

Japan Item 5 – “Space technology for sustainable socioeconomic development”

Mr. Chair, Distinguished Delegates,

The unprecedented crisis caused by the COVID-19 pandemic has given the space community an opportunity to rethink the sustainability of our space activities, and reconsider how space technology could contribute to existing social issues. In June 2020, the Government of Japan updated the Basic Plan on Space Policy to include measures to contribute to the SDGs by leveraging space technology. Today, I would like to introduce these measures, including utilization of satellite data, debris mitigation, and education for young generations.

Mr. Chair,

Japan promotes the utilization of satellite data to address global challenges such as disaster risk reduction, climate change, and deforestation, all of which are expected to contribute to many SDGs.

One example is the “Global Mangrove Watch”. It is a map produced by data generated by L-band radar satellites and optical Earth observation satellites, that contributes to monitoring mangrove vegetation.

Another example is “Sentinel Asia”, an international cooperative project for disaster monitoring in the Asia-Pacific region. This is a project intended to reduce the damage caused by natural disasters by sharing disaster-related information acquired from satellite images and other data. As of today, 95 organizations from 29 countries and regions and 17 international organizations are members of “Sentinel Asia”.

Japan also promotes research and development of Earth Observation satellites that contribute to forest monitoring, estimation of sink and sources of CO₂ and other greenhouse gases, and prevention of health hazards caused by air pollution through the release of aerosol data. Japan will develop and promote the use of satellites especially to contribute to the fight against climate change.

Mr. Chair,

In recent years, space debris has become a major social concern given the increasing diversity of space activities and continuous and recent congestion of

the space environment. As mentioned earlier, satellites have become essential tools for contributing to the SDGs; therefore, it is important to protect these satellites from the risks of a collision with space debris. In this regard, JAXA has developed the “Risk Avoidance assist tool based on debris collision proBaBliTy” (RABBIT) to facilitate debris avoidance operations by satellite operators. The tool, published in 2021 has been available on the JAXA website for global satellite operators.

Japan also continues to promote the utilization of “Kibo” to maximize its outcomes. One such example is an international educational outreach program called “Kibo Robot Programming Challenge (Kibo-RPC)” run by JAXA and NASA that caters to students in the pacific region. It is an educational programming competition using JAXA and NASA’s free-flying robots in the ISS. Participants of Kibo-RPC will learn cutting-edge methodologies and hone their skills in STEM, teamwork, creativity, and help develop innovative minds through this unique program. In 2022, over 1400 students from 12 countries and regions participated in this program, linked to the indicators under SDGs Goal 4, which measures essential ICT skills for youth and adults.

Mr. Chair,

Japan firmly believes that space technology has a high potential to support sustainable socioeconomic development and will continue to contribute to this important issue.

Thank you for your attention.