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노후 정부청사의 효율적 유지관리를 위한 정책방향 연구

Policy Framework for Efficient Facility Management of Aging Government Buildings

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Summary

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Introduction

Aging government buildings represent one of the most urgent challenges to national asset management in Korea. Most government complexes were constructed during the period of rapid industrial growth and are now simultaneously reaching the end of their design life. This situation demands a paradigm shift from the era of construction and expansion to the era of maintenance and management.

The economic significance of this shift is evident in the life cycle cost (LCC) structure of public buildings. Only about 16.4% of total costs occur during the planning, design, and construction phases, whereas 83.2% of costs arise during the operation and maintenance stages. Despite this, Korea's current system remains reactive—addressing deterioration after it occurs—rather than preventive or predictive. Without systemic reform, the growing number of aging facilities will lead to higher repair costs, increased safety risks, and interruptions in essential government services.

Problems of the Current System

The current management framework is primarily oriented toward the supply of new facilities rather than the long-term maintenance of existing assets. The Regulations on Government Office Management focus largely on new construction and leasing, lacking a unified procedure for maintenance planning or performance monitoring.

Moreover, there is a severe shortage of professional facility managers. Many ministries rely on general administrative staff to perform technical maintenance tasks, resulting in inefficiency and inconsistent standards. Surveys show that more than 75% of institutions not

directly managed by the Government Complex Management Headquarters reported "a lack of maintenance personnel" as their primary difficulty, and over 90% determine maintenance priorities based on individual judgment rather than data or plans.

This dual system—where a small number of central government complexes are systematically managed under the Government Complex Management Headquarters while the majority of ministry-owned buildings are not—creates structural inequality in management quality, safety assurance, and fiscal efficiency.

Benchmarking Domestic and International Cases

■ Current status analysis target and data

Domestically, the Framework Act on the Sustainable Management of Infrastructure provides a valuable reference. It mandates a five-year basic plan and management plan for 15 categories of national infrastructure, institutionalizing preventive maintenance and performance evaluation. Although public buildings are currently excluded from this law, its principles—long-term planning, data-based evaluation, and centralized information management—offer a blueprint for public facility reform.

Internationally, the United States, Japan, and the United Kingdom have established exemplary systems:

- The U.S. General Services Administration (GSA) operates the National Computerized Maintenance Management System (NCMMS) and standardized Preventive Maintenance Guide (PMG), ensuring nationwide consistency.
- Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) applies the Facility Card and Building Information Management and Maintenance System (BIMMS-N) to manage data-driven long-term facility plans.
- The U.K. Government Property Agency (GPA) enforces functional standards such as GovS 004: Property and Facilities Management Standards (FMS 001 & 002) to integrate property management within strategic government objectives.

Policy Directions and Strategies

This study proposes a comprehensive policy framework to transition from reactive maintenance to proactive and data-driven facility management. Four key strategies are presented:

■ Standardization and Planning Framework

- Introduce mandatory Maintenance Plans for all government buildings, specifying inspection cycles, performance targets, and reporting requirements.

- Develop national-level guidelines and templates to ensure consistency across ministries.

Data-Driven Integrated Management System

- Establish a Government Facility Management System (G-FMS+) integrating building performance, maintenance history, and cost data.
- Enable data sharing between the Ministry of the Interior and Safety (MOIS), Ministry of Land, Infrastructure and Transport (MOLIT), and the Ministry of Economy and Finance.

Institutional and Professional Reform

- Redefine roles between central and line ministries to strengthen coordination under MOIS and the Government Complex Management Headquarters.
- Create a Facility Management Specialist Position System allowing long-term appointments, specialized training, and performance recognition.

Legal and Institutional Improvements

- Amend the Regulations on Government Office Management to include mandatory periodic condition assessments and maintenance planning.
- Revise related laws such as the Building Management Act to extend legal obligations to all public buildings and clarify accountability.

Conclusion

Korea invests nearly 1.8 trillion KRW annually in the construction and maintenance of government buildings, yet lacks a cohesive maintenance governance framework. As these assets age, continued reliance on fragmented, reactive management will lead to unsustainable fiscal burdens and operational inefficiencies.

This study therefore emphasizes the need for a systemic transition grounded in law, data, and professional expertise. A unified, standardized, and performance-based maintenance system will safeguard national assets, improve service quality, and ensure the sustainability of government infrastructure. Through preventive management, aging government buildings can evolve from fiscal liabilities into well-maintained, value-creating assets for future generations.

Keywords

Aging Government Buildings, Preventive Maintenance, Facility Management (FM), Life Cycle Cost (LCC), Data-Driven Management, Institutional Reform