

Mr. Chair and Distinguished Delegates,

I am pleased to present Japan’s recent activities with respect to remote sensing technologies.

Mr. Chair,

To begin, I would like to highlight Japan’s remote sensing activities to monitor climate change.

In 2009, the Ministry of the Environment (MOE), the National Institute for Environmental Studies (NIES) and Japan Aerospace Exploration Agency (JAXA) have launched Greenhouse gases Observing Satellite (GOSAT) series as the world’s first satellite dedicated to monitoring greenhouse gases such as carbon dioxide (CO₂) and methane (CH₄). In 2018, GOSAT-2 was launched with an enhanced capability of observing carbon monoxide (CO) in addition to CO₂ and CH₄ for the anthropogenic emission estimation. GOSAT and GOSAT-2 have been contributing to addressing climate change by accumulating data on the global concentration of greenhouse gases for more than a decade and have shown that the global atmospheric concentrations of CO₂ and CH₄ have been increasing every year accompanied by seasonal variation. Leveraging this cutting-edge GOSAT series, Japan will continue to support the countries’ efforts to reduce greenhouse gas emissions to combat climate change under the Paris Agreement using the global observation for monitoring the sources of anthropogenic greenhouse gases emissions and also for estimating the emissions and their removal on a global-scale.

Another satellite is the Global Change Observation Mission - Climate, GCOM-C. GCOM-C was launched in 2017 to conduct surface and atmospheric measurements related to the carbon cycle and radiation budget, such as clouds, aerosols, ocean color, vegetation, snow and ice. These observations will contribute to enhancing the prediction accuracy of future environmental changes.

Japan supports the work of the Group on Earth Observations (GEO) and the implementation of the Global Earth Observation System of Systems (GEOSS), an integrated observing system and data sharing infrastructure system for Earth observation. Also, Japan proactively engages in the full range of GEO governing bodies, including the Paris Agreement, the 17 Sustainable Development Goals (SDGs), and the Sendai Framework for Disaster Risk Reduction.

Japan also leads the Asia-Oceania GEO (AOGEO), a regional cooperative framework designed to coordinate the implementation of GEO activities within the Asia-Oceania region. Nine task-based multilateral cooperative mechanisms (Task Groups 1 to 9) utilize remote sensing technology to tackle thematic regional tasks, such as disaster risk reduction, biodiversity, food security, drought, and regional capacity development. As a co-lead of Task Groups 1 to 5, Japan takes strong leadership using a co-design and co-production approach to address the regional challenges.

Every year, Japan has been organizing an annual regional forum (AOGEO symposium) with the GEO secretariat, with the aim to support the exchange of broad scientific and technical views on Earth observations, as well as their applications, which are reported to the Task Groups. The 14th AOGEO symposium brought together more than 200 participants from around the world, including government officials, researchers and international organization staff. The symposium played an important role as a “hub” for regional cooperation and collaboration by holding special sessions to provide valuable opportunities for sharing best practices and for further developing ideas regarding remote sensing activities in the region. The symposium adopted the AOGEO statement, recognizing the importance of concrete use cases for regional cooperation as well as the enhanced engagement of stakeholders including the private sector.

Mr. Chair,

I would also like to highlight how remote sensing data is being effectively utilized to observe changes in the environment and human society in response to the COVID-19 pandemic. In 2020, JAXA published the “Earth Observing Dashboard” together with ESA and NASA, a website that integrates indicators derived from the earth observation data of the three organizations to visualize the impacts of COVID-19 and to track changes in air and water quality, greenhouse gases, economic activity, and agriculture. To date, the dashboard has generated a wide range of data such as a temporary reduction in carbon dioxide (CO₂) emissions stemming from large cities, which indicates the effect of lockdowns and other social measures implemented in response to COVID-19. Last June, JAXA, ESA and NASA hosted the Earth Observing Dashboard Hackathon. Over 4,300 participants from 132 countries submitted their ideas for solving COVID-19 pandemic related challenges by using data from earth observation satellites.

Mr. Chair,

Japan believes that remote sensing technologies can continue making positive contributions to our lives and will continue to further develop these technologies.

Thank you for your attention.