Leveraging GIS for Battle Against COVID-19 in Hong Kong

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SUMMARY

To support the Government of the Hong Kong Special Administrative Region in fighting Coronavirus Disease (COVID-19) with scientific evidence since February 2020, LandsD as the pioneer of geospatial technology in HK placed a key role in leveraging GIS technology for strategic decision-making in COVID-19 pandemic. At the early stage of the pandemic, an interactive map dashboard for COVID-19 was developed within 3 days for effective dissemination of COVID-19 information with a view to better informing the community of the risk they have exposed so as to stay away from possible sources of information. Guided by the three key principles of "responding promptly", "staying alert to the situation" and "working in an open and transparent manner", we made use of demographic and 3D pedestrian network data to perform location-allocation analysis to facilitate the Government in determining the optimal locations for setting up the community testing sites in order to serve the most people within a walkable distance. To further strengthen the work on contact tracing, a Geospatial Information Portal (GIP) specifically designed for case investigation and contact tracing by linking up various relevant departments, agencies and existing information systems to gather the information of confirmed patients and contacts was developed to support link analysis for tracing upstream and downstream contacts based on exposure time and place of confirmed patients. Although the battle against COVID-19 has not over yet, GIS has well been proven as a powerful and promising decision-making tool for the Government in fighting COVID-19.

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