Agenda Item 11: Space and Climate Change

Republic of Korea National Statement

Sixty-eighth Session of the Committee on the Peaceful Uses of Outer Space

June 27, 2025

Thank you, Chair.

In recent years, the world has witnessed a marked increase in the frequency and intensity of extreme weather events such as heatwaves, heavy rainfall, and severe snowstorms causing profound socio-economic consequences globally.

The Republic of Korea operates the "Cheollian" series of geostationary satellites, which provide real-time environmental monitoring over the Korean Peninsula and the broader Asia-Pacific region. These satellites serve as a vital tool for tracking severe weather phenomena, including torrential rain and typhoons, and for delivering essential data on climatic conditions such as yellow dust, droughts, and heatwaves.

The Republic of Korea also plays an active role in international

meteorological cooperation through its engagement with the World Meteorological Organization (WMO). The Korea Meteorological Administration (KMA) is a member of the Coordination Group for Meteorological Satellites (CGMS), and contributes satellite data through international data-sharing system. Through collaboration with WMO, the Republic of Korea supports the development of early warning systems for disasters and global climate observation. As part of the WMO-led Global Observing System (WIGOS), Korea is contributing to the integration and advancement of a global satellite-based weather monitoring network. Furthermore, the Republic of Korea will host the CGMS plenary session in 2026, following its successful hosting of the meeting in 2017.

In addition, the Republic of Korea provides training and capacity building support to countries in the Asia-Pacific region including Australia, Indonesia, Thailand, and Vietnam, enabling them access and utilize data from the Cheollian satellite series.

The Cheollian-2B (GK-2B) satellite, equipped with the GEMS (Geostationary Environment Monitoring Spectrometer) payload, is being used to analyze air quality across Asia through the Pandora Asia Network (PAN). Together with the United States' TEMPO mission and Europe's upcoming Sentinel-4, Korea will contribute to the formation

of a global geostationary air quality monitoring network.

Since October 2024, the Republic of Korea has been providing real-time data on ground-level fine particulate matter (PM2.5) concentrations. To enhance public accessibility to this data, we launched GEMS Application Tool in April 2025, enabling users to easily track and monitor high concentrations of air pollutants.

Climate change is a shared global challenge that poses a threat to the well-being of humanity. Continuous satellite-based monitoring combined with robust international collaboration and comprehensive data analysis, is essential in addressing this pressing issue.

The Republic of Korea remains committed to sharing satellite data and strengthening international partnerships in the area of climate change monitoring and disaster response. We will continue to actively contribute to global efforts at building a more sustainable and resilient future.

Thank you.