Future Earth Mission and Objective

Vision and Mission:

Future Earth is a global initiative focused on advancing sustainability science. Future Earth's **vision** is of a sustainable and equitable world for all, where societal decisions are informed by openly-accessible and shared knowledge. Future Earth's **mission** is to advance research in support of transformations to global sustainability.

Purpose:

Future Earth convenes researchers and scholars from all parts of the world, across different societal and academic sectors, and across the natural, social, and human sciences. Future Earth initiates and supports international collaboration between these researchers and stakeholders to identify and generate the integrated knowledge needed for successful transformations towards societies that provide good and fair lives for all within a stable and resilient Earth system. Future Earth uses a rigorous transdisciplinary research and systems thinking approach throughout its work in which basic and applied research are combined to generate actionable, solution-oriented knowledge to inform and guide decisions by policy makers and practitioners at all levels of governance.

Principles & Core Values:

Future Earth upholds the fundamental principles of scientific freedom and responsibility enshrined in the <u>statutes</u> of the International Science Council.

In addition, Future Earth values

- Inclusivity and diversity: including perspectives and approaches and increasing the participation* in global sustainability science from all parts of the world and all sectors of the community.
- Organizational sustainability: embedding principles of sustainability in internal policies and practices.
- Transparency and impartiality: ensuring open decision-making processes as the default position for the governance and management of Future Earth.

Future Earth is committed to open science and FAIR (Findability, Accessibility, Interoperability, and Reusability) principles for scientific data management and stewardship.

*Includes, but is not limited to, that of early career researchers, indigenous communities, women, people of color, and members of the LGBTQAI+ community.

Strategic Objectives:

Primary Work:

Future Earth acts to initiate and facilitate, convene and coordinate, and synthesize and communicate global sustainability science. It mobilizes the world's leading sustainability scientists and leverages the resources available in its core community to deliver a portfolio of essential activities that include:

establishing, connecting and promoting international research initiatives, such as Global Research
 Networks and new integrative activities

- initiating and organizing scientific syntheses and assessments and activities which cut across and integrate research in a systems approach, such as the Earth Commission
- facilitating the representation and engagement of global sustainability science in global science-policypractice interfaces, global integrated and thematic assessment and response frameworks, and discourse around globally agreed goals and multilateral environmental and social agreements
- curating global sustainability science communications, such as the Anthropocene Magazine
- convening international, open science conferences, such as the regular series of Sustainability Research and Innovation Congresses, and
- stimulating and supporting global sustainability science capacity development initiatives, such as the Earth Leadership Program.

Future Earth's **strategic objectives** are to:

- Champion and promote rigorous and relevant knowledge on global sustainability challenges by determining
 critical knowledge needs, offering an international science program for transdisciplinary research and
 collaboration on global sustainability science, and developing pathways, scenarios, and additional innovative
 methods for the production and synthesis of ongoing international research.
- Ensure the development and growth of transdisciplinary research approaches that systematically integrate natural, social, and technical sciences, as well as scholarship from the humanities, and connect this work with needs, insights, and innovation within other sectors of society to develop systems-oriented perspectives, products, platforms, methods, and tools that support sustainability pathways.
- Support evidence-informed decision making on transformations to global sustainability through effective
 communication and engagement with relevant decision makers and societal actors at the science-policypractice interface, throughout the whole cycle of knowledge generation from problem definition to
 responsible practitioners/actors at scale, i.e. along the whole value chain of knowledge and knowledge
 products.
- Strengthen global sustainability science by expanding the community, increasing its connectivity, building its
 essential capacities, improving the conditions for conducting transdisciplinary and impact-oriented research,
 and developing clear methodologies of transdisciplinary sciences.
- Provide a platform for communicating and facilitating access to integrated scientific knowledge.

Future Earth promotes the ethical use of big data, linked data, data sharing, and other tools of the digital revolution that fuel scientific discovery and strengthen our understanding of system complexity

What does Future Earth mean by 'global sustainability science'?

Global sustainability science addresses the complex interactions between natural, social and technological systems, and how those interactions affect, across time and space, the planet's life support systems, socioeconomic development, and human wellbeing.

It involves – and seeks to integrate – research and scholarship across the spectrum of scientific fields, disciplines, methods and approaches, from fundamental to applied science, from disciplinary to inter- and trans-disciplinary research*. It draws on scientific perspectives from all parts of the world to guide and inform action to be taken in advancing transformations to global sustainability.

^{*}See the Future Earth Glossary for definitions.

Further, non-academic stakeholders are included as partners in the co-design and co-production of research, and science-policy interfaces at global, regional, national, and community levels. This transdisciplinary research endeavor, based on systems thinking, deepens our understanding of – and explores new insights and pathways for – solutions for people and planetary health in the Anthropocene, ranging from integrated Earth system analyses to planetary stewardship and social transformations