

# auri research brief

No. 58

---

**Youm, Chirlho**

Senior Research Fellow

**Lee, Yeokyung**

Associate Research Fellow

**Lee, Kyungjae**

Assistant Research Fellow

## **Comprehensive Asset Management Planning for Efficient Construction and Utilization of Local Public Facilities**

The uniform distribution of public facilities based on population size or local jurisdiction areas by the central governing bodies or according to individual legislations has been pointed out as a problem as this method fails to recognize local needs based on living zones. When projects are rapidly implemented in view of achieving goals in the short run without sufficiently assessing local demands, problems of under usage arise and additional costs are required to increase its utility.

Recently, mid-to long-term comprehensive asset management policies that can promote longevity of public facilities and improve its values, have become an important issue due to the increased financial burden of operating and managing public facilities across the globe that are rapidly aging. Furthermore, public facilities management is not only concerned with individual facilities but the possibility of connecting functions, relocation, facility integration, and public-private partnership based on the service and demands of current and future users, as well as the financial conditions. The notion of asset management has broadened to the comprehensive management, utilization, and expansion of public facilities.

This study aims to propose how to establish a comprehensive asset management plan for local public facilities. To this end, the study examined why it is necessary to introduce a comprehensive asset management system and analyzed domestic and overseas asset management plans and established pilot asset management strategy. Then, the study finalized an asset management planning strategy to suggest the ‘a comprehensive asset management plan for local public facilities’. Based on this, the study proposed an action plan for efficient construction and utilization of local public facilities based on the comprehensive asset management plan.

First, the need for comprehensive asset management is as follows: ① to respond to changes in local public facilities demand; ② to respond to the aging buildings and deteriorating financial conditions; ③ to shift from the existing supply system where related government bodies severely lack communication and neighborhood facilities are processed through a top-down system; ④ the need to strengthen connections between local policies and public facilities; and ⑤ to shift from identifying values of owning facilities to values of utility.

Second, based on the analysis of domestic and international case studies and implementing local pilot projects, the process for establishing a comprehensive asset management plan was laid out as follows: ① set up a system for establishing an asset management plan in the local government; ② investigate and set up an information base of local public facilities; ③ identify the current local context and mid- to long-term development plans of the region; ④ estimate costs for building and managing local public facilities; ⑤ establish the basic direction of local public facilities asset management; and ⑥ establish an action plan for each building types. The study also suggested more detailed procedures for each stage.

**[Table 1] A detailed procedure for establishing a local public facilities comprehensive asset management plan**

Procedure	Contents
<b>1. Set up a system for establishing an asset management plan</b>	
1-1. Survey system for collating and organizing related information	<ul style="list-style-type: none"> <li>· Identify public facilities managing department and personnel</li> <li>· Collect all basic information available from the local government</li> <li>· Review and assign external organization for establishing the asset management plan and prepare ordering services</li> </ul>
1-2. Consultation and coordination system for public facilities related departments to ensure streamlined decision-making and discussion	<ul style="list-style-type: none"> <li>· Designate the main public facilities asset management department and cooperation departments</li> <li>· Set up a consultative team or TFT to establish the asset management plan and identify roles</li> <li>· Decide on the operation method of the consultative body or TFT</li> </ul>

Procedure	Contents
1-3. Expert support system for establishing the asset management strategy and action plan	<ul style="list-style-type: none"> <li>· Ensure the support of public facilities evaluation and architectural experts</li> <li>· Assign an external organization to set up an asset management strategy if necessary</li> <li>· Consider utilizing the existing master architect or dedicated organization within the local government</li> </ul>
<b>2. Investigate and establish a public facilities information base</b>	
2-1. Construct an information base of current public facilities status	<ul style="list-style-type: none"> <li>· Collect and analyze existing public facilities information</li> <li>· Construct an information base of current public facilities status</li> </ul>
2-2. Understand building and site data	<ul style="list-style-type: none"> <li>· Collect information on nationally owned lands and facilities</li> <li>· Collect school facilities information</li> </ul>
2-3. Understand current building status	<ul style="list-style-type: none"> <li>· Basic information (overview, land/site data, architectural data)</li> <li>· Operation, use, costs (income, expenditure)</li> <li>· Information on building quality (safety, energy performance, complaints)</li> <li>· Others (future plans, data)</li> <li>· Collect individual building information and unify data</li> </ul>
2-4. Evaluate individual public building asset value	<ul style="list-style-type: none"> <li>· Set up evaluation criteria for assessing public building asset value</li> <li>· Evaluate public building asset value and prioritize asset management direction by facility types</li> </ul>
<b>3. Identify current local context and future development directions</b>	
3-1. Understand local context	<ul style="list-style-type: none"> <li>· General urban context</li> <li>· Population changes</li> <li>· Local development plan and financial conditions</li> </ul>
3-2. Understand and establish mid- to long-term local development plans	<ul style="list-style-type: none"> <li>· Identify applicable legislation laid out in the urban basic plan and urban regeneration strategic plan</li> <li>· Understand non-legislated plans related to local development</li> <li>· Establish the development direction of main living zones and public facility building and utilization</li> </ul>
<b>4. Estimate costs for building and managing public facilities</b>	
4-1. Understand the financial costs for operation and management, maintenance, and reconstruction of existing facilities	<ul style="list-style-type: none"> <li>· Understand the annual cost of local public facilities construction and management</li> <li>· Estimate costs for maintenance, management, and operation during the planned period</li> <li>· Calculate costs for future large-scale remodeling such as 20 years after construction</li> <li>· Estimate reconstruction costs in cases where building life has reached the end</li> </ul>
4-2. Establish scale of costs to be used for building and managing public facilities	<ul style="list-style-type: none"> <li>· Calculate a secured budget for future public facilities maintenance</li> <li>· Estimate costs available for public facilities construction and management during the planned period</li> </ul>

Procedure	Contents
<b>5. Establish the basic direction of asset management</b>	
5-1. Set main strategies for asset management	<ul style="list-style-type: none"> <li>· Identify main asset management tasks based on an analysis</li> <li>· Establish a strategy for resolving main tasks</li> </ul>
5-2. Set the appropriate number of public facilities during the planned period	<ul style="list-style-type: none"> <li>· Set the appropriate number of public facilities during the planned period</li> <li>· Identify living zones subject to additional public facilities and the scale of these facilities</li> </ul>
5-3. Set tasks for asset management	<ul style="list-style-type: none"> <li>· Estimate costs and means of securing a budget to achieve an appropriate number of public facilities</li> <li>· Improve existing facility performance and provide means to extend its use</li> <li>· Consider utilization of non-used or underused sites or buildings</li> <li>· Increase public facility efficiency through functional integration and consolidation</li> <li>· Improve public facilities asset management system</li> </ul>
<b>6. Establish an action plan for each building types</b>	
6-1. Facility overview and current status	<ul style="list-style-type: none"> <li>· Building type, name, building purpose, and scale</li> <li>· Year of building, scale, operation body, and building performance</li> <li>· Asset management evaluation results by facility type</li> </ul>
6-2. Asset management plan	<ul style="list-style-type: none"> <li>· Detailed supply and maintenance plans according to the target of appropriate number of facilities</li> <li>· Estimation of target area, renovation, repair, and update costs</li> </ul>
6-3. Annual promotion plan	<ul style="list-style-type: none"> <li>· Establish an annual promotion plan for the planned period</li> </ul>

Third, the study proposed an action plan based on a comprehensive asset management plan: ① establish and operate an information system for asset management; ② implement a pilot project of comprehensive asset management planning; ③ ensure the national budget for supporting public facilities rebuilding and remodeling; ④ improve the existing system to enable functional integration, public-private partnership, conversion, and facility consolidation; and ⑤ prepare the legal basis for setting up a comprehensive asset management plan for local public facilities.

**[Table 2] Action plan for efficient construction and utilization of local public facilities based on a comprehensive asset management plan**

Category	Contents
Establish and operate an information system for asset management	<ul style="list-style-type: none"> <li>- Strengthen the capacity of local property managing departments</li> <li>- Operate public facilities information system based on a systemized survey</li> <li>- Link information system with national and school management systems</li> </ul>

Category	Contents
Implement pilot project of comprehensive asset management planning	<ul style="list-style-type: none"> <li>- Change MLIT's 'Spatial environment strategy plan support project' to a two-year project</li> <li>(1<sup>st</sup> yr: establish a comprehensive asset management plan for local public facilities; 2<sup>nd</sup> yr: establish detailed plans for main promotion areas)</li> </ul>
Ensure national budget support for rebuilding and remodeling	<ul style="list-style-type: none"> <li>- Provide financial support for setting up an asset management plan</li> <li>- Provide national subsidy for public facilities remodeling and extension based on an asset management strategy</li> <li>- Ease local debt issuance conditions for projects based on asset management strategies</li> </ul>
Improve existing system to allow functional integration, public-private partnership, conversion, and consolidation	<ul style="list-style-type: none"> <li>- Introduce ways of ensuring complex functions for public facilities through public-private cooperation</li> <li>- Flexible legislation for changing the building use or integrating functions</li> </ul>
Prepare the legal basis for setting up comprehensive asset management plans	<ul style="list-style-type: none"> <li>- (Option 1) Prepare legislative basis for asset management planning through the (proposed name) "Public Building Special Act"</li> <li>- (Option 2) Prepare legislative basis through the revision of the "Public Property and Commodity Management Act"</li> </ul>

**Keywords :** Public Facilities, Asset Management, Asset Management Plan, Public Building

