

# Comparison of the Evolution Process of City Examination and Evaluation System Between China and Britain and its Enlightenment to China

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## 1 ABSTRACT

City examination and evaluation, as an indispensable part of urban planning evaluation, which lays the foundation for improving the governance capacity of territorial space planning by revealing the problems and weaknesses in spatial governance, has attracted more and more attention in China's urban planning. At present, city examination and evaluation of China has formed a relatively clear and complete framework in the overall planning of land and space planning, and its applied range has also expanded from statutory planning to other types of planning. With the continuous promotion of urban renewal in China, higher requirements are put forward for the urgency and refinement of city examination and evaluation. For this reason, focusing on the relatively complete and scientific urban plan annual monitoring and evaluation work in the UK, this paper firstly sorts out the development stages and evolution characteristics of planning monitoring and evaluation in the UK, and summarizes the planning practice and research progress of city examination and evaluation in China. Secondly, this paper compares and analyzes the London's Planning Annual Monitoring and Evaluation Report of the United Kingdom from 2005 to 2021, and the Territorial Space Planning Examination and Evaluation Plan of China from 2020 to 2022 from the aspects of main objectives, areas of concern, technical framework, data collection sources, evaluation index system and evaluation response mechanism, and city examination and evaluation reports of key sample cities in China are discussed in this paper. Finally, in order to obtaining positive enlightenment for the promotion of China's future planning monitoring and evaluation work, this paper puts forward suggestions on the construction of the technical framework and the improvement of the work process which are suitable for the current development stage of China's city examination and evaluation based on the above research results.

Keywords: spatial planning, planning evaluation, London planning monitoring annual report, city examination and evaluation, China

## 2 INTRODUCTION

City examination is a fundamental work that comprehensively evaluates the development and construction status of cities, formulates targeted countermeasures, optimizes urban development goals, fills the gaps in urban construction, and solves the problem of "urban diseases". It is an important lever for implementing urban renewal actions, coordinating urban planning and construction management, and promoting high-quality development of urban living environment.

City examination and evaluation is receiving increasing attention in planning and development. Currently, China has formed a relatively clear and comprehensive framework for city examination and evaluation in the overall planning of national spatial planning. Its application scope has also expanded from statutory planning to other types of planning. With the continuous promotion of urban renewal actions in China, higher requirements have been put forward for the urgency and refinement of city examination work.

The evaluation of urban planning implementation has been carried out early in foreign countries and has developed relatively well, especially in the UK. The technical framework, working methods, and processes of planning implementation evaluation are relatively mature. In addition, a specific planning implementation supervision system has been formed, and a relatively reasonable planning implementation evaluation and dynamic monitoring mechanism has been established, which facilitates the efficient output of urban planning implementation evaluation results and the resolution of key problems. In the assessment of the implementation of urban planning in the UK, the Annual Monitoring Report on the Planning of the City of London over the years, organized and published by the Greater London Authority, is the most typical

and representative official document for the assessment of the Planning of London. It is the most mature planning assessment model with the most objective results and the most far-reaching impact in the world. It is also the core document for the monitoring process and the assessment of the effectiveness of the London plan.

This article aims to explore the historical evolution and development characteristics of planning monitoring and evaluation in the UK, sort out the research progress and practical exploration of city examination and evaluation in China. Through the "Monitoring Report" and "Evaluation Regulations", compare and analyze the work of city examination and evaluation in China and the UK from the aspects of content areas, indicator systems, and response mechanisms. Based on the actual situation in China, summarize the work principles, technical methods, and evaluation mechanisms that should be followed in planning and evaluation, Provide guidance for the construction and improvement of China's city examination and evaluation system.

### **3 EVOLUTION AND DEVELOPMENT CHARACTERISTICS OF PLANNING MONITORING EVALUATION IN THE UK**

#### **3.1 Current Status of monitoring and evaluation work at China and abroad**

At present, the practice results of planning evaluation at China and abroad have been widely used in the research of government policy making and planning preparation, and the dynamic feedback mechanism of planning evaluation has also been effective. Planning evaluation has changed from the original "pre-planning" evaluation to the current "planning" evaluation, formed a good monitoring dynamic cycle mechanism, and evolved to a multi-value planning theoretical paradigm.

Internationally, the UK takes the lead in establishing a "Three-stage, Multi-level" planning assessment mechanism, including planning programming assessment, planning implementation assessment and planning review, corresponding to the three stages of "sustainability assessment", "dynamic monitoring report" and planning review document results [1]. The evaluation system of national, regional and local levels has been constructed, and a comprehensive planning guarantee system has been formed [2].

#### **3.2 Evolution of planning assessment in the UK**

The United Kingdom began to establish the evaluation system in the planning field in the 1960s, during which the British government introduced many new analytical methods in the formulation and implementation of policies, including cost-benefit analysis and a series of derivative evaluation methods, and the planning balance sheet proposed by Lichfield and a series of evaluation methods based on the planning process derived from it.

From the mid-1970s to the 1980s, the focus on the overall effectiveness of planning policies shifted to economics and efficiency. Most government reports emphasize the 3E's principle: Economy, Efficiency, and Effectiveness.

In the late 1980s, independent testing and evaluation bodies were created in the field of policy evaluation. In this period, the planning evaluation gradually shifted from the quantitative evaluation of results to the non-quantitative evaluation of process, and began to consider the role of political, economic and social influences in the implementation of planning on the planning itself.

In 1997, the Labour government set up central to local assessment bodies. The modern British urban planning monitoring and evaluation system has been comprehensively established, and the evaluation method has been transformed into a dynamic and participatory form [3].

In 1999, the Greater London Authority Act was promulgated, clarifying the responsibility of the Mayor to supervise the implementation of the London Plan, requiring the Mayor to set up a special "implementation and supervision" chapter when preparing the London Plan, requiring annual monitoring of the implementation of the plan. The London Planning proposed that through the establishment of a reasonable monitoring title system, the key data of planning implementation can be tested to understand whether the planning objectives can be achieved and whether the planning policies are effective.

In 2004, The introduction of the Planning and Compulsory Purchase Act established the multi-level statutory system planning in the UK, and clarified the Annual Monitoring Report as the legal document to evaluate the effectiveness of the policy. It is also proposed that the main body of the planning should issue an Annual

Monitoring Report every year to measure the implementation of the planning and provide a basis for government decision-making.

Since 2005, the Annual Monitoring Report has been released to the public every year.

### 3.3 Content of annual monitoring report

The Annual Monitoring Report (AMR) is a key component of London's Planning Monitoring and Evaluation Management mechanism and is the central document for planning implementation to monitor and assess the effectiveness of the London Plan. The Annual Monitoring Report draws the attention of the Mayor and other departments to emerging trends, provides a comprehensive view of the impact of the Greater London Plan, and serves as an important basis for planning revisions.

The AMR consists of four chapters. The first chapter is an overview, introducing the scope and purpose of the monitoring report, as well as the main data sources. The second chapter is the achievement of key performance indicators, assessing the annual progress of each indicator and the development trend over the past years, and some indicators are implemented at the regional level. The third chapter is supplementary performance evaluation standards and statistical data, including housing, environment, transportation, related planning and other aspects. The fourth chapter is about other data sources, detailing the data sources used in the report.

### 3.4 Construction of index system

#### 3.4.1 Content of index system

The monitoring indicator system is the core element of the Annual Monitoring Report, which can effectively link up the requirements of the planning content.

The annual inspection report focuses on the six urban development goals established by the 2016 London Plan: Building strong and inclusive communities, Making the best use of land, and Creating a healthy city, Delivering the homes Londoners need, Growing a good economy, and Increasing efficiency and resilience. The overall goal in strategic planning is decomposed into subdivision goals, and quantifiable indicators are further constructed to form detailed key performance indicators. Key performance indicators cover urban spatial layout, public service facilities system, and in recent years, green ecology, economic vitality, public health and employment and office are gradually included [4].

The Annual Monitoring Report forms a clear evaluation basis on the basis of many years of practice, and realizes the planning monitoring under all elements. Key performance indicators are divided into control indicators and development indicators, the control indicator specifies mandatory control, and the development indicator ensures that the development trend develops in the direction of the target.

At the same time, the setting of key performance indicators is not based on the results of data inference, but focuses on the actual development trend. The report includes relevant supplementary performance evaluation criteria and statistical data to make a holistic judgment on program implementation. Based on the test results, the City of London and the Authority will optimize and adjust the planning implementation and government decision-making, ensure the feasibility of the implementation of major strategies, and reserve more flexibility for the next stage and next level of planning assessment.

#### 3.4.2 Index system data source

The Monitoring Report mainly uses the London Development Database (LDD) as the basic data source, and is led by the Greater London Authority to make overall statistics, and is implemented by the district government departments and relevant construction units. From November 2020, data from the London Development Database has been fully integrated into the Planning London Datahub. The Planning London Datahub contains detailed information on planning applications, permits, starts and completions, updates the economic and social development indicators and project information for Greater London in real time, visualizes the data and shares it with the whole community.

The statistics and summarization of different data according to time frequency ensure the dynamic and immediacy of data. The accuracy, breadth and validity of different kinds of data provide guarantee for the authority and validity of the results of the AMR.

### 3.4.3 Development history of index system

The calendar version of the London plan will be combined with the mayor's policy ideas, the monitoring index system will be modified and improved.

Since 2004, London has published 17 Annual Monitoring Reports. Among them, AMR1-7 corresponds to the 2004 edition of the Greater London Plan, which mainly established 28 monitoring indicators; AMR8-17 corresponds to the 2011 London Plan and is adjusted to 24 monitoring indicators; The AMR19 under preparation will correspond to the 2021 London Plan and be adjusted to 12 detection indicators. The indicators of the three editions of the London Plan have their own characteristics, but they can be roughly divided into housing and public services, the economy, the ecological environment, transport, history and culture, and other special issues.

Among them, from the 2004 edition to the 2011 edition of the London Plan, the index system is basically stable. There are mainly three changes: first, some indicators have been fine-tuned; second, the target values of some indicators have been raised; third, the corresponding relationship between indicators and planning objectives has been adjusted from one-to-one correspondence to cross-correspondence.

Starting from the 2021 edition of the London Plan, the index system has been greatly simplified: first, the indicators are completely organized according to special issues, and the corresponding relationship with the planning objectives is no longer expounded; second, the number of indicators is reduced to half of the original, and the indicators emphasized in other mayor's strategies or special policies are no longer mentioned; at the same time, in the selection of indicators, it is more pragmatic, more operable, and can better reflect the role of planning approval. The 2021 London Plan inherits only five indicators from the 2011 London Plan and introduces seven new key performance indicators. From the perspective of special issues, the replacement of its adoption indicators also reflects the change of the focus of planning.

This paper focuses on AMR 17 (Table 1), the latest Annual Monitoring Report published by the Greater London Authority in November 2022. The report continues the monitoring indicator system that has been in place since July 2011, using six strategic indicators and 24 key performance indicators. AMR17 monitored the implementation of the planning policies in the London Plan 2016 and progress towards the programme objectives between 1 April 2019 and 31 March 2020.

AMR19 to be released in the future, prepared from London in March 2023, for the first time uses the latest framework approved by the Mayor of London on 31 May 2022 and will oversee the London Plan published in March 2021. In the London Plan 2021, the "Good Growth" vision goal and six sub-goals are proposed for the first time, aiming at achieving socially and economically inclusive and environmentally sustainable growth. The plan proposes to continue to dynamically assess the sound growth of the city with Annual Monitoring Reports. and establish 12 core monitoring indicator systems covering 8 areas of housing, economy, environment, transportation, health, air quality, culture and heritage (Table 2). As can be seen from the new monitoring indicator system, in order to deal with the current "urban disease" problem, London particularly emphasizes the planning concept of sustainable development, the pursuit of high-quality development and quality of life improvement.

Number	Key Performance Indicators	Aim
1	Maximise the proportion of development taking place on previously developed land	Maintain at least 96% of new residential development to be on previously developed land
2	Optimise the density of residential development	Over 95% of development to comply with the housing density location and the density matrix
3	Minimise the loss of open space	No net loss of open space designated for protection in Local Development Frameworks
4	Increase supply of new homes	Average completion of a minimum of 42,000 net additional homes per year
5	An increased supply of affordable homes	Completion of 17,000 net additional affordable homes per year
6	Reducing health inequalities	Reduction in the difference in life expectancy
7	Sustaining economic activity	Increase in the proportion of working age London residents in employment
8	Ensure that there is sufficient development capacity in the office market	Stock of office planning permissions should be at least three times the average rate of starts over the previous three years
9	Ensure that there is sufficient employment land available	Release of industrial land to be in line with benchmarks in the Industrial Capacity SPG
10	Employment in Outer London	Growth in total employment in Outer London
11-1	Increased employment opportunities for those suffering from	(part 1) – Reduce the employment rate gap between Black, Asian

Number	Key Performance Indicators	Aim
	disadvantage in the employment market	and Minority Ethnic (BAME) groups and the white population
11-2	Increased employment opportunities for those suffering from disadvantage in the employment market	(part 2) – Reduce the gap between lone parents on income support in London versus the average for England and Wales
12	Improving the provision of social infrastructure and related services	Reduce the average class sizes in primary schools
13	Achieve a reduced reliance on the private car and a more sustainable modal split for journeys	Use of public transport per head grows faster than use of the private car per head
14	Achieve a reduced reliance on the private car and a more sustainable modal split for journeys	Zero car traffic growth for London as a whole
15	Achieve a reduced reliance on the private car and a more sustainable modal split for journeys	Increase the share of all trips by bicycle from 2% in 2009 to 5% by 2026
16-1	Achieve a reduced reliance on the private car and a more sustainable modal split for journeys	(part 1) – A 50% increase in passengers transported on the Blue Ribbon Network from 2011-2021
16-2	Achieve a reduced reliance on the private car and a more sustainable modal split for journeys	(part 2) – A 50% increase in freight transported on the Blue Ribbon Network from 2011-2021
17	Increase in the number of jobs located in areas of high PTAL values	Maintain at least 50% of B1 development in PTAL zones 5-6
18	Protection of biodiversity habitat	No net loss of Sites of Importance for Nature Conservation
19	Increase in municipal waste recycled or composted and elimination of waste to landfill by 2031	At least 45% of waste recycled or composted by 2015 and 0% of biodegradable or recyclable waste to landfill by 2026
20	Reduce carbon dioxide emissions through new development	Annual average % carbon dioxide emissions savings for strategic development proposals progressing towards zero
21	Increase in energy generated from renewable sources	Production of 8,550 GWh of energy from renewable sources by 2026
22	Increase in Urban Greening	Increase total area of green roofs in the CAZ
23	Improve London's Blue Ribbon Network	Restore 15km of rivers and streams 2009 – 2015 and an additional 10km by 2020
24	Protecting and improving London's heritage and public realm	Reduction in the proportion of designated heritage assets at risk

Table 1: Key Performance Indicators of AMR17. Source of information: the 17th Annual Monitoring Report

Number	Key Performance Indicators	Aim
1	Supply of new homes	Increase in the supply of new homes over the period (monitored against housing completions and the net pipeline of approved homes), towards meeting the 66,000 net additional homes needed each year up to March 2029.
2	Supply of affordable homes	Positive trend in percentage of planning approvals for housing that are affordable housing (based on a rolling average).
3	Supply of office capacity	Pipeline of planning permissions for office floorspace is at least three times the average office floorspace construction started over the previous three years.
4	Supply of affordable workspace	Positive trend in affordable B1 workspace as a share of total B1 floorspace in planning approvals (based on a rolling average).
5	Availability of industrial land	No overall net loss of industrial and warehousing floorspace in London (B1c, B2 and B8) in designated industrial locations (based on a rolling average).
6	Protection of Green Belt and Metropolitan Open Land	Harm to the Green Belt and Metropolitan Open Land prevented through the referred application process.
7	Carbon emissions through new development	Average on-site carbon emission reductions of at least 35%, compared to Building Regulations 2013 for approved referable development applications.
8	Modal share	Increasing mode share for walking, cycling and public transport (excluding taxis) towards the target of 80 per cent by 2041.
9	Londoners engaging in active travel	Positive trend in provision of cycle parking (based on a rolling average) to support the target of all Londoners doing two ten-minute periods of active travel a day by 2041.
10	Air quality	Positive trend in approved referable development applications demonstrating that they meet at least air quality neutral standard for emissions (based on a rolling average).
11	Impact of development on London's heritage	Positive trend in the reduction of harm and/or an increase in benefits to designated heritage assets in approved referable development applications (based on a rolling average).
12	Provision of cultural infrastructure	No net loss of culture venues and facilities* (based on a rolling average)

Table 2: Key Performance Indicators of AMR19 Framework. Source of information: the 19th Annual Monitoring Report Framework

### 3.5 System guarantee system

In terms of legal protection, the Annual Monitoring Report is authoritative and effective because it is guaranteed by a perfect legal system.

In terms of operation mechanism, the Annual Monitoring Report is a three-way collaborative assessment compilation mechanism led by local government departments and participated by social organizations and local departments.

Government departments are the main body of planning and evaluation, appointed directly by the mayor, and guide the relevant departments to carry out work, and each special department is responsible for the specific affairs in the corresponding field. The government makes decisions based on the evaluation results, and adjusts and improves the corresponding parts of the plan to ensure a good feedback mechanism.

Social organizations are mainly entrusted by government departments to provide technical services, participate in program discussions, and provide advice and guidance.

The community and local departments act as the grass-roots management bodies to implement the "top-down" views of the Government and collect the "bottom-up" aspirations of the public to form a bridge of communication between the two sides.

The participation mechanism of the three parties provides a guarantee for the continuous improvement of the planning evaluation system.

### 3.6 Monitoring process

Planning implementation in London is controlled through the issuance of permits, so most of the 24 monitoring indicators can be obtained directly from the builder's application for permission. For example, when the developer intends to build a residential development project, it needs to clarify whether the construction project uses the stock land for construction, whether it occupies open space, the relationship between the development intensity and the Public Transportation Accessibility Level (PTAL) in the region, and whether a certain proportion of affordable housing is built. Borough authorities will verify the accuracy of the data they fill in after applying for a street permit and will eventually upload the data to the London Development Database after granting the permit. Every year, the City of London will conduct a statistical review of the data collected by the London Development Database, and if there are abnormal data, it will ask the district government to re-verify the accuracy of the data.

In the whole process, the construction unit is responsible for data filling, the district government is responsible for data verification and approval of permission, the municipal government is responsible for data screening and feedback of abnormal problems, and finally data analysis and sorting (Fig. 1).

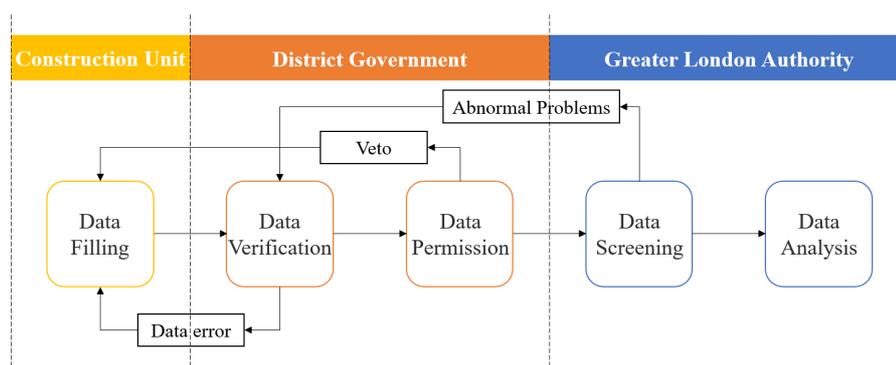


Figure 1: Monitoring processes and departmental responsibilities

## 4 PROGRESS AND PRACTICE EXPLORATION OF CITY EXAMINATION AND EVALUATION IN CHINA

### 4.1 Work progress

China attaches great importance to city examination and evaluation. In order to further strengthen the supervision and inspection of planning and improve the scientific implementation of planning, many cities have carried out relevant work of city examination and evaluation. Exploring the establishment of an city examination and evaluation mechanism of "one city examination in one year and one evaluation in five years" has kicked off the prelude of city examination and evaluation in China. In 2019, the Ministry of Housing and Urban-Rural Development selected 11 key cities such as Shenyang and Chengdu to carry out the pilot work of city examination and evaluation, and the sample size increased to 36 in 2020 and 59 in 2021, making good progress.

After entering the era of territorial space planning, city examination and evaluation work has been extended to the whole country. In 2020, the Ministry of Natural Resources deployed and carried out city examination and evaluation under the national land spatial planning system in 107 cities approved by the current State Council, in order to strengthen the supervision and management of national land spatial planning, and clarified the work requirements of "one city examination for one year and one evaluation for five years". In order to further standardize the city examination and evaluation work, the Ministry of Natural Resources

further strengthened cooperation with Beijing and other pilot cities, formulated and formed the City Examination And Evaluation Procedures for Cities in Territorial Space Planning (hereinafter referred to as the Evaluation Procedures), and issued the trial draft, approval draft and official draft of the Evaluation Procedures in October 2020, May 2021 and June 2021 (Fig. 2).

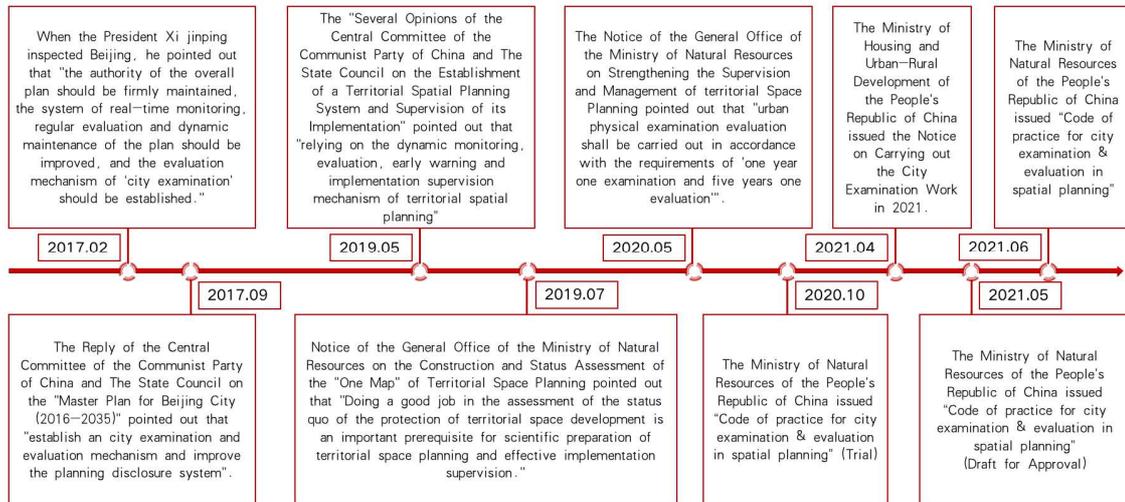


Fig 2: The development progress of China's city examination and evaluation

## 4.2 Index system

In the city examination and evaluation, the index system can directly reflect the implementation of the city's strategic objectives. Therefore, the index system largely determines the depth of city examination and evaluation. China has two policy documents guiding the establishment of the indicator system, respectively issued by the Ministry of Housing and Natural Resources, and the two documents guide the city examination work in different application contexts, with slightly different focuses.

In April 2021, the Ministry of Housing and Urban-Rural Development issued the "Notice on Carrying out City Examination Work in 2021", which clarified that the city examination index system in 2021 is composed of 65 indicators in 8 aspects: ecological livable, healthy and comfortable, safe and resilient, convenient transportation, features and characteristics, neat and orderly, diverse and inclusive, and innovative vitality. In July 2022, the Ministry of Housing and Urban-Rural Development issued the "Notice on carrying out City examination Work in 2022", which continued the eight aspects proposed in 2021, such as ecological livable, health and comfort, and the number was adjusted from 65 to 69, of which 22 items were added, 18 items were deleted, and 9 items were adjusted. The "Evaluation Procedures" issued by the Ministry of Natural Resources implement the national requirements, and build an indicator system with "safety, innovation, coordination, green, open and sharing" as 6 first-level categories, 23 second-level categories, and 122 indicators. Among the 122 indicators, 33 are basic indicators and 89 are recommended indicators. When carrying out city examination assessment, basic indicators are required, and recommended indicators are optional. In addition, indicators reflecting urban characteristics can be added [5].

With the advancement and deepening of city examination and evaluation, the construction of the national indicator system is diversified, based on local characteristics, and diversified indicators are expanded. For example, as the world porcelain capital, Jingdezhen has added 13 new characteristic indicators, including cultural protection, inheritance and innovation, and foreign exchanges, to focus on the two goals of the world porcelain cultural center city and the new humanistic city [6]. Shanghai city examination and evaluation explores the "linkage between city and district", emphasizing the establishment of a hierarchical and block system of city examination. On the one hand, it encourages the localization of indicators at the ministry and city level in combination with regional characteristics; on the other hand, it encourages the district-level characteristic indicator system based on its own characteristics. [7] For example, Chongming District of Shanghai puts forward a number of characteristic indicators such as "the number of waterfowl species accounting for more than 1% of the global population, the installed capacity of renewable energy, and the green food certification rate".

## **5 COMPARATIVE ANALYSIS OF THE UK'S "LONDON PLANNING ANNUAL MONITORING AND EVALUATION REPORT" AND CHINA'S "CITY EXAMINATION REGULATIONS FOR LAND AND SPACE MASTER PLAN"**

### **5.1 Key focus areas**

Looking at the key focus areas of the Monitoring Report and the Assessment Procedures, both of them are linked to the strategic needs and development concepts at the national level, the UK's Monitoring Report is linked to the six Grand strategy of the London Plan, and China's Assessment Procedures are linked to the five development concepts of "innovation, green, sharing, openness and coordination". However, there are differences in the content of planning and evaluation between the two, as evidenced by the fact that planning and evaluation in the UK focuses more on the needs of citizens, while in China it focuses more on policy needs and spatial control. As a developed country, the early industrialization of the UK was completed, and due to its high efficiency in urban governance, it has a high level of urban planning and management. In the process of planning and implementation, more emphasis is placed on relieving urban employment pressure, improving urban vitality, and advocating for citizen health, with a particular focus on social equity, providing more rights and protection for vulnerable groups and ethnic minorities. The corresponding indicators for the construction of city examination and evaluation revolve around issues such as housing security and poverty.

China advocates high-quality urban development and adheres to the development concept of "people-oriented". However, due to the rapid urbanization process of Chinese cities, there are many contradictions that need to be solved urgently [8]. In the formulation of the content framework of city examination, the focus is on the strategic positioning, regulatory structure, and spatial layout of the city, with strong constraints on the bottom line control of elements, and relatively weak support for the implementation of the supporting system and the implementation guarantee of planning. Therefore, the evaluation indicators for city examinations in China are more prominent in terms of "bottom line thinking", often using per capita values for calculation or the total amount and proportion within the city to characterize the specific indicator situation.

### **5.2 Data foundation**

The "Evaluation Regulations" are based on legal data of national land and space, including national land survey and annual change survey led by the natural resources regulatory department, special survey of natural resources, geographical and national survey and monitoring, aerospace remote sensing images, and other basic status data. Data on various levels of national land and space planning achievements, land use approval, land supply law enforcement supervision, and other management data are supplemented by relevant legal statistical survey data, including economic and social development statistical data, specialized survey statistical data from various departments, etc; Using spatiotemporal Big data as a reference, mobile signaling data, POI data, traffic IC card data, enterprise information, location services, lighting data, citizen service hotline data, etc. that are publicly released or legally obtained are used according to the relevant standards and regulations of the natural resources management department. For city examination and evaluation indicators, continuous data can be collected for many years to reflect the trend of changes in the indicators; For prominent issues, on-site special research can be conducted to grasp first-hand information; For public demands, various methods such as questionnaire surveys can be used to understand the issues and opinions on housing security public service facilities, municipal public facilities, and urban safety resilience in public spaces.

The Monitoring Report relies on the London Development Database collected by the Greater London Authority as a whole, and summarizes the data according to the corresponding indicators at different times and frequencies. The accuracy and timeliness of the data are fully guaranteed, which avoids some indicators in the Evaluation Procedures without data sources or data statistical caliber deviation, leading to data monitoring failure and disability. The Monitoring Report can truly achieve the goal of planning monitoring and avoiding future problems. Due to the failure to collect data in advance according to the Evaluation Regulations, it is often necessary to screen data on a large amount of data for city examination and evaluation, which affects work efficiency.

### 5.3 Evaluation index system

The indicator systems of the Monitoring Report and the Evaluation Regulations both cover aspects such as socio-economic, intensive resources, and ecological environment, and have put forward corresponding requirements in terms of public service layout, green transportation, cultural and historical heritage, etc. Both use time series to statistically analyze data and present multiple indicators in the form of evaluation and judgment tables, which can truly reflect the changes in indicators, closely connect with planning and control needs, and facilitate later analysis and summary, providing a judgment basis for early warning feedback in planning evaluation and monitoring. In addition, both of them follow certain data requirements, such as the fact that the data should truly describe the characteristics of indicators and have a certain degree of objectivity; The data should be easy to collect and update, with a certain degree of accessibility; The data should be easy to analyze, process, and quantify, with a certain degree of operability.

Due to the different national conditions between China and the UK, there are significant differences in the guidance and criteria for indicator evaluation and judgment due to the different feedback requirements for the implementation status of planning goals (Table 3). In terms of the orientation of indicator evaluation and judgment, the Monitoring Report emphasizes trend judgment and focuses on the expression of performance development status. Evaluation and judgment are generally expressed as different states such as "developing according to predetermined trends" and "developing towards opposite predetermined trends" [9]; The "Evaluation Regulations" emphasize result monitoring, focusing on a more clear progress situation, and emphasizing the progress completion of each indicator plan implementation. The evaluation judgment is generally expressed as "meeting the target direction, achieving good results" or "slow progress, requiring key progress". In terms of evaluation and judgment criteria, the "Monitoring Report" is guided by more flexible goals, focusing on preset development trends, and is a grasp of the overall performance development goals; The 'Evaluation Regulations' are evaluated based on more rigid standards, comparing the reported value of the evaluation year with the current situation value of the base year, and the planned value of the target year with the reported value of the previous year, with a focus on the differences with the planned target value.

### 5.4 Evaluation response mechanism

The main differences in the evaluation response mechanism between the Monitoring Report and the Evaluation Regulations are reflected in the dimensions of achievement application, the nature of the planning system, and the strength of supervision and implementation.

#### 5.4.1 Evaluation results application dimension

The Monitoring Report is mainly used to evaluate the effectiveness of the London Plan and its policies, including the progress of implementing the planning objectives and the effectiveness of the planning policies. Its evaluation content also needs to be consistent with the regional plans, mayors, council policy guidelines, and other content. The results of the Evaluation Regulations are mainly applied to comprehensive affairs such as planning approval, planning preparation, planning implementation, and planning management, Providing performance evaluation basis for natural resource management departments and related departments, supporting the preparation of the National Economic and Social Development Plan and the Government Work Report, is beneficial for the evaluation of planning implementation and the improvement of urban governance level.

#### 5.4.2 Nature of planning system

The 'Monitoring Report' belongs to the guiding planning system and belongs to the regional planning monitoring category in the UK planning implementation system. The annual monitoring report can serve as an important basis for local planning, conducting planning downward, and providing development guidance for local planning and community planning. The 'Evaluation Regulations' belong to the controlling planning system, Strictly control the bottom line control elements in city examination and evaluation, focusing on the "one map" of urban and rural construction land changes, as well as the basic geographical elements and analysis evaluation elements in the "one map" of each district's development. Through annual city examination and five-year evaluation, feedback is provided on the relevant content of overall planning, detailed planning, and even special planning.

### 5.4.3 Supervision and implementation efforts

The Monitoring Report can effectively and dynamically monitor the implementation of the plan. The reason is that the Greater London Authority Act clearly defines the mayor's responsibility for supervising the implementation of the London plan. It ensures the effective monitoring, assessment and review of the facts of the London Plan through top-level planning and clear laws and regulations, and also ensures the interconnection between the planning levels and types, It becomes the core basis for measuring regional planning and future policy directions, and has legal significance.

Content		The Annual Monitoring Report	City Examination and Evaluation In China
Data Sources		The London Development Database	Based on legal data of national territory and space
Data Description		Panel data of evaluation indicators over the years 2004-2020	Evaluation indicators: current status value of the base year, planned value of the target year, reported value of the previous year, and reported value of the evaluation year
Evaluation Description	Positive evaluation	Developing according to preset trends	Meets the target direction and completes well
	Negative evaluation	tends to develop in the opposite direction of presupposition	Slow progress, need to focus on progress

Table 3: Comparison between the "Monitoring Report" and the "Evaluation Regulations"

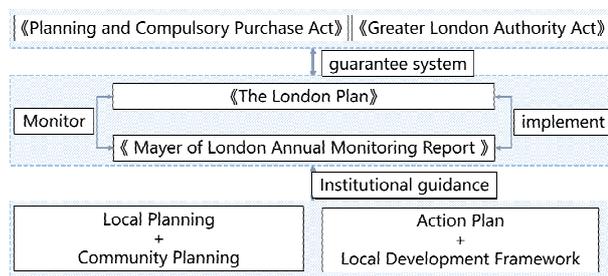


Fig 3: Monitoring Report Guarantee and Response Mechanism Diagram

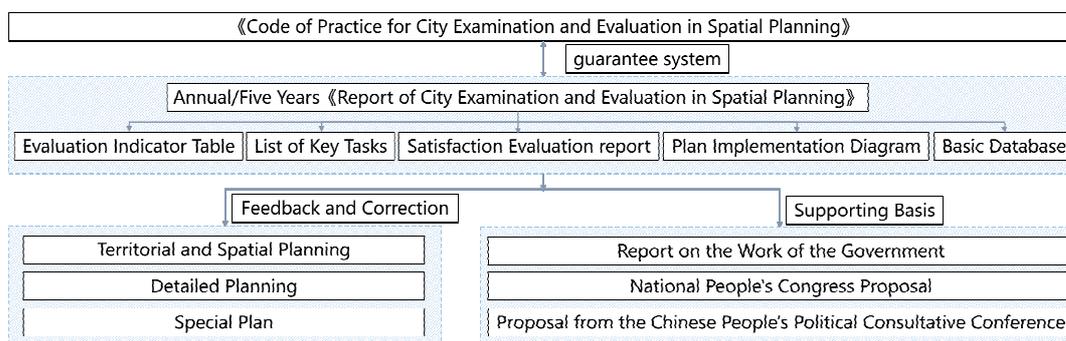


Fig 4: Guarantee and Response Mechanism for City Examination and Evaluation Reports

## 6 SUGGESTIONS FOR THE OPTIMIZATION OF CITY EXAMINATION IN CHINESE CITIES

Through the comparison of "Monitoring Report" and "evaluation procedures", it is found that London's urban planning monitoring and evaluation is advanced in the construction of dynamic monitoring system and the improvement of mechanism. Therefore, according to the current city examination work in our country, the following guidelines and suggestions are put forward.

### 6.1 Build a complete dynamic monitoring and evaluation system

At present, the city examination of urban planning in China is more focused on the analysis of data information, but lacks the monitoring of the implementation of specific policies. Therefore, it is necessary to further improve and supplement the supervision and feedback part, and gradually form the evaluation framework of "real-time monitoring – comprehensive judgment – feedback implementation – urban governance", so as to achieve an effective connection between territorial planning and city examination and evaluation. Thus, the integrity of urban planning evaluation is enhanced.

#### 6.1.1 Dynamic + normal city examination mode

City examination should focus on dynamic monitoring and evaluation, and build a full chain of dynamic city examination work process of detection – diagnosis – governance – review – monitoring – early warning, so

as to achieve effective integration of city examination, result feedback and urban management. Through the information system, a normal monitoring system of instant monitoring and alarm and timely correction is established, which is timely reflected to the relevant departments, creating a daily reward incentive mechanism for the construction of urban health, and reducing the passive, static and targeted city examination of "city examination due to needs". And according to the specific situation of the city to find the contrast gap, put forward the localization of the construction path. It has gradually shifted from focusing solely on data and indicators to focusing on all aspects of policy making and decision-making.

### 6.1.2 Multi-level connection and coordination

In addition to the scope of city and district level assessment, the scope of city examination will gradually sink from the city to the micro-scale of streets and communities, and establish a multi-level assessment model of "city – district – street – community", which will also improve the ways and methods of social organizations to participate in urban management. The micro-scale evaluation of towns and communities can reflect the actual needs of the masses, more fully show the construction dynamics of the project, and thus improve the effectiveness of city examination and evaluation. In addition, the connection and coordination with the evaluation work at all levels is becoming more and more important, so it is necessary to pay close attention to the establishment of the provincial and even regional city examination information platform, while doing a good job with the provincial city price increase information system connection and coordination, so as to enhance the stability of city examination and evaluation.

### 6.1.3 Improve the multi-subject participation mechanism

In addition to the public satisfaction survey and third-party city examination, we will expand more channels for social subjects to participate, and deeply adopt the opinions and suggestions of experts, scholars, representatives of social groups and the masses, so as to effectively reflect the needs of the people and social concerns. Government departments should actively stimulate the initiative of social subjects in the promotion of work, and promote the normal development of city examination more efficiently; In the process of data collection, actively coordinate the staff of the city examination department to maintain the authority and credibility of the data; In the publicity of the work, we will take the initiative to invite representatives of well-known enterprises, experts and scholars in universities and the general public to participate in the city examination work and offer suggestions for urban construction. Grass-roots people should participate in or assist the investigators in the city examination survey, and actively respond to the evaluation of livable conditions and living needs; In terms of reflecting the situation and improving opinions, the government departments' information websites and other formal channels are used to reflect the construction situation or provide improvement opinions.

## 6.2 **Integration of city examination objectives**

### 6.2.1 Strengthen implementation orientation

The strategic goal of London's urban planning monitoring and evaluation has changed from problem-oriented to opportunity-oriented, and there are two main types of city examination in China at this stage, one is the city examination carried out by Beijing and Shanghai, focusing on the implementation of the urban master plan, which is similar to the London's urban planning monitoring and evaluation [11]. The other type is represented by the city examination of the current status of urban development conducted in Guangzhou and Chongqing, which focuses on the problem orientation. The technical framework of dynamic monitoring and evaluation corresponding to different types of city examination is different, and the two should not be confused. Cityexamination for urban development problems has problems such as a huge workload of city examination, the need to collect a large number of city-related data, and sometimes there are conflicts and missing data. The focus of city examination is often biased to a certain aspect of the city, forming a problem of partial overview. The dynamic monitoring for planning and implementation has stronger purpose, more targeted operation, and easier to control the direction of city examination. Therefore, we should strengthen the goal orientation and use development goals to lead the promotion of cityexamination.

### 6.2.2 Multiple guidance support

In view of the advantages of the city examination index system with flexibility and broad application basis, it can continue to enhance the comprehensive service guarantee ability of city examination and evaluation, and

according to the needs of government policies and departments at all levels, according to the social political and economic conditions of high-quality urban development, urban and rural construction management, urban service facilities and many other management and service requirements. Combined with the evaluation requirements of social and economic planning, territorial spatial planning, urban construction planning, environmental protection planning, etc., on the basis of the concept of comprehensive integration of city examination, a support system with multiple guiding functions is further formed to promote the healthy and high-quality development of the city .Relying on the multidimensional orientation of the indicator system, we will develop a more stable and extensive support system [12].

### **6.3 Optimize the index system**

#### **6.3.1 Widening of data sources**

City examination and evaluation should combine traditional economic and social data, including social and economic data, territorial spatial survey data and urban big data, such as mobile signaling data, government data, POI data, LBS data, enterprise information, traffic data and social media data, street view data, remote sensing data and lighting data .In addition, combining with social satisfaction survey, the rational objective data and perceptual subjective survey are integrated. Promote the construction of intelligent data network platforms, efficiently integrate multi-source data information, and promote resource sharing among departments and even for the public. In addition to economic and social macro data sharing, explore the addition of new projects, new facilities and other functions in the information platform to provide more effective information support for the calculation of city examination indicators. Through the use of advanced means such as big data analysis, artificial intelligence, and digital services, the accuracy and scientific nature of city examination assessment are enhanced to achieve real-time dynamic monitoring of urban healthy development [13].

#### **6.3.2 Indicator content deepening**

The types of ecological monitoring indicators of London's urban planning monitoring and evaluation are constantly expanding. In order to realize China's ecological civilization construction, respond to the transformation and change of sustainable development, combined with the strategic requirements of ecological priority and green development in territorial spatial planning, natal-based solutions related indicators can be added to the ecological livable dimension, focusing on carbon emission reduction, green infrastructure construction and other aspects. The index system will be deepened and supplemented from the directions of industrial structure upgrading, urban green construction, and residents' green life .

At the same time, according to the changes in the external environment of urban development, urban landscape style, and the requirements of the upper planning, the city examination and evaluation index system of various places is dynamically adjusted to objectively and completely reflect the different characteristics of each stage of urban development, and provide data support for the research and evaluation of the weak links in the implementation of planning. For large cities with good economic development background, incremental changes should be highlighted in the long-term planning, and micro-indicators such as "new projects" and "new facilities" can be added to the index system as a supplement to macro-economic and social monitoring indicators .

#### **6.3.3 Improve database construction**

The desirability and completeness of city data determine whether the city examination is carried out smoothly. Without accurate, complete, continuous and desirable urban data, it is impossible to judge the direction of urban development or the implementation of urban facilities. With reference to the construction mode of London development database, urban construction data of different regions, different levels and different fields of the city should be collected regularly through the city examination data information platform to ensure the desirability and continuity of urban dynamic monitoring data. The city database should be connected with the geographic information system (GIS), and the relevant special visual analysis can be carried out through GIS, and the multi-city data management system can be formed by using other data sources. The urban operation monitoring intelligent platform based on the urban database can monitor the urban operation status and urban disaster early warning in real time, and improve the safety and resilience of the city.

## 7 CONCLUSION

This article focuses on comparing the planning and evaluation of China and the UK, summarizing the historical evolution and development characteristics of planning monitoring and evaluation in the UK. It also explores the research progress and practical exploration of urban health examination and evaluation in China. By comparing and analyzing the "Monitoring Report" and "Evaluation Regulations", optimization suggestions are provided for urban health examination and evaluation in China.

In the future, China's city examination and evaluation needs to pay more attention to: (1) optimizing the city examination indicator system, and selecting indicators should consider objectivity, accessibility, and operability, which can effectively reflect the strategic direction and overall goals of the city (some indicator data is difficult to obtain). Establish corresponding city examination databases (2) Improve the framework of planning and evaluation content, and enhance the comprehensiveness of planning and evaluation. (3) Clarify the criteria for planning evaluation and analysis, ensure the effectiveness of planning evaluation implementation, and improve the top-level design level of planning. (4) Improve the planning monitoring and evaluation system, and enhance the implementation of planning decisions. (5) Improve the application methods of city examination results, so that planning and evaluation can be effectively monitored and monitoring results can be obtained.

By comparing the development process of planning and evaluation in the UK, the following three aspects of city examination and evaluation experience can be obtained: in terms of evaluation orientation, it is necessary to establish a goal orientation that varies from city to city, establish a clear and identifiable problem orientation, and establish an effective result orientation; In terms of indicator system, the breadth of data sources should be expanded, the depth of indicator judgment should be strengthened, and the validity of comprehensive data should be improved; In terms of evaluation mechanism, it is necessary to consolidate the foundation of real-time monitoring, improve comprehensive judgment ability, improve feedback implementation system, improve urban governance feedback mechanism, and form a closed-loop system from real-time monitoring, comprehensive judgment, feedback implementation to urban governance evaluation.

## 8 REFERENCES

- [1] Zhou Zhutian, Zhai Guofang, Shi yijun. Index Monitoring Framework and Implications of British Spatial Planning[J]. *Urban Planning International*, 2018(5): 86-93
- [2] Zhang Jie. An Empirical Study of Development Planning Under the System of 2004 in the United Kingdom – A Case Study of England [J]. *Urban Planning International*, 2015(1): 78-83
- [3] Wang Jun, Chen Xi. About the mechanism of planning evaluation in the western countries: Conception, content and evolution of solution. *Urban Planning International*, 2011, 26(6): 78-83
- [4] Greater London Authority. The London Plan 2021 [Z]. 2021.
- [5] The Ministry of Natural Resources .Procedures for City Examination and Evaluation of Cities in Territorial Space Planning[S].2021
- [6] Shang Yanran, Zhao Lin, Feng Yu etc. Methods and practical exploration of assessing the status quo of territorial space development and protection -- A case study of Jingdezhen City, Jiangxi Province [J]. *Urban Planning Forum*,2020(06):35-42.DOI:10.16361/j.upf.202006005.
- [7] Wu Giang, Wang Xin, Chen Ye etc. The challenge of urban city examination in megacities and its practice in Shanghai [J]. *Urban Planning Forum*,2022(04):28-34.DOI:10.16361/j.upf.202204003.
- [8] Zhang Yichun, Tang Chenghui, Xu Shuncai, et al. The Historical Evolution and Spatial Logic of Urban Agglomeration Spatial Planning in China: Based on the New National Spatial Perspective [J]. *Urban Planning*, 2021 (5): 21-29
- [9] Zhou Yanni, Jiang Tao, Song Xiaojie, et al. International experience and inspiration from the annual planning implementation evaluation in the UK [J]. *International Urban Planning*, 2016 (3): 98-104
- [10] Zhan Meixu, Liu Qianqian, Huang Xu, et al. New Mechanisms and Paths for Modernization of Urban Governance from the Perspective of Urban City Examination [J]. *Geographic Science*, 2021 (10): 1718-1728
- [11] Shen Shuai is handsome, Wang Zheng Inspiration of London's annual monitoring report on city examination in China [C]//Urban Planning Society of China, Chengdu Municipal People's Government. *Proceedings of 2021 China Urban Planning Annual*. China Building Industry Press, 2021: 77-86. DOI: 10.26914/c.cnkihy.2021.026637
- [12] Hu Bingxuan Research on optimization strategy of city examination and assessment system from the perspective of holistic governance [D]. *China Academy of Urban Planning and Design*, 2022. DOI: 10.27482/d.cnki.gzgz.2022000005
- [13] Shan Zhuoran, An Yuehui, Yuan Man, et al. Comparative Analysis and Policy Suggestions on City Examination Evaluation in China and the UK [J]. *Planner*, 2022,38 (03): 53-60