

# Unlocking the Potential of Earth Observation Data in Cultivating a Climate-Resilient City

Nok Hang NG (Hong Kong SAR, China)

**Key words:** Geoinformation/GI; Land management; Remote sensing; Risk management; Spatial planning; Earth Observation Data; Satellite Image; Aerial Image; Unmanned Aerial Vehicle; LiDAR; GeoAI

## SUMMARY

In October 2021, the Government of the Hong Kong Special Administrative Region published the "Hong Kong's Climate Action Plan 2050" to build upon the previous "Hong Kong's Climate Action Plan 2030+". One of the key strategies of this new plan outlines the measures of climate change adaptation and resilience, with the aim of protecting the lives, health, and property of the people from extreme weather events, as well as strengthening the overall resilience of the community in Hong Kong.

The adaptation strategy focuses on solutions to combat extreme disasters and weather events, while also safeguarding the water supply. The resilience strategy, on the other hand, concentrates on preparedness to more extreme disasters and enhancing capabilities in post-disaster recovery.

Earth Observation (EO) data can play a crucial role in implementing these strategies in both monitoring and evaluation. Through structural collection of EO data, well-defined methodologies, application of comprehensive spatial tools and GeoAI algorithms, and spatial presentation capabilities, EO data can be leveraged to provide recommendations to policymakers in understanding the effectiveness of policies and making more informed decisions related to climate change adaptation and resilience. It also highlights the pivotal involvement of Hong Kong's land surveyors in contributing to the achievement of the United Nations' Sustainable Development Goals (SDGs) through their work in this domain.

---

Unlocking the Potential of Earth Observation Data in Cultivating a Climate-Resilient City (12934)  
Nok Hang NG (Hong Kong SAR, China)

FIG Regional Conference 2024 - Nepal  
Climate Responsive Land Governance and Disaster Resilience: Safeguarding Land Rights  
Kathmandu, Nepal, 14–16 November 2024