AURI-기본-2016-10

지속가능발전목표(SDGs) 대비 건축 · 도시분야 대응방향 연구

A Study on Strategies for Architecture and Urban Planning Industry under Sustainable Development Goals(SDGs)

손동필 Son, Dong Pil
오성훈 Oh, Sunghoon

(aur

A study on Strategies for Architecture and Urban Planning Industry under Sustainable Development Goals(SDGs)

Son, Dong Pil
Oh, Sunghoon

Sustainable Development Goals(SDGs) having 17 goals and 169 targets have started from January, 2016 to replace MDG. The value of SDGs is to provide a new paradigm which shows the right direction for solving internal and external matters of individual countries and organizations for the nest 15 years. SDGs include various global issues and one of the issue is related with sustainable cities. It is obvious that SDGs will make an influence to architecture and urban planning industry in near future. So it is required to estimate the impact of SDGs to the industry and policies of architecture and urban planning and seek a right direction of direction of the policies in accordance with SDGs.

In South Korea, SDGs related strategies and policies were led by Office for Government Policy Coordination Prime Minister's Secretariat, Ministry of Environment, Ministry of Foreign Affairs and Statistics Korea. However, most of government policies and strategic plans had been made before starting of SDGs, so they are not exactly relevant to SDGs. By this reason, new policies and strategic plans will be produced or existing policies and plans will be amended to reflect SDGs.

Unlike the government, civil societies of South Korea are more active than the government to implement SDGs into various parts of Korea such as economy, environment, society, matters relatedewith North Korea etc. Their activities now form the early stage of governance and it is believed that they set up their roles for implementing SDGs in a right direction.

In terms of foreign countries in preparing SDGs, several countries such as Germany, France, Japan established a high level committee for coordinating SDGs –matters among government organizations and monitoring and evaluating implementation of SDGs.

SDGs indicators are still unsettled and they are not reached to an agreement about which proposed indicators will be adoptable by the UN members. Furthermore, many indicators are methodologically not available. So, forecasting the impact of SDGs with the indicators is not possible in reality. However, there are several similar indicators which Statistics Korea collects. Therefore the study uses these similar indicators for forecasting the impact of SDGs for architecture and urban planning industry. The study limits the scope of its context to SDGs Goal 11 which for sustainable and resilient cities.

Similar indicators available in Korea are summarized as follows:

A proportion of population living in slum for SDGs indicator 11.1.1 can be assumable using 'Rate of households under minimum housing standard'. The rate has decreased since 2006 and was 978,000 households in 2014.

For SDGs indicator 11.2.1, 'Time to access public transportation' can be used. in 2014, 44.3% of people still spent more than 10 minutes on foot to reach a facility for taking public transportation.

There are not enough indicators available for SDGs indicator 11.3.1 and 11.3.2. For the 11.3.1, 'rate of urbanization' might be usable with 91.7% in 2014. On the other side, there is no clear similar indicator for the 11.3.2 at the moment.

There is 'Budget for cultural heritage' as a similar indicator for SDGs indicator 11.4.1. The budget was around 0.3% of GDP and 1.24% of total government budget in 2014.

There are several statistical data regarding with natural disasters such as 'frequency of natural disasters', 'damage of human life by natural disasters' and

'physical damage by natural disasters'. However, they can used as similar indicators for SDGs indicator 11.5.1 and 11.5.2.

It is possible to assume how waste is well treated and re-used with 'recycling rate of general waste' for SDGs indicator 11.6.1. In total, 84% of general waste in Korea was recycled in 2013. For SDGs indicator 11.6.2, 'annual mean level of PM10 for key cities' is available. However, the 11.6.2. also requires the data of PM2.5 as well, but the data for PM2.5 is not available in Korea yet.

There is no statistical data for public spaces and the scope term of public space is still unclear. So it should be clearly defined before collecting data for SDGs indicator 11.7.1. Moreover, for a similar indicator, several possible data should be re-constructed for the study.

There are a few criminal data for SDGs indicator 11.7.2, although they are not well categorized according to the requirements of the 11.7.2. In terms of sexual crimes, the rate has increased since 2011.

The meaning of SDGs indicator 11.a.1 is unclear and there is no similar data available at the moment.

SDGs indicator 11.b.1 and 11.b.2 investigate how many central and local governments have their own strategy for disaster risk reduction. However, these indictors are mainly for developing and low-developed countries. For Korea. the central and local governments have such strategies, but they may need to be modified in accordance with the requirements of Sendai Framework.

SDGs indicator 11.c.1 emphasizes financial support to least developed countries for the construction projects using local materials. There is no data available as ODA statistics do not collect data by the origins of construction materials.

The study conducted questionnaire survey with experts by email from August 18, 2016 to September 27, 2016. The survey adopted forecasting trends and Delphi methods and carried out by five times. The questionaries collected 7 topics including

Influence of the targets of SDGs goal 11, Selection of similar indicators for SDGs goal 11, Forecasting for the selected similar indicators by experts, Propriety of existing national policies for individual targets regarding SDGs, Policy suggestions for individual targets regarding SDGs, Effectiveness of the policies for individual targets, Hierarchy of the policies for individual targets.

Among the collected data, forecasting for the selected similar indicators by experts and Effectiveness of the policies for individual targets were repeatedly questioned using Delphi method.

Experts who participated the survey forecasted that most of the similar indicators will change to a positive direction. according to the predictions, specially the four SDGs indicators are expected to have greater changes by 2030 including Indicator 11.1.1: improvement of housing conditions, Indicator 11.4.1: culture and natural heritage related issues, Indicator 11.6.2: reduction of the levels of fine particulate matters, Indicator 11.7.1: expansion of public spaces and Indicator 11.7.2: Crime prevention at public spaces.

The analysis results indicate that four sectors may be strategically more focused than the other sectors in the point of architecture and urban planning including Target 11.1 (Indicator 11.1.1): improvement of housing conditions, Target 11.7 (Indicator 11.7.1): expansion of public space and Target 11.7 (Indicator 11.7.2): Crime prevention at public spaces and Target 11.5 (Indicators 11.5.1 and 11.5.2): risk reduction of natural disasters.

In terms of target 11.5: risk reduction of natural disasters, it is important integrate risk reduction strategy of natural disasters〉 However, the integration will be not easy and will take some time.

On the other hand, Crime prevention (Indicator 11.7.2 of Target 11.7) and improvement of slums (Target 11.1) are on-going issue at the moment. The two sectors are closely related as many crime prevention projects have been implemented in the relatively aged and poor areas in cities. Moreover, target 11.1 is an directly

involved issue for architecture and urban planning.

In terms of Target 11.7 and Indicator 11.7.1: expansion of public spaces, the policies for it need to focus on building safe and accessible public spaces for relatively weak groups in our society such as the disabled, the elderly, children and women.

In addition, although it was relatively low in impact, Target 11.c: finance supports for the least developed countries for sustainable and resilient building is also an sector that architecture and urban planning industry should pay attention. Depending on the increase of budget and change of strategy in ODA, this target may become a chance to expand the business to the least developed or low developed countries.

In terms of the hierarchy of policies for the individual targets of SDGs Goal 11, the experts put executive policies on higher ranks than planning. It is because that Korea has well organised countries and most related strategies or plans. However, execution of the plans are a different story from making plans.

SDGs has various topics in it and it is key to cooperate by the relevant government departments. However, at the moment there is not a single control tower to coordinate them for the purpose. So the study proposes to establish a new presidential organization. The study also suggests various policies and projects for architecture and urban planing industry for the next 15 years under SDGs.

Finally, SDGs is a kind of guidance for the setting up a direction and goals of each nation for transforming their society into more sustainable future. The Korean government also need to make proper strategies and plans to implement SDGs into various parts of the country. For this reason, open-discussions with all possible participants are necessary and it is also needed to open all possible data that the government has to the public.

Key words : SDGs, Goal 11, Sustainable city, Future forecast, Policy, Slum, Housing, CPTED