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EARTH OBSERVING DASHBOARD FOR SOCIETAL BENEFITS: THE DEVELOPMENT OF TRILATERAL COLLABORATION AND BEYOND

Abstract

Earth observation satellite data is a powerful tool to understand global environmental change. It is indispensable for current scientific studies for understanding global scale issues. However, satellite data should be professionally processed to become available as satellite imagery. Thus, satellite data are still not easily accessible or usable for people without certain skills for such data processing. Moreover, satellite imagery obtained further requires explanation on what it means, for decision makers as well as the public to be aware of changes and anomalies that may have social and economic impacts.

This paper will address the development of collaboration among Japan Aerospace Exploration Agency (JAXA), the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA) on Earth Observing Dashboard, which was launched in June 2020 in response to monitor impacts of COVID-19. This collaboration has expanded its scope in May 2022, with six new independent fields, namely atmosphere, agriculture, biomass, water and ocean, cryosphere, and economy in addition to COVID-19.

This paper sheds light on the process of improving the accessibility to data which have been limited to scientists and data analysts with specific skill sets, which represent the will of three agencies to enhance delivery of information to decision makers and interested public. The process observed through the expansion and enduring trilateral efforts posits that there are three main approaches to provide information to a broader community rather than data to limited specialists: (i) scope and theme covered (ii) added functions of the dashboard (iii) further customized efforts by each agency

It is hoped that this example of dashboard collaboration addressed in this paper may offer considerations on how to accelerate the contribution of Earth Observation to address issues such as climate security and resilience.