Committee on the Peaceful Uses of Outer Space
65th Session
Japan Item 11 – "Space and water"

Mr. Chair, Distinguished delegates,

Since ancient times, water has been a major concern for humankind. We have always strived to secure water for drinking, for everyday life usage, and to mitigate damage to societies caused by water-related natural disasters, such as floods. A shortage of clean water caused by rapid urbanization as well as population growth in developing countries has become a serious problem directly affecting the health and lives of local residents. In addition, climate change, an emerging global concern, has become a serious threat for stable water management, as it has caused serious droughts as well as water related disasters all over the world. Without a doubt, water has become one of the most important issues in sustainable development discussions.

With the above in mind, Japan is committed to help tackle water-related issues through a variety of initiatives including space applications. The Global Change Observation Mission-Water, GCOM-W, is one such example. GCOM-W was launched in 2012 to observe precipitation, water vapor amounts, wind velocity above the ocean surface, sea surface temperature, sea ice information, soil moisture of land surface, and snow depth. These data are used worldwide for weather forecasts, sea ice monitoring, and climate and water cycle studies. Currently, the Global Observing SATellite for Greenhouse gases and Water cycle, GOSAT-GW, is under development to continue GCOM-W's water observations and improve observation accuracy and capability. Observing and understanding the mechanisms of global water cycles help to facilitate water resource management and forecasts of water related disasters. Such water cycle observations need to be conducted globally and frequently, and the use of satellites is, to this day, the most effective means of doing so.

Mr. Chair, Distinguished delegates,

Precipitation data is important for weather forecasts as well as water related disaster management, such as floods, typhoons, and landslides. The use of satellite observation plays a vital role in monitoring precipitation distribution both locally and globally and is the antidote to rain gauges and ground weather radars that have made the observation of precipitation quite difficult.

To address water related disasters utilizing satellite data, JAXA has developed a precipitation data system known as GSMaP. GSMaP offers a multi-satellite global precipitation map under the Global Precipitation Measurement (GPM) Mission, by using

Dual-frequency Precipitation Radar (DPR) onboard the GPM core satellite, other GPM constellation satellites, and geostationary satellites. This system provides hourly global precipitation information and thereby contributes to a wide range of disaster management. It also enhances flood forecasting and management capacity of the Typhoon Committee Region, an intergovernmental organization established under the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the World Meteorological Organization.

JAXA is cooperating with our international partners to improve the accuracy of GSMaP data. For example, JAXA and the Indian Space Research Organization (ISRO) are working on the joint validation, improvement, and application of their rainfall measuring products by using both satellite and ground data. JAXA and ISRO also aim to contribute to the enhancement of satellite data applications especially in the Asia-Pacific region where there is heavy annual rainfall. Taking this opportunity, Japan would like to extend JAXA’s appreciation to ISRO for this valuable cooperation.

Mr. Chair, Distinguished delegates,

We would like to end my statement by reiterating that Japan will continue to contribute to solving water-related issues through the application of space-based technology.

Thank you for your attention.