

Risk diagnosis and information provision system for flooding risk management by cities

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1> Necessity of fundamental measures at a city level in order to cope with increasing possibility of disasters and damages caused by climate change such as heavy rain and typhoon

- Measures to cope with ever-intensifying natural disasters such as heavy rain and typhoon should be included in urban planning as fundamental solutions for prevention.

- The Sendai Framework for Disaster Risk Reduction and UN SDGs (Sustainable Development Goal) of the United Nations Office for Disaster Risk Reduction emphasize pre-emptive damage control and restoration capacity in urban policies and put a priority on disaster prevention measures at a city level when it comes to land use, buildings and urban infrastructure.

2> Lack of organic connection and utilization systems to support the establishment of disaster prevention measures in urban planning

- Urban planning departments at local governments rarely prepare or implement urban disaster prevention measures due to the lack of systems providing detailed information on risk assessment which integrate disaster characteristics, vulnerable facilities, urban flood analysis results, etc. by area within a city

3> Necessity of systematic urban space risk diagnosis and information provision in order to prevent flooding in cities

- Select key areas of management and affected areas including areas where flood occurred within a city, by tracking flood records of the city based on disaster statistics and relevant reports, and conducting field interviews and terrain analyses.

- Establish a detailed risk data base by integrating the result of urban flood analyses and information on entities exposed to risks

- Select priority areas subject to urban disaster prevention measures on the basis of urban space risk diagnosis, and suggest the directions of disaster prevention measures tailored to vulnerability to disasters



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Policy proposals

- ① Produce reliable information on risks so that local governments can interpret and utilize the result of disaster vulnerability analysis in ways befitting situations in the fields, and establish and operate a purpose-oriented urban flood prevention measures support system in order to provide practical support to local governments with the development of disaster prevention measures
- ② Establish an institutional foundation for the operation of urban disaster prevention measures support systems against urban flooding, and gradually expand information service to cover landslides, tsunami and heat wave.
- ③ Build the data base of various information on urban space necessary for the development of urban disaster prevention measures tailored to local disaster characteristics, and provide such information through user-friendly systems