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The Land Management Pattern in "Green Heart" Area

—A Case Study of Changsha – Zhuzhou – Xiangtan Urban Agglomeration

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Abstract By analyzing the status quo of land resources in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration, and problems existing in land management, this article puts forward some countermeasures and proposals as follows: establish new land management mechanism in "green heart" area; based on land planning, "green heart" overall planning and policies and regulations, manage land and promote the protection of urban ecological environment.

Key words "Green heart", Land management, Land use, Ecology, Changsha – Zhuzhou – Xiangtan urban agglomeration

The "green heart" area refers to the native ecological area naturally formed between cities or cities and suburbs. In general, it is the unique scenery belt with interweaved natural landscape of forests, mountains and rivers, therefore, "green heart" of the city is often figuratively described as the city's back garden. In order to forge "green heart" into the city's ecological regulation center, the hub of integrated urban-rural areas, public vacation and leisure center, the current practice at home and abroad, is to focus on protection, carry out moderate development and construction. However, in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration, due to the lack of unified planning and effective management mechanism, the land resources are at the edge of management, resulting in the loss of land resources, and even the ecological crisis of "green heart" area. Based on this, by analyzing the status quo of land resources in "green heart" area and problems in land management, we propose to establish new mechanism of land management in "green heart" area, coordinate land management based on land planning, overall "green heart" planning, policies and regulations, in order to provide reference for ecological protection in urban areas. The "green heart" area involved in this study is the area crossing the administrative boundary of Changsha City, Zhuzhou City, and Xiangtan City^[1-2].

1 The status quo of land resources in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration

Changsha – Zhuzhou – Xiangtan "green heart" area takes the boundary of the current urban areas in three cities as benchmark, with the area of about 545 km² (Changsha City, 323.67 km², 59.4%; Zhuzhou City, 81.66 km², 15.0%; Xiangtan City, 139.67 km², 25.6%) (Fig. 1). Abundant natural resources gather in Changsha – Zhuzhou – Xiangtan "green heart" area, including Zhaoshan Forest Park, Shiyianhu Forest

Park, Wuyunfeng Forest Park, Fahuashan Forest Park, Jinxiashan Forest Park, Xianrenza Reservoir, Wuyi Reservoir, Hongqi Reservoir, Taigao Reservoir, Tongsheng Lake, Yangtian Lake, and other resources.

Due to historical factors, in "green heart" areas of Changsha City, Zhuzhou City and Xiangtan City, the status quo of extensive market management and disorderly industrial development causes more and more land space to be inefficiently utilized, resulting in massive destruction of forest resources and general decline in farmland quality. The land management mode of each doing things in one's own way in "green heart" area leads to inefficient management system, lack of strategic considerations, lack of lack of implementation strategies, insufficient degree of supervision, lack of legal protection and policy support, other issues.

As to the current management system, since the "green heart" areas of Changsha City, Zhuzhou City and Xiangtan City cross the administrative boundary (marginal area) of Changsha City, Zhuzhou City and Xiangtan City, administered by the management departments in the three cities, there are many internal contradictions of development arising from cross management. In the light of current construction and development, the cases of inefficient development of land have a certain proportion. The new land developed and constructed occupying the ecological protection land is the major problem faced by ecological protection in "green heart" area. With the rapid development of Changsha City, Zhuzhou City and Xiangtan City, the land resource is becoming a major limiting factor for further development of cities, and the "green heart" area becomes the focus of land development in the three cities, which is the land resource expropriated easily and used well. Driven by various interests, considerable land in "green heart" area is occupied disorderly.

2 Land management problems in Changsha City, Zhuzhou City and Xiangtan City

2.1 It lacks strategic consideration

2.1.1 It lacks unified management. Multi-department management is a difficulty of management in "green heart" area.

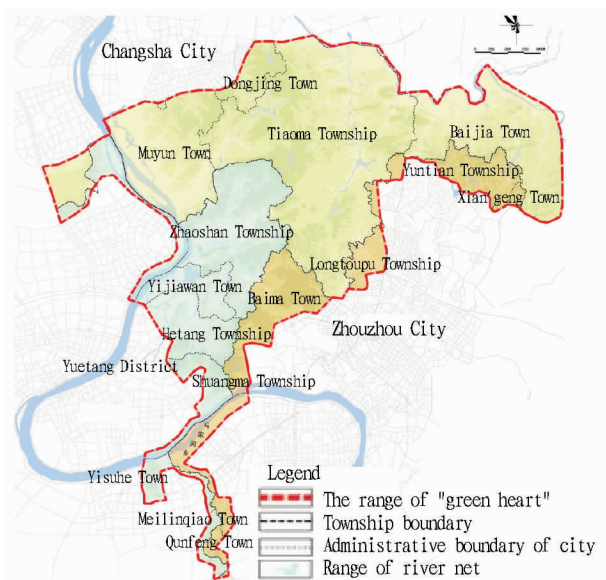


Fig. 1 The "green heart" range and geographic location of Changsha - Zhuzhou - Xiangtan urban agglomeration

The "green heart" area, with complex administrative division, is located in the junction of Changsha City, Xiangtan City, and Zhuzhou City, involving the constraint of management crossing of many departments and other factors. Coupled with the lack of legal basis in environmental protection, construction and management, many problems and conflicts arise in protection and management in inter-administrative regions, leading to disorderly construction and management in "green heart" area, and great difficulty in unified management and coordination^[3].

2.1.2 It lacks coordinated planning. The land within "green heart" area is composed of farmland, woodland, lakes, rivers and many other different types of land, which is under the jurisdiction of different departments^[4]. For example, the woodland is managed by wood farm or forestry departments; lakes and rivers are managed mainly by water conservancy departments; farmland is related to agricultural production, and the intervention of agricultural sectors. These departments work out a variety of development plans and management strategies respectively, and it lacks communication between these departments, so that the management in entire region lacks coordinated planning. At the same time, in terms of the planning of these developments, there is blind spot.

2.1.3 The division of functions of various departments is not clear. The departments of land planning and management, as formulation organizations and management departments of urban and rural land planning, should give unified consideration to the development of urban and rural planning. At the same time, these departments should set management authority on urban and rural development space, implement division of functions in various departments in the management areas provided by *Land Management Law* and *Urban and Rural Planning Act*. However, no matter whether it is the actual binding force of land management departments on urban and rural land, or the management authority of planning and management depart-

ments on urban and rural planning areas, it lacks clear management responsibilities and administrative authority in the vast areas outside the cities, residential areas, and planning areas, resulting in extensive land management mode in part of the "green heart" areas^[5-6].

2.2 Flaws in the planning control system

2.2.1 Flaws in the current planning system. In the current planning system and technology, for the disposal outside the urban planning areas, the overall urban planning often leaves "blank", or just generally designates the scope of urban water source regions, rivers, ecological corridors and other land use types. And there are no specific controlled provisions in land use planning^[7]. As for the demarcation of ecological corridor boundary in "green heart" area, the research of internal situation and specific protection measures are required to be solved in the statutory planning at the next level-detailed controlled planning. However, by reviewing the detailed controlled planning, we find that the protection of non-urban-planning areas is almost vacant in detailed controlled planning. What the detailed controlled planning pays attention to is urban construction land, rather than the land outside the urban planning areas^[8]. Even in Shanghai, Guangzhou and other developed domestic cities, the full coverage of detailed controlled planning under implementation is only the full coverage of the construction land within urban administrative areas, rather than the full coverage of all regions in a true sense^[9]. Therefore, from the perspective of "green heart", as to the traditional planning, no matter whether it is conceptual planning or controlled planning, there is a problem of laying stress on urban construction land but ignoring the ecological land in "green heart" areas. The traditional ecological management model is difficult to manage the "green heart" area, and simply focuses on the planning scheme of "protection", but it cannot be really carried out, failing to resolve the conflict between "construction" and "protection" of ecology in "green heart" area.

2.2.2 Flaws in planning element control system. The "green heart" area is devoid of the planning element control system suitable for itself. Limited by the formulation content and depth of urban overall planning, it just roughly delimits the ecological corridor and the general control requirements, but fails to establish the corresponding control system. The boundary of ecological corridor land and control requirements determined by the overall planning cannot be reflected in the planning at the next level. Although the spatial planning of "green heart" area only advances hierarchically control area at different levels, it is not enough in terms of control.

2.2.3 Flaws in supervision and feedback system. The "green heart" area lacks detailed land use information, effective planning monitoring and supervision technology, therefore, it is difficult to carry out effective supervision over land use. The major organizations and residents using land in "green heart" area are rural residents, and the local people lack awareness of supervision. Coupled with the imperfect system of public participation, the local residents, to some extent, benefit from eroding the ecology in "green heart" area, and thus it is difficult for them to

take the initiative to carry out supervision and feedback on the land use direction and planning in "green heart" area.

3 Analysis of the establishment of land management mode

3.1 Establish and improve the implementation system of land planning and management Taking ecological protection as the main goal, the "green heart" area poses higher requirements on implementation of the projects of all internal interest and development subjects. The land use structure and distribution in "green heart" area is seen in Table 1.

Table 1 shows that the main land within "green heart" area

Table 1 The land use structure and distribution in "green heart" area

| Land type | Area//km ² | Percent//% | Distribution |
|--|-----------------------|------------|---|
| Woodland | 256.81 | 47.10 | It is distributed in reservation parks and scenic spots within area. |
| Farmland | 166.23 | 30.50 | It is distributed in every township. |
| Township and village construction land | 53.12 | 9.74 | It is distributed in every township. |
| Urban construction land | 16.54 | 3.03 | It mainly concentrates in organic towns. |
| Water area | 44.05 | 8.08 | It is distributed in every township without regularity. |
| Other land | 8.50 | 1.55 | It is distributed in marginal area of "green heart" without regularity. |

In order to make the implementation of the land planning effective, we must regulate the examination and approval process of planning; improve examination and approval supervision mechanism according to law; increase the transparency of management; propel the transformation of government functions and management innovation; perfect the management system; strengthen the examination, approval, inspection, supervision and management of construction land in "green heart" area, in the process of acting in concert with the management of the urban construction project according to the adjustment of the department functions; ensure that the land in "green heart" area is developed moderately, and leaves margin at the same time.

We can also formulate *Land Use in "Green Heart" Area and Overall Spatial Control Planning in "Green Heart" Area*, to implement collaboration and supervision relationship; establish pre-formulation and post-formulation supervision and manage-

includes ecological woodland (mountain) , farmland, construction land for urban and rural residential areas, water area and so on. We should work out reasonable protection and construction planning in "green heart" area, effectively control various types of land use pattern, ensure that the implementation of land management has basis, establish rules of planning and management, strictly control the entry threshold of new projects, and control the intensity of land development and utilization, based on the status quo of "green heart" in all regions and orientation after scientific verification, in order to ensure the rationality of approval basis, actively protect the existing arable land, and reasonably develop the land^[10].

ment mechanism; in the mean time, try to establish stable special management institutions; establish regular reporting system to evaluate greening construction, achieving the purpose of managing and supervising the implementation of "green heart" planning^[11].

3.2 Adopt the land management mode of cross-administrative division The system innovation is the sufficient condition for achieving the goal of development in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration. In terms of the land management pattern, for the ecological areas that develop crossing regions, by virtue of two ways (cross-administrative division and coordination by higher authority) , we can solve issues concerning development in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration. The specific information about the two kinds of land management pattern can be seen in Table 2.

Table 2 Comparison between two land management modes

| Land management mode | Nature of organization | Means of management | Departments of examination and approval | Management and supervision |
|----------------------|---------------------------|-----------------------------|---|--|
| Cross-regional mode | Authorities | Administrative management | The higher-level government | The government newly established |
| Coordination mode | Coordination organization | Coordination and management | The governments in three cities | The organizations subordinate to three cities in assisting management. |

3.2.1 The mode of cross-administrative division (Cross-regional mode). The cross-administrative division can be divided into "gathering mode" and "dispersion mode".

"Gathering mode" is that according to the "green heart" area newly established in Changsha City, the towns originally under the jurisdiction of three cities within "green heart" area, are put under administration of Changsha City. The government in "green heart" area newly established fulfills the functions of land planning, land management and farmland protection; in-

ternally implements the land policies and land environment protection measures of the central government and the provincial government; improves the efficiency of administrative management and utilization efficiency of funds for environmental management; carries out unified planning, unified protection, and unified management on the land within "green heart" ecological area.

"Dispersion mode" is that the administrative division of "green heart" area is changed so that the "green heart" area is independent of three cities, and the "green heart" area be-

comes special district that is managed directly under authorization of the provincial government, namely "annulling the cities to turn into bureau". The "green heart" area is no longer managed directly by three cities, but forms a special district managed independently, and the management bureau of land and ecological protection directly under the jurisdiction of provincial government is established. The management bureau newly established coordinates ecological protection in ecological preservation area, protection of natural resources, development and utilization of tourism resources, providing public service, and other functions. The township-level government within "green heart" area is under the jurisdiction of the government newly established, whose function of implementing supervision and management remains unchanged.

3.2.2 The mode of coordination by higher authorities (Coordination mode). The mode of coordination by higher authorities is to strengthen the degree of coordination by higher authorities on the basis of the current system, to implement the land management in "green heart" area. This management system can promote regional economic integration, and provide cross-administrative public services, so that different governments crossing administrative division and administrative levels strengthen cooperation between each other, and non-governmental organizations are attracted to participate, thereby forming multiple cooperative governance mechanism.

Within the "green heart" area, the focus of this land management mechanism lies not in the adjustment of administrative division, but in strengthening the coordination between governments at the same levels and different levels within the "green heart" area, under the premise of not changing the original mode of administrative division; in conforming to the need for integration of ecological protection of land in "green heart" area. The mechanism of cooperation between governments at all levels crossing the administrative regions, both fulfils the obligation of cherishing and rationally using the land in "green heart" area, and gives full play to the direct monitoring role of local government.

Therefore, the cross-regional management mode of land in "green heart" area, should establish unified systematic architecture, so that all parts participate in it, strengthen cooperation, and carry out joint governance (Fig. 2).

4 Conclusions and proposals

For the "green heart" area, both coordinated cross-regional development of land and the implementation of related planning of land, are complex tasks, and it requires us to use comprehensive regulatory policies concerning space, society, economy and other aspects, to achieve the goal of holistic regional development. The purpose of working out regional collaboration system in terms of land space, infrastructure, industrial access and other aspects, is to provide strategic policy framework and related legislation for planning, development and regulation in Changsha City, Zhuzhou City and Xiangtan City through regional collaboration system; provide guarantee for rational allocation of land resources within the region;

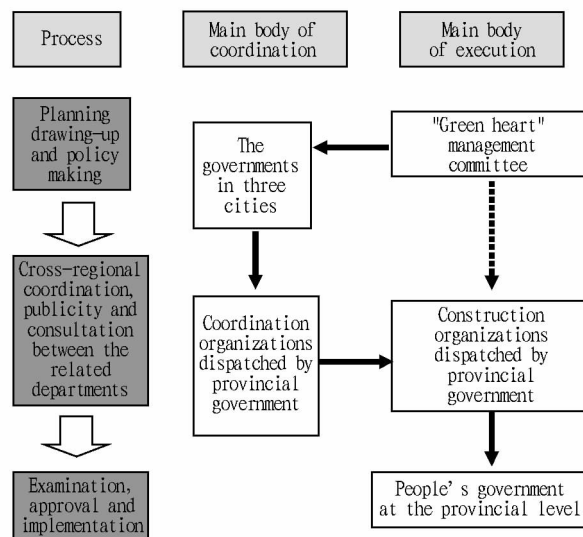


Fig. 2 The cross-regional land management mode in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration

achieve all-round cooperation and win-win situation.

According to the principle of protection and moderate development in "green heart" area, for the overall spatial planning and itemized land planning management system within "green heart" area, we should take full account of the high-degree unity of development and construction within "green heart" area. The "green heart" planning management committee should organize all departments in three cities to jointly formulate and implement the overall planning and special land use planning in "green heart" area of Changsha – Zhuzhou – Xiangtan urban agglomeration, on the basis of consultation. The planning should be organized by "green heart" management committee organization, and the program should be submitted to provincial planning and construction management departments for inspection and examination. After it is publicized to the public, it should be reported to the provincial government for approval.

The "green heart" planning management committee should work out the delimitation method and technical specification of the land (space) control area, to guide the work of delimitation of spatial control area. According to the requirements and scheme proposed by Changsha – Zhuzhou – Xiangtan regional planning, the "green heart" planning management committee determines the spatial control scope. After it is examined and verified by the particular agency dispatched by the provincial government, the views of experts and the public are sought according to law, and finally it is examined and approved by the provincial government.

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3 Conclusions

We explore values and methods of public participation in land use planning through analysis on values of public participation and case of Ji'an County in Jiangxi Province. Implementing the public participation in the land use planning, especially introducing the public participation in the decision-making of planning, plays an active role in improving democratic, scientific and practical property of the land use planning. The public participation of land use planning should combine with Chinese actual conditions at present stage. The government should bring into play its leading function, actively grant powers, guide the public participation from the top to bottom, and gather wisdom of the public from bottom to top. In addition, it is required to improve the methods and skills of public participation in land use planning, to achieve continuous participation as early as possible and raise validity of the public participation.

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