

IAF EARTH OBSERVATION SYMPOSIUM (B1)
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ENHANCING EARTH OBSERVATION COORDINATION TO ADDRESS SOCIO-ECONOMIC AND
ENVIRONMENTAL CHALLENGES

Abstract

Earth Observations (EO) data and information play a pivotal role in addressing contemporary socio-economic and environmental challenges by providing critical data for analysis and decision-making. This paper advocates for the importance of strengthening Earth Observation (EO) coordination to effectively address contemporary socio-economic and environmental challenges while deriving impact. It proposes key strategies employed by South Africa's National Earth Observations and Space Secretariat (NEOSS), primarily through Communities of Practice (CoPs), aiming to forge alliances among governments, space agencies, research institutions, and private organizations. These strategies include amongst others, the following aspects; • Active involvement of policymakers, planners, and community leaders in EO initiatives ensures that the collected data is tailored to meet specific needs, enhancing the relevance and applicability of EO outputs. • The establishment of standardized data formats and protocols to ensure interoperability, promoting global sharing of non-sensitive data for research and decision-making, and enhancing the skills of scientists through targeted training programs. • Development of integrated platforms and databases to consolidate data from various sources, promoting responsible and ethical use of EO data. • Collaboration between private companies and governments, with private entities contributing resources and expertise, while governments provide regulatory frameworks. • Strategic investment in research, development and innovation to advance EO technologies, including new sensors and analytical tools. • The establishment of robust mechanisms for monitoring and evaluating the effectiveness of EO initiatives to create a feedback loop for continuous improvement. This paper will concentrate on examining various strategies for the coordination and use of EO data and information to generate information and deliver applications for addressing socio-economic and environmental challenges. The paper will also focus on illustrating and mapping South Africa's Earth Observation (EO) landscape, with an emphasis on the interactions among different stakeholders to establish a sustainable EO ecosystem. The paper will additionally highlight the implementation of these strategies, underscoring their pivotal role in fortifying Earth Observation (EO) coordination and empowering stakeholders to more effectively address the multifaceted challenges confronting society and the environment.