sustainable japan

2025: The state of work toward a sustainable society

In October 2020, in search of a new normal during the COVID-19 pandemic, The Japan Times launched Sustainable Japan regarding sustainability and how Japan can contribute to the realization of a sustainable society. Starting with key people who have been active in Japan and overseas since 2018, activities of the Japan Times ESG Consortium have been disseminated overseas by networking companies and organizations that have been active in various ways toward the realization of a sustainable society. Combining these, The Japan Times launched the new Sustainable Japan Network in June 2021.

Promoting sustainable finance

KATSUNOBU KATO MINISTER OF STATE FOR FINANCIAL

I would like to offer New Year's greetings to the readers of The Japan Times.

The Japanese economy is showing signs of recovery. Nominal GDP and capital investment exceeded ¥600 trillion (\$3.8 trillion) and ¥100 trillion, respectively, and wages rose at the highest rate in 33 years.

The government will implement initiatives aimed at ensuring a transition to a growth-oriented economy driven by wage hikes and investment, aiming to seize this opportunity to overcome deflation so that each and every citizen can directly feel that their wages and income are increasing.

For our part, we at the Financial Services Agency aim to assist Japan's transition to such a growth-oriented economy from a financial perspective. And we think that one important initiative for achieving sustainable growth is the promotion of sustainable finance, which encourages the transition to new industrial and social structures that realize sustainability by conducting investment and lending that consider environmental and social issues such as climate change.

In particular, as part of measures to address climate change, we aim to realize more than ¥150 trillion of public and private investments over 10 years to achieve carbon neutrality by 2050. In February 2024, the government began issuing Japan Climate Transition Bonds, the world's first government-labeled transition bonds. Financial institutions play an important role toward



decarbonizing the overall Japanese economy. We aim to promote transition finance, which provides funds to companies making steady efforts toward decarbonization. We also are working toward achieving global decarbonization while capturing growth opportunities by aiming to form specific methodologies and real cases of transition finance in Asia, which accounts for as much as half of the global total of greenhouse gas emissions. We aim to do this through the Asia GX Consortium (the GX stands for "green transformation"), an initiative led by the FSA and the ASEAN financial authorities.

Another thing that is important in order to support companies engaging in innovation and transformation that contribute to solving social or environmental issues — including not only those related to climate change but also social issues such as health care and declining population — is impact investment, which intends to realize social or environmental impacts while securing financial returns at the same time.

In promoting impact investment, it is important to share and accumulate knowledge and ideas that are effective in carrying out investments while taking into consideration the diversity of market participants. With this in mind, we launched the Impact Consortium, which brings together wideranging parties from both the public and private sectors. The participants are currently discussing case studies of local initiatives, as well as investment methods.

Sustainable finance, which supports corporate efforts to transition to new industrial and social structures in order to realize a sustainable economy and society, is growing in importance in Japan and elsewhere especially as decarbonization efforts are stepped up around the world.

I have great hopes for further efforts by market participants in Japan and abroad. For our part, we at the Financial Services Agency will work to revitalize Japan's financial market, aiming for a financial administration that earns the trust of the Japanese people.

Again, I would appreciate your understanding and cooperation in the new year.



Kato speaks at a Keidanren meeting on Dec.

Climate change efforts for 2025

KEIICHIRO ASAO MINISTER OF THE ENVIRONMENT OF

Happy new year to the readers of The Japan Times! On celebrating the new year of 2025, I would like to share my thoughts on promoting measures against climate change.

Last year reportedly was the hottest year on record, and a sense of crisis has risen to unprecedented levels about climate change, as we are now directly feeling the increased risks of disasters and heat stroke caused by extreme weather.

To achieve the Paris Agreement goal of limiting the temperature increase to 1.5 C above preindustrial levels, significant emission reductions are required at the global level, and the global community must unite in working to achieve them even amid a rapidly changing international situation.

It was against this backdrop that the COP29 annual conference was held in Baku, Azerbaijan, late last year, during which I participated in many ministerial meetings and actively had bilateral talks.

Specific achievements made at this conference include, in the area of climate finance, a new target for financing to developing countries of at least \$300 billion annually by 2035. We also agreed to call on all actors to work together to enable the scaling up of financing to developing countries for climate action from all public and private sources to at least \$1.3 trillion per year by the year 2035, and that from this total annual amount, funds of \$300 billion will be contributed by devel-



oped countries. In addition, we achieved full operationalization of Article 6 of the Paris Agreement, which calls for international cooperation in implementing reductions and other measures.

This year, COP30 is scheduled to be held in Belem, Brazil, and ahead of the event, countries are being called on to submit their next reduction targets to the United Nations by February. In Japan, we aim to work out our next reduction target and revise our global warming measures to achieve it, aiming to ensure we achieve netzero greenhouse gas emissions by 2050.

The Japanese government aims to take into consideration scientific findings and past reduction efforts to decide on the next reduction target while making sure that we can simultaneously achieve decarbonization, a stable energy supply and economic growth.

To reduce emissions, we need to not only set a target but also steadily implement measures to achieve it. All parties

involved need to put in effort if we are to achieve net-zero emissions by 2050. For its part, the Ministry of the Environment especially aims to put effort into decarbonizing local communities and people's daily lives. Specifically, we aim to work with local governments to promote the introduction of renewable energy sources that benefit and coexist with local communities, and contribute to regional revitalization by working on industrial promotion initiatives and strengthening disaster-prevention capabilities.

In addition, we will work to ensure that people live with a sense of well-being by providing support for decarbonizing houses and buildings, electrifying commercial vehicles, etc. Furthermore, we aim to promote development of new technologies, including artificial photosynthesis and perovskite solar cells.

To achieve the global goal of limiting the temperature increase to 1.5 C above preindustrial levels, it is crucial to take collective actions to reduce emissions in Asia and the rest of the world, not only in

Based on the achievements of COP29, Japan aims to call on all countries to steadily reduce greenhouse gas emissions, expand and step up efforts for the Joint Crediting Mechanism and help other countries establish high-integrity carbon markets and bring the Asia Zero Emission Community initiative to fruition.

This year again, we will do all we can to further promote climate change measures across the globe.

Mizuho report aims to spur action to move into alternative energy

Sustainable Japan Network

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To achieve carbon neutrality in an increasingly uncertain world, Japanese companies should focus on innovations for alternative energy and shift their business models toward building a carbon-neutral economy, Mizuho Financial Group says in a recent

The report, released on Dec. 5, reflects a sense of crisis that Japan's economy has depended on heavily emitting industries and that its geography makes it hard to rely on some forms of renewable energy widely seen overseas, such as giant solar plants and onshore plus fixed-bottom offshore wind turbines.

"We published this report to show our future grand design to our corporate customers and encourage discussions in the industry," Shinichi Tsunoda, the general manager for Mizuho Financial Group's Sustainable Business Promotion Department, said in a recent interview.

With the heavy industries that supported the country's postwar economic growth expected to shrink further, the manufacturing sector will need to shift to more value-added products such as components for high-tech devices and high-quality chemicals. Currently, 20% of the country's GDP derives from manufacturing, higher than the EU's 15% and the United States' 10%. Instead, services — mainly for the graying population, inbound tourism and entertainment —



Mizuho's sustainability report for 2024 MIZUHO

need to be a driving force for the economy, Tsunoda said.

"We must support our strength in manufacturing, but that alone won't be able to help us achieve sustainable economic growth. We have to grow the service sector to further back up the economy," he

In the report, Mizuho presents a bold projection of energy sources in 2050. The financial group expects 59% of Japanese power generation to come from renewable sources, 19% from nuclear power, 13% from hydrogen and ammonia, and 9% from thermal power plants utilizing CCS (carbon capture and storage) technologies. That compares to the 2022 levels of 22% from renewables, 6% from nuclear, 34% from natural gas, 31% from coal and 7% from oil in 2022.

"The biggest challenge in the scenario is how to secure the energy necessary for economic growth," Tsunoda said, adding that the demand for power will rise amid the electrification of many industries and the evolution of digital technologies requiring a tremendous amount of electricity for semiconductor plants and data centers.

That is why technological breakthroughs will be important to the country's future. Tsunoda said the most important point concerning Japan's ability to achieve net-zero emissions in the next few decades is that companies need supply chains and infrastructure that contribute to the use of alternative energy — hydrogen, solar, wind and potential sources such as fusion.

To be motivated, Tsunoda continued, people need to understand why Japan needs to promote renewables. "There have been no such projections, as far as I know. That's why we have published this report — to encourage active discussions in the industrial world," Tsunoda said.

Much more discussion will be needed to get closer to a carbon-neutral future, because each energy source has issues to

Experts see hydrogen as promising, but it currently lacks solid supply chains for production, transportation and consumption, including hydrogen stations for fuel cell vehicles. As for solar energy, the country's mountainous terrain lim-



Shinichi Tsunoda MIZUHO

its the spaces available for building giant solar plants. However, if next-generation technologies such as thin and flexible perovskite solar cells achieve a breakthrough, they could generate much more power in all sorts of places. Wind power faces similar geographic hurdles. Japan lacks sufficient shallow waters for wind farms like those off Northern Europe. Thus it needs to go for a harder technology: floating wind turbines. The world needs innovations including fusion energy, though they would need time to be commercialized. Fusion, producing power without carbon emissions or long-lived nuclear waste, is often called a "dream technology," and so startups are pursuing it. For instance, Mizuho invested earlier this year in Zap Energy, a U.S. startup specializing in fusion energy.

"All these technologies are not yet commercialized, so they contain too much uncertainty. We have to move them forward," Tsunoda said.

The country must simultaneously realize a circular economy, prioritizing the reuse and recycling of products and the reduction of waste. This needs to involve the recycling of natural resources and of materials as well, including the rare-earth metals essential for storage batteries. Japan has depended on imports for these and thus been exposed to geographic risks, the report says.

"If we see decarbonization as the sole purpose, we may reach a limit soon. So it will be important to promote the transition and support economic growth at the same time," Tsunoda said.

the japan times Sustainable Japan Network

Would you like to help The Japan Times tell the world about sustainable lifestyles and efforts in Japan? Join the Sustainable Japan Network, an initiative that aims to disseminate all kinds of such information in English through communicating with you, our readers.

Prospects for 2025 in ESG by Michiyo Morisawa

Climate change is already significantly affecting our lives. In Japan, 70% of whose land is forested, there is an urgent need to formulate and carry out measures that meet regions' needs in coping with disasters and adapting to climate change beyond just reducing its impacts through lowering emissions. In 2024, we in Japan directly felt the horrors of earthquakes, large typhoons and record-breaking heat, with some places suffering from a combination of these events. Disasters are becoming increasingly severe, and since they also can overlap, it is becoming more difficult to address them through conventional disaster response measures

In Japan, the amended Climate Change Adaptation Act took effect last spring, and special heat stroke alerts were introduced. However, in this past summer, many people still lost their lives to heat stroke last summer. This is an indication that we need to make people more aware of the significant changes that are taking place.

Going forward, we need measures that can address power outages caused by disasters that hit during summer scorchers. Having power generation systems use renewable energy sources is important from the perspective of disaster preparedness.

As Japan has regions with diverse

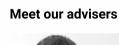
characteristics, we have varied options for renewable energy sources that we can choose from to suit each region. These include solar, biomass, geothermal and wind, including offshore wind. Beyond generating power, storing it is a critical issue. Research and development for these technologies, and then investment in them, require long-term predictability of market demand and government policies that encourage technological innovation.

When considering energy from a long-term and regional perspective, it is important to also think about the agriculture, forestry and fisheries industries, which are related to water and food, and disaster prevention and disaster countermeasures at the regional level.

Climate change is causing sea levels to rise, and as a result some island nations are beginning to lose land area. In Japan and elsewhere, rising seas and warmer ocean waters affect rivers as well, so it is important to take measures for river basins, not just coastal areas. In addition, it is desirable for these measures to apply what we have learned from experience regarding water infrastructure in past disasters.

The "nexus concept" says climate change has a bearing on biodiversity. To address this, it is important to work together, rather than independently, since it will affect future generations.

I hope that more people will learn and work to help make our society sustain-





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PAGE: 7