Optimization of County-Level Territorial Spatial Planning Management Pathways under the "Three Lines" Control Framework: A Case Study of Shouxian County

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Abstract This study focuses on Shouxian County in Anhui Province and employs literature review, field investigation, and case analysis to systematically examine the current status, key challenges, and underlying causes of territorial spatial planning management under the "three lines" control framework. It supplements the review of comparable county-level cultural preservation integration cases, enhances the situational analysis with empirical data, and delineates feasible optimization strategies, thereby emphasizing the county-specific characteristics of integrating historical and cultural preservation with spatial control. This study offers practical guidance for the implementation of comprehensive territorial spatial planning in Shouxian County. Additionally, it provides theoretical insights and practical frameworks for addressing the conflicts between the "three lines" control policies and development in comparable agricultural and historical and cultural counties.

Keywords "Three lines" control, County-level territorial spatial planning, Planning management, Cultural preservation, Shouxian County

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With the progressive development of ecological civilization and the comprehensive implementation of the territorial spatial planning system in China, the delineation and rigid control of the "three lines" have become central strategies for coordinating ecological, agricultural, and urban spaces. These measures are crucial for safeguarding the bottom line of food security, establishing a robust ecological security barrier, and controlling the unregulated expansion of urban areas. China has successively promulgated policy documents, including the *Several Opinions on Establishing a Territorial Spatial Planning System and Supervising Its Implementation*, as well as the *Notice of the Ministry of Natural Resources on Fully Demarcating Permanent Basic Farmland*. These documents explicitly mandate that all localities scientifically delineate the boundaries of the "three lines", enhance comprehensive process control, and advance the modernization of the territorial spatial governance system and its governance capacity.

Shouxian County is situated in the central region of Anhui Province, on the southern bank of the middle reaches of the Huaihe River, and falls under the administrative jurisdiction of Huainan City. It is a prominent agricultural county and a nationally recognized historical and cultural city, and falls within the scope of the Hefei Metropolitan Area and the Yangtze River Delta integration development strategy. The territorial space of the county is characterized by four primary features: agricultural predominance, ecological sensitivity, cultural richness, and pressures from urban expansion. The cultivated land area exceeds 133,300 hm^2, with approximately 117,300 hm^2 designated as protected permanent basic farmland, underscoring the considerable challenge of ensuring food security. Ecologically sensitive zones, including the Wabu Lake Wetland and the Huaihe River Ecological Belt, comprise 17.4% of the county's total area, highlighting the significant responsibility for ecological conservation. The county also possesses world-class cultural heritage sites, such as the Ancient City Wall of Shouxian County, the Ruins of Shouchun City—the former capital of Chu—and Anfengtang, which accentuates the tension between cultural preservation and spatial control. In 2024, the urbanization rate of Shouxian County reached 48.2%, revealing a pronounced conflict between the demand for urban expansion and the stringent constraints imposed by the "three lines" policy. Given that traditional planning management models are insufficient to address these emerging challenges, it is imperative to develop a territorial spatial planning management approach tailored to the county's specific conditions.

It is essential to enrich theoretical research on the "three lines" control and territorial spatial planning management at the county level, supplement case studies on spatial governance in agricultural and historical and cultural counties, and address the existing research gap concerning the integration of cultural preservation and spatial control in similar counties, thereby offering empirical evidence to support the application of spatial governance theory and bottom-line thinking theory at the county scale. Furthermore, it is important to effectively reconcile the conflicts among the "three lines" control, industrial development, cultural preservation, and urban construction in Shouxian County, optimize the processes of territorial spatial planning management, enhance the precision, coordination, and intelligence levels of control measures, and promote the successful implementation of the *Territorial Space Master Plan of Shouxian County (2021–2035)*. Such efforts will yield replicable and scalable management practices applicable to other agricultural and historical and cultural counties in China.

1 Current research status at home and abroad

1.1 Current research status abroad

Although there is no direct equivalent to the concept of "three lines" control internationally, research in related fields such as spatial zoning control, ecological protection, farmland preservation, and urban boundary management has been conducted relatively early, resulting in well-established theories and practical models. Regarding ecological control, Germany has developed a hierarchical management system for nature reserves, while the United States employs a legal protection mode for national parks that emphasizes the integrity and connectivity of ecological spaces. In farmland protection, Japan has enacted the *Farmland Protection Law*, and the Netherlands

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has designated permanent farmland protection zones to prevent the conversion of agricultural land to non-agricultural uses through regulatory measures. Concerning urban boundary control, the United Kingdom has implemented the Green Belt policy, and Portland, Oregon, in the United States, has established an Urban Growth Boundary (UGB) to promote compact urban development. International research predominantly emphasizes law-based regulation, multi-stakeholder collaboration, and technological empowerment. Nevertheless, due to substantial differences in national contexts and land tenure systems, these foreign experiences must be adapted and localized to align with the specific conditions of counties in China.

1.2 Current research status in China

Current research in China, alongside the progressive advancement of territorial spatial planning reforms, concentrates on three primary areas: the delineation technology of the "three lines", control mechanisms, and spatial coordination. This research can be categorized into three levels: the macro level, the county level, and the cultural integration level among similar counties.

(1) Macro level. Zhang Jingxiang et al.[1] investigated the technical standards for delineating the "three lines" at both national and provincial levels, proposing a balanced approach that integrates rigid control with flexible adaptation. Huang Xianjin et al.[2] developed a policy system for the coordinated management of the "three lines" in territorial space, highlighting the interconnection between cross-regional ecological coordination and farmland protection. Wu Zhiqiang[3] concentrated on the modernization of territorial spatial governance and suggested an optimization strategy for the overall spatial pattern under the "three lines" control framework. While macro-level research emphasizes top-level design and offers policy guidance for county-level management, it lacks practical implementation pathways at the county level.

(2) County level. Li Xun et al.[4] examined agricultural counties to analyze the conflict between the "three lines" control and the development of modern agriculture, subsequently proposing countermeasures for cultivated land protection and industrial integration. Wang Kai et al.[5] focused on ecologically sensitive counties to analyze the optimization pathways of urban space under the constraints of ecological red lines. Liu Yan et al.[6] investigated common challenges at the county level, such as insufficient interdepartmental collaboration and low levels of intelligence within the "three-line" control framework, and proposed a collaborative governance framework. Research at the county level predominantly addresses singular conflicts, with relatively few studies examining counties characterized by both agricultural and historical and cultural attributes. Moreover, targeted investigations into the integration of cultural preservation and spatial control remain limited.

(3) Cultural integration cases among similar counties. Shexian County and Yixian County, recognized as historical and cultural cities as well as major agricultural counties in Anhui Province, have emerged as focal points in research on county-level spatial governance. Chen Chen[7] examined Shexian County to explore the precise connection pathway between the boundaries of cultural heritage protection and the "three lines", subsequently developing a differentiated control model. Zhou Li[8] focused on Yixian County to analyze control strategies for the moderate development of cultural and tourism industries within the ecological red line, proposing an integrated development approach combining "ecology and culture". Existing case studies predominantly concentrate on individual counties, lacking a comprehensive review of cultural integration experiences across similar counties. Furthermore, there is an absence of specialized research addressing the complex cultural characteristics of Shouxian County, which encompass "an ancient city, ruins, and ancient water conservancy projects".

1.3 Research gaps and innovation points

Most existing studies concentrate on macro-level policies or address a single conflict within an individual county, resulting in a lack of systematic research on counties characterized by both agricultural and historical and cultural attributes. Case studies of comparable county-level regions are fragmented, and there is an absence of comprehensive reviews concerning the integration of cultural preservation and "three lines" control. Furthermore, the research on countermeasures tends to be macroscopic, lacking practical applicability and specificity.

The points of innovation are as follows. (i) Perspective innovation: the study systematically examines cases of cultural integration in Shexian County and Yixian County, emphasizing Shouxian County's dual characteristics as a prominent agricultural region and a renowned historical and cultural city. This analysis addresses the existing research gap concerning the integration of cultural preservation and spatial control in comparable counties. (ii)Content innovation: county-level data support is enhanced, and the integration pathway for control and cultural preservation is refined to emphasize the complex cultural characteristics of Shouxian ancient city, its ruins, and ancient water conservancy projects. (iii)Practical innovation: the countermeasures concentrate on practical operations at the county level, explicitly delineating the responsible entities, timelines, and quantifiable indicators to improve their feasibility and effectiveness.

2 Research methods

The literature research method is utilized to review domestic and international monographs, academic papers, and policy documents pertaining to "three lines" control, territorial spatial planning, and cultural preservation, thereby strengthening the theoretical foundation.

The field research method entails visiting the Natural Resources and Planning Bureau, Urban and Rural Planning Service Center, Culture and Tourism Bureau, and key towns within Shouxian County to collect primary data regarding the delineation of the "three lines", control effectiveness, cultural preservation, and related aspects from 2021 to 2024. Additionally, it involves conducting on-site verification of the current spatial control status surrounding cultural heritage sites, including ancient cities, ruins, and Anfengtang.

The case analysis method is employed to systematically organize the experiences of integrating cultural preservation with the "three lines" control in Shexian and Yixian counties, with the aim of identifying exemplary practices applicable to Shouxian County.

3 Current situation of "three lines" control and territorial spatial planning management in Shouxian County

Shouxian County is situated in the central region of Anhui Province, along the southern bank of the middle reaches of the Huaihe River, encompassing a total area of 2,986 km^2. The county administers 22 towns and 3 sub-districts. As of 2024, the total population was 1.39 million, with an urbanization rate of 48.2%.

3.1 Resource endowment

Agricultural resources: the cultivated land area encompasses 134,900 hm^2, with permanent basic farmland covering 117,400 hm^2, representing 40.1% of the county's total area. In 2024, the total grain output reached 1.286 million t, establishing the region as a central grain production area within Anhui Province.

Ecological resources: the ecological protection red line encompasses an area of 520.5

km^2, representing 17.4% of the county's total land area. This protected zone includes three core regions: the Wabu Lake Wetland (286 km^2), the Huaihe River Ecological Belt, and the Anfengtang Ecological Reserve.

Cultural resources: there are six key national cultural relic protection units, including the Ancient City Wall of Shouxian County, the Ruins of Shouchun City—the former capital of Chu—and Anfengtang, among others. Additionally, there are 22 provincial-level cultural relic protection units. The density of cultural heritage sites in this area ranks among the highest in the counties of Anhui Province.

3.2 Territorial spatial pattern

According to the *Territorial Space Master Plan of Shouxian County (2021–2035)*, a spatial development pattern characterized by "one core, three belts, an ecological foundation, and cluster development" has been established. The urban development boundary encompasses 180.2 km^2, representing 6.0% of the county's total area. Within this boundary, the core urban area surrounding the ancient city covers 42.5 km^2, the Xinqiao Industrial Park spans 68.3 km^2, and the Shushan Industrial Park occupies 31.7 km^2. Agricultural land accounts for 2,156.8 km^2 (72.2%), ecological space comprises 649.0 km^2 (21.7%), and urban space constitutes 180.2 km^2 (6.0%).

3.3 Current implementation status of the "three–line" control

3.3.1 Control achievements (2021−2024). Farmland protection: the total area of cultivated land has remained stable at over 134,700 hm^2. The compliance rate for the protection of permanent basic farmland areas is 100%. Additionally, 57,700 hm^2 of high-standard farmland have been developed, and the average quality of cultivated land has improved by 0.3 grade levels.

Ecological protection: the water quality of Wabu Lake has consistently maintained at grade III. The wetland area has expanded by 12.8 km^2, the forest coverage rate has increased to 22.6%, and all illegal constructions within the ecological red line have been removed.

Urban management: within the urban development boundary, 12.3 km^2 of new construction land have been added, all of which have been allocated for industrial parks and public welfare projects. No new urban development has occurred outside the boundary, resulting in an 18.5% increase in urban compactness. The control data are presented in Table 1.

3.3.2 Management model of territorial space planning.

(1) Management structure. The Natural Resources and Planning Bureau serves as the central coordinating body, overseeing the compilation, demarcation, approval, and supervision processes. The Urban and Rural Planning Service Center is tasked with conducting technical reviews and facilitating public participation. Coordination is maintained among six departments, including the Culture and Tourism Bureau, the Agriculture and Rural Affairs Bureau, and the Ecology and Environment Bureau. Additionally, the natural resources offices at the township level are responsible for implementing local management.

(2) Approval and coordination mechanism. A comprehensive online approval system encompassing the entire process from pre-examination to review, approval, licensing, and verification has been implemented, utilizing a unified territorial spatial map. Additionally, a joint meeting system involving 22 departments is established to coordinate interdepartmental conflicts, with 16 meetings held between 2021 and 2024.

4 Challenges and underlying causes in the territorial spatial planning management under the "three lines" control framework in Shouxian County

4.1 Main challenges

4.1.1 Ineffective connection between regulatory controls and industrial practices. Between 2021 and 2024, 18 cultural tourism and agricultural projects in the county could not be implemented due to violations of red lines, representing 23.7% of all submitted projects. The industrial land within the urban development boundary is fragmented, with an output value of only 19.2 million yuan/hm^2, which is below the average for counties in Anhui Province (23.4 million yuan/hm^2).

4.1.2 Imperfect departmental coordination mechanism. The departmental data standards lack unification, resulting in a data interoperability rate of only 42.3% among cultivated land, ecology, and culture sectors. The joint meetings have been largely perfunctory. From 2021 to 2024, the completion rate of coordinated tasks was merely 58.6%, with frequent occurrences of responsibility evasion and shirking.

4.1.3 Insufficient intelligent control and management capabilities. The unified territorial spatial map incorporates data exclusively on cultivated land and urban areas, with the coverage rate of cultural and ecological data remaining below 50%. In the absence of a systematic satellite remote sensing and unmanned aerial vehicle (UAV) inspection mechanism, the lag rate for detecting violations within the red line between 2021 and 2024 reached 67.2%.

4.1.4 Low public participation. During the planning and compilation stages, public participation was predominantly facilitated through public announcements, which constituted 89.5% of the engagement methods, whereas hearings and symposiums accounted for only 10.5%. The rate of public opinion collection was below 30%, and the channels for supervision were inadequate.

4.1.5 Insufficient integration of cultural preservation and spatial control (deepening characteristics). Misalignment of boundary connection: the Ruins of Shouchun City, the former capital of Chu, are situated within the red line of permanent basic farmland, encompassing an area of approximately 12.3 km^2. Meanwhile, the Anfengtang core protected area lies within the ecological red line, covering roughly 3.2 km^2. The overlap between the protected area and the control boundary amounts to 28.7%, indicating a conflict in the applicable control rules.

Fragmentation of control standards: the protection of cultural heritage primarily concentrates on regulating visual aspects, whereas spatial control emphasizes baseline constraints. The approval rate for cultural and tourism supporting facilities within the 500 m buffer zone surrounding the ancient city is merely 35.8%, which hinders the activation of its cultural value.

Insufficient exploration of distinctive features: a comprehensive cultural preservation system encompassing the ancient city, ruins, and ancient water conservancy projects has yet to be

Table 1 Core data on the "three lines" control in Shouxian County in 2024

Control type	Designated area	Percentage of the county total	Key achievements
Permanent basic farmland	117,400 hm^2	40.1%	The compliance rate for the protection of permanent basic farmland areas is 100%, and 57,700 hm^2 of high-standard farmland have been developed.
Ecological protection red line	520.50 km^2	17.4%	The water quality of Wabu Lake is classified as Grade III, and the wetland area has expanded by 12.8 km^2.
Urban development boundary	180.20 km^2	6.0%	No new urban development has occurred outside the boundary, resulting in an 18.5% increase in urban compactness.

established. The cultural and tourism industry's contribution to the GDP is only 8.7%, which is lower than that of Shexian County (16.2%) and Yixian County (19.5%).

4.2 Cause analysis

Outdated management philosophy: the county emphasizes control over development and prioritizes approval processes over service provision, failing to integrate cultural preservation into the fundamental objectives of spatial governance.

Imperfect institutional mechanisms: there are no control measures specific to individual counties; the rights and responsibilities of the departments remain ambiguous, and there are no stringent mechanisms to enforce collaboration.

Insufficient resource input: between 2021 and 2024, the investment in intelligent management and control amounted to only 8.6 million yuan, while the dedicated funding for cultural preservation was 12 million yuan, both of which were significantly lower than those of comparable counties.

Shortage of professional talents: there are only 12 professionals specializing in territorial spatial planning, cultural heritage protection, and big data, resulting in fewer than 0.1 professionals per 10,000 individuals.

Insufficient planning flexibility: the boundaries of the "three lines" are too rigid, and the reserved flexible space for cultural activation and industrial development is less than 1.0% of the total area of the county.

5 Lessons learned from similar counties in China

5.1 Shexian County: a model of cultural and tourism integration at the county level

Precise boundary connection: the protective boundaries of ancient cities and villages have been integrated into the territorial spatial planning framework and precisely superimposed with the "three lines" policy. Within the designated buffer zones, differentiated control measures emphasizing "cultural priority and moderate development" are enforced. Consequently, the approval rate for cultural and tourism supporting facilities has risen to 78.3%.

Empowering cultural preservation with intelligence: an integrated platform combining "territorial space and cultural heritage" has been developed, incorporating data from 126 cultural relic protection units. This platform enables dynamic monitoring, style and feature control, and approval linkage, thereby reducing the lag rate in detecting violations to 12.5%.

Integrated industrial development: ecological cultural tourisms are developed within the ecological red line, while rural tourism is promoted in agricultural areas. The cultural tourism industry's contribution to GDP reaches 16.2%, thereby achieving a mutually beneficial outcome for cultural preservation and economic growth.

5.2 Yixian County: A model of ecological agriculture at the county level

Rigid+flexible control: high-standard farmland and modern agricultural facilities may be established within the boundaries of permanent basic farmland. Within the ecological red line, an ecological cultural tourism flexible zone, comprising 8.5% of the ecological red line area, should be designated to facilitate the moderate development of homestays and study tours.

Departmental coordination and collaboration: a leading group for territorial space control has been established, implementing the principles of "a unified platform for data management, a standardized control protocol, and a consolidated law enforcement team". The data intercommunication rate among departments has reached 92.7%, while the completion rate of coordinated tasks has attained 89.3%.

Industrial agglomeration development: within the urban development boundary, agricultural product processing and ecological industrial parks are strategically concentrated, achieving an average output value of 25.8 million yuan/hm^2. This has led to a marked improvement in the level of intensive land use.

5.3 Experience and inspiration

(1) Conceptual level: it is essential to adhere to the principle of "maintaining a firm baseline, allowing for flexible development, and prioritizing cultural values", thereby balancing the requirements of protection, development, and cultural heritage preservation.

(2) Mechanism level: it is important to enhance interdepartmental coordination, facilitate data sharing, and develop joint law enforcement mechanisms, while reinforcing the stringent constraints governing collaboration.

(3) Technical level: an integrated intelligent platform combining "land and cultural" data can be developed to enable dynamic monitoring and precise management of cultural heritage.

(4) Integration level: based on the cultural characteristics of the county, a differentiated management and control model should be developed to facilitate the comprehensive integration of cultural preservation with ecology, agriculture, and the cultural tourism industry.

6 Countermeasures for optimizing the pathway of territorial spatial planning management in Shouxian County under the "three lines" control

6.1 Strengthening rigid control and deepening the integration of cultural preservation and space

6.1.1 Precisely connecting culture with the boundaries of the "three lines". Delineation of three-tier cultural preservation zones: the core zone, encompassing the ancient city wall and the primary ruins area totaling 2.8 km^2, is subject to a strict prohibition on development. The buffer zone, extending 1,000 m beyond the core zone and covering 15.5 km^2, prioritizes cultural preservation while permitting facilities that support culture and tourism. The coordination zone, located 2,000 m beyond the buffer zone and spanning 32.7 km^2, serves to integrate the "three lines" policy and enforces differentiated regulatory controls.

Adjustments to the control rules for overlapping zones: the permanent basic farmland located within the ruins of the Chu capital is reclassified as "cultural preservation farmland", thereby permitting archaeological investigations and the establishment of cultural exhibition facilities. Additionally, a cultural preservation buffer zone encompassing 0.8 km^2 has been designated within the Anfengtang ecological red line, allowing for the development of water conservancy-related cultural research and educational facilities.

6.1.2 Constructing a complex cultural preservation system. The *Special Plan for the Protection of Shouxian Ancient City, Chu Capital Ruins and Anfengtang Culture* has been developed and integrated into the overall territorial spatial planning framework. This plan clearly defines standards for style and feature control, spatial connectivity, and revitalization utilization.

Three primary cultural spaces have been established: the central area of the ancient city cultural tourism, the archaeological park of the Chu capital ruins, and the Anfengtang Water Conservancy Cultural Park. Between 2025 and 2030, an investment of 250 million yuan is planned to elevate the cultural tourism industry's contribution to the GDP to over 15%.

6.1.3 Reserving space for industrial flexibility. Within the red line of the designated permanent basic farmland, 3,300 hm^2 have been allocated as a modern agricultural flexibility zone, intended for the development of high-standard farmland and associated agricultural product processing facilities.

Within the urban development boundary,

an additional 2.0 km^2 of land have been allocated for cultural and tourism industries, with a concentrated layout surrounding the ancient city and the cultural and tourism cluster of Xinqiao Industrial Park. The target output value is projected to increase to 24 million yuan/hm^2.

6.2 Improving the institutional mechanisms and perfecting the collaborative control system (with responsibilities assigned to departments)

6.2.1 Introducing special management measures. The Natural Resources and Planning Bureau of Shouxian County spearheaded the issuance of the *Management Measures for the Integration of "Three Lines" Control and Cultural Preservation in Shouxian County*, explicitly delineating departmental rights and responsibilities, control standards, cultural preservation rules, and assessment mechanisms.

6.2.2 Establishing a big data sharing platform. The Natural Resources and Planning Bureau of Shouxian County, in collaboration with the Culture and Tourism Bureau, has invested 15 million yuan to enhance the big data platform for territorial space. This upgrade integrates data across various elements, including cultivated land, ecology, culture, and urban areas. The objective is to achieve a data intercommunication rate exceeding 95%.

6.2.3 Strengthening the three-tier joint law enforcement. A joint law enforcement team, comprising personnel selected from the Departments of Natural Resources, Culture and Tourism, Agriculture, and Ecological Environment, has been established to conduct regular inspections on a monthly basis. Townships are responsible for carrying out daily inspections, whereas villages are tasked with reporting relevant information. The objective is to achieve a 100% rate in addressing violations.

6.3 Promoting intelligent empowerment and enhancing the level of refined management and control

6.3.1 Upgrading the "one map" platform. Cultural heritage data (28 cultural heritage sites and 32 ruins) have been integrated to ensure comprehensive coverage of all elements. By combining satellite remote sensing, updated quarterly, with UAV inspections conducted monthly for full coverage, the lag rate in detecting violations has been reduced to less than 15%.

6.3.2 Optimizing information services. The online approval coverage rate has reached 100%, and the approval time frame has been reduced by 30%. Platforms for cultural heritage inquiries, planning public announcements, and feedback have been established. The response time for public inquiries is limited to a maximum of 24 h.

6.4 Expanding public participation and enhancing the scientific nature of planning management

6.4.1 Improving the mechanism for multi-party participation. During the planning and compilation stages, hearings and symposiums should constitute at least 30% of the activities. Public opinion surveys conducted for major cultural projects must include a minimum of 500 participants. The target rate for the adoption of opinions is set at no less than 70%, and the written response rate for opinions that are not adopted should be 100%.

6.4.2 Strengthening publicity and guidance. Four thematic publicity campaigns focusing on cultural preservation and spatial control are conducted annually, encompassing all towns and administrative villages within the county. These campaigns aim to achieve a public awareness rate of at least 85%.

6.5 Strengthening the construction of talent teams and enhancing technical support

6.5.1 Introducing professional talents. Fifteen professionals specializing in territorial spatial planning, cultural heritage protection, and big data have been appointed to enhance the capacities of the Natural Resources Bureau and the Culture and Tourism Bureau.

6.5.2 Regular training. Two specialized training sessions—focusing on intelligent management and control, cultural preservation, and spatial planning—are conducted annually. Additionally, participants undertake study visits to advanced sites in Shexian and Yixian counties. The training program achieves full coverage, with a participation rate of 100%.

7 Conclusions and prospects

Drawing on the experiences of Shexian and Yixian counties, it is essential to optimize five dimensions: precise connection of cultural boundaries, development of a comprehensive protection system, enhancement of interdepartmental collaboration, advancement of intelligent platforms, and establishment of skilled talent teams. This approach aims to emphasize the composite cultural characteristics of Shouxian County, clarify responsible entities, quantify performance indicators, and establish timelines to improve implementation feasibility. Shouxian County must persistently advance its reform efforts. This includes dynamically optimizing the boundaries of the "three lines" and cultural preservation zones, enhancing the empowerment of intelligent control systems, and promoting the establishment of a cultural brand centered on "ancient cities, ruins, and historic water conservancy projects". Such initiatives aim to achieve a win-win situation among ecological protection, food security, urban development, and cultural heritage preservation, thereby establishing a model of county-level spatial governance that integrates agricultural practices with historical and cultural assets.

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