The Future We Want – The SDGs and Beyond: Land Governance, Geospatial Intelligence, and Technological Pathways for Climate Resilience and Equitable Growth

Chukwuemeka Enyinnaya Onyeizu (Nigeria)

SUMMARY

The Sustainable Development Goals (SDGs), particularly SDG 6 (Clean Water and Sanitation), remain critical benchmarks for environmental sustainability and human development. However, as 2030 approaches, accelerating climate change, rapid population growth, and weak land and water governance present significant risks to achieving these goals in Nigeria and other vulnerable regions. This paper explores how land governance, geospatial intelligence, and technological advancements—particularly satellite-based monitoring of terrestrial water storage (TWS)—can drive climate resilience, equitable growth, and sustainability beyond 2030. Drawing insights from GRACE/GRACE-FO satellite datasets and hydrological modeling, the study highlights how geospatial intelligence enhances water budgeting, climate forecasting, and basin-level governance. Findings reveal that TWS anomalies are strongly driven by precipitation and evapotranspiration, with basin-specific disparities across Nigeria's hydrological regions. Technological tools such as remote sensing, GIS, and integrated water resource management frameworks strengthen adaptive capacity, while land governance reforms provide institutional foundations for equitable resource distribution. The study argues that integrating geospatial intelligence with governance frameworks is pivotal in achieving the 'future we want'—a resilient, inclusive, and climate-ready society beyond the SDGs.

The Future We Want – The SDGs and Beyond: Land Governance, Geospatial Intelligence, and Technological Pathways for Climate Resilience and Equitable Growth (13654)
Chukwuemeka Enyinnaya Onyeizu (Nigeria)

FIG Congress 2026
The Future We Want - The SDGs and Beyond
Cape Town, South Africa, 24–29 May 2026