SUMMARY

Innovative Strategies for National Territorial Policy in the Big Data Era

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The utility of big data are growing highly anticipated for diagnosing complicated real world problems and suggesting relevant policy alternatives. However, practical cases for responding to actual problems and drafting associated national territorial policies are not readily found. In general, there exist many obstacles to diagnosing regional problems and issues and producing practical policies to enhancing the happiness of the people by utilizing the statistics aggregated by the administrative boundaries of Province (Si-Do) and/or County (Si-Gun-Gu). The central government ministries and local governments have made tremendous efforts in improving the data production process and the provision service by enhancing the precision of statistical indices and promoting the active uses, but it has been hard to effectively covering the spatial and temporal dimension in the data for the practical use. It is critical to prepare plans and strategies to enable the evidence-based, scientific decision-making in the process of establishing policies via diagnosing and monitoring territory based on big-data connoting the way of life of the people in the categories of population, industry, culture, transportation, etc.

The objective of this research is to propose directions relevant to carrying out evidence-based land policy projects and tasks by investigating how to utilize the

big-data getting abounded in the overall society as intelligence technologies develop.

In this research, suggested were some ideas of national territorial policy innovation and promotion strategies suitable for the big-data era by investigating the preceding researches, foreign cases, domestic policies, technological changes, etc., all together, as follows.

□ Directions of innovation

① Establishing the big-data and AI based diagnosis and monitoring system

② Enhancing the big-data based PDCA system and standardizing the process of drafting policies

③ Introducing the big-data based collaborative decision-making process of drafting national territorial policy

□ Strategies for utilizing the big-data for drafting national territorial and urban policies

① 'Predictive territory management strategies'using the dynamic big-data

② 'Customized, convergent strategies for regional specialization using the big-data containing regional interaction information

③ 'Communicative and collaborative urban regeneration strategies' for satisfying the national territorial policy needs of the people

In addition, suggested were several tasks the central government and the local governments need to carry out in response to the needs in the big-data prevalent future.

① Suggesting pathfinder project for converging the big-data into practical use:

a. Identifying the under-served local areas of infra services using the population and living infrastructure related big-data

b. Forecasting the migration patterns of residentially vulnerable people using

the housing property transaction big-data

c. Monitoring the changes in economic vitality through investigating the regional consumption patterns, inter-business transactions, the changes in responses of the people to national policies and the level of satisfaction to target urban regeneration projects for effective revitalization

② Building task innovation environment using the big-data:

a. Introducing the big-data based scheme for diagnosing and monitoring territory

b. Establishing and sharing the big-data based national territorial land use inventory

③ Improving the data quality by promoting data governance:

a. Managing the data quality for national territorial diagnosis and promoting data governance

b. Improving the platform integrating the territory related big-data for producing high quality added-values

c. Running the technology support and education center for managing the territory big-data

④ Improving the institutional system and R&D for promoting the use of the big-data:

a. Sharing and promoting the spatial big-data, and improving the regulation on protecting personal information

b. Promoting R&D projects for combining various technologies (i.e., VR) developed in the wave of the fourth industrial revolution to the territory related fields