

국가 녹색건축물 기본계획 성과 및 발전 방안

The Performance and Development Strategy of the Green Building Master Plan in Korea

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SUMMARY

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2018 is the last year of implementation of the first Green Building Master Plan(2014 ~ 2018). The outcome of the first master plan will be the basis for the second Green Building Master Plan, which will be implemented from 2019 to 2023. Therefore, first of all, it is necessary to evaluate the performance of the first Green Building Master Plan in order to check the future policy direction.

There are three objectives of this study. The first objective is to investigate and analyze the achievements of the policy tasks of the first Green Building Master Plan. The second objective is to examine the possibility of greenhouse gas reduction goals in 2020 and 2030. The third objective is to suggest the direction of the second Green Building Master Plan considering the changes in socioeconomic conditions.

The policy tasks of the first Green Building Master plan consist of a total of 100 unit projects. So far, 36 units have been completed, 44 are underway, and 12 have been changed. The 2 units were discontinued due to the change of the department in charge. As a result of the survey, there were no projects that were not implemented. The policy tasks with the highest completion and progress ratio

were 'Strengthening existing building management and certification standards', 'Establishing cooperation between ministries', 'Strengthening green building information system and sharing information', and 'Strengthening PR related to green architecture'. On the contrary, the lowest challenges are 'Leading the public sector in green architecture' and 'Vitalizing the private sector in green remodeling'. The discontinued tasks were 'Concentration management of buildings targeted for emission trading', 'Introduction of a scheme considering order reduction method and reduction of greenhouse gas emission and energy use'. The interrupted task has problems that need to be discussed with other central government agencies or difficult to realize.

The most important meaning of the first Master Plan for Green Building is to start the green building policy at the national level. The achievements of the first master plan are to establish the foundation of the green building supply policy and to form a consensus among the public. 86.5% of green building experts evaluated the national green building policy positively. However, experts have pointed out somewhat lacking of the past green building policies. The reason is that the first green building master plan is focused on strengthening architectural design standards and energy conservation, and insufficient funding policy.

The study implements quantitatively analysis on the achievement of greenhouse gas targets. As a representative result, it is difficult to realize that it is necessary to the remodeling more than 90% of the existing buildings in order to achieve the greenhouse gas(GHG) reduction target in 2020. This result was obtained by using the insulation consolidation ratio and the building floor area. The more accurate GHG reduction results should be based on the data of building energy use measurement and be verifiable. In addition, the following master plan should include measures to verify policy performance.

This study suggests the establishment of the second green building master plan to reflect the results of the first green building master plan and the changed conditions. The policy direction of green buildings focused on energy efficiency should be to add policy tasks to reduce environmental impacts such as indoor comfort and water re-use and to satisfy the comfort of residents. In addition, it is necessary to strengthen policies related to construction and maintenance to improve the performance of existing buildings. The green building market should

be linked with the 4th industrial revolution to expand the construction of green buildings and create jobs. Finally, the following green building master plan should be established a system to share the greenhouse gas reduction goals of the building sector in 2030 and continuously assess the performance.

The purpose of this study is to review the results of the first green building master plan and to draw some implications for establishing the second green building master plan. The limitations of this study are that it does not consider various factors influencing the GHG emissions of the building sector and calculated the GHG reduction effect based on strengthening the insulation criterion of the building. In addition, the results of the plan were reviewed based only on the effects of the 'Green Remodeling Interest Support Project'. In the future, the second Green Building Master Plan suggests that more accurate methods for estimating GHG reduction effects and methods for assessing green building related planning performance should be included.

Keywords :

GHG Emissions, Policy Task, Existing Building, National Plan, Policy Performance, Green Building Design