

Development of climate change adaptation platform using Spatial Information

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Climate change adaptation has attracted growing attention with the recent extreme weather conditions that affect people around the world. More and more countries, including the Republic of Korea, have begun to hatch adaptation plan to resolve these matters of great concern. They all, meanwhile, have mentioned that it should come first to integrate climate information in all analyzed areas. That's because climate information is not independently made through one source; that is to say, the climate information is connected one another in a complicated way. That is the reason why we have to promote integrated climate change adaptation platform before setting up climate change adaptation plan.

Therefore, the large-scaled project named "Establishment of Basic Plan for Climate Change Adaptation Intelligence System" has been actively launched and worked on. To date, we researched 620 literatures and interviewed 51 government organizations. Based on the results of the researches and interviews, we obtained 2,725 impacts about vulnerability assessment information such as Monitoring and Forecasting, Health, Disaster, Agriculture, Forest, Water Management, Ecosystem, Ocean/Fisheries, Industry/Energy.

Among 2,725 impacts, 455 impacts are made into a database until now. This database is made up of 3 sub categories like Climate-Exposure, Sensitivity, Adaptive capacity, presented by IPCC. Based on the constructed database, vulnerability assessments were carried out in order to evaluate climate change capacity of local governments all over the country. These assessments were conducted by using web-based vulnerability assessment tool, which was newly developed through this project. These results have shown that metropolitan areas like Seoul, Pusan, Inchon, and so on have high risks more than twice than rural areas.

Key words: Climate change adaptation; Vulnerability assessment tool;