

Developing Rural Life Circles for Urban-Rural Integration: Values, Challenges, and Planning Reflections

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Abstract

Developing rural life circles is a fundamental basis for rural revitalization and a strategic support for urban-rural integration. Existing theoretical discussions and planning practices concerning rural life circles are mostly confined to micro-community scales or internal rural systems, and insufficiently recognize their value and significance under the broader orientation of urban-rural integration. From the perspective of integrated urban-rural development, this paper proposes an analytical framework for rural life-circle construction. It argues that rural life circles should be understood as having comprehensive connotations and strategic significance. Such an understanding requires attention to changes in urban-rural relations, structural transformation in rural life systems, and the value of rural life circles in territorial functions and spatial organization. Rural life circles oriented toward urban-rural integration are characterized by the dynamic openness of urban-rural systems, the compound nature of multiple types, functions, and scales, and regional differentiation in spatial organization. Under changing urban-rural relations, rural areas face challenges including population decline and social restructuring, shifts in production and living patterns, and the reorganization of urban-rural territorial spatial systems. The paper concludes with planning reflections that address uncertainty in rural development, structural changes in agriculture, rural areas and farmers, the reconstruction of rural spatial patterns, and the trend toward two-way urban-rural mobility.

Keywords

Rural life circles; urban-rural integration; openness; multi-type; multi-scale; differentiation

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Introduction

Urban-rural integration is an inevitable requirement for advancing Chinese modernization, resolving issues concerning agriculture, rural areas and farmers, and promoting high-quality urban and rural development. Since the 16th National Congress of the Communist Party of China, policies on urban-rural relations have been deepened continuously. From the Rural Revitalization Strategy proposed at the 19th National Congress to the further emphasis at the Fourth Plenary Session of the 20th Central Committee

on "making up for shortcomings in modern rural living conditions and creating high-quality rural living spaces", national policy has consistently expressed a strategic orientation toward rural development and improvement of rural quality of life. In this context, the high-quality construction of rural life circles has become an important spatial pathway for promoting urban-rural integration, improving rural livability, and enhancing overall rural functions.

Current theoretical discussion and planning practice concerning rural life circles are mostly limited to the micro-community scale or to internal rural systems. Their value and significance in broader processes, such as urban-rural territorial functions, spatial organization, and factor flows, remain insufficiently understood. The high dispersion, low density, and differentiation of rural living spaces mean that rural life circles cannot simply replicate urban life-circle models. They must be placed within a continuous, open, and dynamically evolving urban-rural system, with urban-rural integration as a strategic orientation, in order to reassess their value characteristics, spatial organization, and governance logic. Based on this perspective, this paper attempts to build an analytical framework for rural life circles oriented toward urban-rural integration. It examines their value, the challenges they face, and planning responses, with the aim of informing related theory and practice.

1 Urban-Rural Integration and the Value of Rural Life Circles

1.1 Planning Practice and Cognitive Limitations of Rural Life Circles

The concept of the life circle originated in Japan in the 1960s and later spread to other Asian countries and regions. Its meaning can be understood in both broad and narrow senses [1]. In the broad sense, a life circle is a territorial functional system formed to meet residents' diverse activity needs beyond the community scale. It carries the connotation of improving the quality of the living environment across a wider area. Spatially, it has functional layers and can include community life circles, basic life circles, commuting life circles, extended life circles, and coordinated life circles between metropolitan areas [2-4]. In the narrow sense, a life circle is generally understood as a community life circle, the basic spatial unit for creating community life and sharing public services [5-7].

With the transformation of China's urbanization stage, strengthening community life-circle construction, represented by the Shanghai 2035 Master Plan, has become an important strategy for changing urban development models and promoting high-quality development and high-quality life. Research on the distribution of community facilities from the perspective of residents' needs and spatio-temporal behavior, and exploration of the basic units of urban life and community planning, embody people-oriented and life-oriented planning principles. They have become important areas of urban and rural planning research and practice. Shanghai first issued the *Guidelines for 15-Minute Community Life Circle Planning in Shanghai (Trial)* in 2016 [8-9]. In 2018, the revised national *Standard for Urban Residential Area Planning and Design* replaced the traditional hierarchy of "residential district, residential neighborhood, and residential group" with the life-circle concept, marking an important shift in planning ideas and methods. Local governments subsequently refined and specified their own life-circle construction guidelines and explored life-circle planning practice.

Against the background of the national Rural Revitalization Strategy, rural life circles were introduced into rural areas and applied to rural planning as units for optimizing urban-rural public service systems and resource allocation [10]. They have become an emerging research topic, with studies focusing mainly on hierarchical division and optimization of public service facility allocation. In 2019, Shanghai

took the lead in launching the preparation of the *Shanghai Rural Community Life Circle Guidelines*. In 2021, it issued China's first planning guideline for rural community life circles and began pilot work [11]. The *Technical Guide for Community Life Circle Planning*, issued by the Ministry of Natural Resources in 2021, also included content on rural community life circles [12].

Overall, current life-circle planning practice is concentrated primarily in urban communities. Systematic research and understanding of the characteristics, functions, and spatial organization of rural life circles remain limited. These limitations are mainly reflected in three aspects.

First, rural life circles are often treated as equivalent to urban community life circles. This overlooks the inherent differences between rural and urban life systems, and pays insufficient attention to the dispersion, low density, imbalance, and travel patterns of rural residents. For example, standardized public service arrangements based on "5-10-15-30 minute" scales [13-16] may ignore the spatial differentiation, functional complexity, and diversified needs of rural areas.

Second, rural life circles are often regarded as relatively independent systems. Their construction is mostly confined within the rural interior, for example through layouts based on "township-market town, village-group" or "administrative village, natural village". This neglects the openness of rural life systems and the increasingly extensive connections between urban and rural areas.

Third, the construction of rural life circles is often narrowed to the allocation of rural public service facilities. More attention is paid to the static spatial layout of facilities, while the integrated functions of rural "production, ecology, and life" and the decisive influence of non-spatial factors on rural communities are underemphasized.

In practice, the understanding and application scale of rural life circles remain mostly micro-level. The macro processes and impacts of changing urban-rural territorial functions are insufficiently understood and lack dynamic thinking. In particular, many rural areas are experiencing population decline, changes in urban-rural relations, social restructuring, and shifts in production and living modes. These dynamic factors create challenges that rural life-circle construction and planning practice must confront.

1.2 The Comprehensive, Foundational, and Strategic Nature of Rural Life Circles

Urban-rural integration is the necessary path of rural revitalization, and it also provides the basic perspective and value orientation for rural life-circle construction. The root of rural development problems lies in the structural contradiction of urban-rural dual development. Solving China's issues concerning agriculture, rural areas and farmers requires answers to be sought through the adjustment of urban-rural relations. The 19th National Congress elevated the Rural Revitalization Strategy to a national strategy and sought to build new industry-agriculture and urban-rural relations from the perspective of urban-rural modernization. The 20th National Congress and the Third Plenary Session of the 20th Central Committee further emphasized improving institutions and mechanisms for urban-rural integration and coordinating new urbanization, new industrialization, and comprehensive rural revitalization.

Human development is the foundation of rural revitalization and urban-rural integration. Differences in urban and rural spatial and social forms, together with the tendency for urban-rural gaps to widen, mean that the degradation of rural livability and the loss of individual development opportunities can reinforce one another. Therefore, rural life-circle construction must integrate two levels of meaning: individual development and macro-level social construction. Its essence is to improve rural livability. It is not only an important foundation for rural revitalization, but also a strategic support for urban-rural

integration. From the goal of urban-rural integration, the value of rural life circles can be understood in three respects.

First, rural life circles are comprehensive. Facing structural changes within rural areas, transformations in urban-rural relations, and national strategic orientations, rural life circles include both the narrow quality of daily life and the broader quality of the human settlement environment. They are expressed through the integration of governance, functions, and space. From the perspective of individual development, life circles provide rural residents with diversified life services. From the perspective of rural social development, they promote functional complementarity between urban and rural areas, highlight rural functions in green ecology, safety and resilience, culture and education, and create opportunities and attractiveness for rural development.

Second, rural life circles are foundational. Protecting rural residents' quality of life and narrowing urban-rural gaps through equalization of public services are the basic role of rural life circles. Daily life circles serve as basic units of rural residents' lives. A complete rural basic service system should meet multi-scenario needs, including livability, employment, tourism, elder care, and education, while establishing a basic line of defense for rural social stability, safety, and resilience.

Third, rural life circles are strategic. Their macro value lies in building the foundation for urban-rural integration and supporting urban-rural modernization. Using high-quality rural life circles as carriers, integrated urban-rural life and services can promote the formation of a continuous territorial spatial system, further facilitate the circulation of urban-rural factors and the transformation of rural value, and advance economic and social integration between urban and rural areas. This will be an important pathway for realizing urban-rural integration.

2 Basic Characteristics of Rural Life-Circle Construction

Understanding rural life circles under the orientation of urban-rural integration requires a more open perspective. Rural life-circle construction should be situated within a larger urban-rural territorial system. It has several basic characteristics: dynamic openness of urban-rural systems, the compound nature of multiple types, functions and scales, and regional differentiation in spatial organization.

2.1 Dynamic Openness of Urban-Rural Systems

Traditional agricultural society was a self-sufficient and relatively closed production and living system based on human-land relations. Under the influence of industrialization and urbanization, rural areas have increasingly become open systems. Rural life circles are no longer simply spatio-temporal rings extending outward from rural settlements. They are open and dynamic systems that transcend urban-rural boundaries.

From the perspective of residents' needs, service demands generated by urban-rural interaction are increasing. On the one hand, changes in rural production and living modes, the mobility and aging of the rural population, differentiation among rural residents, and the pursuit of higher quality of life all require service provision to be configured within a larger urban-rural interactive space. For example, the pronounced aging of rural areas has created urgent demand for medical and elder-care facilities. The education of rural children also requires urban basic education facilities to consider the needs of surrounding rural areas. In many respects, the influence of urban facilities on rural areas is becoming increasingly evident. On the other hand, urban residents' demand for experiencing, traveling to, and using the ecological, cultural, educational, and other value functions unique to rural space has also

become more visible. Rural life circles must not only meet the intergenerational needs of rural residents, but also serve the needs of different urban and rural groups.

From the perspective of resident behavior, the spatio-temporal boundaries of urban and rural residents' activities are continuously being broken. The daily activity spaces of rural residents increasingly show urban-rural spatio-temporal interaction. This is especially evident in metropolitan regions. The authors' research on rural life-circle organization in near- and far-suburban areas of Pudong, Shanghai, confirms that the daily activity spaces of rural residents increasingly penetrate town centers and urban districts. Whether in residence, employment, or access to public services, they show clear spatial characteristics of urban-rural integration (Table 1) [17]. Other research [18] shows that intergenerational behavior within rural families also pushes rural residents' social spaces beyond traditional rural settlements, reconstructing and extending rural social relations across urban-rural time and space. In recent years, new villagers and digital nomads in villages around large cities have reflected the penetration of urban residents' daily activities into rural areas.

Under the orientation of urban-rural integration, rural life-circle construction must move beyond the binary view of urban versus rural and the traditional separation of city and countryside. Towns and villages should be placed within a larger urban-rural regional system, with attention to resource complementarity, service sharing, and coordinated connection among the levels of "city-township-countryside-village". Efficient connectivity should support convenient services for urban and rural residents, promote two-way flows of urban-rural factors, and realize the open allocation of urban and rural resources.

Table 1. Comparison of Residents' Travel Spatial Ranges in Near- and Far-Suburban Towns of Pudong, Shanghai

Resident activity	Origin	Within town (%)	Nanhui New City (%)	Other suburban towns (%)	Within Pudong except central city (%)	Outside Pudong (%)
Commuting	Near-suburban town	7	44	15	1	33
Commuting	Far-suburban town	8	15	13	21	43
Non-commuting, weekday	Near-suburban town	47	25	10	1	17
Non-commuting, weekday	Far-suburban town	27	9	15	7	41
Non-commuting,	Near-suburban	28	39	12	1	20

Resident activity	Origin	Within town (%)	Nanhui New City (%)	Other suburban towns (%)	Within Pudong except central city (%)	Outside Pudong (%)
rest day	town					
Non-commuting, rest day	Far-suburban town	16	12	19	8	45

Source: Xu Xinyang. *Research on the Construction Model of Rural Life Circles in Suburban Shanghai: A Case Study of Pudong New Area* [D]. Shanghai: Tongji University, 2024.

2.2 Compound Nature of Multiple Types, Functions, and Scales

The compound nature of rural life circles is one of the core features that distinguishes them from urban community life circles. It is expressed in multiple types, multiple functions, and multiple scales.

First, unlike functional zoning in urban space, rural territory naturally overlaps production, living, and ecological spaces. As an organizational form of living space systems, rural life circles include many types of activities, such as daily life, farming and employment, public services, recreation, and leisure. The extension of combined production and living functions, the embedding of ecological functions, and the economic transformation of ecological value are future trends in rural modernization.

Second, meeting the living needs of different groups, frequencies, and activity types among rural residents generally involves several spatial scales. The neighborhood life circle meets residents' everyday needs for living and social interaction around the village. These activities are frequent and can usually be reached on foot. The daily life circle meets most basic living needs of rural residents, including daily commuting, medical care, schooling, and elder care, and generally covers township areas or cross-township ranges. The extended life circle provides specialized, high-quality, and personalized life services, mainly for non-daily activities such as major consumption, weekend leisure, and entertainment, and may involve the county or neighboring districts and counties. The coordinated life circle, supported by rapid transport and information technologies, satisfies higher-level activity needs of urban and rural residents across broader territories and supports two-way circulation between central cities and rural areas.

Rural life circles cover multiple spatial scales, including villages, towns, counties, and cities. They form a multi-scale and continuous settlement system (Figure 1). For example, within the daily life circle, older people whose main needs are basic medical care and elder care may conduct most daily activities within townships or even villages, while the daily commuting of young and middle-aged adults may extend to the county or between countryside and city. In recent years, as urban-rural connectivity has strengthened and time-space distance has compressed, medical treatment, schooling, shopping, and consumption between villages and counties or between villages and cities have increasingly become daily needs. The daily activities of rural residents have shown more spatial leaps, further extending rural life circles in urban-rural time and space and promoting multi-scale reconstruction.

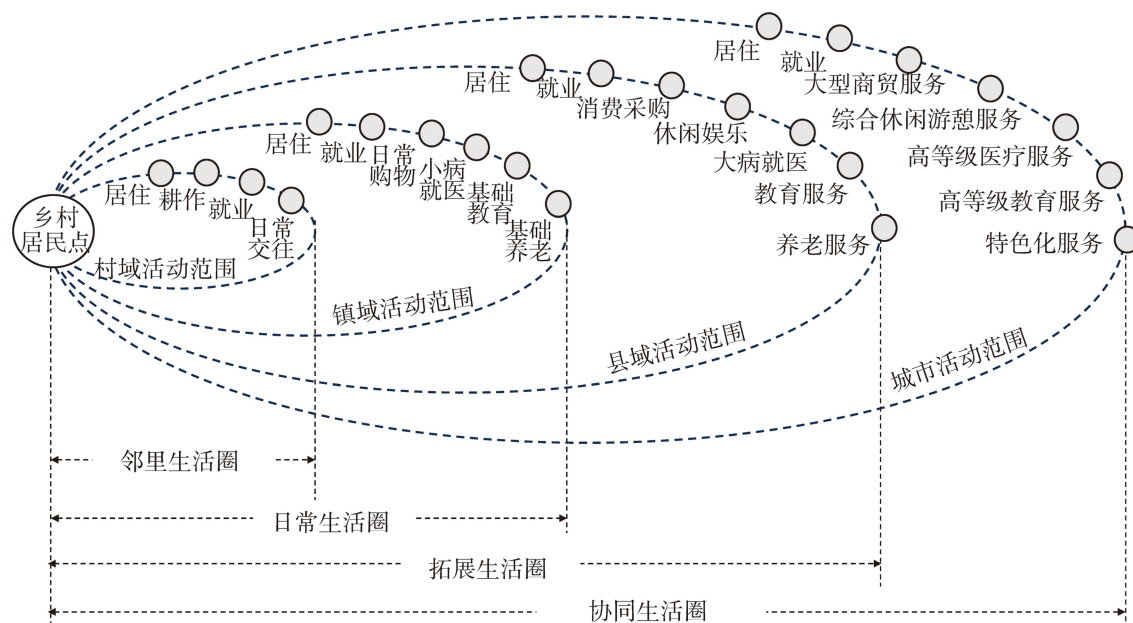


Figure 1. Multi-Scale Spatial Continuity Characteristics of Rural Life Circles

2.3 Regional Differentiation of Spatial Organization

Rural areas differ widely in spatial form because of natural, historical, socioeconomic, and other conditions. Rural life-circle construction therefore has no uniform model. It should be a differentiated spatial organization adapted to local conditions.

The first source of differentiation is spatial foundation. Under the influence of regional natural environments, geographical conditions, and long-term historical patterns, rural settlements in China vary greatly at the meso scale. Their spatial distribution includes clustered, linear, and dispersed-with-small-clusters forms, which directly affect residents' travel modes and time. Different locations and resource endowments also create different rural industries, such as traditional agriculture, processing and manufacturing, and tourism services. Their population structures and service demands differ accordingly. These conditions directly affect the spatial range, hierarchical division, and facility thresholds of rural life circles, requiring place-specific organization.

The second source is the superimposition of different urban-rural relations. With urbanization and industrialization, as well as the combined effects of multiple national strategies in rural areas, urban-rural relations in different rural regions have become increasingly differentiated. Rural life-circle construction must respond to these differentiated patterns. In urbanized rural areas, where urban-rural integration is relatively advanced and rural areas interact frequently with central cities, life-circle construction should emphasize coordination with urban life-circle functions and shared access to higher-level urban services. In traditional agricultural production areas, where the county is usually the core field of daily life, life-circle organization should use the county as the basic unit and improve the county-town-village three-tier service supply system. In remote and ecologically fragile rural areas, where population outflow, dispersed villages, and poor transport are common, life services may need to rely more on county seats or key towns to organize services by subarea and safeguard basic rural functions.

3 Changes in Urban-Rural Relations and Challenges for Rural Life-Circle Construction

3.1 Rural Population Decline and Social Restructuring

Changes in people directly affect rural life-circle construction. On the one hand, the rural population continues to decline, while hollowing-out and aging overlap. It is projected that by 2050, China's rural population will fall to 262 million, and the share of people aged 65 and above will reach 28.1%-30.9% [19]. Declining overall population, over-thinning of population distribution, and deepening aging will be common trends in rural areas for a long period. On the other hand, two-way urban-rural population flows are strengthening, and social structures are becoming more diverse. Rural population flow shows a new two-way pattern. With rural outmigration and hollowing-out, internal differentiation and stratification have intensified, and rural social structures show clear atomization and dispersion [20]. At the same time, return migrants have become a new trend in reverse urban-rural population flow [21], and the phenomenon of "new villagers" is reshaping the diversity of rural population structures. According to incomplete statistics, from 2012 to the end of 2022, the cumulative number of returnees and newcomers starting businesses in rural areas reached 12.2 million [22], forming a new "returning-to-village" group.

The shrinking rural population dilutes residential and living space, creating new challenges for the temporal and spatial scale of life circles. The coexistence of population loss and population aggregation, together with non-homogeneous population distribution, requires more diversified hierarchical types of life circles. Population differentiation and group diversity create new demands for functional supply, and organizational models need to shift from comprehensive coverage to precise adaptation.

3.2 Changes in Rural Production and Living Modes

Changes in rural production and living modes affect how rural living space is organized. First, production modes are changing and employment activities are becoming diversified. Traditional smallholder economies are tending to disappear, and agricultural operations are shifting from dispersion toward scale and organization. Professional farmers have become new business subjects, and they are not necessarily native villagers. Second, the proportion of non-agricultural employment is rising, and villagers increasingly hold multiple occupational roles. They may engage in non-agricultural industrial activities in villages, work mainly in towns while living between town and countryside, or hold both urban jobs and rural activities. The proportion of high-frequency, short-distance local urban-rural commuting is increasing, and the spatial range of urban-rural commuting for high-quality living needs is also expanding [23].

Meanwhile, rural residents' consumption is breaking the traditional three-level "village-town-county" system and forming a new structure: daily consumption in villages, higher-level consumption in county seats, and convenient consumption online [24]. Activities such as schooling, medical care, leisure, entertainment, and family visits increasingly connect villages and counties. This is especially evident among residents in developed eastern regions or those living near cities [25]. More rural residents tend to choose county-level or higher public services, which has also led to the hollowing-out of some basic public facilities in rural areas. As rural economies become increasingly non-agricultural, rural lifestyles transform, and urban-rural transport accessibility improves, the daily activity spaces of rural residents continue to penetrate towns, county seats, and districts. A spatial activity pattern integrating employment, residence, and access to public services across urban and rural areas is forming. This will directly affect the conceptual system and use patterns of rural life-circle construction.

3.3 Reorganization of Urban-Rural Territorial Spatial Systems

Rural space is simultaneously shrinking and expanding across time and space. On the one hand, as the rural population declines, many villages are merged and concentrated, and settlement space is moving toward intensive development characterized by "large aggregation and small dispersion". In terms of administrative villages, about 6,000 administrative villages disappeared each year on average from 2007 to 2020. In terms of natural villages, about 47,000 natural villages disappeared each year on average from 1991 to 2020 [26]. On the other hand, while living space is diluted and settlements become concentrated, improved transport conditions and communication technologies extend the time-space dimensions of rural spatial connections. Information, material flows, and connections within and beyond rural areas are strengthening, further expanding the spatial scale of rural life and the service radius of life circles.

The traditional rural territorial hierarchy is also changing. In the traditional "village-town-county" hierarchy, connections between "village-county" and "town-city" are strengthening. For rural residents, county seats have become increasingly important as places for public and commercial services, while the functions and status of small towns are declining. Expanded commuting radii have created cross-territorial living modes such as "residing in the county seat while producing in the countryside". Changes in the time-space behavior of medical care and schooling have caused a polarization in facility allocation, with concentration in county seats and weakening at township levels. Networked characteristics of the urban-rural spatial system are beginning to emerge. Under the trend of non-agricultural rural industries and the integration of primary, secondary, and tertiary sectors, the formerly agriculture-dominated and homogeneous rural form is being broken. Some rural areas have become important spaces for urban residents' recreation, cultural inheritance, ecological experiences, and even new industries and business forms. The spatial pattern of flows of people, goods, and information has shifted from one-way village-town links to two-way and multi-directional interactions among towns and villages and among villages themselves [27].

4 Planning Reflections on Rural Life-Circle Construction Oriented Toward Urban-Rural Integration

4.1 Dynamically Adapting to Uncertainty in Rural Development and Urban-Rural Change

The form of rural life circles depends on the future structure of urbanization. As the structural form of urbanization continues to evolve, rural areas face multiple uncertainties, including ongoing population decline, social restructuring, and spatial reorganization. Rural life-circle construction will therefore be a continuous, flexible, and dynamic process.

Planning should strengthen attention to dynamic urban-rural systems. Rural life circles are embedded in changing urban-rural territorial systems. Planning needs to move beyond static and hierarchical understandings of urban-rural relations, focusing instead on dynamic processes of factor flows, functional interactions, and spatial connections between city and countryside. It should also attend to new rural spatial phenomena brought by new industries and lifestyles, ensuring that rural life-circle planning remains flexible and adaptive.

A dynamic planning intervention mechanism should be established. A planning mechanism of "identifying change, assessing impact, and adjusting intervention" should be created. It should strengthen tracking research and forward-looking assessment of trends in urban-rural relations, rural demographic and economic dynamics, and changes in residents' behavior patterns, thereby improving

the responsiveness of rural planning to the continual reconstruction of rural patterns. Planning monitoring, evaluation, and dynamic optimization should be strengthened. A normalized mechanism for diagnosing rural problems, assessing policy impacts, and collecting demand feedback should be established, dynamically optimizing life-circle goals, spatial organization, and implementation actions, and forming a full-cycle intervention mechanism of "planning-implementation-monitoring-evaluation-optimization".

Planning should also promote a dynamic shift from facility allocation to service provision. In response to population change and diversified needs, life-circle planning should move from traditional full facility coverage to more flexible full service coverage. Fixed facilities should be combined with mobile services, and online platforms should be combined with offline provision, in order to improve facility use efficiency and service coverage flexibility. Differentiated needs of different groups and territories should be identified, shifting from universal facility coverage toward precise service provision.

4.2 Responding to Structural Changes in Agriculture, Rural Areas, and Farmers through Differentiated Development Prospects

Transformation in urban-rural relations brings structural changes in agriculture, rural areas, and farmers, and further creates structural differences in rural issues across regions. Planning should respond to differentiated rural development prospects through classified guidance and precise measures.

First, differentiated regional development gradients should be addressed. Rural areas show gradient differences in the regional pattern, such as metropolitan areas, county hinterlands, and remote regions, because of differences in the intensity of urban-rural connections, resource endowments, development stages, and development drivers. In highly urbanized areas and metropolitan suburbs, the core task of life-circle construction is to promote urban-rural service integration, functional complementarity, and spatial coordination, providing high-quality and diversified life services. In vast hinterland villages supported by counties, life-circle construction should strengthen the service-node role of county seats and key towns, reinforce networked service systems through transport connections, and ensure accessibility to basic public services and convenience in daily life. In remote rural areas with weak development conditions, the goal should be to secure basic services and improve efficiency. Basic service functions should rely on key towns, and subarea-based organization and flexible service supply should be explored to balance service coverage and efficiency.

Second, differentiated rural territorial functions should be addressed. From the perspective of changing urban-rural relations and rural functional differences, and considering future rural development prospects, rural life-circle construction can be divided into at least four types.

The first type is urban-rural integrated development areas. In these areas, agricultural production, rural functions, and farmers' identities change as a whole. Life-circle planning should weaken the idea of an independent rural service system and emphasize seamless connection with urban life circles in space, facilities, services, and governance. It should configure compound functions that meet the needs of diverse urban and rural groups, including original villagers, new villagers, and commuters.

The second type is agricultural modernization areas, mainly grain-producing regions. Changes in agricultural production modes reshape human-land relations. Planning should guide moderately concentrated residence and form settlement and service systems compatible with scaled and modern agricultural industrial chains.

The third type is rural areas with distinctive development functions. Based on unique resource endowments and driven by changing urban consumption patterns, these areas develop new functions such as rural culture and tourism, health and elder care, and cultural creativity. Their population structures also change. Life-circle construction should break traditional spatial hierarchies and organize a multi-scale compound network around distinctive functions, providing personalized and high-quality services while connecting with the needs of tourists, short-term residents, and other new groups.

The fourth type is ecologically fragile and key protected areas. The core tension is the balance among settlement environment improvement, basic service protection, and ecological conservation. Life-circle construction should focus on safeguarding the basic lives of older and left-behind groups under dispersed spatial patterns and continued shrinkage, relying on a small number of suitable market towns or central villages for moderate aggregation and service coverage, thereby improving the efficiency of public resource allocation.

4.3 Reconsidering the County-Town-Village Functional System in Response to Rural Spatial Reorganization

As urban-rural time-space scales continue to compress, rural spatial patterns and functional systems face the need for reorganization. Planning should move beyond treating rural areas in isolation. From the perspective of regional spatial integrity and functional coordination, the county-town-village three-level system should be systematically reconstructed.

Changes in the urban-rural system should be closely observed. The structure of the "city-county-town-village" system is shifting from hierarchy toward networking. Planning should pay attention to functional links and factor flows between villages and surrounding towns, county seats, and cross-township areas. It should move beyond traditional administrative or geographical rings and form multi-level and compound spatial organization frameworks, embedding rural life circles within a wider urban-rural functional network.

Spatial coordination should be strengthened with the county as the basic unit. Promoting county-based urbanization requires the coordinated allocation of public service facilities within county units and an enhanced service supply capacity for rural areas. County seats should play a core role as conversion hubs connecting higher-level cities and grassroots rural areas.

The role of small towns as basic service nodes should be highly valued. With rural spatial reorganization and the expansion of residents' activity ranges, small towns should assume basic service supply functions in future rural life circles. Moderate concentration of small towns should be guided, forming an efficient supply network with "small towns as cores and villages as terminals". Small towns should provide rural areas with daily, high-frequency, standardized basic services, while receiving and transmitting higher-level specialized services from county seats. Villages should mainly configure embedded micro-services for neighborhood needs or specific groups and receive service radiation from small towns.

At the same time, spatial aggregation trends differ greatly across rural types. The spatial organization of counties, towns, and villages therefore requires locally adapted planning.

4.4 Exploring Governance Pathways for Urban-Rural Integration under Two-Way Urban-Rural Mobility

Rural life circles are important carriers of urban-rural integration. They are not only an optimization of spatial organization, but also a systematic governance project that adapts to two-way urban-rural factor

flows and deepens functional interactions between city and countryside. At the governance level, policy pathways should be built that are systemically coordinated and dynamically adaptive.

Top-level policy design should be strengthened with attention to system coordination. Boundaries between departments and levels should be crossed. Within the strategic framework of urban-rural integration, policies in natural resources, agriculture and rural affairs, industrial development, social security, and other fields should be coordinated through systems thinking. Multi-scale policy coordination should connect national macro strategies, regional functional layouts, and local practical needs. Multi-type policy packages should promote the smooth urban-rural flow and optimized allocation of land, finance, talent, data, and other factors.

Local exploration should be encouraged and policy evaluation should be dynamic. Local governments should be empowered to explore differentiated approaches based on resource endowments and development stages, especially in spatial organization of life circles, service supply models, and co-construction and co-governance mechanisms. Scientific policy evaluation and dynamic monitoring mechanisms should be established to form a virtuous cycle of implementation, evaluation, and adjustment, ensuring the adaptability and effectiveness of policies and governance measures.

Planning leadership and spatial governance efficiency should be strengthened. Planning should fully play its strategic and integrative role in coordinating urban-rural spatial resources, balancing the interests of multiple actors, and building platforms for policy coordination. Rural life-circle construction should be integrated into spatial planning systems at all levels. The capacity of spatial planning as a platform for coordinating policy mechanisms and integrating multiple plans should be strengthened, guiding resource allocation and supporting precise and integrated policy implementation.

5 Conclusion

Strengthening rural life-circle construction is an important issue for rural revitalization and urban-rural integration in the context of Chinese modernization. Life circles are not only basic units for safeguarding the daily needs of rural residents, but also strategic carriers for promoting functional complementarity, factor flows, and spatial restructuring between urban and rural areas. Urban-rural integration is the strategic orientation and value foundation of rural life-circle construction. Starting from this point, it is necessary to deepen understanding of the comprehensive, foundational, and strategic value of rural life circles, and to grasp their basic characteristics of dynamism, multi-level organization, multiple types, and differentiation.

Rural life-circle construction faces practical challenges such as population decline and social restructuring, changes in production and living modes, and reorganization of urban-rural spatial systems. It must also respond to future-oriented challenges, including macro trends in urban-rural structural transformation, uncertainty in rural development, and significant divergence in the prospects of different rural regions and types. Therefore, rural life-circle construction must proactively adapt to future trends of networked urban-rural relations and two-way factor flows. Future planning practice should establish dynamically adaptive planning intervention mechanisms, use hierarchical and classified planning strategies to respond to differentiated rural prospects, reconstruct the county-town-village functional system within continuous and open urban-rural systems, and promote multidimensional urban-rural integration through systematic governance innovation.

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