

Policy Survey for Green Building Masterplan in Korea

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The newly legislated 'Green Building Support Act' in Feb. 2012 is to designate required elements for green building construction, which is referred in the 'Framework Act on Low Carbon Green Growth' in Korea. This support act aims to diminish green house gas emission and to increase social welfare by boosting the green building construction in Korea. According to this act, 'National Masterplan for Green Building' must be established every 5 years. The masterplan is a comprehensive plan on green building, which consists of current status, vision, policy direction, information system, research, development, and policy implement.

This report is prepared to suggest the contextual ground for founding and managing of the 'National Master Plan for Green Building' by comparative case study. With this goal, the domestic green building situation is briefly summarized, and green building related policy packages are surveyed across seven countries in order to draw effective implications for the first national masterplan for green building in Korea. The deductions from the global survey are as follow.

First, in Japan, while the previous series of policies independently hve been managed by each department such as the Department of Environment and the Department of Land and Transportation, the current policy issues are being combined and coordinated across the related departments. For example, 'Housing policy

and methods for low carbon society' is under way through collaborative roadmap made by the Department of Land and Transportation, the Department of Environment, and the Department of Economy. Especially, huge working group of various fields' experts is leading in setup process of trans-government energy and low carbon strategy in the middle or long term.

Second, major characteristics in Chinese policy are a number of large scale pilot projects in charge of central government for green building construction. Over 100 green building projects are covering various type of construction project such as new town, technology cluster, or redevelopment of old city center. The initiative of central government is to stimulate and motivate local governments to participate in green building construction financially and politically.

Third, since 2006 the Singapore government founded the 'green building masterplan' decided by cabinet committee and implemented by construction agency. The first masterplan consisted of minimum requirement of green building, related research and development plan, and human resource plan, which prepared for planning ground. The second masterplan was expanded on green building detailed categorization, public sector's initiative for green buildings, public relation strategy, etc. The current masterplan is more emphasizing positive effect on green building construction.

Forth, Germany has been leading in the institutional and technological preparation for progressive green building construction, and had legislated Energy Saving Ordinance in 1970s already. The central government set anticipated green house gas emission level of Germany much higher than EU's goal in 2020. In spite of the pacesetting technology level of Germany, the government is focusing on diverse communication channels with people on sustainable environment and

energy saving such as internet or publishment.

Fifth, the Great Britain refers to energy efficiency as well as green house gas in green building related overall policy. The building energy performance evaluation system does not check the energy cost only but green house gas emission quantity as well. There are broad considerations on water resource, soil conservation, etc. in green building design guideline to respond to extreme climate change. In the viewpoint of employment, the central government are trying to maximize the socio-economic effects like job creation through the green building construction projects such as the Green New Deal.

Sixth, while there is no enthusiasm on green building construction in Australia compared with EU, the national support policy for low income class's green building projects are implemented by central government. The main contents of support policy are subsidy program for low income households and public housing energy performance improvement program. In other hand, different evaluation systems are uniquely developed for various building type, and state government are taking main role in green building construction policy.

USA government are emphasizing green public building proeject which are of the federal government. The main initiative has been set by local government or private sector. USGBC is leading the promotion, evaluation, support strategy and suggesting and implementing overall masterplan, which is non-profit organization. In general, US is focusing not on energy saving level but on high performance and efficiency of building and has obvious limit in global low carbon situation.

Now the several countries' policy survey results can be summarized as follow.

First, the national goal, and environmental goal must be clearly defined by green building construction. The global green race endangers

the domestic industry grounds, which demands the public response including economical system or production system with green elements. The green building construction is not mere a energy issue but a global economy issue.

Second, existing policies and fragmented strategies must be combined and coordinated across the whole government for green building construction system. To build green building and green city, it is necessary to synthesize different physical, institutional, cultural element comprehensively.

Third, large scale pilot projects are needed to accumulate positive experiences and unique innovation process in green building construction and management. With no affluent technology level and articulated institutions, it is important to promote various pilot projects in huge scale, which can affect the global reputation in green building construction.

Fourth, long term communication and PR stragey on green building is necessary. Green building, green city is liable to change whole life style and quality level of life. Therefore the meaning and effects of green constructions should be widely discussed and delivered among people. The communication process is expected to result in a new green culture in future city.

Lastly, climate change must be considered in green building and green city construction projects. The traditional weather statistics may not help the extreme weather condition which can result in drastic environmental disaster in city. To conserve general environmental elements such as soil, water, atmosphere, etc. and to protect the people's safety, the definition and the implementation strategy of green building are to became wider and more comprehensive.

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