

Current situation and issues

- Based on the government policy such as the 3rd Basic Plan on Ocean Policy (Cabinet Decision, May 2018), it is necessary that the Japan Agency for Marine-Earth Science and Technology plays a core role as a national R&D agency. To this end, further efforts will be made to address the R&D issues related to dealing with the economic and social issues.
- Especially, in order to realize “Society 5.0” in the marine field, it is important to promote research and development on aggregation, analysis, and prediction of the massive marine-earth information.
- In promoting research and development, it is necessary to establish an efficient management system as well as further promote collaboration with the relevant organizations in and outside of Japan.

Points of the next mid to long-term objectives and evaluation criteria

1. Promotion of research and development tasks to deal with economic and social issues

In order **to respond to important policy issues in Japan and international society**, such as climate change, utilization of marine resources, disaster prevention and mitigation, we will continue to **research and develop global environmental conditions** and forecast changes in marine resources. We will focus on R&D that contributes to effective use, research and development on earthquakes and volcanic activities that occur in the ocean. Also, we will promote the development of advanced basic technologies that support these research and development tasks, as well as promote the challenging and creative research and development.

2. In order to realize “Society 5.0”, it is necessary to position the research and development related to the advancement and optimization of marine-earth information.

In order to understand and clarify the mutual relationship between the intricately intertwined global environment and human economic and social activities, the **R&D for sophistication and optimization of the marine-earth information using scientific methods is newly positioned as one of the major research and development tasks.**

3. Further promotion of cooperation with related organizations in and outside of Japan

In each of the research and development tasks, **as a core institution in marine-earth science and technology the National Research and Development Agency will consistently promote research and development in collaboration with related organizations in and outside Japan and return and disseminate the acquired data to society**, such as providing and sending outcome of R&D or data obtained, promoting R&D, and observing ocean areas in cooperation with these related organizations.

4. Establishing a proper and efficient management system

Under the leadership of the Chief Director, we will **strengthen the management function of the organization and ensure thorough compliance** as well as strengthen cooperation among the fields within the organization, and **establish a research and development system that can explicitly tackle issues as a corporation.**

Summary of proposal of the next mid to long-term objectives and evaluation criteria

Proposal of mid to long-term objectives	Evaluation criteria
I Position and role of the Agency in the policy system	
II Period of mid to long-term objectives	
III Matters concerning maximization of R&D achievements, and improvement of the quality of other operations	
II 1. Promotion of fundamental R&D in marine science and technology <ul style="list-style-type: none"> (1) R&D for situational awareness of global environmental and forecast of changes (2) R&D for sustainable and effective utilization of marine resources (3) R&D on earthquakes and volcanoes in sea areas (4) R&D for the enhancing and optimizing marine geophysics information using mathematical method (5) Challenging and original R&D and development of advanced fundamental technologies 	<ul style="list-style-type: none"> ○ Whether R&D has been strategically promoted and large outcome has been obtained in terms of scientific meaning ○ Whether the obtained outcome has been submitted to the related organizations, and the organization has contributed to respond toward policy making and policy issues. ○ Whether the research and development management to maximize research and development outcome has been appropriate. ○ Whether the preparation and operation of information infrastructure have been efficiently performed, and cooperation with the related organizations inside and outside of Japan has been progressed. ○ Whether maximization of research and development outcome of the institution has been aimed by efficient operation of platform for marine survey and observation, and highly developed technology of marine survey and observation.
III 2. Formation of a core institution for marine science and technology <ul style="list-style-type: none"> (1) Promotion of social return of R&D outcomes through closer collaboration with related organizations (2) Promotion of sharing large research facilities and data, etc. 	<ul style="list-style-type: none"> ○ Whether strengthening cooperation with the related organizations inside and outside of Japan as a core institution in the marine science and technology has been promoted, and promotion of returning the outcome into society has been aimed.

Policy System Chart on National R&D Agency, Japan Agency for Marine-Earth Science and Technology

Major national policies

【Science and technology policies】

○The 5th Science and Technology Basic Plan (decided by the Cabinet in January 2016)

- Long-term continuous reinforcement of a series of science and technology in relation to response to various issues for supporting the suitable development, utilization and management of “ocean” and “space” as important frontiers for national strategy etc.

【Ocean policies】

○The 3rd Basic Plan on Ocean Policy (decided by the Cabinet in May 2018)

- Improvement of capability to MDA
- Promotion of R&D on marine survey and marine science and technology
- Promotion of Arctic policies etc

○R&D plan on marine science and technology (decided by the Subdivision on Maritime Science of the Council for Science and Technology, MEXT in January 2017; and revised in January 2019)

- Comprehensive understanding and stronger governance of polar regions and ocean
- Development and utilization of marine resources
- Disaster prevention and mitigation caused by the ocean
- Development of core technologies and creation of future industries
- Promotion of fundamental research for supporting marine science and technology etc.

Act on the Japan Agency for Marine-Earth Science and Technology, Nation R&D Agency

(Objectives of the Agency)

Article 4 (...) aims to enhance marine science and technology standards and make contribution to the development of academic research by conducting fundamental R&D on the oceans and cooperating for academic research on the oceans in a comprehensive manner based on the principles of peace and welfare.

【Agency’s approaches in the period of mid to long-term objectives】

The Agency will steadily implement measures indicated in the 3rd Basic Plan on Ocean Policy and so on, and conduct the following R&D themes:

1. R&D for situational awareness of global environment and forecast of changes
2. R&D for sustainable and effective utilization of marine resources
3. R&D on earthquakes and volcanoes in sea areas
4. R&D for enhancing and optimizing marine geophysics information using mathematical method
5. Challenging and original R&D and development of advanced fundamental technologies