

Japan Item 11– “Space and climate change”

Chair, Distinguished delegates,

Climate change has been an issue of common concern for humanity for several decades. Earth observation satellites enable us to monitor and record climate change accurately and consistently on a global scale contributing to SDG13, “Climate Action.” The Intergovernmental Panel on Climate Change (IPCC) guidelines mention the use of satellite data including Japan’s GOSAT, GOSAT-2, and ALOS-2 to estimate and report on greenhouse gas emissions and removals to the United Nations Framework Convention on Climate Change (UNFCCC).

Chair,

We would now like to take a closer look at Japan’s satellites that monitor atmospheric conditions to tackle climate change. In 2009, the Ministry of the Environment (MOE), the National Institute for Environmental Studies (NIES) and the Japan Aerospace Exploration Agency (JAXA) launched the Greenhouse gases Observing SATellite (GOSAT) as the world’s first satellite dedicated to monitoring Greenhouse Gases (GHG). In 2018, GOSAT-2 was launched with an enhanced GHG observation capacity. These satellites have contributed to the fight against climate change by accumulating data on the global concentration of GHG for more than a decade and have shown that the global atmospheric concentrations of CO₂ and methane have been increasing every year along with seasonal variations. With this cutting-edge GOSAT series, Japan will continue its efforts to reduce GHG emissions to combat climate change under the Paris Agreement.

Another relevant satellite is the Global Change Observation Mission - Climate, GCOM-C. Launched in 2017, GCOM-C conducts 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 help improve the accuracy of predictions of future environmental changes.

Chair,

Japan has also undertaken national research projects to tackle climate change. Since September 2020, JAXA and a Japanese company have been collaborating on a joint research project for remote sensing observation of atmospheric components over the main islands of Japan using passenger aircraft. It aims to understand the sources of emission distribution from different sectors in urban areas by combining data obtained by aircraft and GOSAT. It also contributes to the Paris Agreement by providing useful data that can be considered to reduce anthropogenic emissions from cities and to evaluate the effectiveness of emission reduction efforts.

Chair,

Japan is also promoting international cooperation to address climate change. For example, JAXA and the Japanese National Institute for Environmental Studies, NIES, are cooperating with ESA, CNES, DLR, NASA, and EUMETSAT to support the implementation of the Paris Agreement. This cooperation promotes the use of satellite Greenhouse Gas observation data to improve the accuracy of the National Greenhouse Gas Inventory Report.

The “Earth Observing Dashboard”, a trilateral collaboration between JAXA, NASA and ESA is one such example. This is a website-based project that provides the public with various analyses based on satellite data including atmospheric, oceanic and land observation. Through this project, Earth observation satellite data will be further exploited to gain a broader understanding of global-scale issues such as environmental change and climate change, as well as the social and economic impacts caused by them.

Chair,

We would like to reiterate that Japan will continue our efforts to tackle climate change issues.

Thank you for your attention.