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Session 4: Geospatial Challenges in Responding to Urban Disasters (cont)

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The roles and challenges of national geospatial information for enhancing adaptive capacity of urban flood disaster

Abstract

Recently, there are increasing needs that national geospatial information plays a major role to provide the authoritative and reliable base-datasets for analysing, responding and assessing the urban disaster risks. This presentation provides the roles and future technical opportunities of national geospatial information in order to improve adaptive capacity of flood disaster within urban systems. Before events, the urban-scale hazard maps for assessing risk and vulnerability is established by national map and field survey, which can be applied to re-designating the more safe urban structure through combining several thematic maps based on the national map. During/After events, situational or impact map for disaster response can be readily and real-timely updated from the recent acquisition technology such as UAVs (Unmanned Aerial Vehicles), MMS (Mobile Mapping System) and VGI (Volunteered Geospatial Information). VGI will be efficient and cost-effective method for field survey of urban disaster, if it's available to conduct data quality control and assurance by national mapping agency. In a particular, it's important that seamless geospatial information flow is achieved through cooperation with national emergency agency and municipal governments. With regards to issues mentioned above this presentation also shows use-cases about urban flooding and landslide at Gangnam district, main urban areas in Republic of Korea.