

Climate and Nature

Emergency briefing

Emergency Briefing on Climate and Nature

Date and Time: Wednesday, September 30, 2026, 13:00-16:00

Venue: Nikkei Hall

Organizer: ZERI JAPAN, a specified non-profit organization /
Climate Emergency Network (CEN)

Supported by: Science Council of Japan

Parliamentary League "Non-Partisan Association for Realizing Carbon Neutrality"

Japan Climate Leaders' Partnership (JCLP)

Future Earth International Secretariat Japan Hub

PROGRAM

Abstract of Briefing

By leading Japanese scientists

Targeting policymakers and society as a whole.

Emergency briefing on the climate crisis



CEN 6th Anniversary Event



Activities since the establishment of the Climate Emergency Network (CEN) in 2020

November 18, 2020 @ Imperial Hotel
Inaugural General Meeting of the Climate Emergency Network (CEN)
June 4, 2021 @ Shibusawa Hall, Tokyo Chamber of Commerce and Industry
"Climate Emergency Network and Carbon Neutrality" Summit
November 17, 2022 @ Marunouchi Building Conference Square
"From declaring a climate emergency to implementing a carbon neutrality plan"
November 21, 2023 @ Tokyo Chamber of Commerce and Industry Conference Room
"A Rapid Low-Carbon Strategy to Catch Global Boiling: Social Transformation in the Steel and Construction Industries"
November 18, 2024 @ Marunouchi Building Conference Square
"Summit 2024: A Social Turning Point Towards Achieving Carbon Neutrality"
December 16, 2025 @ Vision Center Shinbashi
"Scientific Verification of the Climate Emergency and the Path to Social Transformation: A Sustainable Future Opened Up by Science, Law, and Markets"
September 30, 2026 @ Nikkei Hall
"Emergency Briefing on Climate and Nature"

Notes for this briefing

Organizing Committee Chair Yusuke Saraie

Chairperson of the Board of Directors, Certified NPO Zeri Japan / Chairperson, Climate Emergency Network (CEN)



Climate change and the natural crisis are no longer just problems of the future. They affect our lives, health, and food.

This is an ongoing challenge affecting food, energy, the economy, and social security.

To confront such complex crises, expertise in individual fields alone is insufficient.

Hmm. It's about taking scientific facts across disciplines and connecting them to social and policy decision-making.

That is important.

This briefing will bring together leading scientists and experts in their respective fields of expertise.

They will discuss the current situation and future challenges. Then, they will share knowledge across fields and discuss climate change.

This is an opportunity to consider what society should recognize and what it should do regarding climate change and natural crises.

I would like to.

Today's discussion will be a new step in connecting science and society, and science and policy, and will contribute to sustainability and

I sincerely hope this will lead to concrete actions toward a more dynamic society.

Advisor: Ryoichi Yamamoto

Honorary Chairperson, Climate Emergency Network (CEN) / Professor Emeritus, University of Tokyo

The global average annual temperature in 2024 is projected to be 1.55°C higher than pre-industrial levels.

We temporarily exceeded the Paris Agreement's 1.5°C target. This year marks the highest temperature increase in the last 1,000 years.

Due to the occurrence of the strongest El Niño phenomenon, the average annual temperature in 2024 will exceed that of 2024.

The probability of exceeding that is increasing. (According to a UNEP report published on September 2nd)

The report concludes that it is no longer possible to meet the 1.5°C target in the short term.

It is clear that the weather and nature are in a state of emergency, and we must overcome this crisis through social transformation and behavioral changes by sharing scientific knowledge.

Fortunately, thanks to the support of many people, we were able to hold this "Emergency Briefing on Climate and Nature."

We are now able to do so. Last November in the UK, this year in Japan, and next year in Germany.

Similar emergency briefings will be held in Canada. I hope that today's discussions will further strengthen the "emergency mode" in Japanese society and lead to a fundamental solution to the problem.



Organizing Committee and Secretariat Information (Alphabetical Order, Titles Omitted)

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advisor

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Toshihiko Goto, Special Advisor, Certified NPO Japan Society for Environmental Management

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Executive Committee Chairperson

Mitsuo Takeuchi, Vice Chairman of the Board of Directors / Secretary General of CEN, Certified NPO Zeri Japan

Executive Committee

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Junko Saeki, Chief Researcher, Japan Environmental Management Association

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observer

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Osamu Uno, Director and Secretary-General, Youth Eco Foundation

Maho Asada, Project Researcher, University of Tokyo

Akira Nakajima, Representative Director and CEO, Reitem Co., Ltd.

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1. Introduction

Basic Principles of This Briefing

The "Scientists' Briefing on Climate Change and the Natural Crisis" was held in the UK as part of an "Emergency Briefing."

Taking the "Leafing" as an opportunity, we will hold Japan's first-ever "Emergency Briefing" on global issues, including climate change and the natural crisis.

This briefing is for ongoing dialogue and communication with scientists, policymakers, and society.

This is positioned as the first step in building a system for scientific knowledge.

To ensure that these ideas are appropriately utilized in decision-making within society, we will first create a forum for continuous dialogue within Japan.

The purpose is to achieve this. And through the continuous development and implementation of this briefing...

This creates a new science communication model where scientists, policymakers, and society learn from each other.

We aim to establish our model in Japan and then expand it throughout Asia.

Purpose of the briefing held on September 30th

In recent years, Japan has experienced extreme heat exceeding 40°C, increasingly severe torrential rains and typhoons, water shortages, and changes in ecosystems.

The effects of climate change are becoming apparent, as shown above. However, climate change is not just an environmental problem.

It will have an impact on all areas of society, including food, health, energy, industry, disaster prevention, and security.

These are complex issues that have multiple implications. These problems are closely related to each other, and addressing each individual issue is difficult.

Treating only the symptoms will not lead to a sufficient solution. Climate change, biodiversity loss, resource constraints,

We will comprehensively address challenges in various fields, such as energy issues, and consider the future of society from a long-term perspective.

Policy decisions that take the vision into account are required.

This briefing is based on this awareness of the issues and is intended for policymakers, including members of parliament.

In contrast, the aim is to provide the latest information based on scientific findings and to share connections between issues.

The program was planned as follows: It will take a multifaceted approach to address issues related to the foundations of people's lives, such as the importance of science, climate change in Japan, and the restoration of nature and coexistence with nature, as well as social responses such as the medical care and health, food security and climate safety, and the circular economy, energy systems and social change and behavioral change.

This briefing will serve as a starting point for a continuing dialogue that connects science and policy, covering a wide range of topics.

Understanding the overall picture of the challenges and developing policies that look beyond individual optimization to the sustainability of society as a whole and the future generations.

We hope this will be helpful in formulating policies.

2. Program

Opening

13:00 Opening Declaration Yusuke Saraya, Chairman of the Board, Certified NPO Zeri Japan / President of CEN Introduction of Attending Members of

Guest speeches Parliament

Sessions on sharing scientific knowledge by experts

Moderator: Atsushi Suzuki, Professor Emeritus, Yokohama National University

13:10 The Importance of Science Takaaki Kajita, Distinguished Professor, University of Tokyo

13:20 Climate Change in Japan - Masahiro Emori, Professor, Institute for Future Initiatives, University of Tokyo

13:30 Nature/Restoration and Coexistence Hiromi Kobori, Visiting Professor, Faculty of Environmental Studies, Tokyo City University

13:40 Medical/Health Tomohiro Watanabe, Graduate School of Planetary Health Studies, Nagasaki University

Specially Appointed Professor

13:50 Food Security Miyuki Shimizu, Professor, College of Bioresource Sciences, Nihon University

14:00 Climate Security Ken Sekiyama, Professor, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University

14:10 Circular Economy Yuichi Moriguchi, Professor Emeritus, University of Tokyo

14:20 Energy Systems - Kazunari Sasaki, Vice President and Professor, Kyushu University

14:30 Social Change and Behavioral Change: Junko Edahiro, Vice President and Professor, Shizenkan University Graduate School

14:40 Summary and Recommendations Naoko Ishii, Global Commons Center, University of Tokyo

Director / Specially Appointed Professor

14:50 Break Introduction of Attending Members of Parliament

Question and answer session to foster a shared understanding

Moderator: Yoshiko Ikoma, Chairperson, Japan Ethical Promotion Council

15:00 Responses by members of parliament and policymakers, proposals from young people, and discussions with experts.

Question and Answer Session, Q&A with Media and Participants

Closing

15:50 Closing remarks Introduction of Attending Members of Parliament

Closing Remarks by Mitsuo Takeuchi, Vice Chairman of the Board of Directors and Secretary General of CEN, Certified NPO Zeri Japan

17:00 Exchange meeting

3. Abstract of the presentation

#1 The Importance of Science *****Takaaki Kajita (Distinguished Professor, University of Tokyo) #2 Climate Change in Japan **Masata Emori (Professor, Research Center for Future Initiatives, University of Tokyo) #3 Nature/Restoration and Coexistence **Hiromi Kobori (Visiting Professor, Faculty of Environmental Studies, Tokyo City University) #4 Medical Care and Health *****Chiho Watanabe (Specially Appointed Professor, Graduate School of Planetary Health, Nagasaki University) #5 Food Security *****Miyuki Shimizu (Professor, Faculty of Bioresource Sciences, Nihon University) #6 Climate Security *****Ken Sekiyama (Professor, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University) #7 Circular Economy *****Yuichi Moriguchi (Professor Emeritus, University of Tokyo) #8 Energy Systems **Kazunari Sasaki (Vice President and Principal Professor, Kyushu University) #9 Social Change and Behavioral Change **Junko Edahiro (Vice President and Professor, Shizenkan University Graduate School) #10 Summary and Recommendations... Naoko Ishii (Director/ Specially Appointed Professor, Global Commons Center, University of Tokyo)

The importance of science

Takaaki Kajita (Distinguished Professor, University of Tokyo)

A crucial role of science is to understand phenomena occurring in nature and society based on objective evidence. Years of observation and research have revealed that global warming is progressing, that human activities are a major cause, and that it is likely to have serious impacts on future societies and ecosystems. Without this knowledge, we would not be able to correctly recognize the very existence of the problem.

It probably wouldn't have been possible. And science not only discovers problems, but also provides the foundation for technologies to solve them. It also provides important information for societal decision-making.

On the other hand, science is also an endeavor that deals with uncertainty. Scientists are required to conduct research while uncovering not only what is known, but also what is still unknown, and to communicate that information clearly.

The existence of uncertainty should not be seen as a weakness of science, but rather as a sign of its integrity.

Therefore, in decision-making in society, we should act based on the best available scientific knowledge.

Furthermore, it is necessary to maintain a flexible attitude and review things as new insights are gained.

Furthermore, when considering the importance of science, we must not forget the role of basic science, not just research directly related to climate change and environmental problems. Basic science aims for immediate social application.

It is not a study based on mere folly, but rather a study driven by humanity's intellectual curiosity to understand the workings of the natural world.

However, looking back at history, there are many examples of knowledge and technology born from basic research that later brought about significant changes in society.

For example, quantum mechanics initially aimed purely at understanding the microscopic world, but today it forms the foundation supporting modern society, including semiconductors and information and communication technologies. Similarly, GPS wouldn't work without Einstein's general theory of relativity. Likewise, technologies developed for the study of the universe and elementary particles are utilized in a wide range of fields, including medicine. My own research on neutrinos is also fundamental science aimed at understanding the basic laws of nature. While such research may not immediately lead to the solution of societal problems, it expands the horizons of human knowledge and provides the foundation for new technologies.

We have created them.

Addressing climate change and environmental issues requires a wide range of research, from basic to applied.

Perhaps. It's not just about research that supports solving immediate problems; it's also about what kind of value it will create in the future.

I believe that supporting fundamental science, which is often misunderstood, will ultimately be the source of sustainable social development.

Furthermore, science is inherently an international endeavor. Climate change and biodiversity loss are not problems that can be solved by a single country alone. For example, the full picture of the problem can only be revealed by sharing observational data from around the world, by researchers collaborating across national borders, and by accumulating knowledge. International cooperation in science

This is also an important foundation for realizing a sustainable future.

Science is a fact-based understanding of the world and a common foundation for society to make responsible choices for the future. Now, more than ever, as we face climate change and the natural environment crisis, we need to reaffirm the importance of science and trust in it.

I believe that a respect for scientific findings is more important than ever.

Climate change in Japan

Masahiro Emori (Professor, University of Tokyo)

Changes that are already appearing

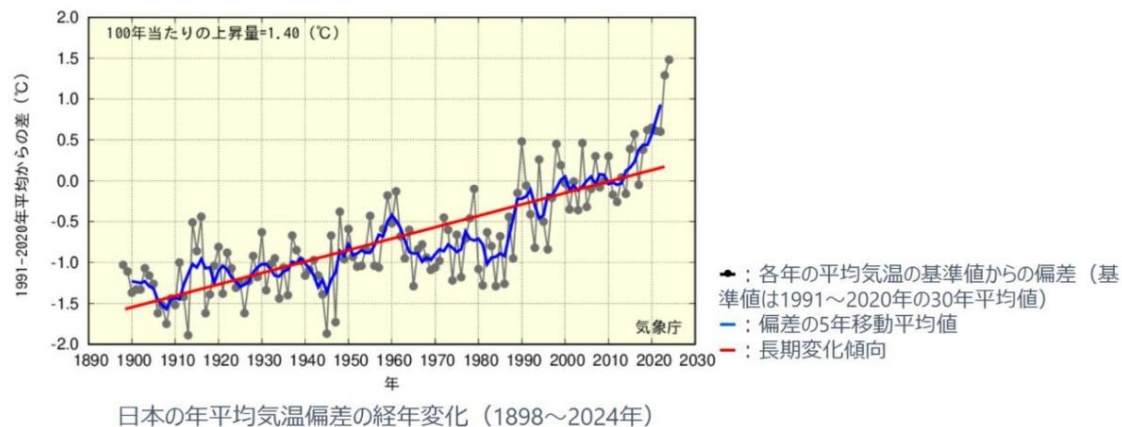
The effects of climate change are already being seen in Japan. Rising temperatures, increased heat waves, more severe heavy rains, and the ocean
Rising water temperatures and their impact on ecosystems and food production are challenges currently facing Japanese society. This lecture will begin by
providing an overview of the current state of climate change observed in Japan, based on the Ministry of Education, Culture, Sports, Science and Technology
and the Japan Meteorological Agency's "Climate Change in Japan 2025." Then, it will present the potential impacts in Japan around 2050, using concrete
stories that relate to daily life. Furthermore, it will discuss the tipping point of the global climate system.

This refers to the risks that could have repercussions, directly or indirectly, on Japan, by exceeding a critical point.

It can be done.

According to "Climate Change in Japan 2025," Japan's average annual temperature is rising in the long term, and the number of extremely hot days and heat waves is increasing.
The number of days with high temperatures is also increasing. In large cities such as Tokyo, the effects of urbanization are compounding the risk of heat stress.
The number of rains is increasing even further. Furthermore, the rate of increase is greater for heavier rainfall, with extreme heavy rains exceeding 80mm
per hour, 150mm in three hours, and 300mm per day roughly doubling in the last 10 years compared to around 1980. In addition, sea surface temperatures
around Japan are rising, which is related to the increased rainfall and storm surge risk associated with typhoons. Climate change in Japan has implications for
disasters, health, cities, food, and the natural environment.

However, it needs to be viewed as an issue that broadly affects the foundations of society.



From "Climate Change in Japan 2025"

Impact on daily life in 2050 In the second

half, based on the storyline created for the "Weather Forecast for 2050 Ver.2" video project,

This story depicts Japan in a specific year. It does not predict the weather on any particular day. Supervised by experts from multiple fields, it symbolically
combines impacts that are highly likely to occur in light of current scientific knowledge.

It is a combination of two things.

For example, in Japan in 2050, extreme heat exceeding 40°C will become commonplace, leading to restrictions on going out, and the closure of daycare centers and schools.

The suspension of activities, restrictions on outdoor work and sports, and an increase in heatstroke-related hospitalizations are likely to occur more frequently.

The heat poses risks not only heatstroke, but also to people with pre-existing conditions, pregnant women, the elderly, those who work outdoors, and children.

This will have a significant impact. Summer sports and outdoor events may not be able to be held as usual.

There is.

The impact on food supply is also serious. High temperatures and water shortages affect rice quality and yield. In addition to domestic agriculture...

If the world's breadbaskets are hit by droughts or high temperatures, import prices for feed, edible oils, grains, and vegetables will rise, and the risk of unstable imports will increase. Livestock farming will also be affected by the heat, potentially impacting the supply and prices of meat, eggs, and dairy products. Climate change is a critical issue from the perspective of food security.

be.

Spread to disaster prevention, the sea, and ecosystems

In terms of disaster prevention, rising sea surface temperatures increase the risk of strong typhoons, record-breaking heavy rainfall, and storm surges. As sea levels continue to rise, the risk of flooding due to storm surges and high waves will increase even further. In coastal areas such as Tokyo Bay, Ise Bay, and Osaka Bay, the safety of cities, ports, industrial zones, transportation infrastructure, and low-lying areas must be considered based on previous assumptions.

This will become more difficult. Disaster prevention, urban planning, port management, and housing policies will need to be reviewed based on future climate conditions in addition to past climate conditions.

Significant changes are occurring in the ocean and its ecosystems. Rising sea temperatures will alter the distribution of fish, causing them to prefer colder waters. This could affect fish species and aquaculture. Coral bleaching will also worsen, impacting coral reef ecosystems around Japan, including Okinawa and the Southwest Islands, as well as tourism, fisheries, and coastal protection. Japan's sense of the seasons and cultural landscapes, such as cherry blossoms, autumn leaves, and snowscapes, will also change. Climate change will affect the nature and way of life that we have come to associate with "Japan."

The Tipping Point and its Impact on Japan

Climate change presents risks that are difficult to capture through conventional impact assessments alone. One of these is tipping.

The risk of exceeding a tipping point is that of ice sheets, coral reefs, permafrost, and tropical regions.

When parts of the Earth's systems, such as forests and ocean circulation, exceed a certain critical level, the changes become self-amplifying.

This refers to a point where it becomes extremely difficult to move forward and then reverse course.

For example, the shrinking of the Greenland ice sheet and the West Antarctic ice sheet will, through long-term sea-level rise, affect the coast of Japan. Cities and ports will also be affected. Coral reef degradation impacts ecosystems around Japan, fisheries, tourism, and disaster prevention. Degradation of permafrost and the Amazon rainforest will further accelerate global warming through additional greenhouse gas emissions and reduced carbon absorption capacity, increasing the risk of heat waves, torrential rains, sea-level rise, and ecosystem changes in Japan.

Furthermore, large-scale changes in the Atlantic Ocean's ocean circulation do not necessarily manifest in a simple way in Japan's climate, but the world This could have repercussions for Japanese society through global agricultural production, food prices, resource supply, logistics, and geopolitical stability.

Thus, when considering climate change in Japan, we must consider not only changes in domestic temperature and rainfall, but also climate change occurring overseas. We must also consider the ripple effects of the coronavirus shock. Japan has a large supply of food, energy, and resources to the international market.

We are highly dependent on the environment, and overseas disasters and ecosystem changes are likely to have ripple effects, such as price increases, supply instability, and increased burdens on international cooperation. Climate change is a challenge that spans health, food, disaster prevention, economy, security, local communities, and culture.

That is the case.

Reference Links: • Ministry

of Education, Culture, Sports, Science and Technology and Japan Meteorological Agency, "Climate Change in Japan 2025"

<https://www.data.jma.go.jp/cpdinfo/ccj/index.html> • "Weather Forecast for 2050 Ver.2"

<https://www.japan88.jp/2050tenki>

Nature/Restoration and Coexistence

Hiromi Kobori (Visiting Professor, Tokyo City University)

Climate change and biodiversity loss are the greatest challenges facing human society in the 21st century, and in recent years have been recognized as a "twin crisis" that mutually influences each other. Climate change alters the distribution of organisms and the structure and function of ecosystems, accelerating biodiversity loss. On the other hand, biodiversity loss reduces the functions of ecosystems such as forests, rivers, wetlands, agricultural lands, and coastal and marine environments, including carbon absorption, water cycles, disaster prevention and mitigation, and soil formation, weakening their ability to adapt to and mitigate climate change. The two are interconnected and have complex impacts on society as a whole, including food, health, water resources, the economy, and security, making it essential to promote climate change countermeasures and biodiversity conservation in an integrated manner.

Biodiversity is the richness and interconnectedness of life that has been formed over a long evolutionary process, and it consists of three levels: genes, species, and ecosystems. In recent years, nature has also been viewed as "natural capital" that supports the foundation of people's lives and corporate activities. Natural capital is capital (stock) formed by nature, which consists of living and non-living things, and the benefits derived from it include "ecosystem services" (supply of food and water, climate regulation, culture and education, etc.) and the more comprehensive "natural contributions to people (NCP)" (contributions to health and welfare, etc.).

It can be understood as such. Therefore, the loss of biodiversity means the deterioration of natural capital, and its impact is environmental.

It extends beyond the border sector to include the sustainability of society and the economy.

While Japan is one of the world's leading biodiversity hotspots, biodiversity loss is progressing due to land-use changes, urbanization, climate change, invasion of alien species, and insufficient management of rural areas and woodlands due to population decline and aging. The impacts extend to many areas, including water resources, agriculture, forestry and fisheries, disaster prevention and mitigation, and regional culture.

It is necessary to view natural crises not as isolated environmental problems, but as issues concerning the foundations that support society.

Yes, they are.

The Kunming-Montreal Biodiversity Framework and Japan's "National Biodiversity Strategy 2023–2030," adopted in 2022, set forth "Nature Positivity" as its mission: to halt nature loss and put nature on a recovery track by 2030. At its core are nature conservation and restoration, the 30-by-30 initiative (conserving at least 30% of local and marine areas), and a transition to a nature-positive economy. The long-term vision for society beyond this is a "society in harmony with nature," where humans and nature coexist sustainably. In other words, using nature restoration by 2030 as a turning point, the goals are to integrate its results into social structures and people's lives.

It is important to encourage people to wear these clothes and to connect this to a society that coexists with nature by 2050.

To realize a society in harmony with nature, it is necessary to view nature not merely as something to be conserved, but as a social infrastructure that supports local life, economy, health, education, culture, disaster prevention, and more.

Beyond conservation measures implemented by organizations, it is essential that businesses, local governments, educational institutions, researchers, and citizens share the value of natural capital and participate in decision-making and action from their respective positions. Bringing relationships with nature back into daily life and community development fosters understanding of nature and a sense of ownership, thereby promoting behavioral change throughout society.

This can also lead to...

One important method for supporting the participation of these diverse stakeholders is citizen science. Citizen science is a method in which citizens participate

This is collaborative scientific research, changing the traditional way science is conducted solely by experts and bringing about the "socialization of science." AI-powered species identification technologies and international digital platforms such as iNaturalist and eBird are enabling citizens to collect and store large-scale biodiversity data.

Through proactive learning, students can deepen their understanding of nature and society, and change their values and behaviors.

Furthermore, by utilizing the results obtained for problem-solving and policy-making, citizen science connects science, policy, and citizens.

To take on the role of [something].

Nature restoration is not just about preserving, restoring, and creating lost natural areas, but also about recovering natural capital based on biodiversity and utilizing its value in society, the economy, and culture. If the recovery of natural capital generates new benefits for local communities in areas such as disaster prevention, regional economy, health, education, and tourism, and this leads to further conservation activities and investment, then a "virtuous cycle of nature restoration and regional revitalization" can be formed.

Citizen science plays a key role in this cycle.

Within this framework, we aim to scientifically understand natural changes, encourage people's learning and participation, and translate local practices into policy.

It is expected to play a connecting role.

Based on the above, this lecture proposes three points. First, position biodiversity as natural capital at the core of national strategy. Second, promote nature restoration as a policy that integrates climate change countermeasures, food security, disaster prevention and mitigation, health, circular economy, and regional revitalization, and connect its results to the formation of a society in harmony with nature. Third, develop citizen science as a social infrastructure that connects science, policy, and citizens, and promote evidence-based policy making (EBPM) and local practices with the participation of diverse stakeholders.

That is what it is.

This briefing is an important opportunity for policymakers and society to form a common understanding by integrating issues that tend to be discussed individually, such as climate, nature, health, food, security, and the circular economy, based on scientific knowledge. To ensure the restoration of nature by 2030 and to connect its achievements to a society in harmony with nature by 2050, collaboration between science, policy, and society is essential. Positioning biodiversity as natural capital to be passed on to future generations and linking its restoration to the sustainability of society is crucial for a society where both nature and humanity can thrive.

This will pave the way for a society where crabs can thrive.

Main references: Kobori,

Hiromi (2022) "An Introduction to Citizen Science" Bun-ichi Sogo Shuppan Iwasawa, Yuki, Kobori,

Hiromi, and Sato, Masahisa (eds.) (2025) "Citizen Science: A Virtuous Cycle of Nature Restoration and Regional Revitalization" Tsukuba Sho

bunch

Compiled by volunteers of the Japan Environmental Society (2026) "Creating a Nature-Coexisting, Resource-Recycling Society with the Next Generation: 21 Practical Examples" University Education Publishing

Medical care and health

Tomohiro Watanabe (Distinguished Professor, Nagasaki University)

Current state of the problem

* There is growing scientific evidence that health damage caused by climate change is expanding, and if this continues in the future...

It is considered certain that the number will continue to increase, and in Japan, it is already becoming a "real-world" issue. In Japan, the increase in heatstroke cases is reported, but the impact is far greater, though it is not "visually apparent."

I would like to point out that heat-related deaths, which are often invisible, have not received sufficient attention. Furthermore, the number of situations where outdoor activities become difficult due to heat is increasing and is expected to continue to rise. This will lead to a reduction in the performance of various essential jobs that support the foundation of social activities, physical activity for growing children, and cultural activities such as traditional festivals. Ultimately, this will have a significant impact on the health and well-being of society as a whole.

This could potentially lead to problems related to Being.

* While scientific knowledge is increasing regarding the decline in health and well-being due to the loss of biodiversity or nature itself, it is often difficult to demonstrate a direct link. On the other hand, there is much scientific evidence that nature and contact with nature improve health and well-being.

Therefore, it can be argued that the losses incurred by losing these things are already manifesting in the current generation.

*Environmental pollution. Compared to the middle of the last century, Japan's (natural science) environment has improved dramatically, but on the other hand, The total impact of the vast number of chemical substances present in the environment is unknown. Globally, air pollution is the leading cause of environmental death, far exceeding the combined deaths from AIDS, tuberculosis, and malaria. AI is also rapidly and dramatically changing the social environment, and its negative potential is being called "pollution."

To put it another way, a system for evaluating the impact on health and well-being has not yet been established.

Recommendation

* Making it essential to incorporate a health perspective into various policies. While acknowledging that the activities of the medical and health fields, which traditionally begin with the existence of disease and patients, will remain indispensable, it is crucial for the medical and health fields to communicate the need for fundamental measures to address the root causes, going beyond the current scope of preventive medicine and public health. The "determinants of health" have been discussed from various angles, and there is much knowledge about social, economic (commercial), and ecological factors. A health and well-being perspective should be essential in all policy-making and evaluation in these fields. In particular, in environmental policy, it is essential to recognize that human health and well-being are affected even "inside" planetary boundaries.

It should be done (although progress is being made in the discussion of Earth system boundaries). *It is important to

view health from a broader perspective and to consider the "health" problem in terms of the number of deaths and diseases, and administrative

While necessary in some cases, death and illness are, in a sense, the final outcomes. We must pay close attention to the various problems that lead to them, which manifest as a decline in physical and mental function and well-being, as well as difficulties in daily life. It is necessary to build a system that takes these issues into account in a more integrated rather than fragmented way and implements countermeasures accordingly.

* Planetary Health Governance

While "solving the immediate problem first" is a necessary stance, what will be covered in this briefing?

The situation will not be resolved, and it will only result in creating new "immediate problems." The fundamental principle of planetary health is the recognition that humans are part of the Earth's ecosystem, and that the stability of this entire ecosystem is essential for human health and well-being. This recognition must always be maintained even when addressing "immediate problems."

It is essential to do so.

- We need to organize clear evidence that significant losses in health and well-being are already occurring in the current generation due to climate change, loss of nature and biodiversity, and establish a system to reflect this in policy. We need to develop an organization or system to evaluate anticipated losses in terms of economic and non-economic value (compared to other countries, this movement seems weak in Japan).

- To comprehensively address various crises, including geopolitical instability and pandemics, and to look ahead to the near future.

A governance structure is needed that can present comprehensive solutions or determine priorities. The government should develop cross-sectoral organizations and systems, and have advisory bodies comprised of representatives from various sectors of society.

While academic talent (in all fields: natural sciences, social sciences, and humanities) will be essential, talent from outside of academia will also be necessary.

Including that is also essential.

Making life comfortable and efficient in developed countries, including Japan, threatens the lives and health of people in other countries.

Scientific findings have also been published to support this (especially in medicine, this raises ethical issues).

With the spirit of "kindness is never wasted," it is also necessary to reconsider the "Japan First" and "Humanity First" policies.

That's all.

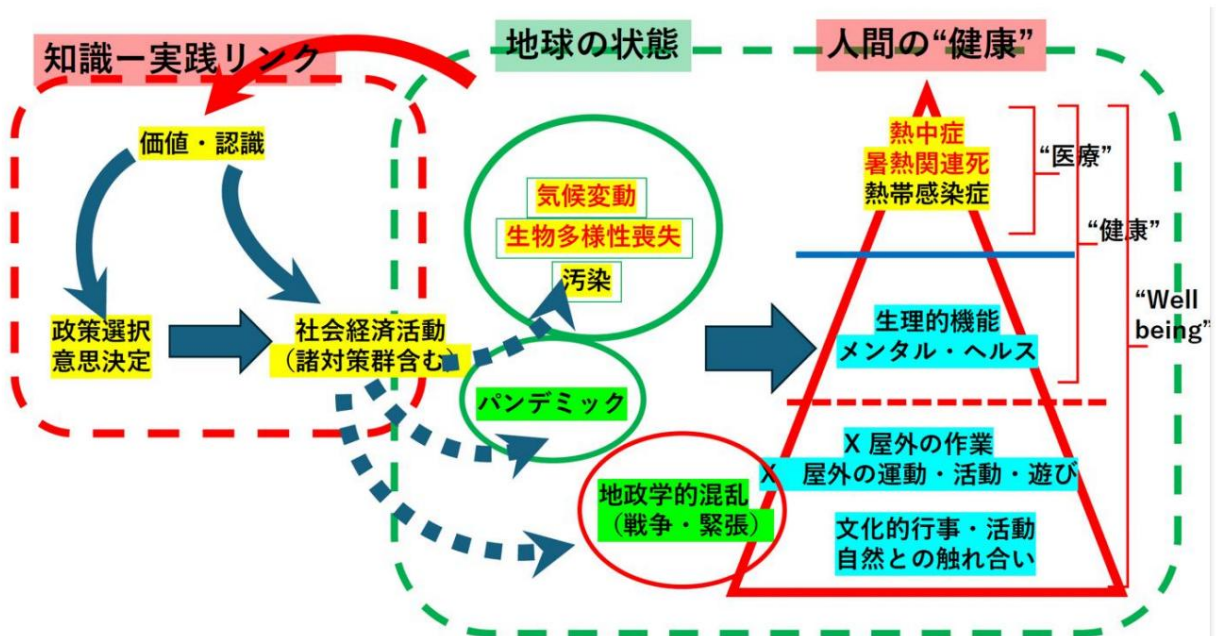


Figure: The relationship between the state of the Earth and human "health"

The health dealt with in "medicine and public health" is just the tip of the iceberg; it encompasses a broader sense of human "health" and the state of the planet.

To comprehensively understand the relationship and to base political and corporate decision-making on the values that reflect it

It needs to be done.

Climate change and food security

Miyuki Shimizu (Professor, Nihon University)

In 1999, Japan's Basic Agricultural Law was completely revised and renamed the "Basic Law on Food, Agriculture and Rural Areas."

The policy, which previously focused solely on food supply, was broadened to include the development of sustainable agriculture and the promotion of rural areas, which form the production base, in order to ensure a stable food supply. It was transformed into an ambitious basic law that encourages the entire nation to consider food issues through the lens of environmental issues (the multifaceted functions of agriculture). Then, in 2024, the crucial pillar of "stable food supply" was revised to "food security."

This amendment addresses the increasing impact on food production from geopolitical risks and climate change in recent years.

With concerns rising, Japan's access to food, which relies on imported food for over 60% of its needs, is becoming precarious.

This is the background. In addition, the problem of difficulty in accessing food, which threatens food security, is due to a high degree of dependence on overseas sources, as well as the closure of grocery stores due to population decline and the limited transportation options available to the elderly and others.

Given the difficulties in accessing rationally produced food, research findings on this matter have already been published.

However, the Ministry of Agriculture, Forestry and Fisheries has now added the difficulty of economic access to food to that list.

It is "food security" that leaves no stone unturned. And the "Reiwa Rice Riot," which is still having repercussions today,

It can be said that this point also attracted attention.

As will become clear throughout this briefing, not only climate change, but also social

Those most at risk from economic challenges are the socially vulnerable, especially the impoverished.

And so, the fundamental law, which aims to ensure food security without leaving anyone behind, has been correctly amended.

However, the policies proposed there are limited to creating an environment that promotes food donations (supporting the creation of a system where local stakeholders cooperate on initiatives such as food banks and children's cafeterias through food donations), and the various surveys conducted in response to the revisions have been limited to those with physical difficulties. The number of people with access difficulties presented by the Ministry of Agriculture, Forestry and Fisheries still refers to "elderly people aged 65 and over who live more than 500m from a store and have difficulty using a car." This does not constitute "food security" for all people.

That's not true.

It was recently reported that the Engel coefficient for 2026 has risen again to 28.6%.

After hitting a low in 2005, it rose steadily thereafter, but the rate of increase has been accelerating since 2014.

It has been shown that the Engel coefficient tends to rise more easily in older households, but here we will look at it by household income.

I would like to point this out. In 2024, 32.8% of households with an annual income of less than 2 million yen spent on food, and 33.6% of those with an annual income of 2 to 2.5 million yen spent on food. On the other hand, this figure was 23.5% for those with an annual income of 12.5 million to 15 million yen, and 23.6% for those with an annual income of 15 million yen or more, a difference of about 10 percentage points from the previous cases. It is easy to imagine that soaring food prices will have a major impact on the overall lives of households, especially those with low annual incomes.

Furthermore, looking at the year-on-year consumer price index for fiscal year 2025, the overall figure is 3.2%, and food excluding fresh produce is 6.8%.

In addition, the price increases for processed foods, including confectionery and beverages, are more than twice as high as those for non-food items.

Furthermore, rice prices have also risen sharply. Retail prices for rice are projected to be approximately double the previous year's price by May 2025.

This price surge is being called the "Reiwa Rice Riot," but I personally believe the biggest reason for the "Reiwa Rice Riot" is

It is believed that the cause was the reduction in harvest yields due to climate change. Of course, various factors have been pointed out as contributing to the riot itself, such as strict production adjustments to maintain prices, misjudgments of inbound demand, excessive inventory due to soaring prices and shortages, and so-called supply and demand pressures and bottlenecks in distribution. It is also said that the presence of so many factors is complicating the resolution of the problem. However, the unique aspect of this rice riot is

The problem stems from high-temperature damage to rice harvested in 2023. Previous rice shortages were caused by cold damage, which could be detected before harvest, but high-temperature damage is only discovered after harvest. Symptoms include cracked grains and a milky white appearance.

The proportion of standard rice is decreasing. This has already been observed since 2023, and this data has also been published by the Ministry of Agriculture, Forestry and Fisheries. It is being done.

The government has responded relatively quickly to past rice shortages caused by cold weather, such as securing imported rice. However, this time, the response to high-temperature damage was delayed because it is something they have not experienced much before. Nevertheless, we have learned that high-temperature damage significantly impacts rice yields. From 2023 onwards,

Rice cultivation methods that can withstand high temperatures are also being developed. At the same time, I have gained valuable insights into the fact that, in the medium to long term, more measures than ever before are needed to combat global warming, and that we must be more conscious of this issue and take action than ever before.

On the other hand, are appropriate measures being taken for households that have difficulty accessing food supplies? Next April

The consumption tax on food products will be reduced from 8% to 1%, but this is a measure for the general public. If we aim for "food security" that leaves no one behind, there are still things that can be done, such as self-declaration-based food assistance and financial support for food banks and children's cafeterias. In response to the "Reiwa Rice Riot," we should implement technical measures to counter high temperatures, stockpile food properly, and prepare to release the stockpiled food.

Taking precautions will help avoid incidents like this one as much as possible.

And most importantly, the problem of climate change directly impacts food production, which in turn affects prices.

I witnessed this firsthand. This applies not only domestically but also to global food supply, which is interconnected by climate. Japan's "food security" policy, which relies on the world for over 60% of its food, is also a measure against climate change. Estimates by the National Institute for Environmental Studies have also revealed that measures against global warming will curb the rise in the number of people suffering from hunger.

The IPCC and FAO's research reports also support this. It is important to correctly understand the impacts of climate change and

Addressing this issue will stabilize food prices and significantly contribute to addressing food access problems caused by poverty.

That will likely happen.

References: [FAO, "An Overview of Climate Change"](#)

[Ministry of the Environment, Intergovernmental Panel on Climate Change \(IPCC\) Sixth Assessment Report \(AR6\) Cycle](#)

[| Global Environment and International Environmental Cooperation | Ministry of the Environment](#)

[Ministry of Internal Affairs and Communications "Household Expenditure](#)

[Survey" Ministry of Agriculture, Forestry and Fisheries HP](#)

Climate security

Ken Sekiyama (Professor, Kyoto University)

Climate security refers to protecting the safety and stability of a country or society from conflicts and riots that arise as a result of climate change.

This refers to (1) cases where extreme weather events and natural disasters caused by climate change are the underlying cause, and (2) cases where mitigation and adaptation measures for climate change lead to conflict between nations. Since around 2007, when the UK submitted a report on climate security to the UN Security Council, research on climate security has dramatically increased in academic studies.

It increased.

Extreme weather and natural disasters have frequently led to warfare throughout human history. With the development of paleoclimatology,

The rise and fall of ancient Mesopotamia, ancient Egypt, the Mayan civilization of South America, and successive Chinese dynasties, and their relationship with climate change.

The relationship is becoming clearer.

Climate change in the 21st century is also feared to increase the risk of conflict and riots. Numerous case studies of conflicts over the past few decades show that extreme weather and natural disasters synergistically amplify existing threat factors such as water scarcity, food crises, poverty, inequality, and ethnic conflict, increasing the risk of riots, conflicts, civil wars, and interstate conflicts. The extent to which climate change increases the risk of conflict depends on the vulnerability of the country or region in question.

For example,

In Africa, Indonesia, the Philippines, and other regions, when abnormal weather occurs during the growing season of staple grains, large-scale disasters can occur.

Several studies have pointed out that the probability of mock riots and civil wars increases. Regarding water resources, China and its neighboring countries...

Alternatively, there have been instances of conflict between the United States and Mexico.

Furthermore, mitigation and adaptation measures for climate change can also become a source of conflict between nations. For example, the surge in energy prices resulting from the side effects of decarbonization is a concern not only for developing countries like Indonesia but also for France.

Even in developed countries like these, large-scale protests have been triggered. Furthermore, in recent years, large-scale demonstrations by farmers opposing regulations on greenhouse gas emissions from agriculture have frequently occurred in EU countries. Facilities and resources for climate change countermeasures

In some cases, local communities that suffer losses from mining react strongly against it, leading to violent incidents.

Furthermore, conflicts are arising between nations over the resources and technologies necessary for decarbonization.

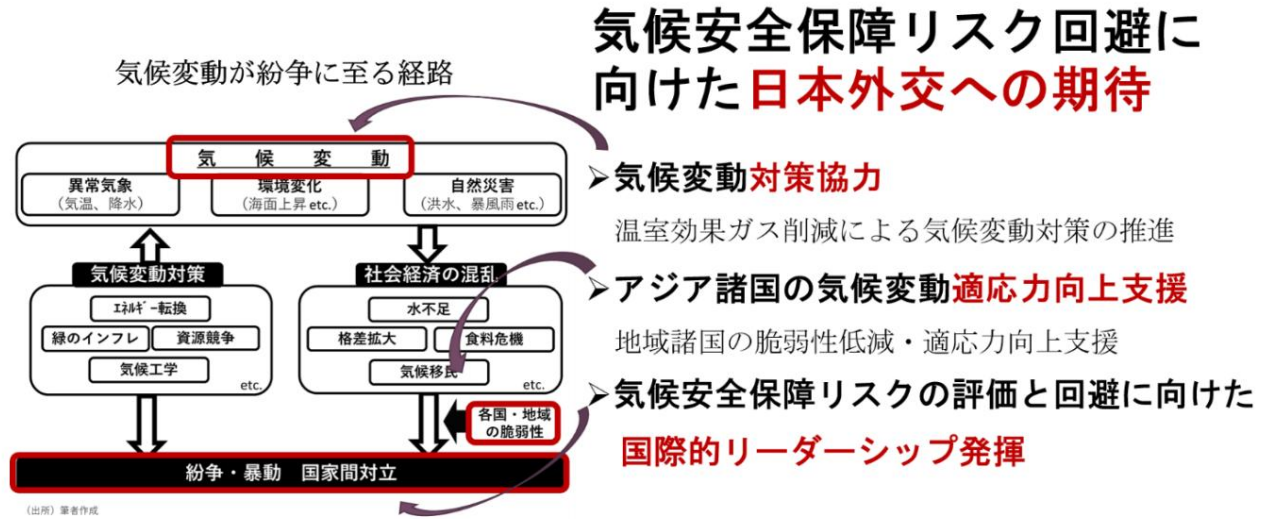
The likelihood of conflicts or riots in Japan stemming from climate change is low for the time being. However, attention should be paid to (1) the loss of territory and territorial waters due to rising sea levels and the resulting conflicts with neighboring countries (e.g., the submersion of Okinotorishima and the increased risk of conflict with China), and (2) the increased country risk in emerging Asian countries (China, Southeast Asia, South Asia, etc.) that are susceptible to the effects of climate change and have strong ties to the Japanese economy. Furthermore, Japan's low solar and wind power generation potential, making it unsuitable for providing inexpensive renewable energy on a large scale and stably, could become a disadvantage in international economic competition in the medium to long term.

Based on the above, both the public and private sectors should incorporate the impacts of climate change and its geopolitical risks into their medium- to long-term strategies.

It will be necessary to take action and implement countermeasures. In particular, we hope that the government will further strengthen the current efforts of the Asia Zero

Emissions Coalition and (1) provide support to reduce the vulnerability of Asian countries and others to climate change and improve their adaptability, and (2) demonstrate

leadership in international cooperation toward assessing and mitigating global security risks caused by climate change.



1. Carbon Neutrality, Circular Economy, and Nature

Restoration The theme of this briefing is the two crises of climate and nature, but the circular economy (CE) is listed as one of the three pillars of Japan's environmental policy today, along with carbon neutrality (CN) and nature positivity (NP). The Science Council of Japan, one of the sponsoring organizations of this briefing, issued a proposal last October to accelerate measures against the climate crisis, aiming for the simultaneous achievement of carbon neutrality, a circular economy, and nature restoration. After explaining what a circular economy is, we will introduce an overview of the Science Council of Japan's proposal, focusing on how it relates to the climate crisis and the nature crisis.

The circular economy is a concept proposed primarily in Europe as an economic system that utilizes resources more efficiently, as an alternative to the traditional one-way economic system of mass production, mass consumption, and mass disposal.

The concept was also used in China's energy and environmental policies at an earlier stage. In Japan, since the enactment of the Basic Law for the Promotion of the Establishment of a Sound Material-Cycle Society in 2000, efforts have been made with the keyword 3R (Reduce, Reuse, Recycle). Recycling systems have been established for each product sector, such as containers and packaging, home appliances, automobiles, food, and construction, resulting in a dramatic reduction in the amount of waste sent to landfills. Compared to the immediate waste problem, climate change, which progresses over many years due to greenhouse gases, is a less visible issue. While Japan's "circular" policy has been strongly focused on addressing the urgent waste problem, the circular economy originating in Europe has significance not only as an environmental and waste policy, but also as an industrial and economic policy.

2. Sustainable use of resources in a circular economy

The 2011 report of the International Resources Panel, a scientific panel of the United Nations Environment Programme (UNEP) in which the speaker has been involved since its inception, centered on the concept of "decoupling." Energy and resource consumption and greenhouse gas emissions tend to increase in proportion to GDP, an indicator of economic growth. The idea is to separate these relationships, achieve greater production with less resource consumption, and even more so, enhance well-being.

Reducing the input of one-time resources, such as fossil fuels and other energy resources, or mineral resources such as metal ores, which will be depleted if continuously extracted, is the first step in reducing unnecessary outputs such as carbon dioxide and waste. While it is certainly necessary to further develop technologies and social systems that return waste to raw materials through resource circulation, or so-called recycling, we cannot be optimistic and assume that the problem will be solved simply by circulating things. Reducing our dependence on fossil fuels, the source of greenhouse gases, and promoting the transition to renewable energy such as solar and wind power is a pillar of climate crisis countermeasures, but new technologies require new resources, and a scientific assessment is needed to determine which technologies can efficiently reduce greenhouse gases, taking resource constraints into consideration. In a circular economy, utilizing so-called biomass and renewable resources, such as forest resources, is also an important pillar. On the other hand, if such biological resources are not used wisely, they may lead to a decline in biodiversity. Mega solar and wind power generation projects often clash with natural environment conservation efforts in various regions. The challenge lies in balancing natural environment conservation with climate change countermeasures.

Therefore, there is a need to use renewable resources and energy wisely.

3. Recommendations from the Science Council of Japan for accelerating the transition to a carbon-neutral society

During the 25th term of the Science Council of Japan, from October 2020 to September 2023 under former President Kajita, a liaison committee was established to create an overview of the Science Council of Japan's diverse initiatives regarding carbon neutrality. The results of the deliberations focusing on two issues from the overview—"comprehensive approach, vision, social transformation, institutional design, policy, corporate activities, and human activities" and "trade-offs and synergies between carbon neutrality and other important issues"—are presented in the recommendations of October 2025 (see diagram below).

The Intergovernmental Panel on Climate Change (IPCC) report states that the impact of human activities on climate change is questionable.

It is said that there is no room for action, with the global average temperature two years ago being the highest on record, and last summer in Japan being the hottest on record. On the other hand, there is a geopolitical instability and international uncertainty, such as the United States' withdrawal not only from the Paris Agreement but also from the Framework Convention on Climate Change. Rising energy prices and inflation are putting pressure on people's lives, but it is precisely in these circumstances that it is essential to reach a common understanding that it is indispensable to address global environmental problems without delay. It is suggested that it is time to present a plan to accelerate measures to address the climate crisis, both in terms of mitigation measures to reduce greenhouse gas emissions and adaptation measures to minimize the adverse effects of climate change.

Of the seven recommendations, Recommendation 1 calls for reliable scientific knowledge to facilitate the sharing of an understanding of the current situation and a sense of crisis. The importance of this was pointed out. Recommendation 2 pointed out the need to create a concrete social implementation plan specifying who will do what and by when. While the measures should be tackled on a national scale, Recommendation 3 outlines what should be done in each region and how industry, government, and academia should cooperate there. Recommendation 4, which describes the role of academia itself, including its role in the region, states that efforts are needed that include a roadmap from basic research to social implementation. Recommendation 5 states that there is a close relationship between carbon neutrality, the circular economy which advocates the cyclical and efficient use of resources, and nature restoration such as biodiversity conservation, and that it is necessary to organize their common interests and conflicts and then develop a strategy toward achieving them simultaneously. On the other hand, with numerous important issues piling up in Japan other than environmental problems, such as the need for regional revitalization amidst a declining birthrate, aging population, and population decrease, Recommendation 6 states that it is necessary to organize these complex issues from a broad perspective before deciding on and implementing solutions. Even if Japan alone reduces greenhouse gas emissions, climate change will not stop. Therefore, it is necessary to share Japan's efforts toward a carbon-neutral society with the world in order to take action on a global scale, and to balance sustainability both domestically and internationally, as stated in Recommendation 7. In order to address the climate crisis without passing it on to future generations, to secure a prosperous future for Japan, and to contribute to leading the world toward carbon neutrality as a member of the global community, it is necessary to bring together the full strength of industry, government, academia, and the public to accelerate measures against the climate crisis.

Source: Based on the summary of recommendations from the Science Council of Japan, the diagram was created using a generative AI (ChatGPT).



Energy systems

Kazunari Sasaki (Vice President and Professor, Kyushu University)

In addressing the climate crisis , it plays a crucial role in reducing CO2 emissions, a greenhouse gas.

However, this involves the development and widespread adoption of environmentally friendly energy systems. Japan needs to steadily reduce CO2 emissions in the power sector, as well as in the industrial, transportation, and residential sectors. In the future, renewable energy...

- To introduce and utilize fossil resources more efficiently, and to use the captured CO2 as a future carbon source,

Technological development is underway to utilize hydrogen and other fuels as decarbonized fuels that can be produced domestically.

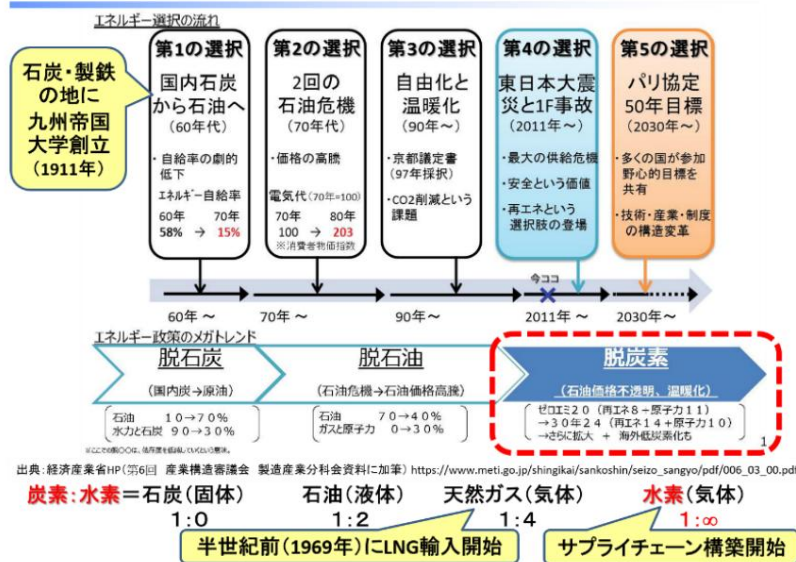
Decarbonization is necessary in both the electricity and non-electricity sectors. As an example, hydrogen's applications are expanding.

Efforts are underway to develop and disseminate technologies for large-scale applications. The creation of legislation has accelerated these efforts, and further improvements to legal frameworks and other regulations are expected in the future.

From the perspective of energy systems, we must reaffirm the importance of carbon neutrality, design social systems that reward such efforts, build an energy society that does not depend on specific resources or regions, continue to refine cutting-edge technologies, and give higher value to domestically produced energy. These long-term efforts...

Human resource development is extremely important in order to move forward with the initiative.

エネルギーのメガトレンド: 脱炭素へ



方向性: 脱炭素イノベーションと「水素」(2018年)

分野別CO2排出量と主な個別技術

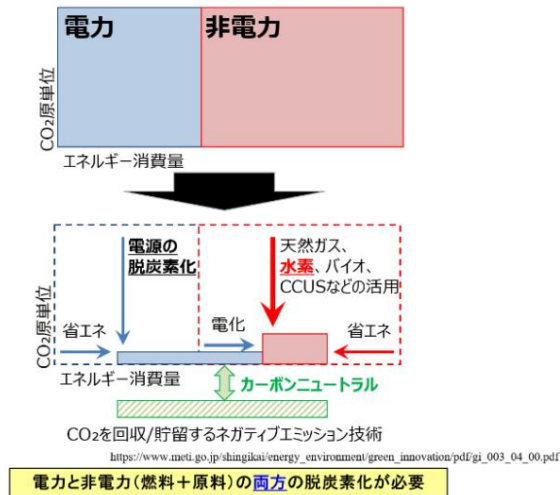
主要要素		現状	将来
運輸 (2.1億トン)	車体・システム	内燃機関・手動運転 金属車体	電動化・自動運転 マルチマテリアル
	燃料	化石燃料	電気・水素 バイオ燃料
産業 (3.1億トン)	プロセス	スマート化の進展	CCUS・水素還元 更なるスマート化
	製品	化石エネルギー原料	非化石エネルギー原料
民生 (1.2億トン)	熱源	石油・ガス・電気	電気・水素等
	機器	高効率機器	機器のIoT化 M2M制御
電力 (5.1億トン)	火力	石油・石炭・天然ガス	CCUS・水素発電等
	原子力	第3世代+原子炉	次世代原子炉
	再エネ	導入制約 (導入コスト、調整電源コスト・系統等)	蓄電×系統革新

(エネルギー情勢懇談会、2018年、経済産業省HP http://www.enecho.meti.go.jp/committee/studygroup/ene_situation/007/pdf/007_008.pdf)

社会全体の脱炭素化へ: 電化+水素化

全体像:カーボンニュートラル (グリーンイノベーション戦略推進会議、2020年11月)

CO₂排出削減
の方向性

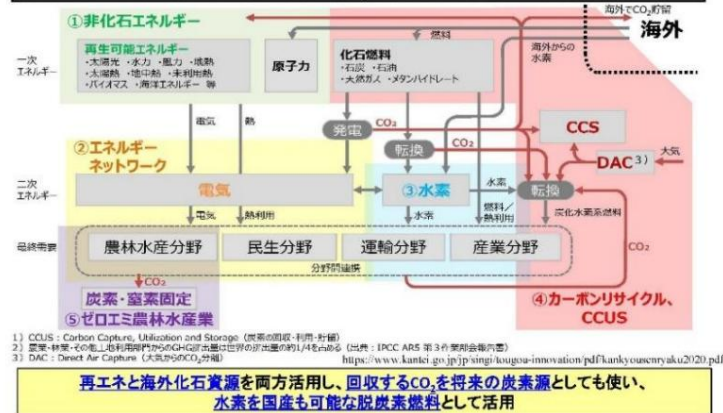


政策:革新的環境イノベーション戦略 (2020年1月策定)

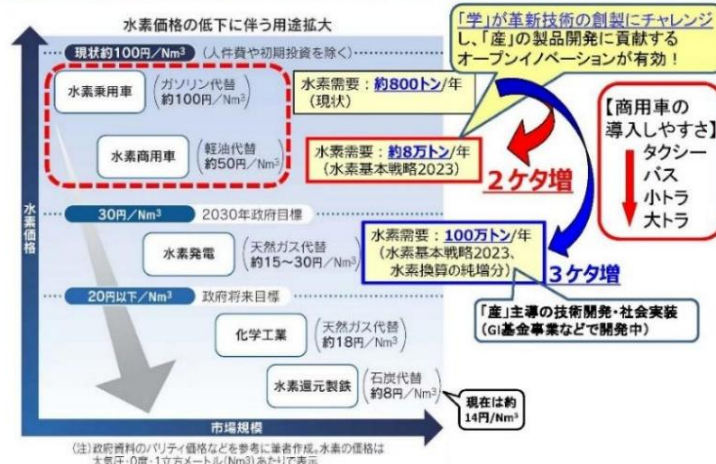
イノベーション・アクションプランの重点領域

政府の司令塔:
グリーンイノベーション戦略推進会議

技術領域で整理すると、①電力供給に加え、水素・カーボンサイクルを通じた分野で貢献する非化石エネルギー、②再生可能エネルギー導入に不可欠な蓄電池を含むエネルギーネットワーク、③運輸、産業、発電など様々な分野で活用可能な水素、④CO₂の大幅削減に不可欠なカーボンサイクル、CCUS¹⁾、⑤世界GHG排出量の1/4²⁾を占める農林水産分野の5つが重点領域となる。



例(水素):脱炭素燃料である水素の用途拡大



Social change and behavioral change

Junko Edahiro (Vice President and Professor, Shizenkan University Graduate School)

1. The Problem

Despite the accumulation of scientific knowledge on climate change and the growing awareness of the crisis, a significant gap exists between awareness and action in Japan. According to an international comparative survey of 23,745 people in 32 countries published by Ipsos in April 2025, only 40% of respondents in Japan agreed with the statement, "If individuals do not take action now, they will betray the expectations of future generations," placing Japan last among the 32 countries. This agreement rate was lower than in 2021.

From 2018 to 2025, it fell by 19 points, recording the largest decline among the countries surveyed. Similarly, demands for action from governments and businesses are at their lowest levels.

On the other hand, 81% of people in Japan are concerned about the impact of climate change in their own country, which is higher than the global average. In other words, the Japanese situation can be seen as unique: "People are concerned, but they don't feel the need to take action themselves."

2. The Background of the Distortion—The Problem of Narrative and Mental Models

This discrepancy needs to be understood not as a lack of urgency, but as a problem of narratives and mental models surrounding climate change countermeasures. According to a survey by the World Citizens' Conference (2015), the number of Japanese people who view climate change countermeasures as "threatening the quality of life" is more than twice the global average, while those who view them as "improving the quality of life"...

The percentage of respondents who perceive it as "no" is only about a quarter of the global average. This suggests that the root of Japanese indifference lies in the perception that taking countermeasures involves enduring hardship and economic burdens.

Furthermore, this briefing will discuss "natural disaster habituation," which stems from the frequent natural disasters in Japan since ancient times, and the Buddhist concept of "impermanence." This "perspective" is treating climate change, a man-made disaster, as an unavoidable force majeure, causing a delay in responding.

The argument is that this may be the case. Ryoichi Yamamoto, Professor Emeritus of the University of Tokyo, also points out that Japanese people tend to perceive man-made environmental destruction as a "natural disaster." He points out that this is because much of the change occurs far from Japan, making it difficult to feel personally affected. In light of Hirose's (1995) environmentally conscious behavior model in environmental psychology, desensitization to natural disasters and a sense of impermanence can be interpreted as weakening both "perception of responsibility attribution" and "perception of coping effectiveness," which are prerequisites for action.

3. International Insights and Domestic

Challenges In the lineage of climate communication research, Per Espen Stoknes pointed out the limitations of fear-based catastrophic narratives and identified five psychological barriers: "distance," "destruction," "dissonance," "denial," and "identity."

It presents this.

George Marshall and Climate Outreach, which he co-founded with Richard Sexton, advocate for participatory storytelling based on common interests and benefits, rather than confrontational narratives. Insights presented by the World Economic Forum in 2026 also highlight the importance of linking climate change action to concrete benefits and a just transition. "Evidence-Based Hope" by environmental educator and science writer Elin Kelsey shares a similar perspective. Meanwhile, in Japan, Canon Global Strategy...

The research institute identified a problem in that numerical targets were prioritized over discussions about "why we should undertake this initiative."

This point has been raised, and a redesign of the narrative to suit the Japanese context is needed.

4. Where Should We Influence? – The Perspective of Leverage Points

When discussing behavioral

change and social transformation, the perspective of where to influence is essential. In light of Donella Meadows' 12 leverage points, individual environmentally conscious behavior occupies a relatively weak leverage position, while influencing rules, self-organization, goal setting, and paradigms has a far greater effect.

It has.

The example of designated smoking areas cited by environmental scientist Mr. Emori succinctly illustrates a structure in which, even if the majority of society does not have a fundamental concern, the efforts of a small number of "people who speak up" can change the system, and the majority will comply retrospectively. Similar structures can be found in overseas "social tipping point" examples, such as the spread of electric vehicles in Norway and the social movement triggered by information disclosure in Germany. Domestically, the introduction of charges for plastic shopping bags and the expansion of ESG investment by the Government Pension Investment Fund (GPIF) can be seen as examples where institutional changes rewrote social norms at a faster pace than the combined actions of individuals.

5. Conclusion

A considerable amount of knowledge has already been accumulated regarding the factors that hinder individual behavioral change and social transformation, and the paths to overcoming them. The challenge going forward is to translate this knowledge into practice and further expand that knowledge.

The key is to deepen our understanding. Shouldn't we consider establishing a specialized organization for that purpose?

Summary and Recommendations

Naoko Ishii (Director and Specially Appointed Professor, Global Commons Center, University of Tokyo)

"summary"

The ten scientists who had the opportunity to participate in this emergency briefing are leading experts in their respective fields, and they are offering recommendations from their own areas of expertise. There is an underlying message running through these recommendations.

The essence of the "crisis" we face: the economic system is limiting the capacity of the global system.

Understanding the collision is crucial. According to the "planetary boundaries" framework proposed by Earth system scientists, we have already crossed the system's limits and entered dangerous zones in 7 out of 9 systems.

It is included. The fundamental solution is a transformation of the economic and social system.

The crises we face are interconnected and complex, and we must understand them in an integrated way.

We need to promote cross-sectoral policies.

- Scientific findings must be systematically and cross-disciplinarily reflected in policy and implemented quickly. • The "climate change"

issue should be viewed not as an "environmental problem," but as a matter of national security and economic competitiveness.

ru.

- Climate change is an issue that must be solved internationally, and Japan's contribution will also lead to solving challenges in Asia and the world. • To promote and accelerate social change and behavioral change, we will strengthen information dissemination and deepen understanding throughout society.

It is necessary.

"Recommendation"

The scientists who participated in this briefing strongly desire to integrate scientific knowledge into policymaking and translate it into implementation. The IPCC reports, which represent the culmination of the knowledge of scientists worldwide, have already published their sixth assessment report since 1990, and recently, efforts have been made to make their messages more accessible to non-scientists. On the other hand, despite the fact that the Climate Change Convention negotiations (COP) have already reached 30 sessions...

Furthermore, global GHG emissions have not decreased, and temperatures continue to rise.

What should we do in Japan now to translate scientific insights—the need for cross-disciplinary systemic change—into national-level policy-making that transcends ministerial boundaries and leads to realization? Are there any countries that are striving to realize this kind of "scientist's dream" and are succeeding?

There are two types of organizations in the world that aim to realize this dream. One is the "Climate Change Commission" (hereinafter referred to as the Independent Commission), which was established by the UK and followed by New Zealand, France, Sweden, and others, and consists of a group of experts independent of parliament, and the other is established by Malaysia, India, Kenya, and Nigeria.

A "task force type" approach in which the president or prime minister personally leads a ministry to aim for rapid decision-making and implementation.

It is an organization (hereinafter referred to as a task force type).

Both types of approaches do not treat climate change as solely an issue for the "Ministry of the Environment," but rather involve finance, economy and industry, energy, and transportation.

They share the common goal of aiming for policy formulation and operation that integrates exports, agriculture, and health. There are two differences.

Yes, there is. One difference is the governance structure. Independent commissions are completely independent of the government and monitor and recommend policies based on scientific evidence, while task force models rely on the strong leadership of the president or prime minister.

The aim is to quickly implement cross-ministerial policies. The second is setting ultimate goals. The goal of the independent commission is to achieve net-zero emissions, and to evaluate progress in each sector and make necessary recommendations. The goal of the task force is to balance climate change countermeasures and economic development. Many developing countries are facing climate change. The country has set the goal of balancing volatility management and economic development, which involves difficult trade-offs. Top-level decision-making is required. Roughly speaking, developed countries use an independent commission system, while developing countries... The country can be described as a task force type.

What can Japan learn from these global examples, and what should it do? The ongoing efforts in Malaysia are worth considering. Malaysia's National Climate Action Council, under the strong leadership of the Prime Minister and coordinating climate change-related ministries, is adopting an approach that "makes the transition to a low-carbon economy a new engine of economic growth." Furthermore, it is working to incorporate the concept of "planetary health," which has recently been gaining international attention, into its climate change plan.

Based on the idea that it is "essential for human well-being," humans are planetary boundaries

To achieve sustainable prosperity within this context, reform strategies will be developed for each critical system, including energy, food, environment and health, governance, education, and behavioral change, and their implementation will be reviewed against KPIs. At its core is an emphasis on science and the establishment of a national-level data registry. be.

What Japan must do now, in light of these examples, is to establish: ý

a mechanism to integrate scientific knowledge across sectors and ministries and reflect it in policy;

ý a mechanism to evaluate and improve the implementation of

policies; and ý a mechanism in which scientists, industry, and civil society are continuously involved to support and check policy implementation. The scientists

who participated in this emergency briefing pointed out the essence of the climate change problem as a systemic collision and proposed an integrated solution through the lens of systems. Furthermore, they also proposed the realization of politically difficult policies.

Therefore, it is necessary to instill the need for change throughout society through communication. Many Asian countries, including Japan, are in the midst of a struggle to transform their current fossil fuel-based economic systems and to position them consistently within their larger national goals. Each country designing and implementing a transition pathway tailored to its own situation will contribute not only to its own well-being but also to the well-being of the world. To achieve this, science is essential, along with important subsystems.

We will take a cross-cutting approach to reform, incorporating flexibility and practicality, and fostering political leadership and civil society. It is important to aim for a system design that incorporates these checks and balances.

Finally, we propose that this emergency briefing be established and developed as a "forum and mechanism" (social infrastructure) for continuously connecting science, policy, and society, so that society as a whole can understand the true nature of the crisis and support swift action.

4. Sponsoring Organizations (Until September 26, 2026)

いのちをつなぐ

SARAYA

MIZUHO みずほ銀行

[サラヤ株式会社、東京サラヤ株式会社](#)



NIKKEN
EXPERIENCE, INTEGRATED

株式会社 リーテム

TCO2
Insights for Sustainability



GALILEI
Be cool, Be alive.



Best Fit



Blue Innovation &
Environmental Network
株式会社



鮮度がごちそう
大起水産

mont.bell

Shumei

大阪厚生信用金庫

大商硝子 株式会社
DAISHO GLASS Co., Ltd.

The Good Bankers



りそな銀行

医療法人 協和会

商工中金

Kansai Mirai Bank

木と生きる幸福
住友林業

[医療法人幸和会 横山
内科循環器科医院](#)

[材木座診療所](#)

[株式会社三菱UFJ銀行](#)

株式会社サラヤトレー
ディング

[SPEED研究会](#)

個人寄付(クラウドファンディングにて1万円以上ご支援いただいた方、本名掲載可のご確認済み)

深津 学治 周 耀民 武藤 征時 瀧北 由子 金子 正彦 羅 先坪 井駒 千鶴子 田村 久美 西原 智昭
篠 健司 米山 真梨子 大島 浩司 台東リサイクルネットワークより5名様分 小柴 禧悦 池亀 俊美 田中 強志
石川 一喜 藤原 敏晃 前川 統一郎 一般社団法人サステナブル経営推進機構(SuMPO)より5名様分 池上 俊郎
安藤 志保 八巻和香子 竹内光男 松下英治

5. Supporting Organizations (Until September 26, 2026)

National Emergency Briefing, UK

Company:

Future Creation Department Co., Ltd., Environmental Business Agency Co., Ltd., Environmental Newspaper Co., Ltd.

SMFL Mirai Partners Co., Ltd., SOMPO Institute Plus Co., Ltd.

Terada Iron Works Co., Ltd., Kashiwa Tanaka Farm Co., Ltd., Tango Foods Co., Ltd., Saraya Environmental Design

Yamasakura Co., Ltd., The Links Co., Ltd., Furukawa Electric Co., Ltd., esa Co., Ltd.

Mito HollyHock Football Club Co., Ltd.

Local government, council, and regional administration:

Ibaraki Prefectural Assembly, Mito City Assembly, Namegata City, Ibaraki Prefecture, Toride City, Ibaraki Prefecture

Research, academic, and policy research institutions:

Institute of Social and Geochemistry, Institute for the Happiness Economy and Society, Certified NPO Japan Society for Environmental Management, General Incorporated Association

Biodiversity Academy, Japan Productivity Center, Ecomaterials Forum,

Asian Productivity Organization (APO)

NPOs, NGOs, and civil society organizations:

Certified NPO Environmental Relations Institute, Japan Youth Council (JYC), Youth Environmental NGO Climate

Youth Japan, NPO International Exchange Club GAIA, Tara Ocean Japan, Ibaraki Prefecture Global Warming Prevention Activity

Promotion Center, Oita Prefecture Global Warming Prevention Activities

Promotion Center, Taito Recycling Network, Kanagawa Prefecture Global Warming Prevention Activity Promotion Council,

Sakagawa Children's Eco Club, Senba Lake Water Quality Improvement Promotion Association, Cinderella Theatre Company, Youth Foundation

Eco, NPO Wakayama Environmental Network, Saitama Prefecture Global Warming Prevention Activity Promotion Center,

Specified Nonprofit Organization Environmental Partnership Iwate, Sustainable Mihara, General Incorporated Association

Mito HollyHock Ibaraki Club, Green & Peace (a specified non-profit organization), Oita Genki

Kids

Social, lifestyle, and co-creation-oriented private organizations:

EASE Future Co-creation Forum, Wago International Peace Association, Soka Gakkai International

SIG (Swedish

Governance Organization) Public Interest,

Industry Associations, and Networks: Green Purchasing Network (GPN), Japan Ethical Promotion Council, Japan

Association of Consumer Life Advisors, Consultants and Counselors (NACS), Ibaraki

Jyojo Prefecture Environmental Management Association, Ethical Association, Japan Sustainable Cosmetics Promotion Organization

(JSCF), Sustainable Lifestyle Association, Sustainable

Management Promotion Organization (SuMPO), Japan Ethical Painting Association



特定非営利活動法人ゼリ・ジャパン / 気候非常事態ネットワーク(CEN)

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