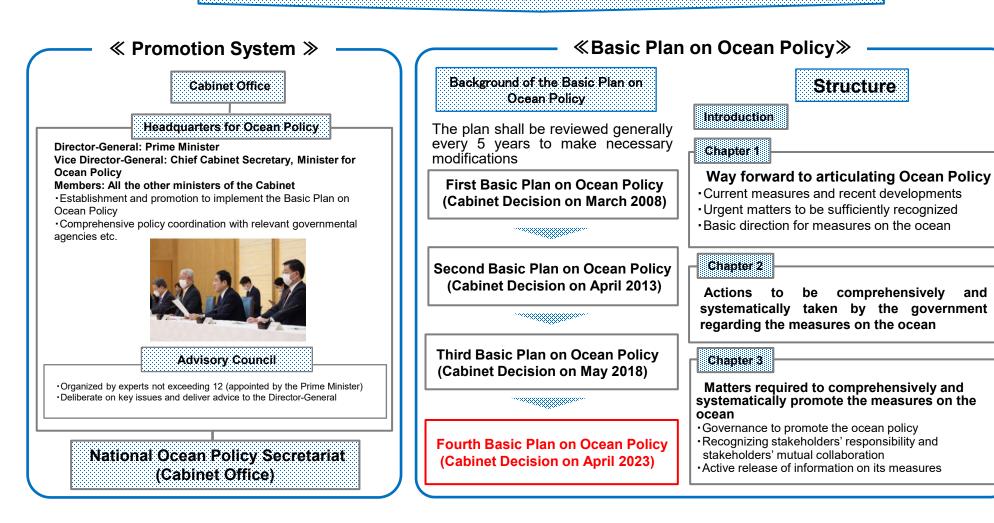
Introduction

The measures on the ocean around Japan shall be promoted comprehensively and systematically based on the Basic Act on Ocean Policy and the Basic Plan on Ocean Policy

Basic Act on Ocean Policy enacted (on April 20, 2007)



Part I Way Forward to Articulating Ocean Policy

Response to changes of current situations about the Ocean Policy

The situation in the waters around Japan has been becoming increasingly strained, with the maritime interests of Japan exposed to more severe threats and risks than ever before.

There have been emerging significant changes all over the world that could have significant impacts on economic structure and competitive environments including the goal to achieve carbon neutrality, energy issues which have been triggered by Russia's aggression against Ukraine and industrial transformation etc.

Now is the time to promote a large-scale transformation on the Ocean Policy/ "Ocean Transformation"

Realization of such transformation through enhancement of maritime security, development of new industries including marine resource development and further development of existing industries, development of environment-related technologies and active involvement for global efforts to achieve the Sustainable Development Goals (SDGs) etc.

Basic policy ∼ two main pillars (direction of the ocean policy) and seven main measures ∼

I. Comprehensive maritime security

While ensuring consistency with National Security Strategy etc., the Government of Japan will continue to make efforts for implementation of measures including both "measures concerning maritime security" and "measures that contribute to maritime security and its reinforcement".

${\rm I\hspace{-.1em}I}$. Sustainable use and development of the ocean

The government will foster the growth of marine industries through promoting commitments toward realization of decarbonized society.

The government will promote conservation/restoration/maintenance of marine environment of Japan and sustainable use/development through international initiatives.

III. Main measures to be steadily promoted

- (1) Promotion of industrial use of the ocean
- (2) Improvement of scientific knowledge
- (3) Promotion of DX in the ocean
- (4) Promotion of Arctic policy
- (5) International collaboration and cooperation
- (6) Development of human resources with the knowledge of the ocean and promotion of understanding among the public
- (7) Infectious disease prevention

Part I Way Forward to Articulating Ocean Policy (cont'd)

Matters to be sufficiently recognized regarding establishment and implementation of the plan (urgent challenges of the ocean policy)

(1) Responses to the situations in the waters around Japan

- ➤ In today's world, where conflicts and cooperation are intertwined in international relations, it is necessary to prevent occurrence of emergency situations in Japan and its vicinity and any unilateral attempts to change the status quo and to enhance "Open and Stable Seas" based on the rule of law.
- ➤ It is necessary for relevant organizations to collaborate in working on upgrading of Japan's defense capabilities and maritime law enforcement capabilities and to constantly strengthen deterrence and response capabilities in every aspect through making its own efforts.

(2) Responses to climate changes and natural disasters

- ➤ There are growing concerns about irreversible degradation of the global environment including global scale environmental changes, meteorological disasters and massive earthquakes etc. and threats of natural disasters to human lives, physical integrity and properties.
- ➤ It is important to promote efforts for enhancing prediction of events, harnessing disaster preventing/mitigating functions and realizing decarbonized society and contribute to the public safety and security.

(3) Strengthening international competitiveness

- ➤ There are dramatic changes in socioeconomic circumstances/international relations on a global scale and also significant changes in social system and organizational culture due to progress in digital technologies.
- > Now is the turning point whether Japan can continuously utilize the ocean as a maritime nation for the basis of its existence and growth.
- ➤ To boost Japan's international competitiveness of ocean-based industries, it is urgent to develop timely, sustainable and highly effective measures, improve technological competence and ensure its actual implementation in the ocean field.

(4) Developing and securing human resources with the knowledge of the ocean

- ➤ In addition to depopulation due to declining birthrate and aging population, it has become evident that there are increasing needs for human resources who can play an active role in industrial transformation and innovation, and thus competition/contests with other sectors have occurred.
- ➤ It is necessary to further raise social awareness that various activities related to the ocean are critical to the national interests.
- ➤ It is necessary to provide attractive environments by strengthening the system for human resources development and in cooperation and collaboration with the stakeholders of industry, academia and government.

3

Part I Way Forward to Articulating Ocean Policy (cont'd)

I. Comprehensive maritime security

The government will make comprehensive efforts to implement policies, which comprise measures directly concerning the maritime security and those that contribute to and reinforce maritime security, to realize "comprehensive maritime security".

(1) Maritime security

A. Ensuring national interests in Japan's territorial sea, etc.



Patrol Vessel Large (image)

- Strengthening the capabilities on defense and maritime law enforcement through Japan's own efforts
- Continuously strengthening collaboration/cooperation between Japan Coast Guard and Self-Defense Forces
- ➤ Implementing strategic/comprehensive surveys of the waters under national jurisdiction and strengthening a system for collecting ocean data, by making use of space technologies etc.

B. Maintenance/development of international maritime order

C. Ensuring maritime safety

> Taking thorough measures for ensuring safety of passenger ships etc.

D. Prevention/mitigation of natural disasters that occur in the waters around Japan

(2) Measures that contribute to reinforcing maritime security

A. Promotion of commitments that contribute to economic security

Based on the concept of front-loading, promoting development of marine resources and research and development of marine science and technology.

- (1) Promotion of marine resource development
- Accelerating industrialization/commercialization of marine resources including methane hydrate, seafloor hydrothermal deposits, cobalt rich manganese crusts, and manganese nodules etc.
- Promoting resource development including REY-rich mud in the Third Cross-ministerial Strategic Innovation Promotion Program(SIP).
- 2 Ensuring Maritime Transport
- Ensuring a maritime transportation system mainly for Japanese ships and seafarers etc.
- ③ Strengthening Japan's international competitiveness of the marine industries
- · Promoting DX of the marine industries including shipbuilding industry.
- 4 Promotion of marine science and technology
- Establishment/implementation of strategy that fosters and utilizes advanced technology including AUV technology which can be utilized in both the private/public sectors and its social implementation.



Autonomous Underwater Vehicle (AUV

B. Strengthening the capacity for Maritime Domain Awareness (MDA)

C. Conservation and management of remote territorial islands

Part I Way Forward to Articulating Ocean Policy (Cont'd)

I Sustainable use and development of the ocean

While fostering the growth of marine industries through promoting commitments toward realization of decarbonized society, the government will seek conservation/restoration/maintenance of the marine environment of Japan and sustainable use and development of the ocean through international initiative.

(1) Contribution to carbon neutrality

A. Utilization of ocean-derived energy toward realization of decarbonized society

•Regarding offshore wind power generation, bearing the impacts on security and environments in mind, prepare legislation to expand it into EEZ and develop technologies for domestic production of the components etc.



Floating type offshore wind power turbine (in the offing of Goto city, Nagasaki prefecture)

B. Decarbonization in the entire supply chain

• Promoting establishment of Carbon Neutral Ports (CNP), and development/introduction of Zero Emission Ships etc.

C. Promotion of carbon dioxide capture/storage

• Toward the launch of CCS business, accelerate preparation of business environments including legislation.

(2) Conservation//maintenance of marine environments restoration

A. Conservation of the marine environment based on international initiatives including SDGs, etc.

- B. Promotion of actions for ensuring beautiful and bountiful sea
- C. Promotion of comprehensive management of coastal areas

(3) Appropriate management of fishery resources

•Promotion of new resource management based on scientific knowledge etc.

(4) Improvement/utilization of scientific knowledge

A. Implementation of global observation including the Polar Region

• Sophisticating/improving prediction of climate changes through continuous global observation including the priority areas

B. Promotion/enhancement of research related to understanding of marine ecosystem

C. Japan's contribution to global frameworks

- Contribution to establishment of comprehensive ocean observation network through international joint research
- Utilization/sharing of ocean data
- Promotion of Japan policy models toward realization of SDG 14 (countermeasures against marine plastic litter, etc.)
- Promotion of research and development for innovative technologies, etc.



"Osaka Blue Ocean View" was shared.at the G20 Osaka Summit(2019).

Part I Way Forward to Articulating Ocean Policy (cont'd)

■ 7 Main measures to be steadily promoted

(1) Promotion of industrial use of the ocean

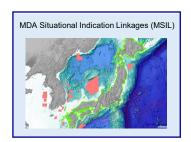
- Promoting marine resources development
- Securing maritime transport
- Strengthening Japan's international competitiveness of marine industries
- Utilization of ocean-derived energy
- Transformation of fisheries into a growth industry and activation of fishing communities
- Exploring various industrial fields which use the ocean (increasing the number of calls of cruise ships at Japan ports)
- Stimulating the economy of Japan's remote territorial islands
- Establishment of strategic vision including an AUV strategy etc. from development of technologies to their social implementation

(2) Improving scientific knowledge

- A. Strengthening ocean surveys/observation system
- B. Promoting marine science and technology through fundamental technologies and common technologies
- Development/deployment of research vessel and observation systems etc.
- Establishment of common infrastructure for test facilities etc.
- C. Promotion of science through citizen participation

(3) Promoting DX in the ocean

- A. Improving information infrastructure and data analysis technologies
- B. Promoting sharing and utilization of ocean data
- •Integration of ocean data by strengthening functions of the MDA Situational Indication Linkages (MSIL).



(4) Promoting Arctic policy

- ·Steady construction of Arctic research vessel
- Promotion of observation/research/human resources development by Arctic Challenge for Sustainability II (ArCS II)



Completion image for Arctic research vessel

(5) International collaboration and cooperation

- A. Assuming a leading role in the promotion of the rule of law at sea and the formulation of international rules
 - •Improvement of representation in international agencies etc.
- B. Strengthening international collaboration particularly with the countries in the Indo-Pacific region for comprehensive maritime security
 - Strategic utilization of ODA
 - Expansion of Maritime Safety and Security Policy Program (MSP)
- C. Strengthening international cooperation toward sustainable use of ocean
 - Contribution to SDG14



(6) Developing/securing human resources with the knowledge of the ocean and promoting understanding among the public

A. Fostering/securing human resources with the knowledge of the ocean

- ①Responses to promotion of ocean industry and conversion of industrial structure
- Development of human resources who take on innovation in the ocean etc.
- ②Educating seafarers and fostering experts
- Fostering/securing professional human resources through industry-academiagovernment cooperation
- Enhancing development of experts for international law/ international law of the sea etc.
- 3 Responses to DX of the ocean
- Fostering human resources with simulation technologies
- Promoting human resources' participation in maritime field from other fields such as data scientists
- Increasing/delivering attractiveness of maritime industry linked with DX
- 4 Fostering and securing diverse human resources

B. Promoting education on the ocean towards children and young people

(7) Measures to combat infectious diseases including COVID-19

- Taking thorough measures to prevent the spread of infections including flexible vaccination for seafarers
- Contributing to accelerating establishment of international rules concerning measures to deal with infected people in ships

Part II. The measures to be promoted comprehensively and systematically by the government regarding the policies on the ocean

379 actions in 9 fields to be comprehensively and systematically taken are listed, with relevant governmental agencies are specified.

1. Maritime security

- (1) Securing national interests in Japan's territorial sea and beyond
- (2) Maintaining/developing international maritime order
- (3) Securing safety/security in maritime transport
- (4) Preventing/mitigating natural disasters that occur in the waters around Japan

2. Strengthening capacity for Maritime Domain Awareness (MDA)

- (1) Structures for collecting maritime information
- (2) Structures for gathering and sharing maritime information
- (3) International collaboration and cooperation

3. Conserving remote territorial islands and promoting development in Exclusive Economic Zones (EEZ)

- (1) Preserving remote territorial islands etc.
- (2) Promoting development in EEZ etc.

4. Conserving/restoring/maintaining marine environments

- (1) Conserving marine environments etc.
- (2) Comprehensive management of coastal areas

5. Promoting industrial use of the ocean

- (1) Promoting to develop and utilize the maritime resources
- (2) Strengthening Japan's international competitiveness through contribution to carbon neutrality
- (3) Securing maritime transport
- (4) Appropriate management of fishery resources and transformation of fisheries into a growth industry

6. Enhancing research and development regarding ocean surveys and marine science and technology etc.

- (1) Promoting ocean surveys
- (2) Enhancing research and development regarding marine science and technology

7. Promoting Arctic policy

- (1) Research and development
- (2) International cooperation
- (3) Sustainable use

8. Ensuring international collaboration and promoting international cooperation

- (1) Formulating and developing maritime order
- (2) International collaboration on the ocean
- (3) International cooperation on the ocean

9. Development of human resources with the knowledge of the ocean and advancement of understanding among the public

- (1) Fostering and securing specialists who support the maritime nation
- (2) Strengthening educational promotion on the ocean towards children and young people
- (3) Promoting understanding of the ocean among the public

Part III. Matters required to promote the policies on the ocean comprehensively and systematically

1. Governance to promote the ocean policy

- ➤ The Basic Plan on Ocean Policy is the national strategy that sets forth a way forward to articulating Ocean Policy and related measures of each of ministries and agencies with a cross-agency function.
- ➤ In order to securely executive the Basic Plan on Ocean Policy, it is required for the Headquarters for Ocean Policy and the National Ocean Policy Secretariat work together to fully play a role as the control tower of the government.
- ➤ In accordance with following (1) to (4), the Headquarters will work on further strengthening governance.

(1) Strengthening the functions of the Headquarters for Ocean Policy

- •Utilizing the insights from the Advisory Council to hold discussions with high effectiveness and a sense of urgency
- •To promote essential policies, further deepening the collaboration with private businesses and universities/research institutions

(2) Strengthening the functions and structure of the National Ocean Policy Secretariat

- •Further improving the functions for comprehensive coordination of the Secretariat that handles practical matters of the Headquarters for Ocean Policy as well as enhancing the ones to conduct survey required for the coordination
- •Enhancing the structure of the Secretariat including human resources and budget

(3) Enhancing the functions of the Advisory Council

- •Establishing project teams etc. as necessary to deliberate technical themes
- Regularly following up the latest updates of the measures and evaluating progress of the major ocean policies
- Deliberating the policies to be focused on so that the government can flexibly correspond to them in line with the times

(4) Clarifying the measures to be focused on in each fiscal year

- Effective and efficient process management for the measures
- Evaluating the progress of the major ocean policies from all perspectives by using Key Performance Indicator (KPI) etc.

2. Stakeholder responsibility and mutual collaboration

It is extremely important to mobilize all the resources including the knowledge not only of government agencies, but also of all stakeholders such as local governments, universities and research institutes, the private sector, public interest groups and nationals etc.

It is important for every stakeholder to proactively play a role to the extent of each capacity, seeking for various forms of collaboration between the public and private sectors, as well as the one among industry, academia and the public.

3. Active release of official information on the ocean policy and its measures

- (1) Providing information to publicize the Basic Plan on Ocean Policy nationwide
- (2) Delivering official information for the progress of major ocean policies in appropriate ways.
- (3) Annually publishing "Ocean Report" X
- ※Documentation summarizing the maritime events of the year and the measures implemented by the government.



Main achievement of Japan based on the Third Basic Plan on Ocean Policy

1. Comprehensive maritime security

- (1) Initiatives for security
- ✓ Strengthening defense structures, maritime security system and fishery control structure
- ✓ Capacity building support to the coastal states along the Sea Lines of Communications toward realizing "Free and Open Indo-Pacific (FOIP)"
- √ Response to fatal accident of Shiretoko Pleasure Cruiser (2022)
- (2) Maritime Domain Awareness (MDA)
- ✓ Deciding "Future Policy Initiatives to Develop-the Capacity on MDA" (2018)
- ✓ Launching "MDA Situational Indication Linkages (MSIL) (Nickname: Umi-shiru) (2019)
- (3) Conservation and management of remote territorial islands
- ✓ Operating subsidy system based on "The Act on Populated Remote Territorial -Islands"
- ✓ Enforcing "Act on the Review and Regulation of the Use of Real Estate Surrounding Important Facilities and on Remote Territorial Islands" (2022)
- (4) Economic security
- ✓ Enforcing "Act on the Promotion of Ensuring National Security through Integrated Implementation of Economic Measures" (2022)
- ✓ Launching "Key and Advanced Technology R&D through Cross Community Collaboration Program (K Program)" (2021)

2. Promotion of industrial use of the ocean

- (1) Offshore wind power generation
- ✓ Enforcing "Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities" (2019)., and designating the promotion zones
- (2) Marine industry
- ✓ Enforcing "Act on Bolstering Marine Industry" (2021)
- (3) Marine resources
- ✓ Second SIP (Innovative Technology for Exploration of Deep-Sea Resources) (2018 to 2022
- ✓ Enacting "Mining Act (Revised)" (2022)
- (4) Fishery
- ✓ Enforcing "Fishery Act (Revised)" (2020)

3. Maintenance and conservation of marine environment

- ✓ Establishing marine protected areas (13.3% of the waters within Japan's jurisdiction)
- ✓ Formulating "Resource Circulation Strategy for Plastics" (2019)

4. Improvement of scientific knowledge

- ✓ Deciding "Sixth Science, Technology and Innovation Basic Plan" (2021)
- ✓ Promoting to implement marine surveys and observations and to share and utilize data

5. Arctic policy

- ✓ Initiating the construction of an Arctic research vessel (2021)
- ✓ Holding "3rd Arctic Science Ministerial" in Japan (2021)

6. International cooperation and international collaboration

- ✓ G20 Osaka Summit "Osaka Blue Ocean Vision" (2019)
- ✓ Participating in "Our Ocean Conference"
- ✓ Holding "Pacific Islands Leaders Meeting" (PALM)

7. Development of human resources/advancing understanding among the public

- ✓ New government course guidelines; enhancement of education on the ocean in elementary schools, junior high schools and high schools (2020 to 2022)
- ✓ Advancing understanding among the public through "Marine Day" and "Sea Month".