Development of a draft common procedure for assessment of the impacts of major pressures on marine biodiversity in the NOWPAP region

1. Background

Since 2010, CEARAC has implemented activities related to marine biodiversity conservation. Based on the experience of developing a common procedure for assessment of the eutrophication status (NOWPAP Eutrophication Common Procedure), development of a new assessment method on marine biodiversity has been suggested. However, a big gap of data availability among the NOWPAP member states became an obstacle to design common indicators. Therefore, CEARAC decided to identify commonly used data among the member states and implemented pilot assessment on the impacts of eutrophication, habitat alteration and non-indigenous species on marine biodiversity in the 2014-2015 biennium (pilot assessment on the impacts of major threats to marine biodiversity in the selected sea areas in the NOWPAP region).

During the 13th CEARAC FPM (2015), the table of contents of a regional report of this activity was discussed and approved, which could be a good basis for development of a draft common procedure for assessment of the impact of pressures on marine biodiversity in the 2016-2017 biennium. However, unfortunately, a national report from Korea has submitted in the middle of March 2016, thus a regional report has not been completed.

2. Objective

Objective of this activity is to develop a draft common procedure for assessment of impacts of major pressures on marine biodiversity for the NOWPAP region (hereafter, NOWPAP Biodiversity Common Procedure).

However, it is quite difficult to develop the NOWPAP Biodiversity Common Procedure from scratch by ourselves in two years. In addition, it is necessary to discuss the objectives of the NOWPAP Biodiversity Common Procedure among involved experts as it was done when CEARAC developed the NOWPAP Eutrophication Common Procedure. Therefore, CEARAC Secretariat proposes to develop a draft NOWPAP Biodiversity Common Procedure in the 2016-2017 biennium, and to implement case studies using the draft NOWPAP Biodiversity Common Procedure later on. The final version of the NOWPAP Biodiversity Common Procedure will be developed by 2020.

In addition, evaluation of pilot assessment implemented in the 2014-2015 biennium and recommendations in the regional report are quite important for developing the NOWPAP Biodiversity Common Procedure. Therefore, CEARAC Secretariat would like to finalize the unfinished work of the last biennium: development of the regional report on the impacts of major threats on marine biodiversity in the NOWPAP region and use the outcomes of that activity for developing the NOWPAP Biodiversity Common Procedure.

3. Tasks

3-1 Collection of information on marine biodiversity conservation in each member state

When CEARAC developed the NOWPAP Eutrophication Common Procedure, experts of Working Group 3 (HAB) and Working Group 4(RS) discussed the basic concept of the NOWPAP Eutrophication Common Procedure for several years. In the same manner, it is expected to discuss the basic concept of the NOWPAP Biodiversity Common Procedure by involved experts. Then, as reference materials for the discussion of the basic concept, information on national strategies, basic policies, performance targets, goals, challenges and future actions on conservation of marine biodiversity will be collected in each member state. CEARAC FPs or nominated national experts by CEARAC FPs will collect such information and submit reports to CEARAC by the end of 2016. For reference, the collected information in Japan is attached as Annex.

3-2 Development of a draft NOWPAP Biodiversity Common Procedure

CEARAC Secretariat will prepare a draft NOWPAP Biodiversity Common Procedure based on the results of the pilot assessment in the 2014-2015 biennium. As explained in Objective of this project, a regional report has not been published yet. Thus, CEARAC Secretariat will prepare a regional report and a draft NOWPAP Biodiversity Common Procedure in parallel. The regional report will be reviewed in summer 2016 by CEARAC FPs and experts, and will be published after that. Then, CEARAC Secretariat will start developing a draft NOWPAP Biodiversity Common Procedure based on the regional report.

Basically, the NOWPAP Biodiversity Common Procedure focuses on three pressures, namely eutrophication, non-indigenous species and habitat alteration. However, if other pressures are identified as important to assess in the NOWPAP region, they may be added in the newly developed draft NOWPAP Biodiversity Common Procedure.

(1) Selection of common indicators

Common indicators to assess the pressures of eutrophication, non-indigenous species and habitat alteration on marine biodiversity will be selected using the data inventory on available data in each member state, which was developed in the pilot assessment in the 2014-2015 biennium.

It is preferable that common indicators are available in all member states. However, even if the data of any indicator is not available in some member states but recognized as important to assess the pressures, that indicator will be included in the common assessment indicators.

In addition, indicators which are used by other international organizations/projects will be included, if necessary. For example, PICES Working Group 28 (Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors) is selecting ecosystem indicators to understand the impact on marine ecosystem. Working Group 32 (Biodiversity of Biogenic Habitats) was established in 2015 and they will select potential indicators on assessment/monitoring of biodiversity and

biogenic habitat in the near future. UN published a report of World Ocean Assessment on marine ecosystem services, food security and food safety, human activities and the marine environment and marine biodiversity and habitats. Indicators used by these international programs may be useful for the NOWPAP Biodiversity Common Procedure.

(2) Publication of a regional report on pilot assessment of impacts of major threats on marine biodiversity

CEARAC Secretariat will prepare a regional report. The regional report will be reviewed by CEARAC FPs and expert in summer 2016 and published after their review. The contents of the regional report, evaluation of pilot assessment and recommendation will be used for a draft NOWPAP Biodiversity Common Procedure.

(3) Development of a draft NOWPAP Biodiversity Common Procedure

CEARAC Secretariat will prepare a draft NOWPAP Biodiversity Common Procedure. The procedure is expected to be as simple as possible in order to be used in all of the member states. The first draft will be reviewed at the expert meeting to be held in second quarter of 2017. Based on the discussion at the expert meeting, the second draft will be prepared for review by CEARAC FPs.

In addition to this CEARAC activity, IPBES plans to implement regional/sub-regional assessments in 2016. The information on regional/sub-regional assessments is useful for this new draft common procedure and for avoiding duplication of works. Therefore, CEARAC Secretariat will closely contact with IPBES and collaborate with their regional/sub-regional assessments if possible.

3-3 Organization of expert meeting

In order to review the basic concept based on collected information on marine biodiversity conservation in each member state and the first draft NOWPAP Biodiversity Common Procedure, an expert meeting will be held in the second quarter of 2017 with contracted experts of the NOWPAP member states and representatives of RACs and RCU.

4. Expected outputs

Each member state has conducted national actions for marine biodiversity conservation in order to achieve the Aichi Targets. A new NOWPAP Biodiversity Common Procedure aims not only to conserve marine biodiversity in the NOWPAP region but also to contribute to the national actions of the member states.

In addition, various kinds of activities are implemented in global and regional levels. CEARAC Secretariat expects that this project and its output will contribute to the activities by other international and regional organizations.

5. Potential partners

NOWPAP RACs, PICES, UN, IPBES, CBD etc.

6. Budget

Task	Budget (US$)
Development of a draft NOWPAP Biodiversity Common Procedure	8,000
Collection of information on marine biodiversity conservation in each member state	China 3,000
	Korea 3,000
	Russia 3,000
Organization of an expert meeting	13,000
Total	30,000

* Budget for preparing and publishing a regional report has already been allocated in the 2014-2015 biennium, and there is no extra budget is planned for this task.

7. Schedule

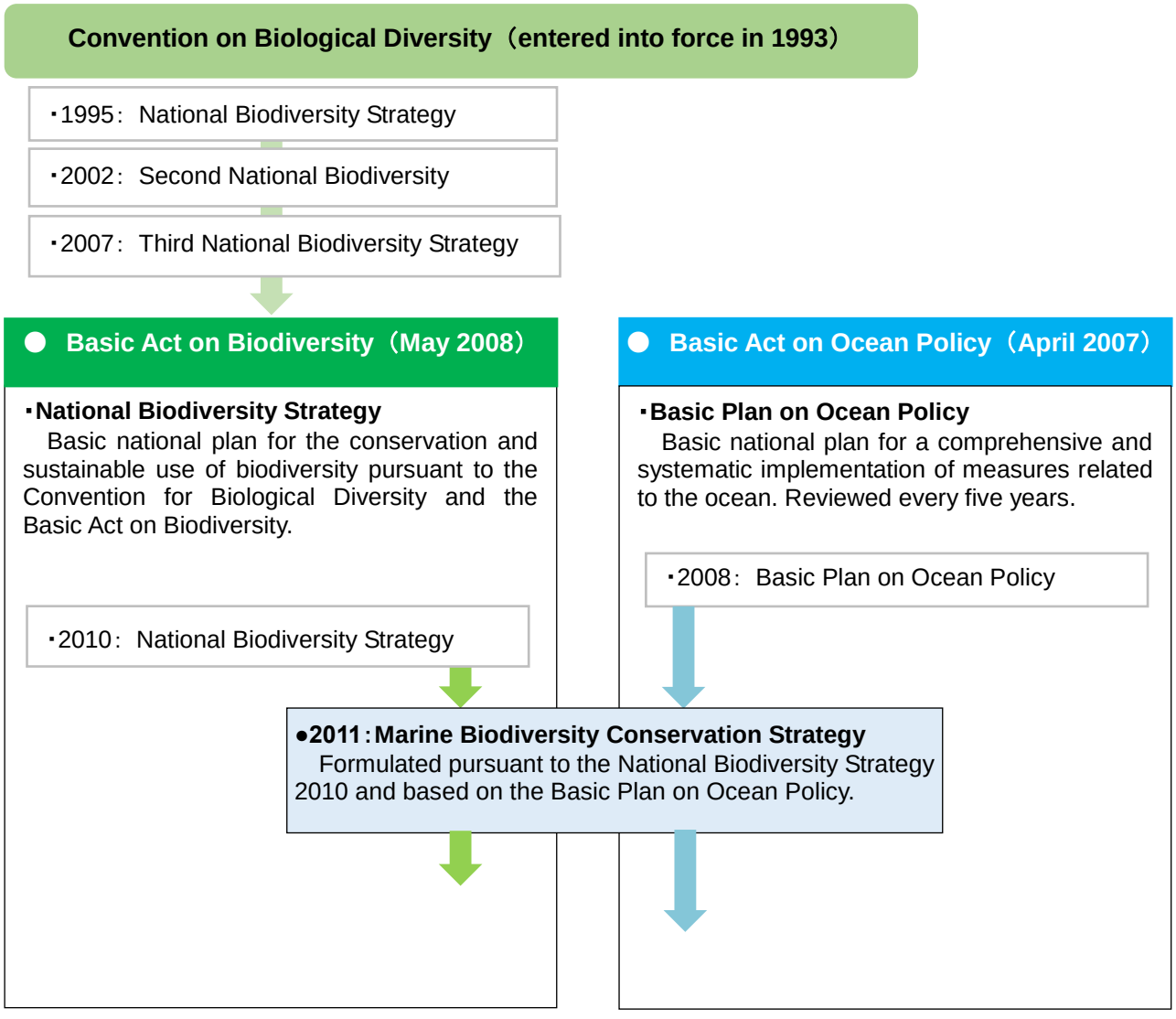
Time		Actions	Main Body
2015	October	20th NOWPAP IGM - Approval of Program of Works and budget for the 2016-2017 biennium	NOWPAP National FPs
2016	April	14th CEARAC FPM - Review and approval of workplan	CEARAC FPs, CEARAC Secretariat, RCU and RACs
	Q2	Contract with expert for collecting information on marine biodiversity conservation	Experts and CEARAC Secretariat
	Q1-Q3	Preparing a regional report on pilot assessment	CEARAC Secretariat
	Summer	Review of regional report	CEARAC FPs and expert
	Q3- Q2 2017	Preparing a first draft of common procedure	CEARAC Secretariat
2017	Q2	Expert meeting -Review of first draft of common procedure -Discussion of basic concept	Experts and CEARAC Secretariat
	Q2-Q3	Preparing a second draft of common procedure	CEARAC Secretariat
	Q3	15th CEARAC FPM -Review of the second draft common procedure	CEARAC FP CEARAC Secretariat
	Q3 to Q4	Preparing a draft common procedure	CEARAC Secretariat

2018_ 2019		Case study using the draft common procedure	
2020		Finalization of the common procedure	

Annex

Report on the Laws and Policies related to Biodiversity and Marine Biodiversity Conservation in Japan

Japan has established a number of laws and policies related to biodiversity conservation. The most prominent among them are the Basic Act on Biodiversity, the National Biodiversity Strategy 2012-2020, and the Marine Biodiversity Conservation Strategy. This report outlines the current status of marine biodiversity conservation in Japan by summarizing the purposes, goals/targets, and measures needed to successfully implement Japan's national policies related to marine biodiversity conservation. For plans that have been revised multiple times, the latest information as of January 2016 is shown below.



●2012：National Biodiversity Strategy

●2013： Basic Plan on Ocean Policy

Figure Laws and policies related to Biodiversity and Oceans in Japan

※● ：Laws and policies summarized in this report

Basic Act on Ocean Policy	
Enactment	April 2007
Purpose of enactment	To stipulate basic principles with regard to the oceans, formulate a basic plan for the oceans, and prescribe basic matters for the measures to be taken. To promote measures with regard to the oceans comprehensively and systematically by establishing a Headquarters for Ocean Policy, and to thereby realize the sound development of the socio-economy of the country and improve the stability of the citizens' welfare. In addition, to contribute to the coexistence of the oceans and humankind.
Future goals	None
Basic principles	1. Harmonizing the development and use of the oceans with conservation of the marine environment 2. Securing safety and security on the oceans 3. Improving scientific knowledge about the oceans 4. Developing sound marine industries 5. Comprehensive governance of the oceans 6. International partnership for the oceans
Measures (Measures referring to marine biodiversity are underlined.)	1. Promoting the development and use of marine resources 2. Conserving the marine environment − <u>securing biodiversity in the oceans by conserving and improving habitats</u>, reducing the pollution load caused by water flow into the oceans, preventing the discharge of waste to the oceans, promptly preventing oil spills caused by accidents of vessels or the like, and conserving the seascape and marine environment 3. Promoting the development of the Exclusive Economic Zone 4. Securing maritime transport 5. Securing the safety and security of the oceans 6. Promoting marine surveys 7. Promoting research and development of marine science and technology 8. Promoting marine industries and strengthening international competitiveness 9. Integrated management of the coastal zone 10. Conserving remote islands 11. Securing international coordination and promotion of international cooperation 12. Enhancing the citizens' understanding of the oceans

Basic Act on Biodiversity	
Enactment	May 2008
Purpose of enactment	To promote policies for the conservation and sustainable use of biodiversity in a comprehensive and planned manner, and thereby to conserve our region's rich biodiversity and realize a society harmoniously coexisting with nature where human beings can continue enjoying the benefits of nature into the future.
Future goals	None
Basic principles	− Conserving wildlife species and diverse natural environments according to the natural and social conditions of the region − Using national land and natural resources in a sustainable manner to ensure that impacts on biodiversity are avoided or minimized The conservation and use of biodiversity shall be carried out under the following basic principles. − Precautionary and adaptive approach − Long-term perspective − Coordination with countermeasures against global warming
Measures	1. Conserving regional biodiversity 2. Conserving the diversity of wildlife species 3. Preventing damage by invasive species 4. Promoting the appropriate use of national land and natural resources 5. Promoting the rational use of biological resources such as genetic resources 6. Promoting biodiversity-friendly business activities 7. Promoting policies to prevent global warming 8. Coordinating and cooperating among diverse actors, reflecting public opinion in measures taken, and promoting voluntary activities 9. Promoting basic surveys 10. Promoting science and technology such as research and development 11. Improving public understanding through education and capacity development 12. Promoting Environmental Impact Assessment at the planning stage of projects 13. Ensuring international coordination and promoting international cooperation No specific references to oceans

Marine Biodiversity Conservation Strategy	
Enactment	March 2011
Purpose of enactment	To protect the biodiversity that supports the sound structure and functions of marine ecosystems and to use the ocean's ecosystem services (its blessings) in a sustainable manner.
Future goals	None
Basic perspectives	1. Recognizing the importance of marine biodiversity − Appropriately evaluating the importance of marine biodiversity in economic activities and social life, and realizing environmental conservation as a valuable activity 2. Integrated management of the sea − Considering the relation between sea and land for organisms and substances, and cooperation with neighboring countries 3. Measures appropriate to the characteristics of marine areas within the jurisdiction of Japan − Measures that consider the characteristics of coastal areas and open oceans 4. Effective measures to utilize local knowledge and technology − Measures that utilize local citizens, civil society, government, etc. 5. Summary of the concept of Marine Protected Areas (MPAs) − Marine protected areas are defined as "Marine areas designated and managed by law or other effective means, in consideration of the use modalities, aimed at the conservation of marine biodiversity that supports the sound structure and function of marine ecosystems and ensuring the sustainable use of marine ecosystem services." − Continuous review to develop appropriate measures or systems after considering the utilization of existing policies
Measures	(1) Improving baseline information − Improving scientific information and knowledge − Identifying marine areas of particular importance for conserving biodiversity (2) Identifying factors influencing marine biodiversity and implementing measures to reduce them − Balanced development and conservation of the sea − Reduced pollution from land-based sources, marine use, and disposal at sea − Appropriate management of fishery resources − Eradication and control of invasive species that disturb ecosystems − Countermeasures and adaptation against climate change

Marine Biodiversity Conservation Strategy - 2	
Measures	(3) Implementing measures in consideration of the characteristics of marine areas − Coastal area: integrated conservation of the watershed, creation of rules for use, integrated management of pollution in enclosed waters − Open ocean: appropriate management and environmental consideration through cooperation with other countries and international organizations (4) Improving Marine Protected Areas and enhancing their networks − Further establishing appropriate MPAs based on the existing framework and improved management − Considering an effective network system for MPAs (5) Facilitating public acceptance and the involvement of various actors − Public campaigns on marine biodiversity to citizens − Increasing awareness about conservation and the sustainable use of marine biodiversity

National Biodiversity Strategy 2012-2020 -1	
Enactment	September 2012
Purpose of enactment	To present a national roadmap toward the achievement of the Aichi Biodiversity Targets and show the direction needed to realize a planet in harmony with nature. Also, to act as a model for the formulation of the Regional Biodiversity Strategies.
Overall goals of the strategy	Long-term targets (2050) Increase Japan's biodiversity from its current levels through the maintenance, recovery, and sustainable use of biodiversity, and realize a society in harmony with nature where ecosystem services can be continuously enjoyed. Short-term targets (2020) Prevent further biodiversity loss by taking effective and urgent action towards the achievement of the national targets for the Aichi Biodiversity Targets,
Measures (only the measures and targets related to the coast and ocean)	1. Comprehensively conserving coastal and marine biodiversity (1) Conserving marine biodiversity based on scientific knowledge - Improving information on rare marine species and continuously monitoring and surveying shallow-area ecosystem biota such as seagrass beds, tidal flats, and coral reefs - Identifying important marine areas from the perspective of biodiversity, such as important areas for wildlife habitats and reproduction - Analyzing threats imperiling important marine areas for biodiversity conservation and considering the countermeasures needed - Organizing scientific data on important marine ecosystems and marine wildlife Target: Identify important marine areas (by FY 2013) Target: Analyze threats to important marine areas and consider countermeasures (by FY 2015) (2) Protection areas for the conservation of marine biodiversity - Promoting the establishment of Marine Protected Areas towards the conservation of marine biodiversity and sustainable use of ecosystem services under the national guidelines for MPA establishment; improving management

National Biodiversity Strategy 2012-2020 -2	
Measures (only the measures and targets related to the coast and ocean)	(2) Protection areas for the conservation of marine biodiversity (cont'd) - Consensus building of stakeholders such as fishermen towards the maintenance of fishery resources, based on adaptive management and the legal regulation/voluntary regulation of fishermen. - Designating and rearranging national/quasi-national parks in the ocean, designating marine park areas, designating regulated species in the marine park areas if needed - Conserving and regenerating marine ecosystems in national parks - Organizing nature-observation events in the coastal areas of national parks - Reorganizing and designating national wildlife refuges - Disseminating Japanese-type Marine Protected Areas due to autonomous cooperative management by fishermen Target: Protect 10% of the marine areas within the jurisdiction of Japan (by 2020) （3）Conserving and restoring seagrass beds, tidal flats, etc. - Improving information on seagrass beds/tidal flats using survey results of monitoring site 1000 - Promoting the conservation and creation of seagrass beds/tidal flats - Restoring seagrass beds/tidal flats affected by dredged sediment during port construction, backfilling after deep drilling - Reducing water pollution from the community drainage system on land - Strengthening the system for monitoring red tides and anoxic water masses - Removing sediments from fisheries etc. Target: Conserve and create seagrass beds/tidal beds: 5,500 ha (between FY 2012-2016) Target: Percentage of tidal flat restoration: about 40% (FY 2016) Target: Population with wastewater treatment in agricultural communities: 76% (FY 2016) Target: Remove sediment from fisheries: 230,000 ha (between FY 2012-2016)

National Biodiversity Strategy 2012-2020 -3	
Measures (measures and targets related to the coast and ocean)	(4) Conserving and restoring coral reefs - Implementing the Action Plan for Conserving Coral Reef Ecosystems, an initiative created to promote conservation/restoration and sustainable use of coral reef ecosystems as well as to ensure sustainable development of local communities - Improving information on coral reefs using survey results of monitoring site 1000 - Supporting activities/research on improving coral reef recovery and engaging in ocean acidification research - Creating guidelines for methods to breed/propagate coral reefs, targeting the Okinotori Islands etc. (5) Conserving island ecosystems - Conserving habitats on remote islands recognized as breeding grounds for seabirds - Considering and implementing measures to prevent the effects of invasive species in unique ecosystems such as the Ogasawara Islands and Nansei Islands - Analyzing and evaluating the value of Amami and Ryukyu Island area (only the islands south of the Tokara Islands) as a World Natural Heritage site, and increasing protected areas etc. (6) Conserving and managing marine organisms - Collecting information on marine ecosystems from various surveys on the living conditions of organisms such as sea turtles, seabirds, and marine mammals - Considering the protection and sustainable use of rare marine wildlife - Reducing by-catches such as sharks, seabirds, and sea turtles by developing and improving appropriate technologies to avoid by-catches - Promoting measures to prevent fishery damage by northern sea-lions etc.

National Biodiversity Strategy 2012-2020 -4	
Measures (measures and targets related to the coast and ocean)	2. Fisheries in *satoumi*[1] and oceans （1）Promoting the conservation of important seagrass beds/tidal flats as fishery environments - Promoting the conservation and creation of seagrass beds/tidal flats (repeated from above) - Reducing water pollution from community drainage systems on land (repeated from above) - Strengthening the system for monitoring red tides and anoxic water masses (repeated from above) - Removing sediments in fisheries such as waste and driftwood (repeated from above) etc. Target: Conserve and create seagrass beds/tidal beds: 5,500 ha (between FY 2012-2016, repeated from above) Target: Population with wastewater treatment in agricultural communities: 76% (FY 2016, repeated from above) Target: Remove sediment from fisheries: 230,000 ha (between FY 2012-2016, repeated from above) （2）Promoting fishing ports and grounds deemed to have high biodiversity awareness - Promoting fishing ports and grounds that consider the natural environmental factors such as biodiversity; creating high-quality habitats appropriate to the life cycles of aquatic organisms - Measures to protect the water quality of areas surrounding fishing ports Target: Remove sediment from fisheries: 230,000 ha (between FY 2012-2016, repeated from above) Target: Develop artificial fish reefs and mariculture/aquaculture farms: 60,000 ha (between FY 2012-2016) Target: Percentage of fishing village populations covered by fishery settlement wastewater treatment facilities: 65% (FY 2016)

[1] A coastal area where biological productivity and biodiversity has increased through human interaction (Sato-umi Net, Ministry of the Environment Japan)

National Biodiversity Strategy 2012-2020 -5	
Measures (measures and targets related to the coast and ocean)	(3) Promoting the conservation and utilization of fishing village environments by tapping into local resources - Promoting fishing village development through the use of attractive local resources, including the rich local biodiversity - Deepening understanding and interests of the nation on the fisheries industry and fishing villages by promoting exchange and relocation between cities and fishing villages; developing facilities, etc. needed to revitalize fishing villages (4) Promoting measures to conserve and manage marine resources with due consideration of biodiversity - Evaluate and assess the trends in marine resources - Ecosystem-friendly fishery management such as fishing prohibition periods and Protected Waters, measures to avoid by-catches such as the use of tori-poles (bird-scaring lines on poles) and circle hooks - Maintaining and increasing the number of bilateral and/or multilateral fishing treaties that aim to ensure Japanese fishing vessel operations and the sustainable use of marine resources Target: Multilateral fishing treaties: more than 47 (maintain/increase every FY) etc. (5) Continued promotion of resource management under the resource management guidelines and management plans - Developing a framework to implement resource management guidelines and management plans in cooperation with fishermen, research institutes, and government; increasing the participation of fishermen in resource management based on resource management plans - Promoting the Marine Eco-Label, a designation verifying that fishery products are caught using methods deemed to duly consider ecosystems and resource sustainability

National Biodiversity Strategy 2012-2020 -6	
Measures (measures and targets related to the coast and ocean)	（6）Biodiversity-friendly breeding and sustainable aquaculture production - Considering the impacts on genetic diversity and effects on each type of stock regarding the production and release of eggs/fry - Promoting the formulation of Aquaculture Improvement Plans in order to achieve sustainable aquaculture production Target: Percentage of products produced in areas subject to the Aquaculture Improvement Plans out of total ocean aquaculture production: 90% (by 2022) etc. （7）Promoting biodiversity conservation while considering the protection/management of rare species - Considering the protection and sustainable use of rare marine wildlife (repeated from above) - Reducing by-catches such as sharks, seabirds, and sea turtles by developing and improving appropriate technologies to avoid by-catches (repeated from above) （8）Promoting measures to prevent fishery damage by wildlife - More effective measures for removing invasive fish species, and protecting/managing the Great Cormorant - Promoting measures to prevent fishery damage by northern sea-lions (repeated from above) - Assessing useful fishery resource predation by large organisms such as whales, and promoting efforts to mitigate impacts 3. Coastal environments - Promoting the “development of seacoasts in harmony with nature” with a view to conserving and restoring coastal environments based on local characteristics of the beaches - Conducting measures to control coastal erosion, such as beach nourishment and the construction of submerged breakwaters and artificial reefs - Restoring sandy beaches by the sand bypass system - Considering the establishment of protected areas such as National and Quasi-National Parks in beaches that accommodate sea turtle spawning grounds and highly natural beach plant communities; designating areas where entry by vehicles and horses is controlled

National Biodiversity Strategy 2012-2020 -7	
Measures (measures and targets related to the coast and ocean)	3. Coastal environments (cont'd) - Shift to the integrated shore protection system - Improving access to beaches - Promoting measures to control marine debris that washes onshore - Collecting/organizing basic information about coasts, surveying/researching coastal erosion over extended areas; developing coastal conservation facilities that duly consider the natural environment, including ecosystems - Working to build consensus among relevant stakeholders on coastal environments that should be conserved - Monitoring tide levels and waves; identifying the effects of global warming etc. 4. Port and harbor environments - Promoting the dredging of organic sludge accumulated on the sea floor - Restoring seagrass beds/tidal flats affected by dredged sediment from port construction and backfilling after deep drilling (repeated from above) - Implementing on-site demonstration tests for the use of recycled materials to construct tidal flats - Considering methods for regional-level dredged soil quality adjustment and supply/demand adjustment - Promoting the installation of port and harbor structures that also function as habitats etc. Target: Percentage of tidal flat restoration: about 40% (FY 2016, repeated from above) 5. Measures to control marine pollution (1) Measures to control pollution caused by marine activities - Participating in the discussions of the International Maritime Organization (IMO) towards the entry into force of the International Convention for the Control and Management of Ships' Ballast Water and Sediments; considering the institutional set-up for acceptance of the convention - Updating information for mapping oil and hazardous substance spills etc.

National Biodiversity Strategy 2012-2020- 8	
Measures (measures and targets related to the coast and ocean)	(2) Measures to improve water quality in the ocean - Promoting water quality improvement measures such as the removal or sand capping of sludge and the disposal of abandoned ships Target: Areas out of the total seafloor area in Tokyo Bay, Ise Bay, and Osaka Bay that need bottom sediment improvement: about 50% (FY 2016) (3) Protecting water environments in enclosed sea areas - Promoting ideas and specific activities for developing *Satoumi*, and disseminating the *"Satoumi"* concept - Taking overall measures to reduce the water quality pollutant load and improve bottom-layer dissolved oxygen (DO) in the enclosed sea areas of Tokyo Bay, Ise Bay, and the Seto Inland Sea - Developing the "National Bay Renaissance Project" on the closed sea areas where improvement of water quality environment - Conducting surveys and research to understand issues related to the conservation/restoration of the marine environment and ecosystems of Ariake Sea and Yatsushiro Sea Target: Target reduction load COD: (Tokyo Bay 177 tons/day, Ise Bay 146 tons/day, Seto Inland Sea 472 tons/day) (FY 2014)

Basic Plan on Ocean Policy - 1	
Enactment	April 2013
Purpose of enactment	Based on the Basic Act on Ocean Policy, decide upon the most suitable measures to focus upon over the 5 years from 2013 to 2017 and the measures should be comprehensively and systematically promoted.
Future goals	none
Measures (Measures referring to marine biodiversity are underlined.)	1. Promoting the development and use of marine resources (1) Developing marine energy and mineral resources (2) Promoting marine renewable energy <u>(3) Developing and using fishery resources</u> - Improving management and establishing a Japanese-type Marine Protection Area as a method to conserve/manage resources; evaluating the rarity of aquatic resources 2. Conserving the marine environment <u>(1) Efforts to protect biodiversity</u> - Appropriately implement international agreements such as the Convention on Biological Diversity (CBD) and outcome documents of the United Nations Conference on Sustainable Development (Rio+20) - By March 2014 (FY 2013), identify sea areas that are ecologically and biologically important from the perspective of biodiversity conservation - By March 2017 (FY 2016), organize information on rare marine organisms by assessing the degree to which they are endangered - Continue to implement the ICRI East Asia Regional Strategy on MPA Networks 2010 - By 2020, appropriately conserve/manage 10% of coastal and marine zones as Marine Protected Areas - Improving the domestic and international understanding of Japanese-type Marine Protected Areas that are to be sustainable used - Designating marine park areas in National and Quasi-National Parks located in sea areas - Promoting appropriate conservation/creation of seagrass beds, tidal flats, coral reefs, etc. (2) Efforts to reduce environmental pollution 3. Promoting the development of the EEZ (1) Securing and protecting Japan’s EEZ (2) Promoting the effective use of the EEZ (3) Establishing infrastructure and an environment to promote development and other activities in the EEZ

Basic Plan on Ocean Policy - 2	
Measures (Measures referring to marine biodiversity are underlined.)	4. Securing maritime transport (1) Securing a stable marine transport system (2) Securing and training ship crews (3) Developing marine transportation bases 5. Securing the safety and security of the sea (1) Securing the public order of the sea (2) Safety measures in marine transportation (3) Measures against marine-related natural disasters 6. Promoting marine surveys (1) Promoting comprehensive marine surveys (2) Comprehensively managing and disclosing marine-related information 7. Promoting research and development of marine science and technology <u>(1) Promoting research and development on important issues the government should undertake</u> - Improving information on the biological characteristics and diversity of marine organisms that are important for the protection of ecosystems, with a view to using marine living resources more sustainably 8. Promoting marine industries and increasing international competitiveness <u>(1) Strengthening the management infrastructure</u> - Enhancing the sustainable use of marine resources by attempting to balance the protection of marine ecosystems/biodiversity with the sustainable development of fisheries (2) Creating new marine industries 9. Comprehensively Managing Coastal Zones (1) Promoting the comprehensive management of coastal zones <u>(2) Coastal zone management integrated with land areas</u> - Considering efficient and effective management methods for the nutrients of the whole river basin with a view to establishing healthy oceans with rich biodiversity, - Assisting efforts by fishermen and local communities to maintain seagrass beds, tidal flats, and coral reefs (3) Promoting coastal management in enclosed seas (4) Coordinating coastal zone uses 10. Protecting remote islands (1) Conserving/managing remote islands (2) Developing remote islands

Basic Plan on Ocean Policy – 3	
Measures (Measures referring to marine biodiversity are underlined.)	11. Securing international coordination and promoting international cooperation (1) Establishment/development of order at sea (2) International coordination for the oceans <u>(3) International cooperation for the oceans</u> - Conserving biodiversity by conducting surveys/research on the marine environment biosphere through international cooperation focused on the protection of coral reefs and animals that migrate over wide areas 12. Increasing the awareness of citizens on the ocean and promoting capacity development (1) Promoting education on the ocean (2) Securing and developing the capacity of human resources that support marine-related fields (3) Increasing the citizens' understanding of the ocean