



KRIHS Policy Brief

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Urban disaster prevention measures to support the creation of a 'safe city without flood damage'

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1> Urban inundation accounts for a large share of natural disasters as the amount of water discharged to downstream cities rapidly increases during severe rain storms in summer and the use of lowland river basins is accelerated under the pressure of urban development

2> Although the government implemented policies to create safe cities by linking urban planning to disaster management, the outcome was insignificant due to a lack of spatial understanding on the risk of disaster occurrence

3> Leading countries in the area of urban disaster prevention have established policy support system that collected and shared risk data along with the development of urban disaster prevention plan in advance, and designated specialized agencies to operate the system

4> Korea Research Institute for Human Settlements (KRIHS) has developed a system to support urban flooding prevention measures. KRIHS may contribute significantly to build safe cities by providing data on the risk of urban flooding and preventive measures to local governments

5> It may serve to minimize the exposure of local residents and their economic activities to the disaster by adjusting and amending the land use plan, and the support system of KRIHS can be used to identify measures to reduce vulnerabilities by repairing constructions, buildings and other facilities and securing disaster management and monitoring system after the designation of disaster prevention zone.

Policy proposals

① (Systemize the technical support by the government) Operate policy support system with goal-driven approaches so that the government can use it to validate the result of disaster vulnerability analysis submitted by local governments and strengthen their responsibility to identify and implement disaster response measures

② (Constantly advance technological capacity of urban disaster prevention) Amend the 'guidelines on the analysis and use of urban disaster vulnerability analysis on climate change' and initiate the operation of urban flooding prevention measure support system. Also, implement the function of spatial simulation and expert-based system

③ (Provide urban disaster prevention information tailored to the need of consumers) The government should conduct a demand survey in the second half of each year to confirm the schedule and budget in advance, and provide the spatial data required according to the validation schedule of disaster vulnerability analysis by local governments

④ (Use the system in carrying out urban regeneration projects, etc.) Amend 'guidelines to establish urban regeneration strategies' to reinforce the analysis on urban flooding conditions and include 'areas to activate the efforts for urban regeneration for disaster prevention' to support projects tailored to regions