

Planning Challenges and Pathways for "Investing in People" Under the People-Centered City Concept: A Cognition-Decision-Action Perspective

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Abstract

As people-centered city building advances, urban planning can no longer remain confined to "investing in things". It must better "invest in people" through spatial and institutional arrangements. Yet this demand still faces multiple obstacles in current planning practice. This article constructs a cognition-decision-action framework to explain these obstacles. At the cognitive stage, the people who live in cities and their development needs are often abstracted and averaged. At the decision-making stage, clear rules are lacking for ranking and balancing the multiple values behind "investing in people" and "investing in things". At the action stage, existing institutions and instruments of territorial spatial planning are not sufficiently adapted to translate values and goals into implementable spatial actions. These three mechanisms interact with one another, reducing people-centered planning to familiar rhetoric and weakening its practical force. The article therefore proposes three pathways: shifting, in cognition, from an abstract "average citizen" to fine-grained identification of people in specific contexts; establishing, in decision-making, value-ordering rules oriented toward public well-being and equity; and promoting, in action, coordinated transformation of the territorial spatial planning system in plan content, hierarchical transmission and governance mechanisms, so that values can be translated into institutions and space.

Keywords

people-centered city; human-centered planning; territorial spatial planning; cognition-decision-action; investing in people

Introduction

As China's urbanization enters a period of stable development, the stage-specific features of urban development have changed [1]. The earlier model of "investing in things", represented by large-scale infrastructure investment and development-zone construction, can no longer fully respond to people's growing demand for a better life. The core issue of urban governance has shifted from scale expansion to quality improvement and efficiency upgrading [2]. The people-centered city concept, proposed at this historical juncture, responds to the spatial expression and governance requirements of the principal social contradiction in the new era [3]. At the Central Urban Work Conferences, the central government emphasized in 2015 that "people's cities are built by the people and for the people" [4], and in 2025 called for a transformation of urban development concepts with greater attention to human-centered development [5]. Top-level design has therefore continued to promote a shift in urban planning thought from "investing in things" to "investing in people".

Although the value propositions associated with people-centered cities have entered the discourse of development planning and territorial spatial planning at multiple levels, they often remain as broad ideas or background principles. In practice, they frequently become slogans [6], while problems such as imbalanced public-service layouts [7-8], jobs-housing spatial mismatch [9] and urban traffic congestion

[10] persist. This raises a core question: under the people-centered city concept, why does the existing planning system encounter difficulty in implementing human-centered principles, and how can planning effectively carry the new-era demand to "invest in people"? Rather than criticizing isolated phenomena, this question requires an integrated analytical framework.

Existing studies on people-centered or human-centered urban planning can be divided into three broad strands. The first is concept-guided research, which discusses the necessity of people-centered planning as a planning philosophy and ethical norm [11], calls for a shift from instrumental-rational planning oriented toward economic growth and efficiency toward a humanistic planning paradigm concerned with equity, justice and everyday life [12], and applies this perspective in fields such as street design and park-green-space construction [13-14]. The second strand is planning evaluation, which assesses the performance of existing urban construction in achieving human-centered goals [15-16]. Such research builds evaluation indicators for territorial spatial planning implementation and measures the "human" quality of planning outcomes through urban health [17], spatial benefits [18], public satisfaction [19] and related dimensions. The third strand is subject cognition, which moves to the front end of planning practice and deepens understanding of "people" themselves through surveys [20-21], spatiotemporal behavior observation [22], mobile signaling data [23], social-media data [24] and other multi-source methods. It has promoted more precise identification of population characteristics, spatial behavior and concrete needs.

These studies have made important contributions, but the three strands remain relatively separate. Concept-guided studies clarify what should be pursued, but do not clearly explain the pathway from actual conditions to normative goals. Planning evaluation diagnoses gaps between planning outcomes and human-centered objectives, but struggles to explain the deeper mechanisms behind implementation. Subject-cognition studies identify human needs, but do not further answer how such cognition is weighed and adopted in value-laden decision-making. This separation makes it difficult to explain the systemic obstacles to implementing human-centered planning. Accordingly, this article first clarifies the meanings of human-centeredness, the people-centered city and investing in people. It then constructs an integrated cognition-decision-action framework to analyze the mechanisms that obstruct "investing in people" under the people-centered city concept. Finally, it proposes targeted strategies to provide practical pathways for realizing the people-centered city concept.

1 Theoretical Basis and Analytical Framework

1.1 Conceptual Connotations of the People-Centered City

To understand the dilemmas of people-centered city building, it is first necessary to define the meanings of "human-centeredness", "people-centered city" and "investing in people", and to clarify their relationships.

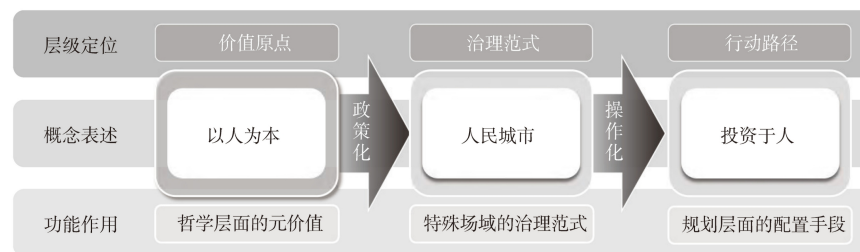


Figure 1. Conceptual analysis of the people-centered city concept

In the Chinese planning context, the people-oriented or human-centered philosophy exists as a highly abstract and universal value. It is the meta-value of urban development. From the standpoint of historical materialism, human-centeredness understands human development within the historical context of social relations and modes of production [25]. It treats people as the fundamental purpose, ultimate measure and core value of all social activity and development, and therefore critiques and transcends alienated orientations such as thing-centered, capital-centered and technology-centered development [26].

The people-centered city is the institutional and policy expression of this meta-value in the spatial field of the city. As an urban governance paradigm in the context of Chinese modernization, the people-centered city carries clear political-institutional and ideological characteristics [27]. Its construction emphasizes development for the people and by the people, links urban governance to the policy goals of Chinese modernization, and seeks to address problems of human alienation and marginalization of vulnerable groups that emerged under capital-driven Western modernization [28].

"Investing in people" is the concrete action pathway through which the human-centered meta-value and the people-centered city governance paradigm are implemented. Together with "investing in things", it constitutes one of the two basic orientations of resource allocation. From the supply side, investments mainly aimed at forming physical capital and accumulating means of production belong to "investing in things". "Investing in people" can be divided into two types. The first invests directly in human development, improving people's capabilities, health, literacy and development opportunities. The second invests in the facilities and spaces that support human development, including housing, education, health care, transport and public space, as well as the institutional environment that enables these capacities and well-being to be realized. In planning, "investing in people" mainly concerns the second type and requires a shift from "finding people for things" to "allocating things for people".

1.2 From Cognition-Emotion-Action to a Cognition-Decision-Action Framework

The analytical framework proposed here can be traced to the classic cognition-affect-behavior model in psychology and behavioral science [29]. That model reveals a general logic of highly involved decision-making: an individual's cognition and understanding of an object stimulate emotion, which then leads to language and action expressing an attitude [30]. This chain resembles the decision process of territorial spatial planning, which is based on information cognition, guided by value judgment and realized through plan implementation. Mapping this logic into planning therefore helps place the practical problems of "investing in people" within a processual framework.

However, territorial spatial planning is not a purely individual behavior by planners and decision-makers. It is a collective and institutional public decision-making process. The theoretical model therefore needs to move from explaining individual behavior to explaining public decisions. The affective link in the original individual-level model is transformed into a "decision" stage that combines rational judgment and emotional inclination in a public decision-making context, forming a cognition-decision-action framework.

Specifically, cognition is the starting point and foundation of human-centered planning. It includes both the collection and processing of objective elements such as spatial land data and institutional rules, and the understanding and interpretation of the attributes, needs, emotional preferences and behavioral characteristics of different people living in the city [31]. Decision-making is the core stage of human-centered planning. Planners and decision-makers, as individuals, inevitably bring professional empathy,

experiential intuition and other emotional elements into planning decisions. Yet their actions are constrained by public rationality, norms, policies and statutory procedures. Individual emotions are therefore incorporated into the public decision stage and become an internal force that supports rational judgment. Under conditions of multi-actor interests, plural values and scarce resources, planners allocate limited resources based on value judgment and set priorities among planning goals and spatial-resource allocation. Action is the endpoint of territorial spatial planning. Through public participation, design schemes, policy making, implementation management and evaluation, cognition and decisions are translated into concrete spatial forms and social effects.

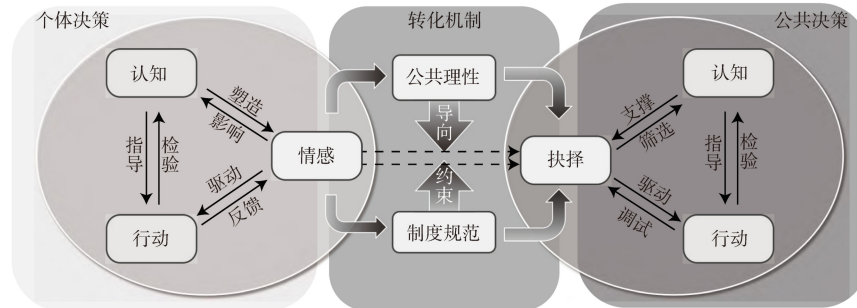


Figure 2. Theoretical transition from cognition-emotion-action to cognition-decision-action

2 Planning Dilemmas of "Investing in People" Under the Cognition-Decision-Action Framework

The cognition-decision-action framework treats planning practice as a continuous decision chain. Ideally, planning should fully understand the needs of people living in cities, make planning decisions consistent with human-centered values, and use territorial spatial planning instruments to transmit those decisions into concrete space. In reality, each link of this chain contains distortions, ultimately making it difficult to implement the people-centered city concept.

2.1 Cognition Stage: Insufficient Understanding of Real People's Characteristics and Needs

Simplifying and abstracting people is the most fundamental reason why people-centered city building lacks implementability. "Real people" are those "engaged in definite practical activities, situated within definite social relations and concrete life worlds"; they are the "ensemble of social relations" [32]. The same individual often has multiple social identities and attributes embedded in social relations, local culture and historical contexts. Preferences and values change with time, experience and environment [33]. Motivations include not only basic interests, but also belonging, recognition, equity, justice, beauty and meaning. They should not be extracted and analyzed as isolated data points. For example, a young female migrant worker is simultaneously a young person, a new urban resident and a member of a low-income group. Over time, her housing and employment characteristics and family structure change dynamically, as do her perceptions and demands regarding accessibility, convenience, safety and environmental quality in the same spatial setting [34]. Such differences are amplified through collective preferences and social networks, producing feedback to spatial patterns.

In current planning, complex, socially relational and active people are often simplified into atomized, calculable "data points". Standardized indicators such as per capita green space, per capita land area and the number of barrier-free facilities represent the needs of these data points. Translating abstract goals into quantitative indicators helps guarantee minimum public-service supply and improve resource-allocation efficiency in large-scale urban construction, while also providing auditable and comparable

grounds for public decision-making. Yet with the advent of the stock-renewal era, the contradiction between people's demand for high-quality facilities and life and the scarcity of land resources has become more prominent. When contents related to investing in people are alienated into the indicator system itself rather than treated as means to serve people, negative effects appear. On the one hand, indicator systems formed in the era of rapid urbanization are poorly adapted to large land deficits in the stock era; mechanical compliance with rigid indicators may miss opportunities for quality improvement in urban renewal [35]. On the other hand, existing indicators can satisfy human-centered needs in aggregate dimensions such as accessibility, capacity and supply-demand balance, but they often obscure structural gaps across groups in time constraints, affordability and everyday usability, resulting in the loss of comfort and daily experience. Planners and governmental decision-makers use big data, transport models and population-forecasting models to simulate human behavior, treating people as machines that passively and predictably respond to external stimuli. Existing planning indicator systems thus show clear tendencies toward decontextualization, derelationalization and detemporalization, ultimately departing from the original intention of human-centered planning.

2.2 Decision Stage: Imbalanced Value Ordering for "Investing in People" Under Multiple Goals

The decision stage connects cognition to action. Planning decisions do not operate in a vacuum; they are shaped by fiscal incentives, performance assessments and governance-system constraints [36]. When planners and decision-makers face different development demands, they often lack clear grounds for weighing human-centered goals against economic growth, efficiency and other objectives. Human-centeredness is therefore marginalized in the planning value system and falls into a decision dilemma of value disorder.

The National Development Planning Law of the People's Republic of China clarifies a planning system led strategically by national development planning and based on territorial spatial planning [37]. Yet the internal relationship between human-centered development and different planning goals remains unclear. Specifically, territorial spatial planning takes ecological priority and green development as an orientation and anchors the bottom line of territorial spatial security through three control lines, which provide the basic guarantee for human well-being [12]. Within urban development boundaries, however, planning must coordinate and balance multiple goals, including economic development, scientific and technological innovation, ecological environment, social livelihood and safety. On the one hand, the well-being of all people is the ultimate aim of economic and innovation development, while high-quality human resources are the foundation of innovation and economic growth; the two are mutually dependent. On the other hand, under finite spatial, temporal and resource constraints, these goals compete directly. If decision-making pursues short-term economic growth and land-finance revenue one-dimensionally, it will inevitably raise housing costs, squeeze public space and land for livelihood facilities, and erode both human well-being and the city's long-term attractiveness.

Existing institutions lack rules that decompose human-centered value goals and assign them absolute priority in a systematic way. As a result, planning means directly related to "investing in people" are weakened in substantive implementation. Urban planning has long been a thing-centered practice that allocates and designs land and attached spatial resources by delineating parcels, setting indicators and distributing facilities. Although "investing in things" and "investing in people" both appear in planning as allocations of physical space, scarce resources tend to tilt toward "things". Investing in things corresponds to local governments' demand for economic-volume growth, land-conveyance revenue and

visible performance. It serves quantifiable short-term goals such as growth and efficiency. Local governments holding the power to allocate spatial resources therefore have investment preferences and allocation logics that naturally favor investing in things. Production-related space receives priority allocation for capital accumulation and appreciation, while issues directly related to investing in people are often compressed or postponed. Overall coordination across development planning and territorial spatial planning indicators, systems and factors remains insufficient.

Table 1. Correspondence between planning objectives, domains and indicators under the "finding people for things" logic

Investment Logic	Primary Goal	Planning Domains (Examples)	Development-Planning Indicators	Territorial Spatial Planning Indicators
Investing in things / basic platform for investing in people	Survival and development bottom lines	Energy, ecology and food security, including flood control, seismic resilience, civil defense, energy reserves, farmland protection and permanent basic farmland	Grain and energy production capacity; share of good-quality water bodies	Per capita emergency shelter area; ecological protection red line area; rainfall local absorption rate; permanent basic farmland and cultivated land retention
Investing in things	Economic output and capital appreciation	Industrial parks, headquarters bases, CBDs, science and innovation corridors, logistics parks and development zones	GDP growth; labor productivity; urbanization rate; per capita disposable income growth; surveyed urban unemployment rate	Total construction land; urban-rural construction land; resident population and urbanization; per capita urban construction land; water and land consumption per unit GDP
Investing in things	Circulation efficiency and production linkage	Expressways, arterial roads, hubs, railways, airports, ports and freight corridors	Road-network density; rail-station service coverage; one-hour metropolitan coverage	Transport corridors, hub land and facility layouts
Both things and	Knowledge	Research	R&D expenditure	Spatial support for

people	production and talent development	institutions, universities, digital infrastructure, data centers, smart-computing facilities, incubators and employment-service centers	as share of GDP; high-value invention patents per 10,000 people; core digital-economy value added	innovation platforms and talent services
Investing in people	Human-capital quality, health, daily convenience and cultural life	Schools, activity centers, vocational schools, elderly universities; hospitals and elderly-care facilities; housing, childcare, convenience commerce and community centers; libraries, museums, theaters, historic districts and cultural landscapes	Childcare enrollment for children under three; average years of education; medical staff per 1,000 people; life expectancy; per capita housing; commuting time	15-minute walking coverage for education, elderly care, health, sports and cultural facilities; elderly-care beds; per capita green space, square, park green space and sports land; natural and cultural heritage

2.3 Action Stage: Insufficient Support from Planning Implementation Instruments

After human-centered planning moves from value decisions to action, implementation effects depend heavily on the support and transmission capacity of planning instruments. Yet existing territorial spatial planning lacks tools that can effectively translate the people-centered city concept into spatial schemes and ensure their implementation.

Planning not only meets human needs; it also creates needs. Once urban functional spaces are built, they tend to remain relatively stable for a long time and lag in use iteration and renewal. This means that urban planning has enduring influence on spatial patterns and economic-structure evolution [38]. The resulting capital accumulation and functional zoning differences continue to affect people's development trajectories and choices of residence and employment. At the same time, rapid changes in lifestyles, work patterns and values, including aging, low fertility and delayed marriage and childbirth, also reshape urban development pathways, influence the distribution of employment space and the

vitality of public and commercial spaces, and become important factors in the urban life cycle [39]. Planning must therefore balance the certainty of space with the dynamism of demand.

The existing planning system, from master territorial spatial planning to detailed planning, still bears strong features of a static blueprint. It relies on rigid boundaries, use control and development-intensity settings. These instruments can constrain disorderly development and prevent abuse of space, but they are less capable of actively shaping high-quality everyday life. In the face of dynamic real-world change and evolving population needs, planning implementation can gradually become disconnected from lived experience. Moreover, in plan transmission, human-centered demands and real problems embedded in development goals are not sufficiently answered. Contents related to investing in people often appear only as guiding language, lacking unified and clear measurement standards and locatable spatial expression. They are therefore weakened during transmission and struggle to enter detailed planning drawings as auditable and acceptable provisions.

Public participation, a key mechanism for redistributing power in planning, also suffers from absence of substantive authority. From the perspective of governance structure, the current spatial planning system is dominated by hierarchy but contains some elements of autonomy [40]. At the macro-planning level, plan-making and implementation mainly rely on top-down transmission through administrative levels. In terms of timing, public participation is usually placed after the scheme has been completed and is rarely involved in early goal-setting or framework conception. Participation tools are often limited to public notices, hearings and opinion collection. At the micro level, such as detailed and community planning, more diverse forms have appeared, including community planners and capital entering villages; yet these micro-plans are essentially decompositions of upper-level plans [41]. This institutional design marginalizes residents' local knowledge and emotional demands in the planning process. Public participation may satisfy procedural justice, but it cannot substantively re-embed human subjectivity in planning.

3 Planning Pathways for "Investing in People" Under the People-Centered City Concept

3.1 Building a Planning Cognition Pathway Oriented Toward Local Populations

The objects served by planning are "the people" situated in concrete social relations and carrying differentiated needs. The first step in planning for investing in people is therefore to reconstruct the cognitive model of people in planning: from the abstract average citizen to "situated individuals" who reveal the complexity and agency of human behavior. It is also necessary to attend to the interaction and coordination among individuals, groups, space and society. Groups are discrete and dynamic in behavioral choices, demand characteristics and spatial interactions. Differences in class, age and physiological attributes significantly influence individual spatial preferences and behavior. Competition and externalities among groups around education, health care and public space transform individual demands into public issues requiring institutional and spatial coordination.

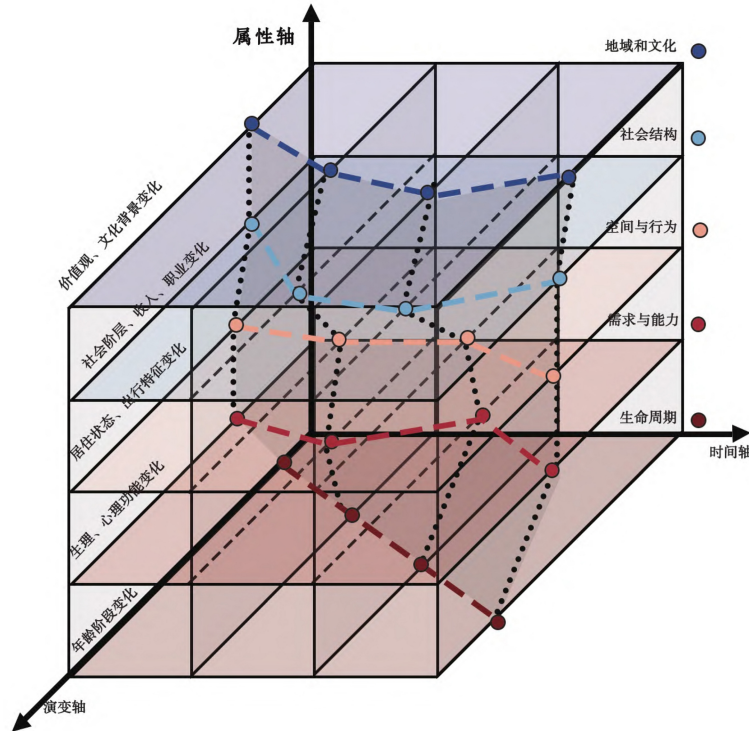


Figure 3. A multi-attribute life-course evolution matrix of situated individuals

At the citywide scale, planners can use multi-source big data such as social-media data, mobile signaling data, POI data, LBS data and GIS spatial data to build spatiotemporal behavior portraits of local populations. Algorithmic models can identify the short-cycle spatial-temporal fit of different groups over a day or a week, recognize relationships among residence, employment, consumption and other activities, and draw a "cognitive base map" covering commuting agglomeration areas, public-service deficit areas and concentrations of vulnerable groups. This provides preliminary data for subsequent in-depth research.

On this basis, cognition should move down to medium- and micro-scale scene units. In typical functional areas such as old urban districts, new residential districts and industrial parks, planners can select spatial units that represent general problems while also having distinctive social ecologies. Qualitative methods such as ethnography, in-depth interviews and participatory observation should be introduced. Three kinds of information are especially important: first, the multidimensional attributes of people, including life-course stage, socioeconomic structure and household-registration status; second, the types of everyday activity scenes, including commuting and employment, school and childcare, medical care and elderly care, daily life, leisure and travel, which should be reconstructed as spatiotemporal chains of where and when; third, individual perceptions, emotions and demands, which should be linked to specific scenes and spatiotemporal behaviors. Through this cognitive process, planning can clarify at the outset who should be prioritized for investment, in what respects and through what spatial investments.

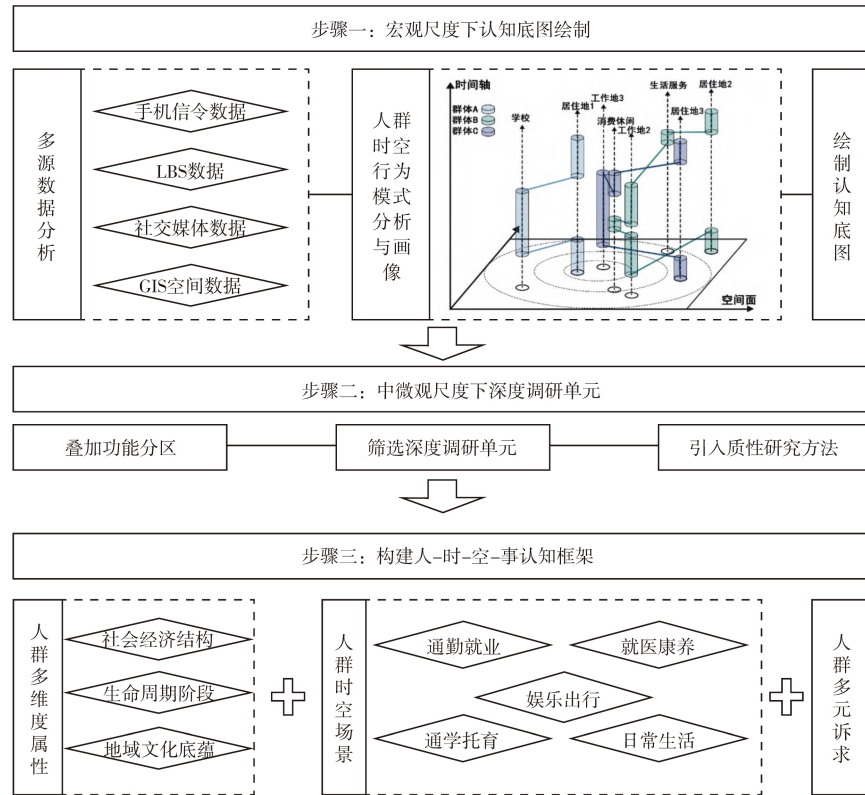


Figure 4. Planning cognition steps oriented toward local populations

3.2 Clarifying a Decision Pathway for the Value Ordering of "Investing in People"

First, the relevant target indicators and assessment systems of national economic and social development planning and territorial spatial master planning should be reconstructed. On the one hand, indicators concerning livelihood and well-being should be made more comprehensive and should be built around residents' actual perceptions and outcome equity, such as housing affordability and opportunity equity for vulnerable groups, so that investing in people has explicit target anchors. On the other hand, the coordination between development-planning indicators and territorial spatial planning indicators should be strengthened. Strategic targets concerning livelihood and well-being in socioeconomic development planning should be accurately converted into spatial-resource allocation indicators and layout constraints in territorial spatial master planning, avoiding weak mutual verification and poor linkage among indicators.

Second, the value system and decision pathway for conflicts in the priority ordering of investing in people should be clarified. This article proposes taking the improvement of the well-being of all people as the ultimate purpose and following the principles of bottom-line thinking, purpose priority and instrument subordination. A hierarchical goal structure should be built, including survival bottom lines, instrumental development drivers and direct human-centered goals. Ecological and environmental security and public safety are rigid bottom lines with the highest priority. Any matter touching ecological, environmental or public-safety thresholds should be subject to veto or compulsory alternatives, and any modification should undergo special review. In spatial planning within urban development boundaries, a planning assessment for investing in people should be introduced. The impact of planning schemes on

public benefits should be evaluated in the early stage of plan-making, so as to coordinate conflicts between growth demands, such as land revenue and investment intensity, and the improvement of public well-being [42].

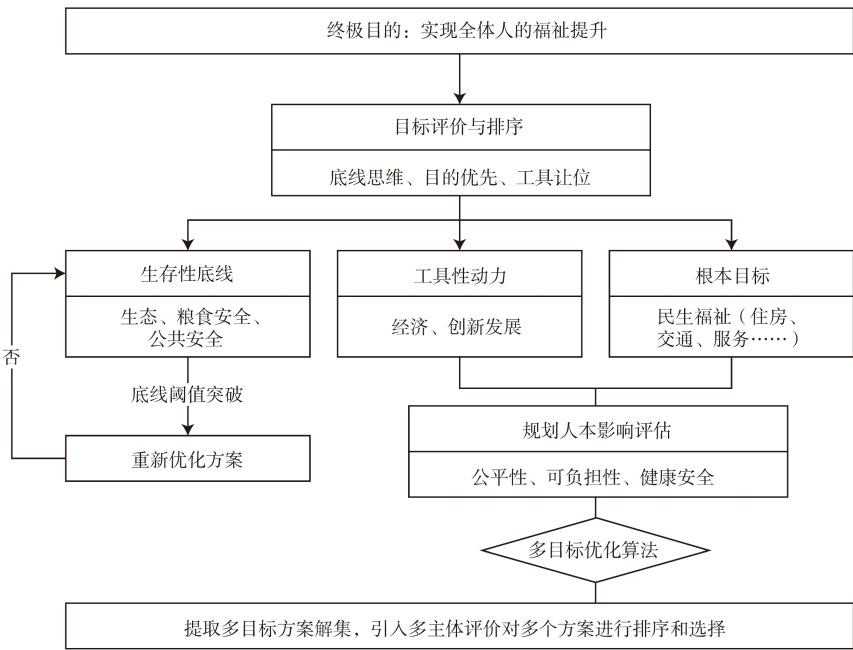


Figure 5. A decision-making pathway for people-centered value prioritization

Finally, investing in people should be assigned priority in incentive structures, so that planning shifts from the traditional growth-oriented logic of investing in things toward a modern governance logic centered on investing in people. Improvements in comprehensive indexes reflecting the level of people's development can be incorporated into performance assessments of local officials and linked to key administrative and resource-allocation tools, such as fiscal transfers and construction-land quotas. At the same time, the growth impulse of the market should be reasonably guided. Through institutional design, the incremental value created by investing in things can be transformed into sustained investment supporting the multiple goals of investing in people. Shenzhen, Shanghai, Guangzhou and other cities have begun to explore incentive policies represented by floor-area-ratio bonuses. By exchanging space for public benefits and quality, these institutional designs guide developers' profit-seeking impulse toward the provision of scarce public facilities such as affordable housing and education facilities [43], as well as spatial-quality improvement and scene-making in urban renewal.

Table 2. FAR bonus or equivalent incentive policies in selected Chinese cities: comparison through an "investing in people" lens

City	Policy Source	Incentive Mode	Applicable Scope	Investing-in-People Orientation
Shenzhen	Rules for FAR Review of Urban Renewal Units	Additional floor-area bonus	Policy housing, public rental housing, talent	Housing, public services and public space

	Involving Demolition and Reconstruction (2019)		housing, innovative industrial housing; attached public-service, transport and municipal facilities; public ground/underground passages and elevated corridors; qualified historic buildings	
Shanghai	Detailed Rules for Planning and Land Implementation in Urban Renewal (Trial) (2022)	Incentive provisions	Public open space; public-service facilities; transport and municipal facilities	Public services and public space
Guangzhou	Implementation Rules for FAR Incentives for Ultra-Low, Near-Zero and Zero-Energy Buildings (2024); Implementation Rules for FAR Incentives for Prefabricated and Modular Buildings (2024)	Floor-area bonus	Qualified ultra-low-energy, near-zero-energy and zero-energy buildings; prefabricated and green buildings meeting required grades	Green ecology and housing quality
Hangzhou	Guiding Opinions on Steadily Promoting Pilot Autonomous Renewal of Old Urban Residential Communities (Trial) (2024)	Construction-cost offset	Old residential community parcels rebuilt in situ; newly added housing and service facilities transferred to government as	Housing, public services and public space

			affordable housing or public-service facilities	
Chengdu	Planning Support Measures for Strengthening FAR Management and Promoting Organic Urban Renewal in the "Central Optimization" Area (2020)	FAR calculation optimization	Ground-floor stilt areas used for greening, parking, passages and other public activities not counted in FAR; public corridors crossing urban public space not counted in FAR	Public space

3.3 Improving Planning Implementation Pathways Supporting "Investing in People"

A vertical transmission mechanism should be built from territorial spatial master planning to detailed planning around the goal of investing in people. At the master-plan level, the decomposition of investing-in-people goals should be emphasized. On the basis of current second-level zoning by dominant function, multiple governance intentions of different functional zones should be clarified through the overlay of vision zones carrying planning goals [44]. Through classification and superposition of planning governance intentions, the same functional zone can carry differentiated human-centered functions and governance goals, thereby guiding subsequent spatial-resource allocation.

At the detailed-planning level, these governance intentions should be translated into provisions and development conditions that can be reviewed, permitted and accepted. According to actual management needs, indicator systems can be built to cover land use and building use, development indicators, form control, open space, parking and transport organization. In this way, human-centered requirements can be embedded in the entire chain from goals to indicators and spatial implementation, ensuring effective transmission [45]. Beyond indicator systems, planning should explore human-centered scene-making schemes. Using scene elements such as time, space, object, problem, pathway and value as a handle, human needs can be translated into perceptible and verifiable spatial experiences and service processes [46].

Finally, public participation mechanisms should be linked to the earlier cognitive stage. Because the cognition stage oriented toward local populations can preliminarily identify stakeholders and their differentiated needs, public participation should move beyond general consultation. Representative groups should be invited into planning negotiation and scheme demonstration so that local knowledge, everyday-life experience and group demands can be embedded in planning decisions [47]. Particular attention should be given to safeguarding the spatial needs of vulnerable groups such as older people, persons with disabilities, children and low-income groups, so as to avoid resource allocation tilting toward groups with stronger expressive capacity or higher organization [48]. In post-implementation evaluation, user-experience assessment should be included. Objective quantitative indicators should be

combined with subjective perceptions to identify gaps between the supply side of planning governance and the perceived demand side, providing a basis for subsequent adjustment and dynamic calibration [49].

4 Conclusions and Discussion

To accurately identify and describe the practical dilemmas faced by "investing in people" within the current territorial spatial planning system under the people-centered city concept, this article constructs a cognition-decision-action analytical tool and enriches the human-centered research framework for territorial spatial planning. The implementation dilemma of investing in people stems from ambiguous and distorted understanding of people at the cognitive level, which then leads to disorder in value judgment and finally to insufficient responses in plan preparation and implementation at the action stage.

On this basis, the article proposes pathways for improvement. Cognitively, planning should turn toward deep understanding of people in real contexts. In decision-making, it should adopt a value-ordering method based on bottom-line thinking, priority of purpose and subordination of instruments. In action, it should build a territorial spatial planning transformation model focused on transmitting the goal of investing in people.

This article reveals the dilemmas of people-centered city building, but it is only a beginning. Further research should deepen this agenda in several directions. First, because this article focuses on theoretical construction and mechanism analysis, future studies should test, revise and improve the framework through specific planning cases in different regions and at different levels, using mixed qualitative and quantitative evaluation methods. Second, research should strengthen analysis of the complex interactions between people and space within the territorial spatial planning system. Third, attention should be paid to coordination between planning, space and institutions and to the transformation of governance models. How can traditional technology-led planning be transformed into a more open, inclusive and learning-oriented collaborative governance system? How can institutional obstacles in vertical intergovernmental relations and horizontal departmental coordination be overcome? Deeper transformation of urban spatial governance requires further research.

The shift from investing in things to investing in people under the people-centered city concept involves changes in urban development philosophy, governance logic and power relations. Only in this way can the coordinated operation of value, institutions and space be realized, transforming the people-centered city from a planning idea into verifiable, replicable and sustainable planning practice.

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