Satellite Applications to Accelerate the Green Economy

Initial findings

Caribou Space for Development

WGEO
WORLD GREEN ECONOMY ORGANIZATION

Initial findings

Background

- WGEO's mission is to "*promote the widespread adoption of green economy principles and practices within the context of sustainable development and poverty eradication.*" It is formed from State Members, Regional Intergovernmental Economic Integration Organisations (RIEIO), and Non-State Members.
- WGEO has commissioned Caribou Space to publish this report focused on satellite applications for the green economy, with the objectives:
  - To clarify the landscape of satellite applications for the green economy.
  - To provide material that catalyses stakeholder collaboration.
  - To identify and evaluate future WGEO opportunity areas for future interventions.
- UNEP defines a green economy as "low carbon, resource efficient and socially inclusive".
- This report focuses on the green economy domains of urban, transport, waste, energy, extractives & industry, and tourism.
- Satellite applications are digital services and products that serve a number of functions for society, the environment, and the economy, deploying three types of satellite technology: Satellite Earth Observation, Satellite Communications, and Global Navigation Satellite Systems.

Supply-chain stakeholders

- The supply-chain includes organisations that can be characterised as private or public sector, including satellite owners and operators, to cloud companies, to software providers, to analytics and solution providers.
- Globally and in MENA there are well established players providing satellite applications for the green economy.

Demand-chain stakeholders

- There is a diverse community of users of satellite applications for the green economy including government, private sector, development agencies, media, academia, and NGOs.
- In MENA countries there are many governmental entities, such as ministries, authorities and public companies that are potential users of satellite applications for a green economy.

Satellite application use cases and examples

- 26 use cases for satellite applications have been identified across urban (nine), transport (three), waste (four), energy, extractives and industry (six), and tourism (four).
- 15 case studies are provided from global regions and MENA to highlight a range of different satellite applications and their benefits.

Barriers to uptake of satellite applications for green economy

- There are multiple barriers to the further adoption of satellite applications for the green economy.
- There are barriers to supplying satellite applications (supply-chain) including:
  - Financial and non-financial resources
  - Regulatory constraints
  - Piloting and duplication
- Also, there are barriers to using satellite applications (demand-chain) including:
  - User awareness and resistance (particularly for government ministries/agencies)
  - Lack of evidence of impact
  - Technical expertise and skills
  - IT infrastructure
  - Procurement challenges
  - Green economy aspirations (demand)

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