.

### **3.4 Ecological-management oriented: Unified management of two levels of land development rights is taking form**

Into the 21st century, ecology and environment were greatly valued in various planning. The directive philosophy of urban planning transformed to smart growth, compact development and mixed use of land. To make cities more ecology-friendly and livable, natural ecological sensitive areas were prioritized to be protected by planning <sup>[17]</sup>. In the new round of master land use planning, “three boundaries and four districts” that is defined to enhance spatial regulation of construction land, fundamentally determined the intensity of land development and utilization, on the basis of resource and environmental carrying capacity <sup>[43]</sup>. The “National Major Functional Zoning Plan” proposed to optimize the development pattern of land resources in accordance with the thinking of promoting regional coordination and protecting the ecological environment <sup>[44]</sup>. The ecological conservation line, derived from environment protection planning, defined important ecological service areas, ecological sensitive areas, and biodiversity conservation areas, and was also a key measure for building a national ecological security pattern.

China entered a crucial stage of comprehensively deepening reforms and building an ecological civilization since the 18th CPC National Congress. It is one of the primary tasks to accomplish harmonious coexistence between human and nature, and modernization of national governance system and capacity.

In order to coordinate various types of planning and ensure the implementation of ecological civilization, the central government has vigorously advanced the integration of multiple planning and establishment of comprehensive territorial space use regulation. Land use regulation induced the primary land development rights, originating from management of construction land, a factor-type space. Its implementation target is region-type territorial space, such as municipalities at different levels. It began to regulate all resources rather than merely construction lands. In this context, the State established the Ministry of Natural Resources in 2018, responsible for the construction of spatial planning system, unified management of the master land use planning and urban and rural planning, achieving unified management of the two levels of land development rights. The primary land development rights management is regulatory management with state's wills at the macro level, while the secondary land development rights management aims to coordinate demand and supply at the micro level, as well as to handle the relationship between the government and the market <sup>[45]</sup>. In the process of spatial planning reform, management of secondary land development rights should comply with its counterpart. It is worth thinking how to rationally allocate regulatory quota to municipalities at all levels within planning period, and how to achieve effective allocation of development rights, vertically and horizontally through mechanism of game theory.

## 4 Conclusion

This paper divided the development of urban and rural land use planning in the past 70 years into four stages, pointing out the Reform and Opening-Up in 1978, the amendment of "Land Administration Law" in 1998, and the implementation of "Urban and Rural Planning Law" enacted in 2008, it reviewed major policies and events in the field of land use management, and analyzed the influences of land management system reforms on land use planning. The land management system has gone through the unpaid use and administrative allocation in early stage, the introduction of paid use and land market after the Reform and Opening-Up, and the land use regulation centered on comprehensive benefits of land resources in the 21st century, with the territorial space regulation reform since the Third Plenary Session of 18th CPC Central Committee. With the reform of the land management system, the primary functions of urban and rural land use planning shifted accordingly, from supporting production and construction, to focusing on capital outputs and financial management of land, and then to enhancing comprehensive management of land resources and macro-control through planning, and eventually to emphasizing ecological management of land under the Ecological Civilization. The evolution of planning manifests the modernization of

state governance system, from the direct control of land by the state, to the decentralized management of development rights under the separation of land ownership and use rights, and then to the central-local two-layer management system of land development rights in the context of protecting resources and environment, and eventually to the unified management of land development rights under the Ecological Civilization. **UPI**

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