

Disaster Resilience from the Lens of Earth Observation in the Digital Era

Jagannath Aryal (Australia)

Key words: disaster resilience

SUMMARY

Natural disasters like earthquakes and earthquakes induced landslides and their impacts on transportation safety, infrastructure resilience, and displacement of people to new places leading to informal settlements are challenges for emerging economies. To address such challenges, earth observation data and intelligent methods can provide potential solutions in developing decision support systems within the framework of climate responsive land governance. This talk will present the state-of-the art in earth observation for disaster resilience using intelligent methods. In the earth observation space, how digitalization revolutionized the way we map, monitor and develop the decision support systems will be covered. The case study examples from Nepal's earthquake induced landslides and India's landslides in the Himalayan region will embrace the object recognition, interpretation, and their accurate and precise capture to integrate into the digital models. The developed digital models from the representative case studies can be leveraged in other jurisdictions in protecting lives, infrastructure and creating disaster resilience awareness in the era of digital age and digital economy.

Disaster Resilience from the Lens of Earth Observation in the Digital Era (12938)
Jagannath Aryal (Australia)

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