EARTH OBSERVATION SYMPOSIUM (B1)
Improving Earth Observation thru Data Sharing (6)

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ENHANCING GLOBAL CLIMATE DATA EXCHANGE TO BETTER MONITOR CLIMATE CHANGE AND EMPOWER POLICY MAKERS, SCIENTISTS AND THE COMMUNITY.

Abstract

Climate change is considered to be one of the greatest global challenges humanity is currently facing. Its nature, processes and consequences are not yet fully understood. The gaps in the knowledge and understanding of the science of climate change are significant because of the complexity of the phenomena affecting the climate system. Earth observation (EO) data can help in monitoring and predicting climate fluctuations, as well as exploring what can be done to prevent adverse consequences as a result of these fluctuations. But comprehensive and interoperable data and information exchange among climate researchers is not a reality. EO data is generated by different satellite systems that belong to different countries and operate, gather and distribute data using different standards. This paper explores the political and economical elements behind the difficulty to implement a comprehensive data sharing mechanism. Considering the global effect of climate change, the paper presents new arguments, based on technical information, which reevaluates the current political-economical paradigm of data management and suggests a new perspective that may overcome current data sharing hurdles. These arguments and ideas are based on the discussions by the young professionals and university students at the climate session of Space Generation Congress 2010. As parameters used in monitoring climate change differ from those used for reconnaissance or meteorological applications, as well as data used for fundamental scientific research has different requirements than data needed for political or economic studies, the paper concludes recommending a series of initiatives that might assist in hatching a comprehensive data sharing regime and in achieving a global data sharing community including many more than just established space faring nations and service providers.