Embedded Progressive Mechanism of Greenization Transformation in Old Districts: Based on Popularity-Winning Project

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Abstract. Adding greenization transformation to the transformation project of old urban communities in the context of popularity-winning project, thus forming embedded green progressive mechanism which is different from integral green leaping mechanism, is a management innovation of accelerating greenization transformation process of old communities. Taking old communities under three types of property rights in Tianjin as an example, the paper puts forward that budget constraint and special orientation of public service have an effect on the priority of greenization transformation implementation; the paper also puts forward that the priority of greenization transformation is influenced by the interaction of capital gap, property rights and capital structure. Then, the paper proposes three factors that affect collective villagers’ willingness to invest greenization.

1. Introduction
The greenization transformation of old urban communities with huge volume is the main content of “double urban repair” (urban repair and ecological restoration) [1]. As the implementation object of greening transformation, the old residential communities have intricate relationships with each other, which restrict each other in the transformation projects and lead to the dual challenges of heavy reconstruction task and high reconstruction difficulty. It is another management innovation field of urban green development. More old communities can make use of the old community reconstruction projects carried out by local governments to carry out embedded local reconstruction, introduce green content with existing conditions and implement green progressive mechanism. Taking Tianjin as an example, this paper selects the old building comprehensive function upgrading project (hereinafter referred to the old building reform project) which has been continuously carried out under the theme of “Popularity-winning” Project in recent years, as one of the first pilot platforms for the greenization transformation of old communities. In this case, as an analysis unit, three questions are explored: What types of green content have the conditions for implementing the old building reform project in consideration of public service characteristics and financial budget constraints? Which type of building will be the leading block of green transformation in the old buildings that need to be renovated? In the construction management relationship of the renovation of old buildings, what kind of governance model can strengthen the willingness to invest greenization, and then promote the process of greenization transformation?
2. Basic livelihood-type green content with the first implementation conditions

2.1. Basic needs of people's livelihood in the old building reform project
Compared with the newly-built communities in the same area, the old building area has the advantage of rent and purchase price, and the outflow of young and middle-aged residents of the original residents in the community is large. These factors lead to the three commonalities of the population structure of the residents in the old building area: hybridity, mobility and aging. This leads to the community's public security problems and the elderly travel problems are more prominent. According to Maslow’s hierarchy of needs theory, it can be identified that the basic needs of people's livelihood must be given priority under the constraint of financial budget in the old building reform project: the public security needs of the community, and the barrier-free daily activities of the elderly in the community public space.

2.2. The impact of the basic requirements of transformation on the embedded order of green content
Specific analysis is made on the basic demands for the renovation of old building areas born in the basic needs of people's livelihood. Access control, community security monitoring system, parking space and other facilities must be reformed to solve the problems of safe living such as burglary and robbery, and parking occupancy of fire control passageways. The facilities must be adapted to the aging transformation to meet the barrier-free needs of the elderly in public space activities under the community pension mode. By examining 17 items in the greenization transformation option [2], the intersection of the project content and the green transformation content of the old building area was formed. The green transformation option, which is compatible with the basic demands of the transformation, can be regarded as the basic green content of people's livelihood which has the conditions to take the lead in the implementation of the old building reform project.

3. Suburban greenization transformation block with leading implementation conditions

3.1. Old building renovation project of public property or unit abandonment
Such renovation projects are concentrated in the central urban area, and the public characteristics of their property rights or management rights determine that the transformation funds are all derived from financial funds. The orientation of government funding can be reflected through the scope of projects marked by renovation content. Taking the old building reform project in the central urban area of Tianjin as an example, the renovation content of old building areas is mostly non-green transformation, and there is still a funding gap for the basic green content of people's livelihood. Under the constraint of the investment orientation of financial capital and budget limit, the capital gap has a great impact on the greenization transformation of such old building areas, and the green depth and speed are completely controlled by the urban financial strength of each city.

3.2. Old building renovation project of suburban farmers' self-use house
Such projects are mainly distributed in suburban communities located in urban-rural integration, especially in the process of urbanization. Its small property rights determine whether the funds for transformation are solely undertaken by the government, or shared by the government and the village collective, and the latter is becoming the mainstream model of the capital structure under the new normal economic. When the government's investment orientation and budget limit restrict its investment in the basic livelihood-type green content, out of the feeling of benefiting the villagers' home, the village collective may use the accumulated funds in the process of urbanization to transform the green content of the community, such as the elderly, parking and greening. Therefore, the dual investment structure weakens the constraints of the financial gap on the green transformation of old communities.
3.3. Old building renovation project of private property

Such projects are concentrated in the central urban area, which can be divided into property management by industry committee and commercial housing by unit. The characteristics of private property have made the investment structure of these old building reform projects inevitably diversified. The collection and payment of property fees for daily maintenance and operation of these old buildings is low, which can only meet the functional upgrading of basic people's livelihood. For the new basic livelihood-type green content, there is a significant funding gap, and various types of crowd funding methods that meet the characteristics of private property, such as owner-funded investment, must be considered or adopted. The multi-investment structure makes the transaction cost of the financing process extremely high. Therefore, the crowd funding characteristics of household participation have strengthened the constraints of the funding gap on the green transformation of such communities.

4. Factors influencing the willingness of village collective green investment

4.1. Homeland feelings and conditions for collective accumulation of funds
Based on the feasibility the village collective funds to intervene in the basic livelihood-type green content in the process of urbanization, this study used the opportunity of activities of the deputy to the district people's congress to interview some village committee members in the Xiqing District in the suburbs of Tianjin. The dual investment structure of the project is “the district finance will match 50% of the funds, and the other 50% of the funds will be raised by the villages to ensure the appropriation of special funds”. The interview reflects the situation of completed renovation projects: the total amount of funds cannot meet the reasonable standard requirements of all facilities in terms of functional and performance. For the problem of the funding gap that has been completed in the old building reform project, out of the feeling of benefiting the villagers' homeland, the village committee used the village collective accumulation funds in the project implementation process to fill the funding gap without compensation. In the dual investment structure, the village collective's homeland feelings and collective capital accumulation conditions weaken the constraint of the fund gap to the reasonable renovation standard in the reconstruction of the old building areas in the suburbs.

4.2. Green Performance Expectations
In the interview, the feasibility of implementing the basic livelihood-type green content on the old building reform project was discussed. The interviewees first thought that there was a reasonable demand for "adding aging elevators to existing buildings". The demand rationality and technical feasibility of "building a barrier-free road for the old-aged community" have been recognized. Judging from the current implementation conditions, the latter has small incremental funds and low maintenance costs, which can be achieved by appropriately adjusting the scope and standards of renovation. The green performance expectation for the technical feasibility, facility efficiency, villagers' satisfaction and other factors of green facility construction also has a significant impact on the willingness of the village collective green investment.

4.3. Governance mode of greenization transformation
In the interview, the rationality of demand and technical feasibility of "building three-dimensional parking building in the community in accordance with local conditions" have also been unanimously recognized. The applicability of the governance model is analyzed based on the interview results. First, due to the existence of the government procurement system in terms of fiscal funds, it is unlikely to adopt the mode of “joint venture and village management”; but by the village collective individual investment, the mode of “village investment and government management” specifically managed by the government weakens the village committee’s main status. Second, when the village collective capital input to fill the fund gap is large, the adoption of "joint venture and government management" mode will weaken the village collective's willingness to invest. By contrast, the mode of "village
capital and village management" is the most appropriate, no matter from safeguarding the legal rights of investors or meeting the demands of village committees, so as to strengthen the willingness of village collective investment.

5. Conclusion
In the design, construction and operation of building renovation, other innovations that save energy resources, protect the ecological environment, and ensure safety and health, and have obvious benefits, are the proper meaning of green transformation [3]. Therefore, combining the theme of popular sentiment project, taking the old community reconstruction project as the platform and adopting the embedded green progressive mechanism for transformation is an innovative idea of transformation management. Based on the analysis of the commonness of the basic needs of the people's livelihood of the residents in the old building area, this paper puts forward the basic demands for the reconstruction of the old building area. According to the financial investment orientation of “popularity-winning” project, "three-dimensional parking building, additional elevator and barrier-free roads suitable for aging community" can be used as the basic livelihood-type green content to be embedded in the old building renovation project of the “popularity-winning” Project. Due to the different property right attribute of the old building area, the greenization transformation investment structure is also different. The suburban small property houses have the first to implement the financing conditions of the basic livelihood-type green content. Homeland feelings and collective accumulation of capital conditions, green performance expectations, and governance models have a significant impact on the village collective green investment willingness.

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