
Future
Earth
2025
Vision
futureearth
research for global sustainability

The vision of Future Earth is for people to thrive in a sustainable and equitable world.

This requires contributions from a new type of science that links disciplines, knowledge systems and societal partners to support a more agile global innovation system.

Future Earth is a global research platform designed to provide the knowledge needed to support transformations towards sustainability. Future Earth seeks to build and connect knowledge to increase the impact of research, to explore new development paths, and to find new ways to accelerate transitions to sustainable development.

Future Earth will contribute to achieving goals on global sustainable development, as called for at the United Nations (UN) Conference on Sustainable Development (Rio+20) and subsequently articulated under the auspices of the UN General Assembly.

Future Earth will work with partners in society to co-develop the knowledge needed to support decision-makers and societal change at all scales and in diverse contexts, by focusing on three Research Themes – Dynamic Planet, Global Sustainable Development and Transformations towards Sustainability.

This document outlines what Future Earth needs to contribute to achieve its vision by 2025.

Why do we need Future Earth?

By 2025 Future Earth will have

Inspired and created ground-breaking interdisciplinary science relevant to major global sustainability challenges

Key focal challenges are to:

1. Deliver water, energy, and food for all, and manage the synergies and trade-offs among them, by understanding how these interactions are shaped by environmental, economic, social and political changes.
2. Decarbonise socio-economic systems to stabilise the climate by promoting the technological, economic, social, political and behavioural changes enabling transformations, while building knowledge about the impacts of climate change and adaptation responses for people and ecosystems.
3. Safeguard the terrestrial, freshwater and marine natural assets underpinning human well-being by understanding relationships between biodiversity, ecosystem functioning and services, and developing effective valuation and governance approaches.
4. Build healthy, resilient and productive cities by identifying and shaping innovations that combine better urban environments and lives with declining resource footprints, and provide efficient services and infrastructures that are robust to disasters.
5. Promote sustainable rural futures to feed rising and more affluent populations amidst changes in biodiversity, resources and climate by analysing alternative land uses, food systems and ecosystem options, and identifying institutional and governance needs.
6. Improve human health by elucidating, and finding responses to, the complex interactions amongst environmental change, pollution, pathogens, disease vectors, ecosystem services, and people's livelihoods, nutrition and well-being.
7. Encourage sustainable consumption and production patterns that are equitable by understanding the social and environmental impacts of consumption of all resources, opportunities for decoupling resource use from growth in well-being, and options for sustainable development pathways and related changes in human behaviour.
8. Increase social resilience to future threats by building adaptive governance systems, developing early warning of global and connected thresholds and risks, and testing effective, accountable and transparent institutions that promote transformations to sustainability.

What will Future Earth deliver?

By 2025 Future Earth will have

Delivered products and services that our societal partners need to meet these challenges

Key focal outputs are:

1. Open and inclusive platforms for observing and monitoring the status, trends and thresholds of the planet in a timely manner at different scales, including tracking fast-changing sentinel processes and systems.
2. Tailored metrics and evaluation tools for well-being and sustainable development.
3. A new generation of integrated Earth system models to deepen our understanding of complex Earth systems and human dynamics across different disciplines, and to underpin systems-based policies and strategies for sustainable development.
4. Science-based data, tools and resources to support improved resilience of people, communities and economies, including disaster risk reduction.
5. Scenarios for transformative development pathways that enable global sustainability, to help evaluate different strategies and options.
6. Critical contributions to key debates on global sustainability issues, including inputs to scientific assessments and decision-relevant syntheses.
7. Innovations in communicating, engaging and visualising global change and sustainability, fully exploiting the potential of new technologies and overcoming differential access to information across the world.

How will Future Earth work?

By 2025 Future Earth will have

Pioneered approaches to co-design and co-produce solutions-oriented science, knowledge and innovation for global sustainable development

Key approaches for focus are:

1. Conducting fundamental and applied research in ways that engage with diverse societal partners across all regions of the world to maximise impact and responsiveness to society's needs, and monitoring the effectiveness of these new approaches to research.
2. Establishing Future Earth as a globally recognised model for engagement and collaboration in research for global sustainable development, effective in all world regions.
3. Stimulating debate, illustrating good practice and mobilising capacities for solutions-oriented science, technology and innovation for sustainability.
4. Changing international research funding practices to better support interdisciplinary and transdisciplinary research and engagement across and within regions.
5. Fostering collaboration among national and international agencies' research programmes, to maximise resources for and impacts of research towards sustainability.
6. Contributing to improved modes of sharing data about environmental change and progress towards sustainability in order to support policy and practice at different levels.

Who will Future Earth be?

By 2025 Future Earth will have

Enabled and mobilised capacities to co-produce knowledge, across cultural and social differences, geographies and generations

Key areas for focus are:

1. Inspiring and supporting a new generation of scholars and practitioners doing integrated science for global sustainability to carry forward Future Earth's vision and mission.
2. Building a diverse and connected community of participants and organisations, including scientists, policy makers, civil society practitioners, private sector actors and funders from all regions of the world.
3. Engaging influential stakeholders globally in the UN system, including major assessments and the post-2015 development agenda, key nations, business and civil society.
4. Mobilising capacities in all parts of the world to cooperate on research that connects local to global processes and promotes alternatives for sustainable development trajectories.
5. Creating a critical mass of scientists, policy makers and civil society leaders who believe in and can serve as ambassadors for Future Earth, including a body of Future Earth Fellows.

Future Earth
Interim Secretariat
c/o International Council for Science
5 rue Auguste Vacquerie
75116 Paris, France
contact@futureearth.info
www.futureearth.org

ISBN 978-0-9330357-95-5

Cover Photo iStock 1192081 Antarctica
Design Curie Kure / www.curiekure.de

Printed by S.A. Pure Impression. Paper: Balance Pure, 100 % recycled