Session B1

# Pixels to Policy: Harnessing Earth-Observation and AI for Impact-Driven Development

# Time: 13:30-15:00, 8th September

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Hamid Mehmood, United Nations Office for Outer Space Affairs

## **Co-Chairs**

Serge Stinckwich, Head of Research, United Nations University Institute in Macau

GeoAl for an Equitable Future - Localizing Foundational Models, Agentic Tools, and the Imperative for Openness

**Room: 305B** 

Hamid Mehmood, United Nations Office for Outer Space Affairs

Navigating Challenges in Open-Source (Generative) AI Integration

Serge Stinckwich, Head of Research, United Nations University Institute in Macai

Serge Stinckwich, Head of Research, United Nations University Institute in Macau

SALI for UN SDG 12.6.1: Advancing United Nations SDG 12.6.1 through AI-Powered Evaluation of Global Sustainability Reporting

Dr Eberechi Weli, SALI Technologies

#### **Panel Discussion**

### **Topics:**

The decisive decade for the 2030 Agenda demands tools that transform raw data into rapid, actionable insight. This session explores how the fusion of Earth-Observation (EO) data streams with cutting-edge

GeoAI—machine-learning models that are spatially aware—can unlock new pathways for achieving the Sustainable Development Goals (SDGs). Experts from UN agencies, space agencies, academia, and youth representatives will showcase operational cases, opportunities and challenges where cloud-scale satellite analytics have measurably advanced targets on climate resilience (SDG 13), food security (SDG 2), water quality (SDG 6), sustainable cities (SDG 11), and biodiversity (SDG 15).

Discussions will move beyond technology, addressing governance, equity, and capacity-building so that all Member States—especially LDCs and SIDS—can benefit from open data, reproducible workflows, and responsible AI practices. Discussions and presentations will reveal how large EO archives, once unwieldy, are now queried in seconds to detect drought hotspots, quantify urban heat islands, and monitor carbon sinks. The session positions digital innovation not as an end in itself but as a force multiplier for inclusive, evidence-based policy.

## **Panel Speakers:**

- Serge Stinckwich, Head of Research, United Nations University Institute in Macau
- LI Pengde, Director/Jean Maurice Muneza, Geospatial Information Officer, United Nations Global Geospatial Knowledge and Information Center (UNGGKIC), Deqing (Huzhou), China
- Birendra Bajracharya, Intervention Manager- Regional Information Service, The International Centre for Integrated Mountain Development, Nepal
- LI Suju, Director of Satellite Application Department, National Disaster Reduction Centre of China (NDRCC), Ministry of Emergency Management of China

- Sevilla Nanqi Zhou, United Nations Regional Coordinator Office, China
- LI Xi, Professor, State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing , Wuhan University