

Canada**Agenda Item 5 – Space for Sustainable Development: technology and its applications, including the United Nations Programme on Space Applications.****Delivered by: Laura-Alexe Marcoux, Canadian Space Agency**

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Sixty-First session, Vienna, January 29 – February 9, 2024

Chair, Distinguished Delegates,

Earth observation data plays an essential role in our everyday lives. It contributes to our well-being and makes it possible to meet societal needs and challenges. Indeed, we see increasing reliance on space technology as the information sourced is foundational to building important products and services required now and into the future. For instance, EO data plays an important role in Canada's space-based monitoring of the UN Montreal Protocol and the United Nations Framework Convention on Climate Change.

Chair,

Canada was honoured to co-host the Space4Women Expert meeting 2023 in Montreal. During the event, examples of space technology and Earth observation data utilization were presented with the aim of promoting women's empowerment in space and STEM, in alignment with the UN's Sustainable Development Goals: 4 quality education, and 5 Gender Equality and broader UN agenda for gender inclusion. Data collection was shown as a useful tool for decision-making to monitor and implement specific initiatives and these case studies illustrated the powerful potential that space technologies have to improve evidence-based decision-making, economic productivity, fair income distribution, and resilience for all.

The central outcome from this expert meeting is the creation of the first ever Gender Mainstreaming Toolkit for the space sector. The discussion and insights shared during the meeting contributed to its development. The Gender Mainstreaming Toolkit for the space sector aims to: strengthen the capacity of the global space community to undertake gender mainstreaming efforts; and, provide simple and practical measures, examples, and tools to help people who are not gender specialists adapt gender mainstreaming efforts to their unique situations. The Toolkit will be published by UNOOSA in advance of the 67th COPUOS Session. We would welcome the support of delegations to this Subcommittee in elevating awareness of this important work. We will be sharing a Technical Presentation on the initial outcomes from the 4th Expert Meeting on [time/date].

Chair,

In 2023, Canada participated in many international events focussing on capacity-building using satellite data. Under the Committee on Earth Observation Satellites (CEOS) Working Group

on Capacity Building and Data Democracy, Canada delivered Earth Observation related sessions for the annual Indigenous Mapping Workshop (IMW). The IMW events are for Indigenous Nations, organizations and practitioners, supporting Indigenous-led geospatial research and projects. The events provide Indigenous Peoples with training and digital geospatial tools to collect, host, visualize, share and publish maps that can be used to demonstrate connection to land and waters and manage associated digital information. In addition, Canada also contributed to the UN/Austria Symposium 2023 on “Space for climate action: space applications and technologies for sustainability on Earth” by showcasing a European-Canadian SAR MOOC course to advance online radar remote-sensing education. The presentation highlighted use of Canada’s satellite radar imagery for research and development, and for operational applications in agriculture, sea, lake and river ice monitoring. The objective was to share experiences and explore how space-based services are used in Canada to support policies aimed towards driving stronger action on climate change.

Chair, distinguished delegates,

Canada recently announced the RADARSAT+ mission - proof of our commitment to leveraging space technologies to tackle pressing challenges and spur innovation. RADARSAT+ will help continue tracking of sea ice patterns and monitoring of critical ecosystem health. Canada also continues to develop its contribution to the Atmosphere Observing System (AOS) mission led by NASA, along with JAXA, CNES and DLR. The mission will provide critical data from space to support extreme weather prediction, climate modelling as well as monitoring the effect of disasters on our atmosphere, such as volcanic eruptions, wildfires and extreme precipitation. The data collected by HAWC and AOS will improve our ability to predict and respond to near-term weather events, long-term climatic conditions and air quality.

In 2023, Canada celebrated the 20th anniversary of the launch of SCISAT, a Canadian satellite mission that continues to globally monitor ozone, its depleting substances, and all major greenhouse gases, including hydrofluorocarbons. SCISAT can measure 70 different substances in the atmosphere and its data is studied to better understand atmospheric chemistry and the climate.

Finally, Chair,

Prioritizing and fostering global space cooperation is crucial to ensure that Earth observation and space technologies are effectively utilized in addressing climate change and maintaining a sustainable environment for present and future generations. As part of those efforts, Canada is proud to be the incoming Chair of the International Committee on Earth Observation Satellites (CEOS) until October 2024. With our chairmanship, we are committed to emphasizing the vital role of satellite data in monitoring and safeguarding biodiversity. Canada is

also thrilled to have recently joined the Space Climate Observatory (SCO) alongside France and many other space agencies. We are looking forward to working with international partners to maximize the impact of Earth Observation technologies in our efforts to combat climate change and adapt to a changing world.

Thank you for your kind attention.