

**Statement by Kevin Conole, United States Representative, on
Agenda Item 5, - Space for Sustainable Development: Technology and its
applications, including the UN Programme on Space Applications
January 29, 2024**

Chair, the United States would like to underscore the importance of space science and technology applications in addressing current and future challenges and realizing the Sustainable Development Goals (SDGs). It is only through continued and purposeful international collaboration that we can leverage our shared strengths to fully realize the potential impact Earth observations can have in our work. The recently released U.S. Department of State’s “Strategic Framework for Space Diplomacy,” explicitly notes the importance of sharing government Earth observation data internationally to support “disaster management, climate change mitigation and adaptation, and economic development. Satellite Earth observations deliver a unique view of our world and provide substantial amounts of data that facilitate new methods and insights into the SDGs and their Indicators.

The National Oceanic and Atmospheric Administration’s (NOAA’s), NASA and the U.S. Geological Survey (USGS) provide Earth observation data, products and services that are foundational to efforts to support the UN SDGs. The delivery of timely, accurate, precise, accessible, and usable information drives public response, understanding, and preparedness. Data from NOAA touches people’s lives every day.

In addition, data and services provided from U.S. commercial and other private sector space systems plays an increasingly important role in supporting the attainment of a number of sustainable development goals. In this regard, the United States emphasizes the continued importance of the 1996 Space Benefits Declaration (A/RES/51/122), which notes that international cooperation shall take particular account of the needs of developing countries and should be conducted both on an equitable and mutually acceptable basis and in modes that are considered most effective and appropriate by the participating countries.

Moving forward it is more important than ever for the United States to utilize data in formats that allow for the public and decision makers to engage, process, and operationalize that information in their lives and actions. This is critical for the continuity of long time series for measuring and understanding

change. This means contextualizing data and developing products, platforms, and ways of interfacing that facilitate user engagement and understanding to the greatest extent on a full, free, and open basis.

The USGS operates the Landsat series of land-imaging satellites, which have been observing the Earth for over 50 years and has established a robust dataset cataloguing environmental changes. In 2023, Landsat satellites continued to add approximately 50 million square kilometers of land observation data daily and continues to make this information freely accessible online. Landsat's International Cooperators are continuing to receive direct downlinks of imagery at their national ground stations, enabling regional access and near real-time use of Landsat observations. NASA and the USGS have announced a follow-on mission in 2030, Landsat Next, which will transform the breadth and depth of actionable information available freely to users worldwide.

Chair, NASA has a number of Earth-observation missions that benefit sustainable development around the globe, and particularly as it relates to studying and adapting to climate change:

- The Tropospheric Emissions: Monitoring of Pollution, or TEMPO, monitors major air pollutants over North America and forms part of an air quality satellite virtual constellation with South Korea's Geostationary Environment Monitoring Spectrometer (GEMS) and the European Space Agency's upcoming Sentinel-4 satellite;
- The Surface Water Ocean Topography (SWOT) mission, developed between NASA, France, Canada, and the United Kingdom, is measuring the height of nearly all water on Earth's surface to provide insights into how the ocean and other bodies of water influence climate change; and
- The Applied Remote Sensing Training (ARSET) program provides training on the use of NASA satellite and other Earth science data. In 2023, the ARSET program trained its 100,000th participant and has served people in 183 countries.
- The upcoming NASA–Indian Space Research Organisation (ISRO) Synthetic Aperture Radar (NISAR) mission will observe and measure some of the planet's most complex processes, including ecosystem

disturbances, ice-sheet collapse, natural hazards, sea level rise, and groundwater issues.

Another important mission is the NASA's Tropospheric Emissions: Monitoring of Pollution, or TEMPO, which monitors major air pollutants hourly in high spatial resolution over North America – down to four square miles. This instrument forms part of an air quality satellite virtual constellation, joining South Korea's Geostationary Environment Monitoring Spectrometer (GEMS), which is measuring pollution over Asia, and the European Space Agency's upcoming Sentinel-4 satellite.

NASA and the French Space Agency released the first publicly available data products from the Surface Water Ocean Topography (SWOT) mission. SWOT, jointly developed with the French Space Agency, as well as the Canadian and UK Space Agencies, is measuring the height of nearly all water on Earth's surface, providing insights into how the ocean influences climate change and how a warming world affects lakes, rivers, and reservoirs.

NASA's Earth Surface Mineral Dust Source Investigation (EMIT) mission created the first comprehensive maps of the world's mineral dust-source regions, providing precise locations of 10 key minerals based on how they reflect and absorb light. When winds loft these substances into the air, they either cool or warm the atmosphere and Earth's surface, depending on their composition. Understanding their abundance around the globe will help researchers predict future climate impacts.

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The joint upcoming NASA–Indian Space Research Organisation (ISRO) Synthetic Aperture Radar (NISAR) mission is designed to provide a detailed view of the Earth to observe and measure some of the planet's most complex processes, including ecosystem disturbances, ice-sheet collapse, natural hazards, sea level rise, and groundwater issues.

Among the United States contributions to the SDG Actions, NOAA and NASA are pleased to be partners in the World Meteorological Organization (WMO) SDG Action for enhancing Earth system observations, monitoring and forecasting for floods and droughts to ensure early warnings for all. This Action contributes to reducing the number of deaths and the number of people affected and substantially decrease the direct socio-economic losses from the water-related disasters, with a focus on protecting the poor and people in vulnerable situations (SDG 11.5).

The USGS and USAID are partnering to implement the U.S. Government's SilvaCarbon program. SilvaCarbon aims to transfer technical capacity to 30 forested countries in the use of satellite data to monitor forest loss over time to mitigate carbon emissions from deforestation, and manage their lands to achieve their commitments to the Paris agreement. In 2023, SilvaCarbon hosted or supported in person workshops in Peru, Fiji, Vanuatu, Solomon Islands, Paraguay, Thailand, Vietnam, Guatemala, and the U.S. SilvaCarbon also delivered online trainings and webinars targeted to the Latin America, Southeast Asia, Central Africa and the Pacific Island regions. The topics of these workshops included forest monitoring, forest carbon reporting, mangrove mapping, measuring biomass, and early warning systems.

Earth observations provide essential evidence to support SDG indicators at the national and global scales, and can help us identify solutions needed to reach the SDG targets. There is increasing recognition across all scales of decision making of the critical need for Earth observations and geospatial information to help us understand where we are today and where we will be in the future. This information is essential to evidence-based decision making.

Chair, we also wish to thank UNOOSA and the government of Canada for co-hosting the fourth Space4Women Expert Meeting in Montreal last year, which U.S. experts joined. We welcome with great appreciation Canada's work to develop a gender mainstreaming toolkit for the space sector, the first of its kind. Essential efforts such as this demonstrate tangible progress towards the objectives of gender equality and women's empowerment defined by the Sustainable Development Goals and the Space2030 Agenda.

Thank you, Chair.