

# Basic Plan on Ocean Policy

<Structure for Implementation of Ocean Policy >

Cabinet

## Enactment of the Basic Act on Ocean Policy (on April 20, 2007)

**Six basic philosophies** : including Harmonization of Development and Use of the Oceans with Conservation of the Marine Environment  
**Twelve basic measures**: including Promotion of Development and Use of Marine Resources and Securing Maritime Transport

Councilors' Meeting  
(consisting of experts  
appointed by the Prime Minister)

Administration Office of the Headquarters  
for Ocean Policy

Director-General: Prime Minister  
Vice Director-General: Chief Cabinet and  
Secretary and the Minister for Ocean Policy  
• Formulation and implementation of the Basic Plan for  
Ocean Policy  
• Overall policy coordination with relevant governmental  
institutions

Administration Office of the Headquarters for  
Ocean Policy in the Cabinet Secretariat

## Basic Plan on Ocean Policy

(cabinet decision in March 2008)

Subject to revision roughly every five years

## Formulation of a new Basic Plan on Ocean Policy \*FY2013 to FY2017

Changes in Social Circumstances Surrounding the Sea after the Current  
Basic Plan on Ocean Policy

(i) Review of disaster control and energy policies after  
the Great East Japan Earthquake  
(ii) Mounting expectations for marine resources and  
renewable energy

(iii) Changes in international circumstances surrounding  
protection of right and duties of the coastal State  
(iv) Changes in natural and social circumstances  
including changes in the global environment and  
growing potential for use of Arctic Sea Route

## General Remarks: Vision of Japan as an Oceanic State

### ○ International cooperation and contribution to the international community

- Strengthen international coalition with Asia-Pacific and other countries.
- Take the initiative in establishing the international order of the sea based on the rule of law and contribute to world development and peace.

### ○ Wealth and prosperity through ocean development and utilization of the sea.

- Elicit the potential of the sea, including marine resources to the utmost degree to achieve wealth and prosperity.

### ○ From a country protected by the sea to a country that protects the sea

- Prepare for tsunamis and other disasters and secure stable transport routes.
- Positively work toward maintaining the ocean as part of the global commons.

### ○ Venturing into the unexplored frontier

- Implement research on unknown domains of the sea for contribution to creation of intellectual assets of humankind.
- Endeavor to resolve global issues such as changes in ocean environment and climate change.

## Chapter 1 and 2: Basic Policy on Ocean Measures and Specific Measures

### 1. Harmonization of Development and Use of the Oceans with Conservation of the Marine Environment

#### ○ Harmonization of Development and Use of the Oceans with Conservation of the Marine Environment

- Revision of the Plan for the Development of Marine Energy and Mineral Resources
  - Implement technological development toward the launch of methane hydrate commercialization projects led by the private sector in around 2023-2027. Conduct intensive explorations on the Sea of Japan side for the next three years.
  - Push ahead with technological development and other efforts, expecting projects to be initiated aiming at commercialization in or after FY2023-2027.
  - Conduct explorations to measure the estimated amount and the abundance of rare earth for three years starting in FY2013.
- Construct demonstration fields for increased use of wind turbines and other oceanic renewable energy and provide other policy assistance.
- Implement experimental studies in Fukushima and Nagasaki, clarify the rules on use of marine zones, and create options for utilization in coordination with fisheries.
- Development and Use of Marine Resources
  - Push ahead nationwide with proper management of marine resources in accordance with the resource management guidelines, resource management plan and equivalents.
  - Encourage activities in fishing villages through proactive use of their abundant local resources and boost productivity of fishing grounds.
  - Strengthen the fishery management structure by taking comprehensive management stabilization measures.

#### ○ Conservation of Marine Environment, etc.

- Press ahead with the process of identifying the sea areas that are ecologically and biologically important by FY2013 and of establishing marine protected areas.
- Work to suppress CO<sub>2</sub> emissions from marine transport and to research and address sub-seabed CO<sub>2</sub> capture and storage.

### 2. Securing Safety and Security on the Oceans

- Improve the broad-based, all-time monitoring system and the system for response to remote or serious incidents in the surrounding marine zones.
- Strive to improve coordination between the Japan Self-Defense Forces and the Japan Coast Guard and to place private armed security guards on Japanese-flagged vessels.

### 3. Improvement of Scientific Knowledge of the Oceans

#### ○ Promotion of research and development of marine science and technology

- Implement research and development of response to natural disasters and other significant issues and make proactive use of outer space, including increased use of satellite information.

#### ○ Implementation of Marine Research

- Conduct surveys for preparing basic information requisite to comprehensive management of the sea.

### 4. Sound Development of Ocean Industries

#### ○ Promotion of Ocean Industries and Strengthening International Competitiveness

- Create new ocean industries.
- Strategically foster internationally competitive industries relating to marine resources development, including LNG-FPSO (Floating Production, Storage and Off-loading system).
- Steadily implement fisheries measures in accordance with the Basic Fisheries Plan.
- Reinforce the management base for the shipping and shipbuilding industries and for fisheries.
- Speed up technological development for ships with high environmental performance.

#### ○ Securing Maritime Transport

- Achieve and maintain a stable maritime transport system by means of taxation and other measures.
- Provide support for operators in addressing the aging of seafarers.
- Construct maritime transport bases serving large ships.

### 5. Comprehensive Management of the Sea

#### ○ Promotion of Development in Exclusive Economic Zones (EEZs), etc

- Construct bases for activities on remote islands, specifically the remote islands of Minami-Tori Shima Island and Okino-Tori Shima Island.
- Formulate a policy and develop a comprehensive legal system for management of EEZs and their equivalent.

#### ○ Preservation of Remote Islands

- Preserve and develop remote islands.
- Study management of remote islands near national borders and special measures for them.

#### ○ Comprehensive Management of Coastal Zones

- Implement comprehensive management of coastal zones.
- Establish rules for coordination in sea surface utilization.
- Implement coastal zone management integrated with that of land areas.

### 6. International Partnership with Regard to the Oceans

- Contribute to the formation and development of the order of the sea by, *inter alia*, taking active part in the process of development of international standards within the fora such as International Maritime Organization.
- Pursue international coordination with regard to the ocean such as the counter piracy.
- Implement international cooperation with regard to the ocean.

### 7. Improvement of Marine-Related Education and Heightening Understanding of the Oceans

- Fostering human resources by utilizing regional characteristics through local networks for industry-academia-government collaborations.
- Fostering human resources with specialized knowledge in particular fields and those who have wide-ranging knowledge.
- Transmission of information via events and the media.

## Chapter 3: Requirements for Implementation of Ocean Measures

### 1. Revision of Headquarters for Ocean Policy for Effective Implementation of Measures

- (i) Formulation of timetables for individual measures and organized implementation of the measures
- (ii) Formulation and implementation of comprehensive strategies
- (iii) Development of required legal systems
- (iv) Effective implementation of measures according to assessment of implementation status

#### ○ Improvement of System for Study at Councilors' Meeting

- Implement follow-ups and assessment of measures.
- Intensively study significant measures in consideration of changes in circumstances.
- Include many different parties concerned other than the councilors in intensive studies and evaluation of separate subjects.

#### ○ Functional Improvement of Administrative Office

- Implement overall coordination in specific significant issues on the initiative of the personnel dispatched from the private sector and related institutions.

### 2. Duties of Relevant Personnel and Mutual Coordination

### 3. Proactive Publication of Information concerning Measures

# Principal Actions Under the Basic Plan on Ocean Policy

## Development of Marine Energy and Mineral Resources

### Basic Understanding

- Move to the phase of intensified research and development for commercialization while continuing explorations and researches.
- Successively implement technological development and broad-based scientific research and resource exploration to identify the resource potential of marine zones surrounding Japan.
- Implement intensive development of lifting, mining and other technologies for mineral production.



### Oil and Natural Gas

- Quickly conduct flexibly primary geophysical exploration (6,000 km<sup>2</sup> per year) and exploratory drilling in marine zones around Japan.
- Transfer the results of the exploratory drilling conducted in FY2013 in an area off Sado in Niigata Prefecture to the private sector to encourage exploration efforts.



### Methane Hydrate

- Build technologies toward achieving commercialization targeting at around FY2018.
- Implement technological development in efforts to start a project led by a private company for commercialization in 2023-2027, taking international circumstances into account.
- Conduct a broad-based distribution exploration concerning shallow methane hydrate that was discovered mainly on the Sea of Japan side.



### Polymetallic Sulphides

- Promote assessment of the amount of reserves of known mineral deposits, promote discovery of new mineral deposits and comprehension of the approximate amount of reserves, development of equipment technologies and environmental impact assessment methods related to mining and lifting, including actual offshore tests, expecting projects to be initiated aiming at commercialization with the participation of private companies in or after FY2023-2027. Push ahead with these actions in collaboration between the governmental and private sectors for making their results beneficial to private companies.



### Cobalt-rich Crusts, Polymetallic Nodules and Rare Earth

- For cobalt-rich crusts and polymetallic nodules, implement surveys on their amounts and research on production-related technologies in accordance with the regulations on exploration issued by the International Seabed Authority (ISA). Especially for cobalt-rich crusts, draw up a specific development plan in consideration of the results of efforts concerning polymetallic sulphides.
- For rare earth, implement basic scientific surveys and studies for examining future potential as resources. Among other efforts, in about three years starting in FY2013 conduct a survey on an estimated amount and abundance of rare earth reported to exist under the seabed.

### Construction of Common Platform and Research and Development

- Revise the Plan for Development of Marine Energy and Mineral Resources in view of the past implementation status.
- Speed up the development and construction of a wide area research vessel, AUV, ROV, wide area exploration systems using leading-edge sensor technologies, and new methods of exploration.
- Construct activity bases with transport and supply functions on remote islands of Minami-Tori Shima Island and Okino-Tori Shima Island.



## Facilitation of Use of Marine Renewable Energy

### Offshore Wind

- Implement demonstration projects of the bottom-fixed offshore wind turbine in areas off Choshi and Kitakyushu.
- Implement demonstration project of the floating offshore wind turbine in an area off Nagasaki Prefecture.
- Implement a demonstration projects to build a floating offshore wind farm off Fukushima Prefecture.
- Formulate safety guidelines for floating offshore wind turbine by FY2013 and lead the formulation of international standards.



### Marine Renewable Energy (e.g., wave, tidal, ocean currents, ocean thermal)

- Develop actual systems that meet the target of 40 yen/kWh and elemental technologies for continuously lowering the power generation cost.
- Conduct a technical study to ensure safety of floating systems and marine floating facilities.
- Consider measures for smooth introduction and advanced utilization of ports in a manner compatible with their original purposes and functions.



### Promotion of Practical Application and Commercialization

- Achieve co-existence and co-prosperity with other users of the marine zone and implement coordination in accordance with regional circumstances.
- Clarifying the rules on use of marine zones, including examination of the required legal system.
- Implement leading projects in port areas, fishing port areas, coastal protection areas and other marine areas with their administrators already clarified to the extent to which they do not hinder their original purposes and functions.
- Clearly define regulations that ensure safety of marine structures and power generators and take the initiative in international standardization based on Japan's technologies.
- Study the approach of building working ships and infrastructure for safe and efficient installation and maintenance operations.

### Technological Development and Research and Development

- Construct demonstration fields for experiments and study a mechanism for third-party evaluation.
- Speed up technological development and demonstration for commercialization and for boosting introduction of offshore wind turbine.
- Push ahead with improvement of basic information and other infrastructure development.
- Implement basic research and development of innovative power generation systems with high efficiency, high reliability and low-cost features.

### Construction of Infrastructure and Environment for Increased Use of Marine Renewable Energy

- Implement comprehensive studies on measures to strategically increase the use of marine renewable energy while maintaining consistency with the overall direction of the energy policy, including studies on target-setting.
- Study and determine the rate of feed-in tariff (FIT), considering burdens on the general public at the stage where commercialization is certain and where it is possible to review the cost.

# Principal Actions Under the Basic Plan on Ocean Policy

## Promotion of Marine Industries and Increased International Competitiveness

### Bolstering Shipping and Shipbuilding Industries and Fisheries

#### Increase International Competitiveness of the Japanese Shipbuilding Industry

- Push ahead with technological development of ships with high environmental performance to increase capacity to obtain orders.
- Step into new markets and industries and facilitate industry reorganization.

#### Increased International Competitiveness of Japanese Merchant Fleets

- Encourage the international shipping industry to strategically respond to changes in global circumstances.
- Encourage continuous efforts to equalize international competitive conditions.

#### Stimulation of the Coastal Shipping

- Stimulate the coastal shipping by building new ships to replace aging ships and by facilitating grouping through ship management companies.

#### Development of the Fisheries Industry

- Supply fishery products that respond to consumers' interests and promote food education to increase consumption.
- Exert multiple functions of the fisheries industry and fishing villages other than supply of fishery products.

### Creation of New Marine Industries

#### Fostering of Industries Related to Marine Resources Development

- Strategically foster internationally competitive industries related to ocean resources development, by implementing studies toward the realization of the LNG-FPSO (Floating Production, Storage and Off-loading system) and logistics hub system, which will be necessary for efficient transport of workers and materials to production facilities on the sea.



#### Commercialization of Marine Energy and Mineral Resource Development

- For methane hydrate, implement technology improvement in FY2018 toward achieving commercialization.
- For polymetallic sulphides, conduct continuous efforts in technological development including experiments in real marine zones and consideration toward commercialization joined by private companies owning technologies helpful to solving technological issues.

#### Commercialization of Marine Renewable Energy Development

- Strive to attain swift commercialization and spread of use of offshore wind turbine, and commercialization of power generation using marine energy by establishment and verification of elemental technologies.

#### Creation of Marine Information Industries

- Study what marine information should be provided and how it should be offered to create an environment necessary for creation of marine information industries.
- Consider creating a structure that allows many different private companies to participate in marine surveys and supporting overseas expansion.

#### Formulation of Comprehensive Strategies

- Deliberate on establishment of comprehensive strategies including support measures in accordance with the state of industry, development of an environmental for creation business, boosting of international competitiveness and human resource development measures, in efforts to encourage creation of new marine businesses engaging in marine development, utilization and preservation, in a collaboration between the industrial, academic and government sectors.

## Use of Marine Resources

### Proper Management of Marine Resources

- Implement marine resource management on a nationwide scale by assured implementation of resource management plans by fishermen themselves in accordance with resource management guidelines instituted by the national and prefectural governments.
- Press further ahead with marine resource management by strengthening partnerships and cooperation with neighboring countries and regions sharing the resources.

### Increase in Productivity of Fishing Grounds

- Encourage fisheries villages to take actions based on the use of their abundant local resources to stimulate their efforts and increase their attraction.

### Improvement in Fishery Management Structure

- Take comprehensive management stabilization measures for fishermen who engage in systematic resource management in order to ensure stable supply of fishery products to people.

## Securing of Maritime Transport

### Securing of Stable International and Domestic Shipping Transport System

- For increasing international competitiveness of Japanese merchant fleets and ensuring stable marine transport, introduce a tonnage tax system and swiftly secure 450 ships for marine transport, consisting of Japanese-flagged vessels and deemed-Japanese-flagged vessels.
- Make negotiation efforts to achieve commitments to a high level of liberalization in the maritime transport service sector at the World Trade Organization (WTO) or in economic partnership agreements (EPAs).
- Stimulate the coastal shipping by building new ships to replace aging ships and by grouping through ship management companies.

### Securing and Raising Seafarers

- Provide support for domestic shipping operators that systematically secure and raise new seafarers in order to address the shortage of seafarers for domestic shipping following progress in the aging of seafarers.
- Introduce practical training using company-owned ships operated by marine transport operators as well as training ships for domestic shipping in order to further improve quality of seafarers education.

## Construction of Maritime Transport Bases

### Construction of Logistical Infrastructure that Supports Economy, Industries and Life

- Construct container terminals and push ahead with freight concentration and privatization of port operations to upgrade the hub functions of strategic ports for international container ships, namely Hanshin Port and Keihin Port.
- Establish major ports for large vessels and promote cooperation among companies for stable and low-cost imports of resources, energy and other materials in efforts to develop an efficient nationwide marine transport network.



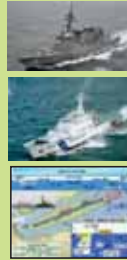


# Principal Actions Under the Basic Plan on Ocean Policy

## Securing Safety and Security of the Sea

### Achieving and Retaining Security of the Sea

- Strengthen the broad-based, all-time monitoring system and the system for response to remote and serious incidents in marine areas around Japan.
- Procure patrol boats, SDV's Vessels, aircraft, etc. systematically, as well as human resources, and improve coordination between the Japan Self-Defense Forces and the Japan Coast Guard.
- Construct a coordination system for ensuring security and safety of coastal zones and remote islands.
- Continue to implement activity to deal with pirates in the Gulf of Aden off the coast of Somalia and step up special measures including authorization to implement patrol with rifles for Japanese-flagged vessels.



## Conservation of Marine Environment, etc.

### Efforts for Conserving Biodiversity

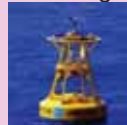
- By FY2013 identify marine zones that are ecologically and biologically important.
- Properly establish marine protected areas and improve management for them.

### Efforts for Reducing Environmental Burden

- Implement measures for cutting pollutant load under the total pollutant burden control system for enclosed coastal seas in broad areas.
- Implement efforts to massively cut CO<sub>2</sub> emissions from marine transport.
- Study scientific characteristics of the ecosystem, seawater and bottom material with regard to sub-seabed CO<sub>2</sub> capture and storage.

### Researches for Projection of and Adaptation to Global Warming and Climate Change

- Contribute to formulation of an international observation plan for addressing global environmental issues.
- Conduct research on ocean circulation, heat transport, ocean acidification and impacts on marine ecosystems.



## Efforts Concerning the Arctic Ocean

### Observation of and Research on the Arctic Region

- Step up observation and research efforts amid growing worldwide interest in the use of Northern Sea Route following recent melting of sea ice in the ocean as a result of global warming.

### Study and International Coordination on Northern Sea Route

- Pursue consultations with relevant countries over the possible use of Northern Sea Route.
- Work in operation with marine transport operators, shippers and other parties to study viability of Northern Sea Route and their technical, economic and other challenges.
- Make concerted efforts within the government in order to obtain the approval for Japan's observer status in the Arctic Council.

Northern Sea Route



Southern Sea Route

## Improvement of Scientific Knowledge of the Oceans

### Promotion of Research and Development of Marine Science and Technology

- In consideration of the Science and Technology Basic Plan and deliberations of the Subdivision on Ocean Development of the Council for Science and Technology, the government should intensively promote research and development for the five policy needs: (i) prediction of and adaptation to global warming and climate change, (ii) development of marine energy and mineral resources, (iii) preservation of marine ecosystems and sustainable use of living resources, (iv) development of marine renewable energy and (v) response to natural disasters.

### Promotion of Basic Research and Research and Development that should be carried out from Medium- and Long-term Perspectives

- To comprehensively understand and analyze the sea, the Earth and other related fields, and build scientific technological infrastructure to develop new intellectual frontiers, promote research and development mainly on observations, surveys and research and analysis.



### Improving and Strengthening Common Infrastructure of Marine Science and Technology

- The government should also promote basic research related to the sea, research and development related to the basis of the nation's existence that should be carried out from medium- and long-term perspectives and world-leading fundamental technologies, such as those necessary for comprehensively understanding the vast marine space.

### Promotion of Initiatives that Use Outer Space

- Increased use of satellite information should be considered in light of the future development of satellite infrastructure in Japan and overseas, through coordination with space policy.

## Preservation of Remote Islands

### Efforts with Regard to Remote Islands Important to Japan's Security and Maintenance of the Order of the Sea

- Preserve the low-water lines that give grounds for exclusive economic zones (EEZs), etc. around remote islands and assign names to remote islands as a basis for territorial seas.
- Step up actions to gather information on key remote islands and their surrounding marine zones and implement tighter monitoring and vigilance to construct a structure for ensuring safety in insular regions and their surrounding marine zones.
- Consider taking special measures on preservation, management and development of so-called border remote islands, or remote islands of particular importance, in ensuring Japan's safety, including preservation of its territories and EEZs, and in securing and utilizing marine resources, and implement necessary measures in accordance with the results of the consideration.



### Development of Remote Islands

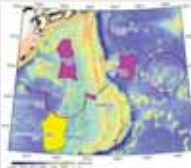
- Provide support for continual maintenance of sea and air routes and advance construction of remote island terminals for providing safe and stable transport.
- Secure a necessary number of physicians and other medical professionals, implement regular traveling medical care and create a system of cooperation among medical institutions.
- Implement an overall study on the special zone system for remote islands in efforts for development based on local innovative ideas.

# Principal Actions Under the Basic Plan on Ocean Policy

## Management of Exclusive Economic Zones and Continental Shelves

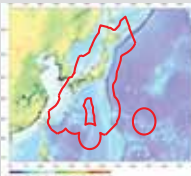
### Establishment of Japan's Continental Shelves

- Based on the content of the recommendations of the Commission on the Limits of the Continental Shelf in regard to Japan's submission of information on the extension of its continental shelf, Japan should appropriately promote measures for establishing the limits of its continental shelf, including by continuing to strive to the end that the Commission will make recommendations as soon as possible on the region for which the issuance of the recommendation was deterred.



### Maritime Zones to Which Other Countries Also Stake Claims

- Problems being arising concerning some areas of Japan's EEZ and continental shelves to which other countries also stake claims, seek solutions in accordance with international law in addressing these problems to bring fundamental resolution to them, in order to ensure Japan's rights and interests in these maritime zones.



### Construction of Infrastructure and Environment that Facilitate Use of EEZs

- Institute a policy on proper management of marine zones including the objective and measures of the management, implementation structure and schedule in light of the actual state and future outlook of marine zone development so that the Headquarters for Ocean Policy will establish a comprehensive legal system on marine zone management in accordance with the policy.

## Comprehensive Management of the Coastal Zones

### Implementation of Comprehensive Management of Coastal Zones

- Implement efforts on integrated overall management of land areas and marine areas in accordance with their respective local peculiarities and provide support for regions working to develop their own plans to ensure safety of coastal areas, use them in different ways, produce a good environment and create attractive and autonomous regions.

### Implementation of Coastal Zone Management Integrated with that of Land Areas

- Implement consistent overall sediment management covering all areas from mountains to coasts, reduction of pollutant burden coming from land areas, preservation of seaweed beds, tidal flats, coral reefs and actions to deal with articles drifting or washed ashore.

### Management of Coastal Zones in Enclosed Coastal Seas

- Change the basic plan in accordance with the Act on Special Measures for Environmental Conservation in the Seto Inland Sea.
- Push ahead with the Bay Renaissance Project in Tokyo Bay, Osaka Bay, Ise Bay and Hiroshima Bay.

### Coordination in Utilization in Coastal Zones

- Implement the process for establishment of sea surface utilization coordination rules in consideration of local actual status in coastal zones, improve accessibility to information on the utilization coordination rules in different regions and raise awareness among users of coastal areas.

## Disaster Prevention Countermeasures and Environmental Measures Following the Great East Japan Earthquake

### Measures to Prevent and Reduce Damage, Observation, Surveys and Research

- Push ahead with community development with multiple forms of protection for tsunami disaster prevention that combines tsunami protection facilities and other infrastructure with tsunami hazard maps and other non-facility-related action.
- Secure quake resistance of sea walls, introduce automated and remotely controllable floodgates and construction of quays with improved quake resistance.
- Construct an ocean-bottom observation network that paves the way for tsunami observation using buoy-type offshore-water-pressure gauges and for real-time earthquake and tsunami observation, as well as conduct forecast and verification through modeling.

### Environmental Measures

- Implement radiation monitoring of seawater, marine soil and marine organisms.
- Provide a forecast and information on marine drifts resulting from the Great East Japan Earthquake and offer assistance to non-governmental organizations.

## International Partnership with Regard to the Oceans

### Formation and Development of the Order of the Sea

- Contribute to the international rule-makings and consensus-building at multilateral and bilateral consultations on the ocean-related issues.
- Settle ocean-related disputes in accordance with rules of international law.
- Provide proactive support for the activities of the International Tribunal for the Law of the Sea (ITLOS) and other international judicial bodies in the ocean-related fields.

### International Cooperation with Regard to the Sea

- Take active part in international frameworks concerning the ocean in an effort to play a leading role in activities under coordination and with cooperation of the international community.
- Make vigorous use of different fora including the ASEAN Regional Forum to construct closer cooperative relations regarding safety at the sea with related countries.

## Improvement of Marine-Related Education and Heightening of Understanding of the Oceans

### Improvement of Marine-Related Education

- Improve marine-related education provided at schools for elementary and secondary education and promote coordination among outreach efforts undertaken by related agencies, universities, private companies and other entities.
- Foster human resources who will be responsible for marine industries and marine-related education from medium- and long-term perspectives, and promote human resources development that takes advantage of the characteristics of respective regions through creation of a network for industry-academia-government collaboration in each region.

### Heightening of Understanding of the Oceans

- From the standpoint of heightening citizens' understanding of the sea, the government should strive to familiarize citizens with the sea by increasing events, and promote transmission of information via mass media and exchange of information between the government and citizens.