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Sustainable Approach to Public Facilities Operation in Small-and Medium-sized Cities

Since 2014, a large proportion of the urban regeneration budget in South Korea has been used toward public facilities construction. However, public facilities built without proper assessment of local needs and operation models, increases the possibility of underused facilities. The operation and management of these government-funded facilities are then handed over to the local government, which thus becomes a financial burden to the governing body. Against this background, this study aims to suggest new ways of providing public facilities and services apart from the functionally integrated public buildings, in order to seek sustainable ways of operating public facilities built through the urban regeneration initiative.

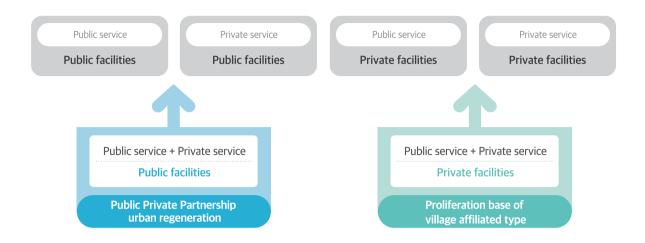
In the cases of small- and medium-sized cities where population decline is expected, the problems associated with operating public facilities is likely to worsen. As of 2015, large-scale social overhead capital(SOC) Facilities construction (cost of more than 10 billion KRW) are incurring a deficit in 18 shrinking cities, of which five (Taebaek, Boryeong, Iksan, Gimcheon, and Yeongcheon) are suffering particularly major financial setbacks as operation costs exceed 17% of local tax collection. Insofar, public facilities were built expecting the trickle-down effect where these buildings may induce a positive influence as key places in the local area with integrated functions. However,

this model seems more suitable in large cities with sufficient demand. According to the Urban Regeneration New Deal roadmap, the Ministry of Land, Infrastructure, and Transport is planning to create an urban regeneration *Eoulim* platform that combines start-ups, young adult rental housing, and various public service support centers in 100 locations nationwide.

However, in small- and medium- sized cities where existing facilities are often underused due to a decreasing population and purchasing power, these functionally integrated key facilities may result further underuse of other similar facilities. "The graveyard of urban regeneration (2014, AIA)," which analyzed urban regeneration projects in Japan where the failure of proper assessment of local demand lead to the repeated problems of underuse, argued that the biggest factor of failure was functionally integrated large-scale government-funded buildings built without considering the already underused and neglected facilities.

Hence, the purpose of this study is as follows. The study aims to present a sustainable operation plan of public facilities built through government funding, and proposes an operation model focusing on public service provision. Based on this, the study suggests public facility operation options that can be chosen by local governments.

Based on the analysis of current and completed projects of functionally integrated public facilities, the study identified the following recurring problems regarding SOC facilities, Urban Regeneration New Deal *Eoulim* centers, and public facilities built through the urban regeneration promotion initiatives. First, the spatial demand for the facility is based on the current period, and therefore, may be overestimated for facilities in small- and medium-sized cities where the population is likely to decrease. Second, residents may not necessarily perceive shortened traveling distances to SOC facilities in their living quarters since accessibility is measured based on vehicle use. Third, the current local surveys are focused on public facilities only, and hence, the functional overlap with private facilities that offer similar services, are not recognized. Fourth, supplying public facilities when existing facilities are already underused, may lower the utility of the planned facility even further. Fifth, the scale of the public buildings is often determined by the project budget. Sixth, because evaluating the positive impact of public buildings is difficult, current building-level evaluations are so under prepared as being limited to budget execution, the number of facilities, and whether facilities have been completed or not.

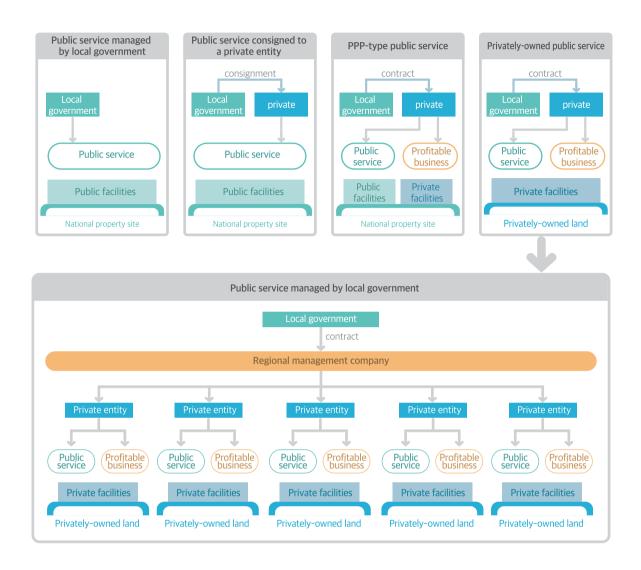


[Figure 1] Public service provision while reducing operation and maintenance costs

To resolve this, the study suggests the following policy directions. First, procedures for estimating and evaluating the operation and maintenance costs should be introduced through restructuring the operation plan of public facilities at the local government level. Second, a systemized local survey is needed regarding private sector projects and facilities that offer similar functions of the targeted public service, which is subsidized by government funding. Third, in the period of population decrease where uncertainty increases and local finances become less stable, public service provision needs to be wholly reconsidered through utilizing private facilities or paying service fees to these facilities on a regular or irregular subscription basis

In conclusion, in small- and medium-sized cities where the aging population and low birth rate are expected to undermine the financial stability of local governments, if key local facilities (SOC facilities and Urban Regeneration Eoulim centers) are over-supplied, the operation costs incurred over the whole building life span may amount up to 4 to 5 times of the construction cost that needs to be borne by the local government. If operation, maintenance, and midto long-term remodeling costs are spent on large-scale public facilities in the context of deteriorating local financial conditions, this can cause a major setback when other urgent or timely public services need to be financed.

Therefore, small- and medium-sized cities may need to consider diversifying public service provision through public facility construction, public-private partnership, public service provision through privately-owned facilities or consignment in view of the working population trend and the mid- to long-term financial conditions. Local governments will need to assess their population trend and fiscal conditions individually and to implement appropriate methods.



[Figure 2] Schematic diagram of small- and medium-sized cities' public service provision

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