



2024 CEOS Chair Proposed Theme and Priorities

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CEOS and Biodiversity

This paper communicates the priorities of the 2024 CEOS Chair team of the Canadian Space Agency (CSA) to the CEOS community, serving as a focus for discussion leading to the 38th CEOS Plenary.

In addition to our proposed agenda headlines for 2024 detailed below, the incoming CEOS Chair team will work closely with the JAXA SIT Chair team in the year ahead to ensure that ongoing and multi-year CEOS Work Plan objectives are supported and continue on schedule.

In 2019 the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) noted in its Global Assessment Report on Biodiversity and Ecosystem Services that *“Around 1 million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. Without such action, there will be a further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million years”*.

The application of space-based Earth observation for action on biodiversity conservation has long been recognised by CEOS, but the breadth of the field has hampered a focused CEOS response. In 2022, the same year that the Kunming-Montreal Global Biodiversity Framework (GBF) was adopted, CEOS established the Ecosystem Extent Task Team to assess the utility for mapping Ecosystem Extent using current and new space-based observations that will become available in the next ten years. Ecosystem Extent mapping was judged to be a pragmatic and manageable aspect of the biodiversity area for initial focus by CEOS.

The commencement of the CSA CEOS Chair term coincides with the delivery of the Ecosystem Extent Task Team’s white paper and initial recommendations. CSA will use the opportunity of its CEOS Chair year as a planning phase for a potentially broader CEOS response to the issue of biodiversity.

CSA will prioritise activities in three broad categories:

Priority #1: Exploring a Post-2024 Strategy for CEOS and Biodiversity

The CSA CEOS Chair team will facilitate the exploration of a longer-term CEOS response to biodiversity by:

- Working closely with the CEOS Ecosystem Extent Task Team (EETT) Leads to support the implementation of their white paper recommendations and facilitate dialogue with CEOS Agencies and leadership to define actions in response. The goal will be to encourage the addition of specific actions/deliverables in the 2025-2027 CEOS Work Plan, that reflect a multi-year plan and implementation strategy for CEOS on biodiversity.
- Track the progress of the EETT Demonstrators and seek opportunities to promote them, ensure necessary support from CEOS Agencies, and provide a platform at key CEOS meetings for their

findings to be communicated - so they can be fed back into considerations on future CEOS strategies for biodiversity.

- Ensure that the activities of the EETT are elevated to CEOS leadership via regular CEOS Secretariat meeting reports and other opportunities.
- Achieve a strong understanding of CEOS Agencies' biodiversity activities, datasets, and investments.
- Undertake, with the CEOS Secretariat and the CEOS community, an exploration of the appropriate organisational structure for any continued effort on biodiversity in CEOS. Considerations include: the temporary nature of the existing EETT; available permanent mechanisms; leveraging existing CEOS entities; ensuring sustainability of any future CEOS biodiversity group; ensuring a critical mass of subject matter experts with the required capacity and interest, from CEOS Agencies and beyond; understanding, aligning and leveraging CEOS Agencies' own priorities regarding biodiversity.
- Seek to strengthen the pool of biodiversity expertise available to CEOS by encouraging CEOS Agencies (Members and Associates) to look into sponsoring someone at an institute or university in cases where the CEOS Agency does not have in-house biodiversity expertise.
- Oversee the preparation of a recommended position for a CEOS Plenary 2024 discussion on potential CEOS commitment to a broader biodiversity strategy, and provide the necessary agenda time for CEOS Agency deliberation on longer-term support to biodiversity. The CSA CEOS Chair team will work with the SIT Chair Team, CEOS Secretariat and CEOS Agency Principals to articulate the fundamental reasons for the topic of biodiversity to figure more prominently in the spectrum of CEOS activities.

Priority #2: Increase Policy Footing and Linkages to the Biodiversity Community

As noted by the UN Convention on Biological Diversity (CBD) Secretariat, CEOS Agencies have been producing datasets and time series for many years that have great potential to support biodiversity monitoring and countries' responses to the Global Biodiversity Framework (GBF). Better connecting this data to policy processes, ensuring it is fit for purpose, and addressing gaps will maximise the utility and societal benefit of this data.

CSA will use its CEOS Chair year to assist the establishment of stronger linkages to the policy community, leveraging its co-location in Montreal with the Secretariat of the UN Convention on Biological Diversity (UN CBD). CSA will specifically aim to:

- Reflect on the 2018 UN CBD letter to CEOS, which presented a series of recommendations on how space-based EO can be streamlined into biodiversity conservation efforts; observation requirements and gaps; development of Essential Biodiversity Variables (EBVs); showcasing EO contributions; facilitating access, processing, and analysis of large satellite data streams; and capacity development, including with indigenous communities.
- Establish more formal ties between CEOS and the UN CBD Secretariat, UN System of Environmental-Economic Accounting (SEEA) and the Group on Earth Observations Biodiversity Observation Network (GEO BON), IPBES, etc.
- Explore the potential of a collaborative biodiversity agenda between CEOS, UN CBD, UN SEEA, and GEO (GEO BON, EBVs, GBIOS; Global Ecosystems Atlas).
- Establish a strong understanding across CEOS of the major policy drivers for biodiversity.
- Gather user requirements for this domain to inform how CEOS can most effectively contribute.

- Raise the profile of CEOs in the biodiversity community and amongst policymakers.
- Promote key CEOs biodiversity-related activities (global to local scale), datasets, and investments (individual and collective).
- Increase the visibility of EO's potential contribution to biodiversity and the Global Biodiversity Framework (GBF).