Space Agency Leaders Summit

Pledge for Enhancing Space-Based Climate Initiatives

COP28 Outcomes

4th December 2023

The Space Agencies Participating in this Pledge,

Being active actors in the space domain and with the aim of facilitating global transformative climate action utilizing space data and applications to impact the urgent response to climate change,

And in pursuit of the following objectives:

RECOGNIZING their mutual interest in understanding and addressing climate change for the benefit of humanity, sustainability and future generations;

NOTING that space technology, as a key component of the best available science, can benefit all humankind through its contribution to promoting transparency of global climate change mitigation and adaptation efforts;

NOTING the benefit for all humankind to be gained from cooperating in global climate change mitigation and adaptation efforts;

CONTINUING to inspire a common action-oriented spirit for current and future generations in utilizing space in achieving a climate-resilient world, including for monitoring and reacting to rising sea levels, extreme weather events, and greenhouse gas emissions;

BUILDING on the work of the Intergovernmental Panel on Climate Change to establish the scientific basis that informs urgent actions and to identify knowledge gaps that may hinder progress toward global goals;

RECOGNIZING the global benefits of sustainable commerce and green technology innovations;

ACKNOWLEDGING a collective interest in preserving Earth's environment for the benefit of all;

RECALLING that space-based capabilities have played a key role in identifying how our climate is changing and helping governments and people prepare for and recover from extreme weather events;

PROMOTING collective commitment towards understanding the important role that space can play in monitoring our changing climate and preserving it for future generations through increasing openness of data, strengthening global climate monitoring initiatives, and providing scientific information uniquely available from space to help society take action to mitigate climate change.

BUILDING UPON THE SHARED OBJECTIVES, THE PARTICIPANTS PLEDGE TO:

1: Enhancing Data Sharing

The Participants, recognizing the inherent value of shared knowledge and information, are committed to fostering a culture of collaboration and cooperation, based on open-source science principles that enable scientific reusability and reproducibility through the sharing of scientific mission data on a public, full, free, open and unrestricted basis. The Participants pledge to amplify scientific data sharing efforts, particularly between established and emerging space nations, with a specific focus on inclusivity, especially in engaging developing countries. The Participants seek to harness the potential of space-based technologies and initiatives to enhance climate information in support of decision-making and action to address climate change challenges.

The Participants, guided by their shared objectives to find solutions to address climate change impacts, will continue to explore ways to progress standards for satellite data products.

The Participants commit to sharing scientific data, consistent with their respective national law and regulations, to enhance transparency and understanding.

2: Strengthening Climate Research

The Participants, acknowledging the pivotal role of robust scientific climate research in securing the well-being of future generations, pledge to continue to engage in scientific climate research collaboration endeavors within and related to the space sector. By advancing space-based climate research, the Participants aim to enhance their comprehension of Earth's climate system, fostering essential insights to effectively address and manage the challenges posed by climate change.

The Participants should strive to provide tools and data so that decision makers can formulate and communicate long-term low greenhouse gas emission development strategies.

The Participants will advance the scientific knowledge on climate, including through research, systematic observation of the climate system, and early warning systems, to inform climate change risk assessment, climate services, greenhouse gas emissions reductions, and decision-making.

3: Supporting Comprehensive Climate Monitoring

With the aim of enhancing their understanding of the dynamic changes

occurring on our planet, and recognizing the value on in situ which is indispensable element for integration with space based dataset to provide with necessary information for climate change research and decision making, the Participants remain committed to advancing space climate monitoring initiatives and in situ observation tools. Such initiatives should facilitate the development and deployment of cutting-edge space-based technologies capable of observing, recording, and analyzing diverse climate parameters, thereby contributing to the collective efforts against climate change.

The Participants intend to promote advances in space technology development to improve resilience to climate change and monitor greenhouse gas emissions.

4: Promoting Sustainable Space Activities

The Participants, guided by their commitment to sustainability, confirm their dedication to promoting the sustainable exploration and use of space, and minimizing the long-term impacts of space activities on the outer space environment. The Participants encourage all States to implement the UNCOPUOS Space Debris Mitigation Guidelines and the Guidelines for the Long-Term Sustainability of Outer Space Activities.

5: Raising Awareness about Climate Change

Understanding the need for global involvement in mitigating the impacts of climate change and better supporting adaptation, the Participants pledge to elevate awareness about the pivotal role of space-based technologies in addressing climate change, including methods for observing and reducing greenhouse gas emissions. The Participants remain committed to engaging citizens, stakeholders, and the international community to enhance understanding and collective action toward a sustainable future.

6: Technological Solutions and Entrepreneurship

Recognizing the transformative potential of innovation and entrepreneurship, the Participants pledge to continue to develop vital space technological solutions critical for addressing climate challenges. By fostering the conditions conducive to the growth of startups and established businesses within the space sector, the Participants intend to encourage private sector investments in space-climate programs, catalysing fresh ideas and solutions.

The Participants will accelerate, encourage, and enable innovation, recognizing its critical role in an effective, long-term climate response, economic growth, and sustainable development.

7: Financing Space-Climate Programs

Recognizing the importance of investing in climate action, Participants commit to exploring avenues for financing space-climate initiatives to support concrete climate action. This proactive approach can facilitate the realization of their shared vision.

By making to this pledge, the Participants express their support to these space-based initiatives and for a sustainable planet. Together, through collaboration and collective action, the Participants can utilize space not just for exploration, but also as a unique vantage point to protect and preserve our shared home.

This Pledge represents the voluntary commitments of the Participants. It is not an international agreement and is not intended to create any legally binding obligations.

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