

Conservation and Sustainable Use of Our Ocean: A Variety of Initiatives Are Underway

Goal 14 of the UN's SDGs is about 'Life below water' which aims to conserve and sustainably use the wealth of our ocean. In February 2023, Nikkei and Nikkei Business Publications established the NIKKEI Blue Ocean Forum. Its purpose is to protect the marine environment, by formulating and globally propagating policies and mechanisms to ensure the proper utilization of marine resources. The plan is to hold forums four times a year featuring experts and company representatives who are engaged in various marine-related fields, and to announce "A Proposal on Conservation and Sustainable Use of Our Ocean" to coincide with Expo 2025 Osaka, Kansai, which has been dubbed "Expo of the Sea." (It will be the first Expo to be held at a venue surrounded by the sea on all sides.) The following is a selection of key points from the symposiums and interviews of NIKKEI Blue Ocean Forum events held in 2023.



**NIKKEI
BLUE OCEAN
FORUM**

Expectations to Create Some Inspiring Examples of Synergy in Action



Kaori Fujita
Co-Chair of the NIKKEI Blue Ocean Forum Advisory Committee / Senior Deputy Editor, Nikkei ESG / Professor, Green Goals Initiatives and Graduate School of Life Sciences, Tohoku University

The stakeholders in marine conservation are extremely diverse. There are enterprises in the seafood supply chain, such as fisheries, restaurants, and retailers, as well as chemical and materials manufacturers involved in combatting ocean plastic pollution, companies working on IoT (Internet of Things), shipping companies, and academic scientists, who observe and analyze ocean data. Of course, financial institutions and local governments are also involved. New business solutions for the ocean will be created by coordinating these efforts.

As a starting point for thinking about collaboration, we created a chart (a map of marine relationships) on which we can write down examples of synergies in the three areas

of ocean sustainability: climate change, biodiversity, and circular economy. If we can create examples of communities and companies working together to protect and utilize the seas as a common asset by demonstrating synergy, we can increase corporate value, promote regional revitalization, and initiate flows of funding. It is essential to link data-based ocean conservation and utilization to economic value. We also want to spread these kinds of initiatives to Asia and the rest of the world.

Managing fisheries resources based on scientific data, engaging with investors about these activities and communicating them to consumers can increase value.

The decarbonization of marine transport shares some common issues with land transport in that it is costly and subject to institutional constraints, so government support should be considered. Initiatives to increase blue carbon absorption, such as the restoration of seaweed beds and mangroves, will have an educational effect on local community as they work together with local communities, which helps to revitalize local communities.

A Vision of the Future to Inspire Behavioral Change toward Sustainable Ocean



Atsushi Sunami
Co-Chair of the NIKKEI Blue Ocean Forum Advisory Committee / President, Sasakawa Peace Foundation

The world's ocean, which covers 70% of the planet's surface, is the common heritage of mankind. Yet, the environmental problems that affect the ocean are more neglected than those that affect land. Furthermore, scientific data and empirical knowledge from fisheries, shipping, and other fields tend to remain in their respective fields. There is an urgent need to widely share this knowledge and systematize it to build "actionable knowledge" capable of generating behavioral change. The challenge of utilizing data is to present it in a way that enables everyone to fully benefit from it.

In addition to international rules, each country has its

own policies and laws. This means that the ocean is subject to multiple layers of governance. Although there are many tough issues involving trade and diplomacy, things don't have to be perfectly logical and practical. If there is a degree of reasonableness and if there are positive ideas that are acceptable to the various stakeholders, progress can be made. If the economic and financial world and consumers can adopt new behaviors, there will be business benefits.

In some parts of the world, ocean conservation has become a hot topic. The conservation and restoration of marine ecosystems is gaining momentum overseas, to the extent that blue carbon commercials are appearing. For Japan to play a leading role, it must take action on a larger scale. In preparation for Expo 2025 Osaka, Kansai, we need to advocate a marine version of "Society 5.0" that leads to a common understanding among stakeholders through information-sharing and digital transformation. If we can convincingly demonstrate that such a society is possible, the world will take notice.

The NIKKEI Blue Ocean Forum Committee Members

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Tatsuro Watanabe Chief Environment Sustainability Officer, Responsible for Corporate Marketing Division, Environment & Sustainability Strategy Division, Mitsui O.S.K. Lines
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Corporate Project Members

Net Zero Will Fail Unless Shipping Can Achieve It



Tatsuro Watanabe
Chief Environment Sustainability Officer, Responsible for Corporate Marketing Division, Environment & Sustainability Strategy Division, Mitsui O.S.K. Lines

The MOL Group has a fleet of about 800 marine transport vessels. It is estimated that international shipping emits a total of 700 million tons of greenhouse gases per year. This amounts to 2% of total global emissions, about the amount generated by the country of Germany. The MOL Group's emissions in FY2022 were approximately 13 million tons, but we are aiming at net zero emissions by 2050. As interim goals, we are planning to operate "net-zero" oceangoing vessels by the end of the 2020s, and to cut emissions by 45% by 2035.

The total annual fuel demand for international shipping is approximately 200 million metric tons, so until a supply system for ammonia and hydrogen is established, cutting

emissions will be costly, both in terms of time and money. Firstly, by 2030 we will introduce 90 LNG or methanol-fueled vessels. In the fall of 2022, we began commercial operation of the Shofu Maru, a ship equipped with the Wind Challenger wind propulsion system that we developed ourselves. We estimate that this technology can cut our GHG emissions by 5 to 8%, so we plan to install it on 25 vessels by 2030, and 80 vessels by 2035.

On top of these efforts, we are also building systems to prevent oil pollution by ships and to prevent transboundary movement of marine organisms using ballast water treatment (used to stabilize ships) as well as developing and installing equipment to collect marine microplastic. Shipping is considered a difficult industry for reducing emissions, but unless it achieves net zero emissions, a truly net-zero society can never be realized. With this in mind, we will continue to promote a variety of environmental initiatives with a sense of duty.

Helping to Create Corporate Strategies



Masato Sase
CEO, Deloitte Tohmatsu Consulting

In global market terms, Monitor Deloitte estimates that by 2030, a blue economy that strikes a balance between achieving economic growth and resolving social issues through a sustainable utilization of resources based on marine ecosystem conservation could be worth over 500 trillion yen and generate 100 million new jobs. This corresponds to an annual growth rate of more than 6% over this period, which is close to twice the expected growth rate of the global economy as a whole. If we include digital technology and other related fields, the potential is even greater. This is likely to be a new frontier of growth.

Europe is the leader in conserving and restoring ecosystems as part of its green economy push. Japan should

similarly lead the way in the blue economy, by leveraging its strengths as a maritime nation.

The blue economy involves a variety of different markets. It is vital to have a strategy with a clear vision of which markets to focus on and succeed in. It is also important to have hands-on people at the top management level who can work across the organization. For strategy development, it is vital to identify and combine the social issues that need to be addressed, and to set targets for them. If there aren't enough management resources to develop a business, it may also be necessary to seek them from outside the company. Through discussions with the various stakeholders, we want to take the lead in setting the direction toward concrete implementation. We feel that we can take advantage of the networks we've built up in implementing business (including digital-focused business), and formulating strategies and rules for corporate alliances and clients.

Using New Technologies to Tackle Business Challenges



Yusuke Saraya
President, SARAYA

Plastic waste is washing up on beaches all over the world, and microplastics are having a serious impact. For example, in the island of Tsushima in the Japan Sea, fishing nets and ropes that have drifted ashore are buried in sand, unable to be extracted by human hands. At the same time, foam particles generated by the disintegration of Styrofoam balls floating in the sea end up as far away as mountain peaks.

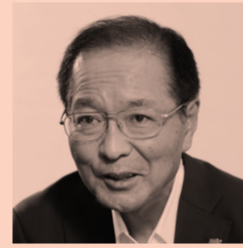
In collaboration with group companies, we are running a demonstration experiment that involves collecting and processing marine plastic waste and using it together with agricultural waste, waste oil, and other waste materials to generate electric power. We want to create a model for a circular economy in which all materials that can be recycled

are recycled, while those that don't are used to produce electricity or heat. We want to establish this as a successful case study in time for Expo 2025. We also hope to promote our Tsushima model at the Pacific Islands Leaders Meeting.

The containers of SARAYA's main products, detergents, are made of plastic. To utilize the technology for collecting and sorting used products, then processing them into propylene, ethylene, and other raw materials, we are working with numerous partners across a wide range of industries, including trading companies, chemical makers, food and beverage companies, and distributors. For that, we have even taken a stake in a joint venture company, R Plus Japan, which will facilitate the recycling of used plastics.

SARAYA is committed to taking on new challenges by utilizing new technologies to develop businesses. As examples, we are trialing an eco-friendly net-free fishing industry in Mauritania and working on a device that uses an alcohol solution to freeze food products rapidly.

More Sustainable Ocean Food through Marine Resource Research



Shingo Hamada
Representative Director, President & CEO, Nissui

As our long-term vision for 2030 states, Nissui wants to become "a leading company that delivers friendly foods both for people and the earth." As part of this important endeavor, we are promoting sustainability management. In 2017, we began conducting surveys to assess the state of the marine product resources handled by the whole group every three years. In 2020, we also commissioned a survey from the US registered NGO Sustainable Fisheries Partnership (SFP). We also evaluated fish oil and fish meal compound feed ingredient. All this research revealed that of the approximately 2.71 million tons of marine products that the group handles, resources for 71% of products were under control, for 8% were in need of improvement, and for 21% could not be scored and therefore not assessed. In contrast to Europe and America,

there is no available data for many areas of Southeast Asia. For this reason, we started working together with universities and other research institutions, local research facilities, and governments to investigate some of the fishery products that we lack data on. Our goal is to sustainably manage all the resources we rely on by 2030. We are prepared to suspend trade in any endangered species unless effective conservation measures are taken.

Nissui believes that aquaculture can help to sustainably meet the rising global demand for marine products, so it is boosting its efforts in this area. In 2022, 100% of our yellow-tail production in Miyazaki was farmed, by hatching eggs taken from broodstock. Since this method does not depend on the availability of wild-caught seeds, it is highly sustainable. We feel strongly that more needs to be done to raise awareness that business cannot survive unless resources are managed properly. Although the pursuit of sustainability is costly, we remain committed to the goal, firm in our belief that it will enhance our corporate value in the long term.

Tackling Sustainability Across Entire Supply Chains



Nobuyuki Miyaji
Executive Officer, Senior Officer of Sustainability Development Dept., ESG Development Division of Seven & i Holdings

The Seven & i Group has 22,800 stores in Japan and a total of 85,000 stores worldwide. In Japan alone, over 22 million people visit our stores every day. In 2019, we formulated our GREEN CHALLENGE 2050. The main goals are to achieve virtually net zero greenhouse gas (CO2) emissions by 2050, to switch to 100% eco-friendly packaging materials for original product containers and packaging materials (to address plastic pollution), and to increase food waste recycling rate to 100%. All these aims are interconnected. Reducing and recycling packaging materials leads to lower CO2 emissions, while food recycling enables biogas power generation. The donation boxes in all 7-Eleven stores are

operated by the Seven Eleven Foundation, which promotes biodiversity conservation activities, such as the development of eelgrass beds in Tokyo Bay. The foundation is also involved in carbon offsetting through the J Blue Credits scheme.

One of our most notable initiatives is sustainable procurement of marine products. We have developed products certified by the Marine Stewardship Council (MSC), Aquaculture Stewardship Council (ASC), and Marine Eco-Label Japan (MEL). We've also acquired chain-of-custody (CoC) certification for the processing and distribution control for all our supermarkets. The challenge now is to promote customer recognition of certified products. By addressing sustainability throughout the supply chain, we want to give our customers opportunities to become more aware of marine issues and climate change, so that they feel more connected to the issues. Changing individual behavior will lead to social implementation.

Building on Our Corrugated Carton Business to De-plasticize Packaging



Yusuke Kawamoto
Representative Director, President & COO, Rengo

Rengo has developed a streamlined system for the production of corrugated cartons from paperboard, the raw material used to make corrugated board. The paperboard industry established a system of collecting and reusing wastepaper long ago, and 98% of the corrugated paperboard material used by our company is old corrugated carton.

The papermaking process uses large amounts of river water and groundwater. For this reason, wastewater is recycled at treatment facilities within paper mills and used repeatedly to minimize the need to take in new water. We are also focused on recycling and developing biodegradable materials to help solve the problem of marine plastic pollution. For example,

we have developed and commercialized a sandwich packaging material that combines biomass plastic and paper, as well as marine-biodegradable Viscopearl™ cellulose microparticles as a replacement for microplastic beads.

To promote the recycling of materials even more, we need to use chemical recycling to convert packaging film into raw materials, or to form mono-materials, i.e., materials composed of a single type of material. In cooperation with researchers from companies in other industries, such as chemicals, we are pursuing open innovation with the goal of making all packaging materials recyclable resources.

Chasing short-term profit won't help to solve environmental problems, but neither will non-free market approaches. We see it as part of our corporate social responsibility to consider business strategies that are profitable enough to enable us to tackle real social issues with a long-term perspective.