



November 17, 2023

Ministry of Economy, Trade and Industry (METI)

New Energy and Industrial Technology Development Organization (NEDO)

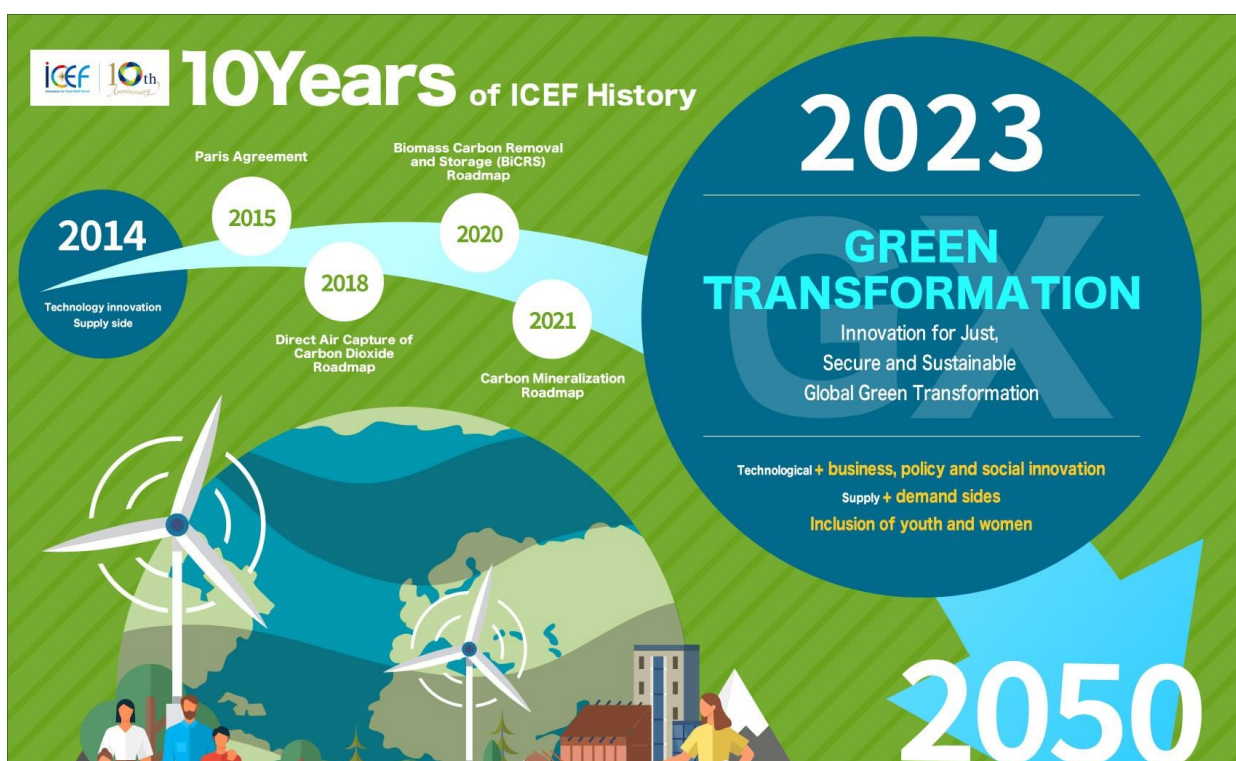
Discussion of the World's Leading Policy and Technological Innovations for Climate Change Mitigation

■ ICEF2023 Statement

The statement of this year's ICEF, which was held on the memorable 10th anniversary of this annual event, focused on what we have achieved since the inaugural meeting of the ICEF in 2014, what we need to advance the green transformation (GX) in the future, and the roles and missions of the ICEF for the future. The fundamental roles and missions of the ICEF remain unchanged. We are firmly committed to continuing to work steadily to promote both technological innovation and social innovation, while also strengthening diversity and inclusiveness. Under the main theme of ICEF2023, "Innovation for Just, Secure and Sustainable Global Green Transformation," this year's Forum discussed policy innovation and fair GX, as well as the specific issues of Global Stocktake, the linkages between Food, Water and Climate Change, Innovative Use of Renewables, Sustainable Aviation, and Nuclear Fusion Technology.

For details, please visit the official website of the ICEF:

<https://www.icef.go.jp/pdf/2023/top/ICEF2023%20Statement.pdf>



The Innovation for Cool Earth Forum 2023 (ICEF2023) was the 10th anniversary of this annual event. On this memorable occasion, the Steering Committee issued a special statement reflecting on the journey of the past nine years and looking ahead to the next decade, under the following three general headings:

- What we have achieved since the ICEF inaugural annual meeting in 2014
- What we need to advance the green transformation (GX)
- Towards the future

2. ICEF2023

Main theme: Innovation for Just, Secure and Sustainable Global Green Transformation (GX)

Innovation for Cool Earth Forum 10th Annual Meeting (ICEF2023) was held on October 4-5, 2023 in a hybrid format that allowed both in-person and online participation, as an initiative of “Tokyo GX Week,” a series of 10 conferences which discussed a wide range of issues related to energy and the environment. Around 1,700 people from governments, international organizations, industry, and academia, representing 79 countries and regions, participated in this year’s event. At the conclusion of ICEF2023, the Steering Committee issued a statement summarizing the series of discussions, as follows.

- ICEF2023 featured in-depth discussions on innovative policy-making for building secure and resilient supply chains of energy and resources. The need for cross-border cooperation was recognized, and the interface of policy, technology, finance and innovation was discussed.
- ICEF2023 also discussed “GX together,” where GX is pursued inclusively, with no one left behind. “Just transition” was discussed from the regional and socioeconomic perspectives, and the role of public and private blended financing mechanisms were elaborated.
- Leading experts discussed the following five specific issues.
 - First, the Global Stocktake, a process to inform the Parties to UN Framework Convention on Climate Change in updating and enhancing their NDCs every five years under the Paris Agreement. The first Global Stocktake will soon culminate at COP 28. ICEF2023 provided an excellent opportunity to collect the views of the private sector and NGOs.
 - Second, linkages between food, water, energy, and climate change. Sustainable agriculture and food security in relation to water and soil, as well as adaptation and resilience measures needed for addressing climate change, were discussed.
 - Third, the innovative and inclusive use of renewables. Topics included how maximize benefits and minimize negative impacts on local communities, environments and ecosystems through synergies and co-benefits with the 17 UN Sustainable Development Goals. The role of developing economies was emphasized.
 - Fourth, sustainable aviation. Topics included forecasting sustainable aviation fuel (SAF) supply beyond 2050, identifying alternatives for aviation fuels and opportunities for improving propulsion system such as hydrogen electric powertrain.
 - Fifth, nuclear fusion technology. Recent trends, including the role of startups and university spin-offs in developing promising technologies and attracting investment, were discussed.

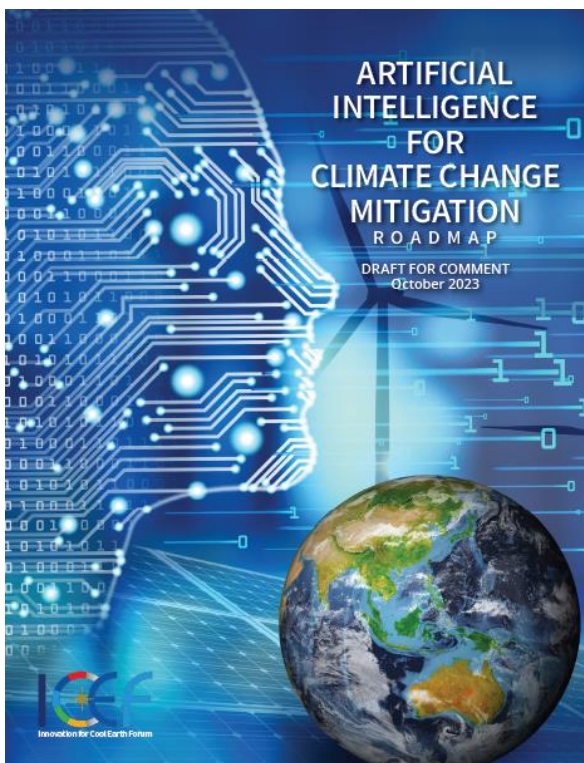
■ ICEF Roadmap

The ICEF2023 Roadmap on “Artificial Intelligence (AI) for Climate Change Mitigation” is scheduled for release at COP28 in December 2023.

Since 2015, the ICEF has developed roadmaps for technologies that are expected to drive the transition to net-zero emissions over the long term by considering the perspectives of industry, government and academia in order to identify realistic, fact-based pathways, with the aim of informing the activities of all stakeholders. The topics of past roadmaps include CO₂ Utilization (2016, 2017), Direct Air Capture (DAC) of Carbon Dioxide (2018), Industrial Heat Decarbonization (2019), Biomass Carbon Removal and Storage (BiCRS) (2020), Carbon Mineralization (2021), Low Carbon Ammonia (2022) and Blue Carbon (2022), etc.

This year’s ICEF2023 “Artificial Intelligence (AI) for Climate Change Mitigation Roadmap” is the 12th roadmap issued by the ICEF.

For more details, please see: Roadmap <https://www.icef.go.jp/roadmap/>



The ICEF Roadmap on “Artificial Intelligence for Climate Change Mitigation” examines artificial intelligence (AI), which is attracting attention for use in a variety of fields, and studies the possibility of utilizing AI to achieve net-zero emissions.

Specifically, the “Roadmap on Artificial Intelligence for Climate Change Mitigation” explores the potential of AI for use in fields where AI is expected to have a significant impact on climate change mitigation, including monitoring of greenhouse gas (GHG) emissions, power system infrastructures, manufacturing, materials innovation, the food system and transportation. It also examines the barriers and issues accompanying the use of AI, and proposes pathways by which AI can contribute to climate change mitigation.

The “Draft for Comment” of the Roadmap was released at this year’s ICEF annual meeting. In addition to discussion at ICEF2023, public comments have been invited, and will be reflected in a revised version. The final official version is scheduled to be released at COP28 in December 2023.

■ Outline of ICEF2023

Name: Innovation for Cool Earth Forum 10th Annual Meeting (ICEF2023)

Hosts: Ministry of Economy, Trade and Industry (METI), New Energy and Industrial Development Organization (NEDO)

Dates: October 4 (Wed.) – October 5 (Thurs.), 2023

Venue: Hotel New Otani Tokyo (address: 4-1, Kioi-cho, Chiyoda-ku, Tokyo) / online hybrid event

ICEF website: <https://www.icef.go.jp>

Co-Hosts: Ministry of Foreign Affairs of Japan, Ministry of Education, Culture, Sports, Science and Technology-Japan, Ministry of Agriculture, Forestry and Fisheries, Ministry of the Environment

Institutional Partners: International Energy Agency (IEA), BloombergNEF, United Nations Industrial Development Organization (UNIDO)

* * * * *

For inquiries concerning this item, readers, viewers or members of the press are invited to contact:

ICEF2023 Secretariat / Public Relations, First Company, Ltd.

e-mail: icef2023-media [at] mail.obo.bz

*Please replace [at] with @ before using this email address.