Qingdao Declaration on Digital Earth

Digital Earth Supporting Global and China's Sustainable Development

June 1, 2026

Since the concept of Digital Earth was first introduced and put into practice in China in 1999, significant progress has been achieved in theoretical innovation, technological advancement, platform development, and practical applications. From 5 to 7 June 2026, scientists, policymakers, entrepreneurs, and representatives from the Digital Earth community in China gathered in Qingdao, China, for the 4th China Digital Earth Conference. Under the theme "Digital Earth Supporting Global and China's Sustainable Development," participants jointly issue this Declaration.

The implementation of the United Nations 2030 Agenda for Sustainable Development has entered a critical stage. Rapid advances in digital technologies are profoundly transforming the ways in which humanity observes and understands the Earth, and supports sustainable development. The development of Digital Earth and Big Earth Data has opened new scientific pathways for advancing knowledge of Earth system dynamics, strengthening the monitoring and assessment of the Sustainable Development Goals (SDGs), and supporting sustainable development worldwide.

As digitalization and intelligent technologies continue to reshape societies and economies, China is accelerating the development of Digital China through coordinated progress in digital infrastructure, data resources, and artificial intelligence. As an important scientific and technological capability for understanding the Earth and supporting development, Digital Earth provides new opportunities to enhance digital governance, promote high-quality development, and contribute to the achievement of the SDGs.

Looking ahead, we reach the following consensus:

I. Advancing Innovation in Digital Earth

Support the deep integration of Digital Earth with cutting-edge technologies, including Big Data, AI, and Digital Twins. We encourage the evolution of Digital Earth from digital representation

toward intelligent cognition, enhancing capabilities for dynamic monitoring, simulation, analysis, and prediction of complex Earth system processes. Such efforts will deepen scientific understanding of Earth system dynamics, patterns, and changes, and provide stronger scientific support for sustainable development worldwide.

II. Strengthening Digital Technologies for the Achievement of the SDGs

Harness the application of Digital Earth, AI, and related digital technologies in advancing the SDGs. Through the integration, analysis, and dynamic monitoring of multi-source data, we encourage the transition from qualitative assessment to quantitative evaluation, thereby strengthening SDG monitoring, assessment, and decision-support capacities.

III. Promoting the Development of SDG Satellite Constellation

Strengthen Earth Observation capabilities for sustainable development and encourage the development of a satellite constellation dedicated to SDG-related observations. Such a system should provide coordinated observations across multiple platforms, scales, and temporal resolutions, improving the continuous acquisition and integrated analysis of SDG-related data and providing a stable observational foundation for the advancement of Digital Earth.

IV. Advancing the Digital Sustainable Development Goals Programme

Support the implementation of the Digital Sustainable Development Goals Programme (DSP) and encourage collaborative innovation among the global scientific community in data, methodologies, and applications. Such efforts will strengthen the scientific contributions of Digital Earth and Big Earth Data to SDG research and enhance integrated understanding and assessment of sustainable development.

V. Promoting Open Science and Scientific Infrastructure

Reaffirm our commitment to the principles of Open Science. We support open access to Digital Earth data, technologies, and methodologies, and encourage their collaborative use as global scientific public goods. We further support the development of scientific infrastructure for sustainable development, providing a stronger scientific foundation for SDG monitoring, assessment, and decision-making.

Recognize that Digital Earth represents an important frontier in Earth system science and a vital scientific capability for advancing sustainable development.

Looking to the future, Digital Earth will continue to deepen humanity’s understanding of the Earth system and provide enduring support for the achievement of the UN SDGs and the promotion of harmony between humanity and nature.