

## Post-print of Improving the Main Functional Area Policy System in Territorial Spatial Planning

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### Abstract

The article centers on improving the major function-oriented zoning system within the “multi-plan integration” territorial spatial planning framework, thoroughly analyzing the implementation effectiveness and existing problems of current major function-oriented zoning policies. It proposes a general approach for systematizing, differentiating, coordinating, and incentivizing major function-oriented zoning policy systems under new-era territorial spatial governance. Policy recommendations for refining and implementing the major function-oriented zoning strategic system are advanced from the perspectives of strengthening top-level design of policy systems, categorically improving policy instruments for major function-oriented zones, enhancing comprehensive policy coordination, and establishing sound policy implementation evaluation mechanisms.

### Full Text

#### Improve Policy System of Main Functional Zones in National Spatial Planning

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### Abstract

This paper examines how to improve the main functional zone system within the integrated “multi-plan coordination” national spatial planning framework.

It analyzes in detail the implementation effectiveness and existing problems of current main functional zone policies, and proposes an overall approach for systematizing, differentiating, coordinating, and incentivizing these policies under new-era territorial spatial governance. Specific policy recommendations are offered from four perspectives: strengthening top-level institutional design, refining policy tools by functional zone category, enhancing comprehensive policy coordination, and establishing robust policy implementation evaluation mechanisms.

**Keywords:** main functional zones, national spatial planning, territorial spatial policy, territorial spatial governance

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## 1. Policy Formulation and Implementation of Main Functional Zones

**1.1 Initial Institutional Framework and “9+1” Policy System** In 2010, the State Council issued the *National Main Functional Zone Planning* [13], which designated four types of functional zones—optimized development, key development, restricted development, and prohibited development areas—and proposed nine regional policies covering finance, investment, industry, land, agriculture, population, ethnic affairs, environment, and climate change response, plus a performance evaluation system. Subsequently, relevant ministries introduced supporting policies in finance, ecological environment, industry, investment, and population. Provincial governments gradually formulated complementary policies; nearly two-thirds of provinces issued relevant documents to implement differentiated performance assessments based on functional positioning.

**1.2 Implementation of Key Policies in Finance and Performance Evaluation to Promote Local Development Transformation** Central fiscal transfer payments to key ecological function zones have proven effective, with cumulative central investments reaching approximately 790 billion yuan by 2022, covering 819 county-level administrative areas. As general transfer payments, these funds have significantly improved local livelihoods and promoted equalization of basic public services. Some localities have implemented differentiated performance assessments to encourage green development in restricted development zones. For instance, Zhejiang Province issued the *Several Opinions of the Zhejiang Provincial Committee and Provincial Government on Promoting Accelerated Development in Chun’ an and 25 Other Counties*, establishing separate assessments for 26 economically weaker mountainous counties. Notably, for 11 national-level key ecological function counties, the province introduced green development indicators while eliminating GDP-based assessments. Relevant departments have also explored establishing horizontal ecological compensation mechanisms across river basins to balance interests between ecological protection areas and beneficiary regions, effectively mobilizing enthusiasm for ecological conservation.

**1.3 Refining Functional Units Through “Three Zones and Three Lines” Delimitation to Strengthen Precise Policy Implementation and Bottom-Line Constraints** The concept of main functional zones has been integrated throughout the formulation of the *National Territorial Spatial Planning Outline (2021-2035)*, promoting a new pattern of territorial development and protection characterized by clear functional positioning, complementary advantages, and high-quality development. Through the delimitation of “three zones and three lines” —cropland and permanent basic farmland, ecological conservation redlines, and urban development boundaries—the strategic requirements have been precisely implemented down to specific land parcels based on resource-environment carrying capacity and spatial development suitability assessments, using data from the Third National Land Survey. This approach has established control rules and safeguarded the core bottom lines of agricultural, ecological, and urban spaces [16].

## 2. Existing Problems

### 2.1 Incomplete Policy System and Lack of Multi-Level Collaborative Governance

**(1) Incomplete policy framework.** To date, several policies outlined in the original system—including land, agriculture, ethnic affairs, and climate change adaptation—have not been issued. Among implemented policies, ecological environment, investment, and population policies have not been strictly enforced. Insufficient coordination exists between policies, with some contradicting the main functional zone orientation. For example, cropland supplementation policies are not aligned with ecological protection and water resource allocation policies, failing to consider the special requirements of major agricultural product zones.

**(2) Misaligned central-local policy demands.** Current policies are primarily national-level, with few provincial and municipal supporting measures, resulting in weak central-local synergy. This stems from differences between national strategic positioning and local development aspirations. As a top-down spatial governance arrangement, the main functional zone strategy prioritizes overall and long-term interests, which may restrict development space in protection-oriented areas, creating conflicts with local desires for rapid growth.

**(3) Insufficient inter-agency policy coordination.** Before the 2018 State Council institutional reform, main functional zone planning lacked coordination with urban-rural planning and land use planning, with conflicting policy directions. After the reform, the “multi-plan coordination” approach integrated various spatial plans into a unified national spatial planning system. However, different types of supporting policies remain formulated by individual departments, some of which have not adopted the main functional zone strategy as a unified guiding principle, and a coordinated spatial policy system with clear division of labor has yet to be established.

## **2.2 Insufficient Policy Targeting, Failing to Fully Realize Regional Advantage and Resource Allocation Goals**

**(1) Absence of specialized policies for certain functional zones.** Existing policies primarily target key ecological function zones, with inadequate supporting policy design for major agricultural product zones and urbanization zones. This creates unclear development orientations and responsibilities for these zone types, resulting in policy peaks and valleys. For example, major agricultural product zones bear heavy responsibilities for ensuring food security and important agricultural supply, yet face restricted urbanization development and insufficient regional competitiveness, causing some agriculturally advantaged areas to resist designation as agricultural product zones [17]. Statistical analysis of published provincial spatial plans reveals a decreasing number of designated agricultural product zones, failing to meet national strategic requirements for ensuring stable and secure food and agricultural supply and creating significant risk [18].

**(2) Lack of structural policies for key ecological function zones.** Since 2010, ecological protection and restoration policies in key ecological function zones have been strengthened. While total ecological space has increased significantly, regional structural problems remain prominent. Large-scale glacier retreat on the Tibetan Plateau, extensive reduction of grasslands in the northern sand prevention belt, forests and wetlands in the Northeast forest belt, fragmentation of important species habitats, and severe local ecological function degradation have not been effectively curbed. Structural policy responses to these issues are insufficient.

**(3) Inadequate alignment between infrastructure allocation and functional positioning.** The main functional zone strategy aims to promote comparative advantages and high-quality development through differentiated policies matching functional positioning. Agricultural product zones, ecological function zones, and urbanization zones have different needs for industrial layout, infrastructure, public investment, and land-water resources. However, current element allocation policies do not fully consider these differentiated requirements, lacking targeted policy design.

**(4) Policy implementation deviations in some areas.** Since the strategy's implementation, profound changes have occurred in the spatial structure of economic development, with resource allocation in some areas contradicting functional positioning. From 2009–2019, major agricultural product zones in southern China experienced significant cropland loss, shifting China's cropland center northward and placing greater ecological and water pressure on northern regions. Optimized development zones have seen increased development intensity, with construction land growth far exceeding other areas, contrary to their intended strict control. Resource mismatches between population and construction land have emerged, with urbanization zones and agricultural product zones around central cities in Northeast and Western China experiencing population decline while construction land continues to expand rapidly.

### **2.3 Weak Policy Adaptability to New Problems and Risk Challenges**

**(1) Inadequate response to new demographic changes.** As China's population peaks and aging accelerates, 73% of counties in major agricultural product zones have experienced permanent population decline, with some aging rates reaching 19.5%. Shortages of rural labor, concerns about left-behind elderly, and even scenarios of abandoned farmland and rural decline pose potential threats to food security and rural revitalization [18]. In urbanization zones, declining birth rates and shrinking family sizes (averaging fewer than three persons per household in Beijing, Shanghai, Zhejiang, and Jiangsu) create new demands for spatial restructuring and quality improvements in housing, healthcare, early childhood education, elderly care, culture, and recreation [19].

**(2) Insufficient response to new economic and social risks.** Impacted by COVID-19 and China-U.S. trade disputes, China's economic growth has slowed, with local government land transfer revenues declining significantly. Some local governments in agricultural product zones and urbanization zones face rapidly rising hidden debts [20]. The traditional factor-driven, scale-expansion development model is unsustainable. The primary issues in territorial development and protection have shifted from controlling development intensity to optimizing structural efficiency and functional quality [21].

**(3) Inadequate response to global climate change.** Extreme weather events have increased, with severe floods affecting the Haihe, Huaihe, and Songhua River basins and threatening life and property in urbanization zones and agricultural product zones [22]. Meanwhile, warming temperatures and northward shifts of temperate zones in Xinjiang, Gansu, Shaanxi, and Heilongjiang favor expanded agricultural production, yet main functional zone delineation and supporting policies have not adequately adapted to these changes.

**(4) Insufficient response to changing geopolitical relations.** China has high external dependence on strategic resources and energy, with about half of strategic minerals exceeding 50% import dependence and over 90% of crude oil imported via sea transport. As economic globalization faces headwinds and international relations become complex, China's resource, energy, and border security face significant impacts, yet no supporting policies have been introduced for border regions and energy-resource-rich areas critical to national strategic security.

### **2.4 Imprecise Constraints and Insufficient Incentives, Inadequately Supporting Coordinated Regional Development and High-Quality Growth**

**(1) Overly restrictive industrial policies.** Negative lists for industrial access in key ecological function zones are generally formulated at the county level, creating a "one person sick, whole area quarantined" problem due to overly broad units. These lists impose strict industrial restrictions on county towns, contradicting the "overall protection, point development" orientation. The system targets industry types rather than enterprises, imposing blanket bans on prohibited industries and blocking pathways for green transformation.

The lists focus on existing industries with limited consideration for future industries, hindering precise planning for regional industrial development.

**(2) Excessive rigidity in “three zones and three lines” control.** While the completed “three zones and three lines” delimitation has strengthened bottom-line controls for national food and ecological security, urban development boundaries were delineated using a 1.3-fold expansion coefficient based on existing urban land. Although this reflected differentiated requirements to some extent, some planned urban spatial structures no longer match new development needs. In some national-level agricultural product zones, large areas of cropland and permanent basic farmland concentrated around central cities and townships cannot be occupied except for national and provincial major projects, restricting urban development space and creating difficulties for tourism, rural revitalization projects, and agricultural facilities like public toilets and pavilions.

**(3) Insufficient policy incentives.** Environmental and industrial policies are primarily restrictive. Transfer payments to key ecological function zones are inadequate, general transfer payments for agricultural product zones have not been established, and cross-basin/cross-regional horizontal compensation mechanisms remain at the pilot stage. There is an urgent need to form incentive policies for new growth drivers such as innovation, culture, and landscape. For example, a county in Zhejiang designated as a national key ecological function zone faces an annual fiscal revenue-expenditure gap of about 8.8 billion yuan, while national and provincial transfer payments only provide 3.5–4 billion yuan, leaving a gap exceeding 50%. The proportion is even larger in central and western underdeveloped regions, creating major difficulties in providing basic public services.

**(4) Lack of tracking, evaluation, and feedback mechanisms.** Local enthusiasm for policy implementation is low, with some areas misunderstanding functional positioning as “sole function,” creating resistance to policies for ecological and agricultural zones. Policies are not implemented at each administrative level: while the central government specifies differentiated assessment indicators, localities largely fail to implement them. Some provinces claim to have eliminated GDP assessments for certain zones but still evaluate fiscal revenue and fixed-asset investment, or continue using GDP rankings. About one-third of provinces have not issued documents for differentiated performance assessment as required. Additionally, dynamic management mechanisms for monitoring, evaluation, early warning, and adjustment have not been established, preventing timely policy adjustments despite changes in regional strategies, administrative divisions, and spatial structures.

### 3. Overall Approach

**3.1 Systematization (1) Deep integration into the national spatial planning system.** Following “multi-plan coordination,” the main functional zone strategy should be incorporated into the spatial planning system to em-

phasize its macro-strategic guiding role and improve national and provincial policies. Through municipal, county, and township-level planning, the strategic intent should be transmitted level by level. The regional nature of main functional zone policies should be highlighted, focusing on coordinating key elements—population, land, industry, and capital—to establish a territorial spatial regional policy system matching functional positioning.

**(2) Foundation for territorial spatial governance system.** The main functional zone strategy represents a Chinese approach to top-down territorial governance under the national system [23]. Its foundational and critical role in territorial development and protection systems should be clarified to guide and connect land use regulation. Following the “regional strategy-planning-policy” logic, a comprehensive set of territorial control tools integrating points, lines, areas, and networks should be formed to improve the strategy, policies, institutions, and regulations supporting territorial governance.

**(3) Coordinated advancement of high-level security and high-quality development.** Strengthen bottom-line and strategic thinking by integrating national food security, ecological security, economic security, energy security, border security, and historical-cultural heritage protection into land, environmental, fiscal, and population policies. Meanwhile, respond to people’s demands for better lives and beautiful ecology by improving the quality of agricultural, ecological, and urban spaces, promoting a green, low-carbon, and harmonious development pattern to lead high-quality development.

**3.2 Differentiation (1) Emphasize diversified development approaches and differentiated pathways.** “Differentiation” should not intensify development gaps but guide different regions toward distinct development positioning and pathways, creating separate tracks for different functional zones. All zones should pursue ecological civilization, high-quality development, and common prosperity, but through diverse, locally-adapted strategies rather than homogeneous competition.

**(2) Problem-oriented approach to address regional spatial development challenges.** Different regions face different development and protection issues. While overall socioeconomic development is positive, risks remain significant: loss of high-quality cropland in the south, structural ecological imbalances in the north, and urban decline in the northeast. Differentiated main functional zone policies should target these specific regional challenges.

**(3) Highlight main functional orientation to leverage regional comparative advantages.** Different regions have varying resource endowments, carrying capacities, development stages, and conditions, undertaking different tasks at national, provincial, municipal, and county levels. Differentiated regional element allocation policies should be formulated around different functional positioning.

**3.3 Coordination (1) Emphasize national strategic coordination.** Coordination is essential for implementing national strategies. The main functional zone's national strategic status should be clearly defined in key documents, coordinating national security strategies (food, ecological, economic, energy, resource, border) with regional coordination, major regional, and new urbanization strategies to allocate major productive forces, infrastructure, public services, and natural resources.

**(2) Strengthen multi-stakeholder collaborative governance.** Main functional zones represent a comprehensive systematic project requiring coordination across departments and sectors. Clear responsibility divisions between central and local governments, government and market, and among government departments should be established, along with coordination mechanisms for implementing the strategy.

**(3) Promote regional synergy and functional integration.** Beyond regional division of labor and differentiated development, main functional zones should promote balanced and coordinated regional development. Inter-regionally, coordinate development rights sharing among different functional zones; intra-regionally, coordinate relationships between main functions, other functions, and composite functions to promote integration of agricultural, ecological, and urban functions.

**(4) Enhance synergy among policy tools.** Strengthen coordination between planning and policies, and among planning decisions, use regulation, and element allocation policies to achieve “multi-policy coordination” based on “multi-plan integration,” ensuring all natural resource management links and elements align with functional positioning.

**3.4 Incentivization (1) Combine precise constraints with effective incentives.** Main functional zone policies should clarify development rules –what local governments “can do” and “cannot do” –to guide high-quality development. With “three zones and three lines” precisely delineated in spatial planning, strict bottom-line controls are reinforced. The next step is establishing effective incentive policies to stimulate new development drivers.

**(2) Balance regional responsibilities and benefits.** Different functional zones undertake different national and regional tasks. Agricultural and ecological function zones sacrifice development opportunities for food and ecological security and should share development benefits through adjustment and redistribution mechanisms.

**(3) Combine external support with internal capacity building.** Main functional zone policies should promote common prosperity, not solely through central fiscal transfers to compensate for development shortfalls in agricultural and ecological zones, but by leveraging advantages in high-quality agricultural and ecological resources. Establish robust ecological product value realization

mechanisms to convert green mountains into gold mountains, enabling self-development in these regions.

#### 4. Specific Recommendations

**4.1 Strengthen Top-Level Institutional Design of Main Functional Zone Policies** **(1) Enhance top-level coordination and promote inter-governmental and inter-departmental coordination mechanisms.** Establish a national-level coordinating body to advance the main functional zone strategy, clarifying responsibilities of relevant departments and localities, strengthening central-local and inter-departmental coordination on major issues. Research and issue central documents to improve and implement the strategy in the new era, clarifying its mission and key tasks. Local governments bear primary responsibility for implementation and should coordinate departmental efforts; natural resources departments should lead overall coordination, while development reform and finance departments should manage industrial access and transfer payments.

**(2) Improve supporting policy systems to form synergies in element allocation by functional positioning.** Focus on key elements—population, land, industry, and capital—to improve supporting policies and performance evaluation systems. Issue natural resource policies matching functional positioning with greater precision and incentives. Strengthen strategic coordination and regional synergy by establishing coordination mechanisms between main functional zones and regional coordination, major regional, and new urbanization strategies to resolve spatial conflicts and promote differentiated, coordinated development.

**(3) Build a comprehensive territorial governance policy platform.** Using county-level administrative regions as spatial policy units, build a governance platform centered on main functional zone policies to integrate “spatial planning” and “public policy,” consolidating departmental efforts toward spatial governance goals. Accelerate legislative processes for the *Territorial Spatial Development and Protection Law* and *Territorial Spatial Planning Law* to strengthen the legal status of main functional zones.

**4.2 Improve Policies for Major Agricultural Product Zones to Ensure Food Security and Lead Rural Revitalization** **(1) Optimize land and water resource allocation and strengthen cropland protection.** Consolidate food security foundations through strict total cropland protection, incorporating all cropland occupation from non-agricultural construction, agricultural restructuring, and afforestation into the compensation balance system [24]. Encourage cropland restoration and expansion, allowing cross-regional transfer of newly added cropland indicators beyond planning targets. Improve cropland quality by directing major projects (high-standard farmland construction, black soil protection, acidified cropland treatment, saline-alkali land improvement) toward agricultural product zones [25]. Optimize cropland layout through

county-level comprehensive land consolidation, gradually moving hillside cropland downslope and relocating orchards uphill. Enhance water-soil matching by allocating water resources toward agricultural zones, developing water-saving agriculture in water-scarce areas, avoiding flood channels, and establishing disaster insurance to reduce farmers' losses.

**(2) Establish a positive list for rural revitalization land use and increase support for agricultural functional platforms.** Enhance production capacity for important agricultural products under the “big food” concept, guiding the layout of “two agricultural zones” (grain production functional areas and important agricultural product protection areas), rural complexes, and modern agricultural parks toward agricultural product zones. Create a positive list for rural revitalization industrial land use, strengthening financial support and land element guarantees, allowing listed projects to implement point-based land supply outside urban development boundaries. Prioritize land for primary agricultural processing, cold chain logistics, and farmland water conservancy infrastructure. Cropland within village construction land (203 scope) used for rural revitalization need not fulfill the “compensation balance” requirement.

**(3) Strengthen financial and project support to enhance county-level basic public services.** Establish a general fiscal transfer payment system for agricultural product zones, integrating scattered agricultural funds from various departments for similar purposes. Use separate land use quotas to prioritize land for agricultural production and public service facilities. Major infrastructure and basic public services should better consider agricultural zone needs, with national special funds and local special bonds supporting cropland protection, grain storage, and transportation channels.

#### **4.3 Improve Policies for Key Ecological Function Zones to Safeguard Ecological Security and Practice “Two Mountains” Transformation**

**(1) Refine ecological conservation redline control and dynamic adjustment rules.** Improve management rules for ecological conservation redlines and protected areas, specifying allowed limited human activities (production and living of indigenous residents, moderate tourism) that do not damage ecological functions. Dynamically optimize redline layout and scope based on protected area optimization and major ecological restoration projects.

**(2) Implement integrated ecological restoration to enhance ecosystem functions and quality.** Encourage reduced construction land use in key ecological function zones, restoring and increasing ecological land through consolidation and reclamation, establishing intra-provincial ecological land use balance mechanisms. Prioritize major ecological restoration projects to enhance upstream water conservation and mid-downstream flood storage capacity, optimizing forest, grassland, water, wetland, and farmland ecosystems to provide more quality ecological products.

**(3) Establish protective utilization rules for ecological space.** Support

incorporating non-ecologically-damaging business activities and public facility construction needs into spatial planning, implementing differentiated use regulation in ecological space to allow moderate tourism and necessary facility construction. Explore differentiated management approaches like “separating expropriation from conversion” and “neither expropriating nor converting.” Explore ecological utilization of farmland, towns, minerals, and economic forests in important ecological areas. Add ecological facility land categories to guarantee land for ecological management facilities. Replace “industrial access” negative lists with “two mountains” transformation positive lists, increasing land support for listed industries [26].

**(4) Establish ecological asset and value realization mechanisms.** Smooth the “two mountains” transformation path by prioritizing land for ecological industrialization and industrial ecology, supporting relevant industries through financing channels, loan interest subsidies, and reduced operational costs. Establish carbon trading and emissions mechanisms for ecological product value realization, building natural resource asset management platforms. Develop horizontal ecological compensation systems linked to main functional zone strategy implementation and paid natural resource use, with compensation standards reflecting ecological space quantity and quality.

**4.4 Improve Policies for Urbanization Zones to Concentrate Population and Industry and Enhance Urban Quality and Resilience (1) Guide population flow and industrial layout to improve agglomeration capacity.** Establish resource allocation mechanisms adapted to population mobility, linking new construction land scale to regional population, transferred population absorption, and cropland area, with indicators prioritized toward infrastructure, public services, and surrounding central cities. Strengthen spatial control of megacities and super-cities, implementing urban construction land reduction strategies.

**(2) Incentivize three-dimensional and composite land use to promote intensive development.** Improve the incremental-existing land linkage mechanism, increasing the proportion of existing land in supply. Develop land composite use policies specifying compatible land uses under different conditions, encouraging mixed functional land use. Promote three-dimensional land development, moderately developing underground space under the premise of safety, environmental protection, and public welfare priority.

**(3) Rationalize public service facilities and disaster prevention systems to enhance urban quality and resilience.** Guide dispersed and balanced layout of community public services to provide age-friendly basic living services, improving 15-minute walking access to education, healthcare, culture, sports, and elderly care facilities. Strengthen historical and cultural protection in cities, offering floor area ratio incentives. Coordinate layout of transportation, command centers, and critical facilities, raising flood prevention and drainage standards.

#### **4.5 Strengthen Comprehensive Coordination of Different Functions and Policies to Promote Coordinated Regional Development and Common Prosperity**

**(1) Establish main functional zone comprehensive coordination areas.** Rely on urban agglomerations and metropolitan areas to promote comprehensive functional layout, coordinating population, industry, public services, infrastructure, and land-water resources to enhance local supply capacity of agricultural and ecological spaces and form functional, short-supply-chain, distributed, localized comprehensive coordination areas. Improve cross-county cropland compensation balance, construction land increase-decrease linkage, and quota trading policies to guide cropland, ecological land, and urban construction land to concentrate in respective functional zones. Encourage agricultural and ecological function zones to jointly build industrial parks in urbanization zones through “enclave” economies, sharing development achievements through tax revenue division.

**(2) Explore composite function policy design.** Promote functional integration of agricultural, ecological, and urban spaces by implementing ecological cropland stewardship, reducing pesticide and fertilizer use, and leveraging farmland’s multiple ecological, landscape, and experiential functions. Explore protective utilization of ecological space for cultural tourism and medical care industries, specifying allowed human activity types, scales, and layouts. Explore urban agricultural development on construction land, encouraging “pocket parks” on fragmented urban open spaces, with park green space in urban development boundaries exempt from new construction land management.

**(3) Improve differentiated performance evaluation mechanisms.** Establish differentiated assessment systems based on “three zones and three lines” control: agricultural zones focusing on cropland scale/quality, production capacity, and farmers’ income; ecological zones on redlines, environmental quality, and ecological product value; urbanization zones on GDP, fiscal revenue, agglomeration efficiency, and innovation capacity. Strengthen application of assessment results in performance evaluation, fund allocation, cadre appointment, and departure audits.

#### **4.6 Improve Policy Implementation Monitoring, Evaluation, and Assessment Mechanisms to Establish Full-Lifecycle Main Functional Zone Governance**

**(1) Establish monitoring, evaluation, and adjustment mechanisms.** Build a monitoring and evaluation system for the main functional zone strategy, establishing a long-term mechanism for resource-environment carrying capacity monitoring and early warning. Create dynamic adjustment and management mechanisms based on evaluation results, linking to regional coordination, major regional, new urbanization, and rural revitalization strategies to refine strategic comprehensive functional area layouts. Establish a dynamic adjustment mechanism for the main functional zone catalog in conjunction with “five-level, three-category” spatial planning.

**(2) Strengthen precise constraints of the three control lines.** Formu-

late dynamic management rules allowing local adjustments to permanent basic farmland layout based on quantity increase, quality improvement, and ecological enhancement. Optimize ecological conservation redlines based on protected area integration and functional assessment. Allow local optimization of urban development boundary form without involving redlines or exceeding expansion multiples, following stable, limited, and standardized procedures.

**(3) Improve fiscal transfer payment mechanisms.** Enhance fiscal transfer payments to key ecological function zones, increasing support for areas with high ecological redline coverage. Tilt agricultural funds toward major agricultural product zones and establish general transfer payment systems for these zones. Increase central budget investment prioritization toward agricultural and ecological function zones.

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