Practice and exploration of planned regionalization in territorial spatial planning under the guidance of strategy

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Abstract. Reasonable planning and zoning plays an important role in effectively implementing the goal of land and space development and transmitting the requirements of land use control. On the basis of relevant research, taking the preparation of land and space planning in Baiyin City, Gansu Province as an example, this paper proposes to construct the planning division of "functional division + specific policy area" under the guidance of the implementation of strategic positioning requirements, and carry out the practical exploration of planning division, in order to provide some reference for the preparation of land and space planning in relevant areas.

1. Introduction

The "Recommendations of the Central Committee of the Communist Party of China on the Formulation of the Fourteenth Five-Year Plan for National Economic and Social Development and the Long-term Goals for the Year 2035" (hereinafter referred to as "Recommendations") put forward the construction of a new pattern of land and space development and protection, and gradually formed three major spatial patterns, namely, urbanized areas, major agricultural production areas and ecological function areas.Form a new pattern of land and space development and protection with obvious main functions, complementary advantages and high-quality development[1]. This is a new requirement put forward again from the strategic goal level on the basis of the establishment of land and space development and protection system proposed by the Eighteenth National Congress, the Third Plenary Session of the Eighteenth Central Committee and the Nineteenth National Congress of the Communist Party of China. The contradiction between urban space, ecological space and agricultural space is expanding.Land space development, utilization, regulation and protection policies are facing difficult choices, and the optimization of land space development pattern is imminent. In the optimization of territorial spatial pattern, planning zoning is one of the important methods for the optimization, development and protection of territorial spatial layout[2]. In the past, various types of space planning had different ways and methods of space planning and utilization.The basis and objectives of planning are not unified and coordinated, which can not effectively play the role of spatial allocation and governance, and seriously weaken the guidance and restriction of spatial planning on the rational development and utilization of land space and ecological protection[3]. The State has established the Ministry of Natural Resources and the Land and Spatial Planning Bureau to perform the functions of formulating, supervising and implementing spatial planning.The establishment of the Ministry of Natural Resources and the integration of spatial planning functions will lead to a unified planning scheme and unified use control. The new territorial spatial planning needs a scientific planning zoning method[2].

2. Research progress

2.1 Concept of territorial spatial planning zoning

The study of territorial spatial planning and regionalization in China began in the field of geography in the 1930s and 1940s. In the early stage, the types and basic elements of zoning were relatively single[4]. In the later stage, Gu Chaolin defined the geographical zoning unit as a space with regional conjugation, relatively consistent overall characteristics and unified genetic links[5].

At the present stage, the development of social economy has put forward higher requirements for land management. China's territorial planning has begun to enter the stage of comprehensive zoning, with the emergence of land use zoning, urban system zoning, main functional area zoning, land development and consolidation project zoning and other forms.The concept of territorial spatial planning zoning is a relatively stable spatial zoning evaluation unit and spatial zoning index system[6]established on the basis of different nature, different data sources and different functional spatial elements, and on the basis of promoting the interaction and independence of thematic space.

Planning zoning, also known as functional zoning and dominant use zoning, refers to the spatial division of land

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and space resources allocation based on the current characteristics of land and space resources and the control requirements of protection and development[7].

2.2 Research Progress of Planning Zoning

Since the reform and opening up, Chinese geographers have carried out many studies on comprehensive natural regional planning throughout the country. Spatial zoning is one of the foundations of establishing land development strategy and good land management.

Research and exploration are mostly focused on the expansion of zoning types and zoning methods. In the study of planning zoning types, the initial geographical zoning is gradually expanded to land use function zoning, marine function zoning, ecological function zoning, mineral function zoning and so on, and the adaptive division principles, classifications and methods are put forward for different geographical space units.

In the research of planning zoning methods, most of them focus on the suitability evaluation index system and zoning methods of current resource development potential, such as principal component and cluster analysis, comprehensive index method, analytic hierarchy process, fuzzy comprehensive evaluation method, etc.[8]。

2.3 Problems in the management and control of zoning

Yang Qingcong and others pointed out that there is no clear standard for the delimitation scale of planning zoning and control. The boundary connection relationship is still unclear; The conflict coordination mechanism when different zones overlap is not yet clear, and it is difficult to co-ordinate the work. The control and transmission mechanism of planning zoning is not clear, which leads to the unclear significance and function of planning zoning and the lack of goal orientation in practical work.It is proposed that the management and control mechanism after zoning is the key point to promote the implementation, and also the key content to be deepened and refined in the planning according to their own characteristics.[9]。

2.4 Transmission mechanism of planning zoning

According to the requirements of "No.18 Document", the compilation and management of the overall planning of municipal land and space adopt the methods of planning zoning and bottom line control, dividing agricultural, ecological and urban space in the compilation of planning, and putting forward corresponding use control requirements. Planning zoning is the core carrier to implement the spatial pattern of territorial spatial planning and the three control lines layer by layer.Different functional spaces are strictly controlled by three control lines, and the whole area is managed in detail through planning zoning, which reflects the logic of planning zoning in spatial planning, namely, accurate implementation of upper planning and territorial spatial planning deployment; Clearly define the functional attributes of protection and retention, development and utilization; Covering the whole area, highlighting the leading functions and supporting management and control requirements[8]。

3. Overview of the study area

Baiyin, located in the upper reaches of the Yellow River and the central part of Gansu Province, is the only city named after precious metals in China. With a total land area of 20,000 square kilometers, Baiyin is endowed with a typical transitional natural geographical pattern by "the intersection and transition of three plateaus, the connection of two mountain systems, the winding of a big river, the oasis of the Gobi in the north, the hills of the Yellow River in the middle and the hills and gullies of the Loess in the south"."Yellow River infiltration, Silk Road fragrance, red glory, metal forging" forms the characteristics and advantages of silver. Under the historical opportunity of "The Belt and Road Initiative" and the new round of western development, we should actively integrate into the construction of Lanxi urban agglomeration, comprehensively implement the new development concept, and plan the overall development and protection of land and space in the new era.It is of great significance for the whole city to implement the major strategic deployment of the provincial Party Committee and the provincial government, to build the core city of Lanzhou metropolitan area, and to open up a new silver for building socialist modernization in an all-round way.

3.1 Physical geographical characteristics

3.1.1 Ecological pattern.

Baiyin City is located in the arid area of the middle part of Gansu Province, the upper reaches of the Yellow River, the intersection of the Qinghai-Tibet Plateau, the Loess Plateau and the Inner Mongolia Plateau, belonging to the transition zone between the Longxi Loess Plateau, the Shandong extension of Qilian Mountains and the Tengger Desert. In the national ecological environment protection system, it is a key link to resist wind and sand in the north and protect water and soil in the south.Baiyin City is located in the northern sand control zone and the Loess Plateau-Sichuan-Yunnan ecological barrier area in the national "two screens and three belts" ecological security barrier. Among the five key ecological areas in the western region, it is located in the northwest grassland desertification control area and the Loess Plateau soil and water conservation area, and its ecological status is extremely important.

Baiyin is an important ecological barrier in the central part of Gansu Province, which is at the forefront of desertification monitoring and sand prevention in China in terms of geographical and environmental gradients, and is also the "bridgehead" on the sandstorm line in Northwest China, shouldering the important task of maintaining the ecological security of the lower reaches of the Yellow River.

3.1.2 Physical geographical pattern.

Baiyin City is mostly located in the Loess Plateau in central Gansu, and only the northern part of Jingtai County is located in the desert oasis area of Hexi. To the north is the Tengger Desert, to the south is the Qinling Mountains, to the east is the Liupan Mountains, to the west is the Qilian Mountains, and the Yellow River passes through the central oasis from south to north. The Qilian Mountains and the Qinling Mountains are obliquely inserted into the territory, dividing the whole city into three parts: the north, the middle and the south, with high terrain in the north and south and low terrain in the middle.The northern part is open and flat, which is the main gathering place of wasteland resources in Baiyin City. The middle part is the corridor along the Yellow River, which is a potential area of high-efficiency agriculture. In the hilly and gully region of the southern Loess Plateau, the soil layer is deep, the vegetation is scarce, and the soil erosion is serious.

The natural geographical pattern of Baiyin City belongs to the typical transitional geographical pattern, and the internal differences between the north and the south are obvious. The spatial pattern of mountains and rivers presents the natural characteristics of "the intersection and transition of three plateaus, the connection of two mountain systems, the winding of a big river, the oasis of the Gobi in the north, the hills of the Yellow River in the middle and the hills and gullies of the Loess in the south".

3.2 Development advantages

Based on its geographical location and natural endowment, Baiyin has "three advantages" that other places in the province can not match and can not match.

First, the advantages of location and transportation. Located at the intersection of Shaanxi, Gansu, Ningxia and Qinghai provinces, Baiyin is the northern gate of Gansu Province and the sub-core city of Lanzhou metropolitan area. It is only 69 kilometers away from Lanzhou, the provincial capital, with convenient highway, railway, aviation and Yellow River shipping conditions. Especially after the opening of the first-class highway from Baiyin to Zhongchuan Airport, the driving distance from Baiyin to Zhongchuan Airport has been shortened to 50 kilometers.With the in-depth implementation of the national "The Belt and Road Initiative" strategy, the strategic importance of Baiyin, as the frontier of opening to the west and the golden passage of the Eurasian Continental Bridge, has become increasingly prominent.

Second, the resource advantages of the Yellow River. The Yellow River flows 258 kilometers through Baiyin, accounting for 58% of the Gansu section, providing unique natural resources for the development of agriculture, industry, tourism and other industries in Baiyin. To give full play to the advantages of the Yellow River is to rely on the unique cultural resources, magical natural resources and abundant water resources of the Yellow River.Vigorously develop green ecological industry, cultural tourism industry, modern and efficient agriculture, strengthen and expand the dominant economic belt along the Yellow River, and truly turn the Yellow River economic belt into a golden ribbon on the land of Baiyin;

Third, the advantages of big industry and big agriculture. At present, Baiyin City has basically formed a relatively complete industrial and agricultural industry system. In industry, a complete industrial chain with complete categories of non-ferrous, chemical, energy, new materials and other industries and good factor conditions has been formed. The carrying function of "one district, six gardens" in Baiyin Industrial Concentration Zone is becoming more and more complete, and its functional orientation is becoming clearer and clearer.It is an important industrial port in Gansu and even in the northwest region. In agriculture, Baiyin City has established the "Ten Industrial Systems" of cattle, sheep, vegetables, fruits, potatoes, medicines, small grains, Xanthoceras sorbifolia, black donkeys and aquaculture, and introduced a number of large-scale leading agricultural enterprises such as Dekang Group, Runfeng Group, Zhongtian Sheep Industry and Xiongte Animal Husbandry.There are more than 40 types of agricultural insurance, and 29 agricultural products in the city have been certified as national geographical indications of agricultural products. It is an important export place of agricultural products in Beijing-Tianjin-Hebei, Yangtze River Delta and Southwest China, and has fully met the basic conditions for building a cold and drought agricultural industrial base.

In the new era, Baiyin seizes the opportunity, bases itself on the new development stage, implements the new development concept, constructs a new development pattern, gives full play to the three core advantages of regional transportation, Yellow River resources and large-scale industry and agriculture, and implements the orientation and major mission entrusted to Baiyin by the state and Gansu Province.

At the national level, Baiyin should implement regional coordinated development, stand in Lanbai and look at Lanxi, actively integrate into the construction of Lanbai metropolitan area, do a good job in economic articles, and promote the high-quality development of Baiyin's economy. Implementing the theme of "Four Confidences", relying on the three national cultural parks of the Great Wall, the Long March and the Yellow River, we should do a good job of characteristic articles to promote the high-quality development of Baiyin culture. Implement the concept of ecological development.Adhere to the priority of protection, adhere to the basic national policy of saving resources and protecting the environment, do a good job in green articles, and build a high-quality development of Baiyin environment.

From the Gansu level, Baiyin is the core growth level of the economy and the main battlefield of rural revitalization. Faced with the reality of Lanzhou's high primacy and obvious siphon effect, Baiyin should take the initiative to develop in a dislocation way, give full play to its three advantages, strengthen strategic emerging industries, take the construction of 100 billion-grade superior industrial platforms and 10 billion-grade industrial parks as the carrier, expand and strengthen the global economy, and strive to build a well-off society in

an all-round way.Plan as a whole, promote rural revitalization scientifically, and share the important task of leading provincial economic development with Lanzhou.

3.3 There are still many challenges in the overall improvement.

While the endogenous motive force of Baiyin's reform and innovation has been continuously strengthened, the industrial transformation and upgrading has achieved remarkable results, the ecological governance has been comprehensively promoted, and the city has taken on a new look, Baiyin still faces five challenges:

First, the natural geographical location determines the fragile ecological background. Baiyin belongs to the transition zone from the Tengger Desert and the Qilian Mountains to the Loess Plateau, and from the temperate semi-arid zone to the arid zone. It is dry and rainless, with an annual evaporation of 1500-1600 mm, which is 4.5 times the average precipitation.Soil erosion in the southern part of the city is serious, soil desertification in the northern part is obvious, and soil salinization along the Yellow River is prominent, facing the challenges of large amount of ecological restoration and long control cycle.

The two is the imbalance between supply and demand of water resources. In the resource-based water shortage area of Baiyin City, the spatial distribution of water resources in each county and district is obviously different, the water security in the central urban area is relatively high, and the ecological water use in Huining and the agricultural production water use in Jingtai are facing the challenge of water shortage.

Third, a large outflow of high-quality labor force. In the past ten years, the population of Baiyin has been decreasing continuously, and the trend of talent and labor outflow is obvious. Compared with the results of the sixth and seventh censuses in Baiyin City, the population of the seventh census has decreased by about 190000 people, mainly young and middle-aged labor force, and the localized supply of industrial talents is facing challenges.

Fourth, the implementation of regional coordination is not good. The economic advantage of Lanzhou metropolitan area is not obvious in the horizontal comparison of urban agglomerations at the provincial level. Comparing the development potential of cities and districts (counties) in the metropolitan area, Baiyin has a strong industrial foundation, but the dislocation competitive advantage has not yet been highlighted, the regional urban pattern of one main and three sub-centers needs to be strengthened, and the regional sub-center status is facing challenges.

Fifth, the industrial efficiency needs to be further improved. As the main undertaking base of eastern industrial transfer, Baiyin actively promotes the development of innovative industries and advocates technological innovation of enterprises in an all-round way, but there is still a big gap between the output efficiency of existing enterprises and the national average level and the eastern industrial enterprises, and the high-quality development of industries is facing challenges.

4. Practice of Planning Zoning

4.1 Implementing the overall requirements of the strategic positioning of territorial space development

4.1.1 Study and formulate strategic positioning.

Through the natural geographical pattern, development advantages, existing problems and the role of Baiyin City in the region, and taking into account all kinds of elements of Baiyin City's territorial space resources, the development strategy of Baiyin's territorial space is determined, and Baiyin is built into the core city of Lanzhou metropolitan area, the "important engine" and "core center" of Gansu's development.The pioneer city of ecological protection and high-quality development in the Yellow River Basin, the model area of national red gene protection and inheritance represented by Huining, and the important national ecological agriculture and green processing base.

4.1.2 Define the vision of urban development goals.

Taking the basic realization of modernization in 2035 as the development goal, docking the development indicators of "two hundred years", "35.50" and "30.60", this paper puts forward the vision of Baiyin's development goal, that is, Baiyin should seize the historical opportunity of "The Belt and Road Initiative" and a new round of western development, actively dock and integrate into the construction of Lanxi urban agglomeration, and comprehensively implement the new development concept.Give full play to the "four advantages" of Baiyin's location, transportation, resources of the Yellow River, large-scale industry, large-scale agriculture and charming humanities, create the "three highlands" of Lanzhou metropolitan area to take the lead in development, the integration of three industries and the innovative development of the western region, and concentrate on strengthening efficient agriculture, superior industries, characteristic tourism, modern logistics and urban construction.Shaping the cultural landmark of the Yellow River-Red Charming Copper City, speeding up the construction of a modern landscape city suitable for living, industry, tourism and maintenance, and creating a real place of gold and silver.

4.2 Optimize the overall pattern of territorial space

Based on the characteristics of the background pattern of natural geography and resource endowment and the results of "double evaluation", and following the concept of "life community of mountains, rivers, forests, fields, lakes and grasses", it coordinates the overall relationship among ecology, production and life, and combines the basis, characteristics and development trend of Baiyin's economic and social development.The overall spatial pattern of "one core, two poles, three corridors and three districts" was determined.

Baiyin, Jingyuan and Pingchuan form the core area of urban development. Two important regional development poles in the north and south with Jingtai County and Huining County as the main body; Liubai Economic and Industrial Development Corridor, Yellow River Ecological Protection and Cultural Tourism Development Corridor, Shoulu Mountain-Mijiashan-Hasi Mountain-Quwu Mountain Biodiversity Green Ecological Corridor.The oasis Gobi agricultural development area in the northern part of the city, the core development area along the Yellow River in the central part, and the dry farming development area in the southern part (see Figure 1 for details).

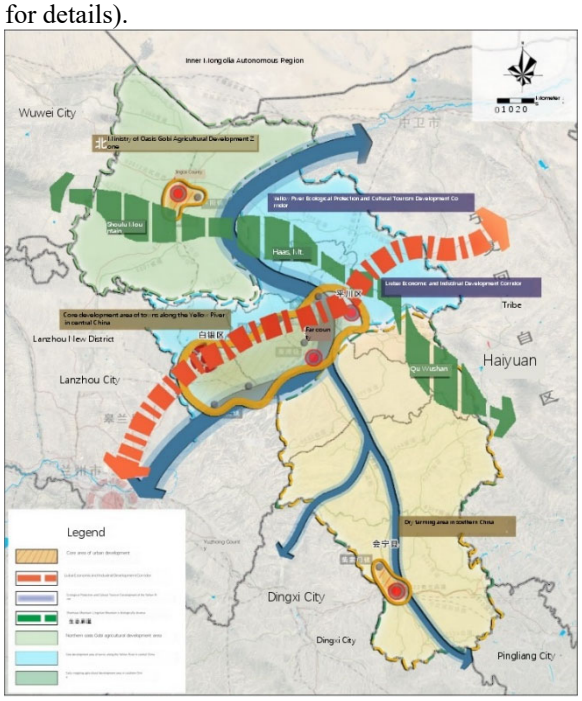

Figure 1. Overall Layout of Land Space in Baiyin

4.3 Construct the planning zoning of "functional zoning + specific policy zone"

4.3.1 General idea of planning and zoning.

According to the zoning types and meanings specified in the Guidelines for the Compilation of Municipal Land and Space Master Plan (Trial Implementation), the whole area of land and sea should be coordinated, the leading functions should be highlighted, and the zoning should be carried out step by step.

According to the main function orientation and the requirements of spatial governance, following the principles of full coverage, non-overlapping and non-overlapping, and adhering to the idea of urban-rural integration and the integration of ground and underground space, the territorial spatial planning zoning of Baiyin City includes urban space, agricultural space and ecological space.

(1) Determine the urban ecological protective space according to the results of ecological red line, "double evaluation", water area and risk disaster assessment, and the results of delimitation of historical and cultural protection areas;

(2) According to the development needs of rural construction areas, cultivated land, permanent basic farmland, mining areas and new energy development areas, the city's productive protection and development space is determined;

(3) According to the development level differences and future development demands of different locations in cities and towns, determine the production and living space of cities and towns, implement the use control of "detailed planning + planning permission" within the boundaries of urban development, and implement the use control of "zoning access + village planning" outside the boundaries. For the space with multiple attributes, it is required to set up a composite control area for control.

4.3.2 Functional Zoning Overlapping Policy Zoning.

Because spatial elements have the characteristics of integrity, versatility, regionality and dynamics, it is impossible to divide and control territorial space in a single way. Construct the zoning control framework of "functional zoning + specific policy zone", and implement the use control of full coverage of the whole territory space.

Specific policy areas can be divided into two types of land space development and utilization and protection and reservation, including special use control for the regional and dynamic characteristics of space elements, as well as other space policies for land space development and protection. The types of policy zoning include natural ecological protection, resources and energy protection, historical and cultural protection and other different types.Such as nature reserves, prohibited mining areas of mineral resources, historical and cultural blocks, etc.

Baiyin City is a resource-exhausted city due to the establishment of mines, and there are a large number of goafs in the whole area, so comprehensive land improvement measures are needed. At the same time, Huining County of Baiyin City is a holy place for the Red Army to join forces, with a large number of historical and cultural relics throughout the city, and is actively participating in the construction of the three national parks of the Great Wall, the Long March and the Yellow River. Therefore, in view of the characteristics of Baiyin as a "resource-based city",Put forward the mineral energy development zone; At the same time, guided by the land and space development strategy of Baiyin City, the compound control area of "disaster risk prevention and control area" and "historical and cultural protection area" is put forward, which highlights the strategic orientation of "ecological protection of the Yellow River Basin and the model area of national red gene protection and inheritance represented by Huining".

4.3.3 Subdivision of three spaces into "two levels and eight categories".

The territorial spatial planning zoning of Baiyin City includes urban space, agricultural space and ecological

space. It is divided into eight categories of first-level zoning, and further subdivided into second-level zoning.

Level I planning zoning: ecological protection area, ecological control area, farmland protection area, composite control area, water area control area, urban development area, rural development area and mineral and energy development area (see Figure 2 for detailed zoning results).

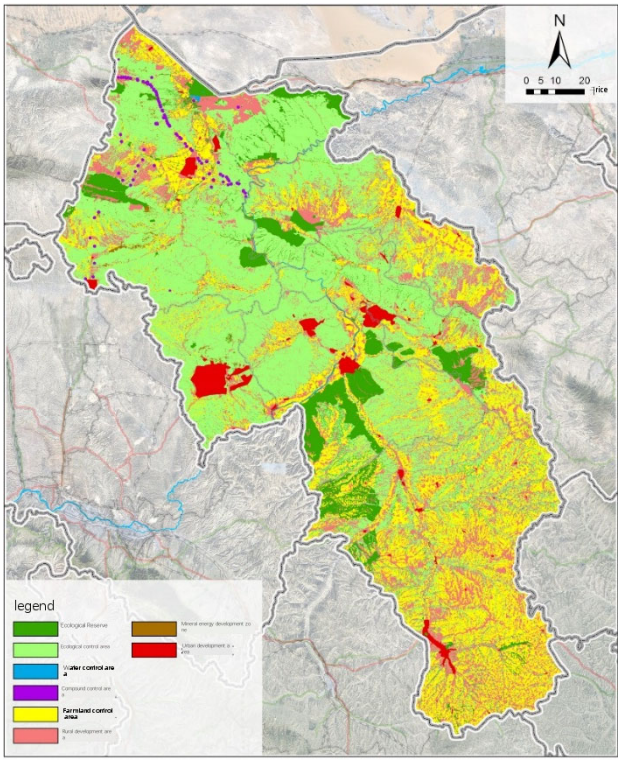

Figure 2. Spatial Planning Zoning Map of Baiyin City

Second-level planning zoning: urban development zones are divided into urban centralized construction zones, urban flexible development zones and special purpose zones; Rural development areas are divided into village construction areas, general agricultural areas, forestry development areas and animal husbandry development areas. The mineral and energy development areas are divided into important land mining areas and strategic mineral reserve areas.The composite control area is divided into the historical and cultural protection area and the disaster risk prevention and control area (see Table 1 for the elements of the zoning). Among them, the historical and cultural core area is strictly controlled according to the ecological space, and the construction control zone is restricted according to the agricultural space. The important land mining area within the development boundary is included in the urban development boundary, which is an important part of the built-up area.

Table 1. Relationship between the Overall Spatial Pattern of Baiyin City and the Planning Zoning.

Overall pattern	Plan the partition		Meaning	Remark
	Primary partition	Secondary zoning		
Ecological space	Ecological protection area		Land with special and important ecological functions or ecologically sensitive and fragile land that must be strictly protected by force	Ecological red line + double evaluation of extremely important areas
	Ecological control area		Outside the red line of ecological protection, it is necessary to preserve the original appearance, strengthen ecological conservation and ecological construction, and restrict the development and construction of land.	Double-evaluation general important area
	Water control area		Major rivers, water systems and wetlands	Yellow River, Zuli River, Guanchuan River and Wetland
	Composite Control Area	Disaster risk prevention and control zone		
		Historical and Cultural Reserve (Core Area)		Core Control Area of Cultural Relics Protection Unit
		Historical and Cultural Reserve (Construction Control Zone)		Construction control zone of cultural relics protection unit
Agricultural space	Farmland protection area		Areas where permanent basic farmland is relatively concentrated and needs strict protection	Permanent basic farmland
	Rural Development Area	Village construction area	Outside the boundary of urban development, the village land area for key development is planned.	
		General agricultural area	Areas with agricultural production development as the main utilization function orientation	
		Forestry Development Zone	Areas with large-scale forestry production as the main utilization	

Overall pattern	Plan the partition		Meaning	Remark
	Primary partition	Secondary zoning		
			function orientation	
		Animal Husbandry Development Zone	Areas designated with the development of grassland animal husbandry as the main utilization function orientation	
	Mineral Energy Development Zone	Strategic Mineral Reserve Area	It is a strategic mineral reserve area for national energy security and mining development.	
		New Energy Development Zone	Wind power, photovoltaic and photovoltaic development zones are planned	
		Important land mining area (outside the development boundary)	It is an important land mining area to adapt to national energy security and mining development.	
Town space		Important land mining area (within the development boundary)		
	Town Development Area	Centralized urban construction area	Regional space for urban development and centralized construction within a certain period of time	Development boundary delimitation results
		Urban Flexible Development Zone	Space for urban development and centralized construction under specific conditions	
		Special use area	In order to improve the functions of cities and towns and maintain the integrity of the boundary, the planning and management should be included in the key areas within the development boundary.	

Note: The control measures for underground pipelines and various linear facilities shall be formulated according to the function orientation of the adjacent area on the ground; Classified protection measures shall be taken for the core area and the construction control zone of the underground tomb group.

4.4 Policy Zoning Control Measures

4.4.1 Put forward the spatial layout of mineral resources development and utilization.

Guided by the market, on the premise of sustainable utilization of resources and sustainable development of social economy, we should focus on the protection and management of regional mine ecological environment and break through the exploration and exploitation of superior mineral resources. The overall layout of mineral resources development and protection in Baiyin City is put forward, and the rational allocation of mineral resources development and utilization in space is actively promoted.Scale exploitation and intensive utilization can change resource advantages into economic advantages and promote the coordinated development of regional economy.

The dominant minerals in Baiyin District are copper, lead, zinc, rare metals, precious metals, limestone, quartzite and so on. The overall layout of the development and utilization of the area is to encourage the development and utilization of copper, lead, zinc, rare metals, gold and silver in Baiyin mining area, limestone in Lime Soil Laochi, marble in Yushugou, quartzite in Lime Soil Laochi, zeolite and bentonite in Luojiatan-Fanjiayao area.The focus of mineral resources development in this area is to build a copper, lead, zinc and aluminium smelting and deep processing base based on Baiyin Nonferrous Group Co., Ltd.

Jingtai County is located in the south of the Tengger Desert, and its dominant minerals are gypsum, quartzite, coal, etc. The overall layout of the development and utilization of this area is to encourage the development and utilization of Daluowan and Zhuzui Yaba copper mines, Mijiashan-Xijishui, Badaoquan Township-Shangshawo Town gypsum mines, Hongshui Township quartzite and other non-metallic minerals.The focus of mineral resources development in this area is to build a cement production base based on Gansu Shoulushan Cement Co., Ltd. Limiting the mining of high-sulfur coal in Heishan coal mining area.

Jingyuan County-Pingchuan District is the main coal producing area in Baiyin City, and its dominant minerals are mainly coal, ceramic clay, coalbed methane, cement marble and so on. The overall layout of development and utilization in this area is to encourage the development of ceramic clay in Kuercheng, refractory clay in Daolengshan, copper-zinc mine in Yindonggou, gold mine in Shimen Township, iron-manganese mine in Shimen-Shuiquan Township,Development and utilization of kaolin and other minerals in Yongxin-Xinglong Township. We will continue to give prominence to the development and utilization of coalbed methane in Weijiadi-Baojishan area and geothermal energy in Pingchuan area, actively guide and give priority support. The focus of mineral resources development in this area is to build a coal development and follow-up processing base based on Jingyuan Coal Industry Group Company.

Huining County is relatively poor in mineral resources, mainly including attapulgite clay, mirabilite, dolomite,

mineral water, etc. Encourage the development and utilization of attapulgite clay in Tugao Township and dolomite in Touzhai Township. Continue to focus on the development and utilization of groundwater in the Tertiary groundwater exploitation area of Jingyuan-Huining Basin to provide groundwater resources for water-deficient villages.

4.4.2 Establishing a comprehensive and multi-level framework for the protection of cultural heritage.

The management and control mode of combining the protection of the list of historical and cultural resources with the protection of the control line is implemented in the whole area. To clarify the list of historical and cultural resources at the national and provincial levels in each county and district, and to put forward specific protection requirements for different types of resources; At the municipal level, the content and basis of the control line of historical and cultural resources, as well as the protection requirements, should be determined.

Based on the natural landscape background of Baiyin City, the historical culture and modern red culture of the multi-cultural blending of "Gudu Silk Road Great Wall", this paper focuses on five national key cultural relics protection units and 29 provincial cultural relics protection units.Relying on the ancient ferry and the stone forest of the Yellow River to embody the culture of the Yellow River, relying on the ruins of ancient castles to embody the culture of the Great Wall, and relying on various red revolutionary sites to embody the Long March culture to construct the historical and cultural charm space of "three corridors and three districts".

4.4.3 Improving space disaster resilience and establishing an effective disaster risk resistance mechanism.

Based on disaster risk assessment, the disaster prevention and mitigation objectives and fortification standards of major disaster types are determined, disaster risk areas are delineated, and prominent disaster risks are dealt with by counties and districts. Baiyin District should pay attention to the risk prevention and control of major hazards and the treatment of sewage discharge. Attention should be paid to the problems of ground platform and soil erosion control in plain area; Jingtai County should pay attention to the management of saline-alkali land and earthquake relief;Jingyuan County should pay attention to collapse control and flood control and drought relief; Huining should actively deal with extreme weather and soil erosion.

5. Conclusion

With the release of Document No.18, the work of territorial spatial planning has been comprehensively promoted. After the work of "double evaluation, bottom number inventory and three-line delimitation", more and more attention has been paid to the zoning of territorial spatial planning. Reasonable planning zoning plays an important role in effectively implementing the development goals of territorial space and conducting the requirements of land use control. On the basis of the study of the relevant planning zoning,Taking Baiyin City in Gansu Province as an example, this paper expands the relevant requirements of the "Guide", takes the strategic guidance as the breakthrough point, puts forward the "two levels and eight categories" of Baiyin City's territorial spatial planning zoning, and carries out the practical exploration of planning zoning, in order to provide reference for related work.

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