Evaluation of Operating Results for Japan Agency for Marine-Earth Science and Technology in the 3rd Mid to Long-Term Objective Period

August 2018 Minister of Education, Culture, Sports, Science and Technology

Form 2-2-1 National Research and Development Agency Evaluation in mid to long-term objective period (period evaluation)/Overview of the Evaluation

1. Items related to the	evaluation								
Agency	Japan Agency for Marine-Earth Science and Technology								
Mid to long-term	Period evaluation the 3 rd mid to long-term objective period								
objectives period for	Mid to long-term objective period	FY 2014-FY2018							
evaluation									

2. Items related to the assessor			
The Competent Minister	Minister of Education, Culture, Sports, Science and Technology		
Incorporated jurisdiction	Research Promotion Bureau	Dept. and person in charge	Ocean and Earth Division, Toshihid
dept.			
Evaluation and	Science and Technology Policy Bureau	Dept. and person in charge	Planning and Evaluation Division, N
inspection dept.			

3. Items regarding implementation of the evaluation

With regard to the evaluation of business results in fiscal 2018 and 3rd mid to long-term objectives period, Japan Agency for Marine-Earth Science and Technology (hereinafter, "Sub-Committee") Council under MEXTwas held 3 times, and the procedures below were carried out.

June 25, 2019: The Sub-Committee (17th) discussed procedures of evaluation of business performance in FY2018, and heard opinions from the sub-committee members.

July 5, 2019: The Sub-Committee (18th) held a hearing with the president, and executive directors in charge about the results of self-evaluation on the prospective business performance of the Japan Agency for Marine-Earth Science and Technology (hereinafter referred to as "JAMSTEC") in FY2017 and of the 3rd mid-term objective period, and heard opinions from the sub-committee members.
 July 30, 2019; The Sub-Committee (19th) was held and MEXTreceived advice based on scientific knowledge from the sub-committee members regarding the competent minister's evaluation document (draft).

August 6, 2019: The National Research and Development Agency Council (15th) was held and MEXT received advice based on scientific knowledge from the council members regarding procedures of evaluation by the competent minister.

4. Important items and others relating to the evaluation

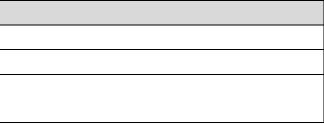
Bracketing evaluation items on business management

With regard to the evaluation of business results and so on for fiscal 2017, in view of the citation last year at a sub-committee meetings, which was, for example, bracketing similar evaluation items together and simplifying similar evaluation items (*), a decision was made to bracketing together evaluation items concerning business management (II. Item on improving business management efficiency; III. Item on improving finance; IV. Other items) in line with the mid-term objectives item.

As such, with regard to the evaluation items concerning business management, a decision was made in the corporate evaluation by the minister in charge to focus on the important items, including the state of governance and internal controls at the corporation, and the issues in business management which are difficult to ignore and specific works of management in working towards a maximization of the achievements in research and development, and review and inspect them, and perform efficient organization and business management in working towards a maximization of achievements.

(*) Extracted from a sub-committee citation item

• At present, each fiscal year, a corporate evaluation is performed for a large quantity of evaluation items in a short period of time. To perform a viable evaluation within a limited time, what is desired is the simplification and efficiency of work and enormous volume of materials on evaluation, as well as the performance of due diligence on evaluation items including the simplification of the items themselves and the bracketing of evaluation items on similar work. This is needed to properly secure the usual time for the corporation to spend on its research and development work and so on, and to perform business management effectively in working towards a maximization of achievements in research and development.



ide Fukui

, Masao Yokoi

Form 2-2-2 National Research and Development Agency Evaluation on mid to long-term objective period (Period Evaluation)/Overall Rating

	1. Overall evaluation	
	Rating	
	(S, A, B, C, D)	A
		As shown in the overall evaluation of the agency as a whole, the creation of considerable achievements and anticipated creation of achievements in the
Ũ	comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities and	
		Science and Technology's mid to long-term objectives taken into account.

2. Evaluation of the whole agency

• With regard to Term 3 Mid to Long-Term Objectives Period, JAMSTEC has performed research and development with a view to national and societal needs as a core research agency in marine nation Japan, and has created outstanding achievements in research and development which have been drawing the attention globally in all areas of research and development, including research and development in marine and global environment fluctuation and research and development in coastal earthquake generation area. Furthermore, in addition to making contributions to disaster prevention and disaster reduction policies by providing obtained data and knowledge to not only the government and local government but also to the policy decision-making processes in Japan and abroad concerning global-scale issues, and to the advancement of technology transfer to industry, we can give good marks to the significant achievements, which surpass the targets and the plan. Specifically, they are as follows:

- (1) With regard to research and development on changes in marine and earth environment, JAMSTEC continues to publish achievements in various research topics covering a broad range of fields and receives high marks internationally, and it recorded significant achievements in particularly the second half of the mid-term objectives period that impacted international environmental policies and strategies, including the indication that methane emission level in East Asia from coal sources is overestimated and the grasp on the level of impact in Southeast Asia of deforestation and vegetation on CO₂ levels. Furthermore, the importance of the scientific knowledge based on these achievements was recognized, and this contributed to raising JAMSTEC's and Japan's international presence through, for example, the appointment of JAMSTEC's officers to positions including lead author, reviewer, and editor of the intergovernmental panel (IPCC) 6th evaluation report (AR6) on climate change and to important positions including chairman and experts of international bodies and international frameworks.
- (2) With regard to research and development on coastal earthquakes generation areas, we finished building an earthquake and tsunami observation monitoring system (DONET), which had the highest precision and the world's largest scale detailed information in 2015. Furthermore, after analysis of data that were observed in realtime on a borehole observation unit that was set up and connected to this system, we made significant achievements through understanding the trench earthquakes generation mechanism by, for example, learning that "slow sliding" is occurring repeatedly in the shallower waters of earthquake generation. DONET's data were utilized not only for tsunami warnings and emergency earthquake alerts by the Japan Meteorological Agency but part of the data and scientific knowledge that were obtained here were provided to the Headquarters for Earthquake Research Promotion's Earthquake Research Committee and Japan Meteorological Agency's "Evaluations Study Group for Earthquakes along the Nankai Trough", and they are making significant contributions to disaster prevention works by the government of Japan. Furthermore, a tsunami and floods prediction system, which was developed based on data that were detected by DONET, was provided to local government, including Wakayama, Mie, and Kagawa prefectures, and this is making contributions to also the disaster prevention and disaster reduction policies of these local governments.
- (3) With regard to seabed resource research and development, we built a cobalt-rich crust metallogenic model which is academically important, and discovered a large-scale mineral bed based on this model. Furthermore, we proposed a methodology to accelerate significantly the analysis of effects onto a deepsea ecosystem, and we are in the process of performing a technology transfer to a private sector survey company.
- (4) With regard to research and development of marine life science and engineering, we not only continuously published multiple achievements of high scientific significance, such as discovery and extraction of new useful substances from deepsea organisms and discovery of unchartered deepsea organisms, even in view of international standards but we obtained achievements that directly tie to industrial application such as emulsification technology under high pressure and new detection technology for viruses.
- In addition, in this mid to long-term objectives period, Team KUROSHIO was organized with also concerned agencies with potential that are in Japan while using the development and operation technologies including deepsea exploratory equipment that JAMSTEC possesses as our foundation, and we challenged ourselves and got good results, winning the Shell Ocean Discovery XPRIZE (the second prize). We can give good marks to their having worked, through these activities, on new public relations activities that utilize SNS and crowdfunding to build new cooperative and coordinated relationships with, among others, corporations in different fields and of different size than we have ordinarily worked with to date, which is a meaningful achievement that leaves the stratosphere of only joint research and technology development. Furthermore, with regard to the dissemination of achievements and public relations activities in the current mid-term objectives period, there are significant results which can be given high marks from the viewpoint of novelty and diversity of work, including the innovative and unique methodology, such as the collaboration with the game industry.

(Reference) Estimated evaluation А

the future and so on are recognized as a result of d with the Japan Agency for Marine-Earth

• On the other hand, with regard to the mid-term objectives period, we learned about a serious incident concerning the reliability of our organization, including an incident where personal information was accidently sent, an incident where procedures on publication and usage of data were omitted, and an incident where the number of achievements including papers published and patents were reported incorrectly. In response, JAMSTEC established "a working group (WG) to make improvements in regard to problems that are common to the organization" under the internal controls committee, and validated not only problems and risks that are common to the organization but the direct cause for each of these incidents, and started a fundamental reform of the organization's business management including a review of the organization, systems, and regulations. Going forwards, what we expect is that these improvement actions and reoccurrence prevention measures work, and we further reinforce our internal controls so that the organization's business management is conducted appropriately and effectively, and that we regularly inspect whether these reoccurrence prevention measures are working and appropriate improvements to business are made, and that we build a PDCA cycle that will further make improvements to the business and make this cycle take root properly within the organization. Furthermore, even when the target to reduce general management cost is not attained, we ask that executive management will be reinforced further so that cost reduction and control will be performed appropriately going forwards.

When this is considered as a whole, with regard to the problem in the organization's business management, given the fact that they themselves established a WG and started on a fundamental reform to determine the root cause, and with regard to research and development which is the national research and development agency's main business, given the fact that they obtained many significant achievements that qualify for a "A" mark, we give an evaluation of "A" for the corporation overall.

3. Issues to be solved and /or improved for each subject

• Going forward the importance of research activities that observe, gather, and analyze large quantity of data and information will increase further, JAMSTEC is expected to create a precondition for conducting research, where such information and data are managed appropriately and a condition is created where researchers of JAMSTEC and others can use these information and data proactively. What is expected of JAMSTEC is to establish a management structure to accomplish this.

In Term 3 Mid to Long-Term Objectives Period, where was a serious problem in the organization's management, which included an incident where personal information was accidently sent, an incident where procedures on publication and usage of data were omitted, and an incident where the number of achievements including papers published and patents were reported incorrectly. The main cause of this incident is unmistakably human error and inadequacies in the system, the system not performing its purposes, and so on, and it is certainly important to effect measures to make improvements on the individual points; however, what is strongly requested is a determination of the cause at the root of these incidents, and an implementation of a viable reoccurrence prevention policy. Together, what is requested is that JAMSTEC establishes a PDCA cycle, and moves forward further improvements to the business in view of this and that it conducts regular inspections of the reoccurrence prevention policy.

4. Other items	
Main opinions of the council	[Evaluation of the whole agency in terms of maximization of R&D achievements]
on research and development	• For JAMSTEC to make contributions towards a resolution to the environmental problem of a global scale and maintain marine biodiversity and p
	is a higher international presence of this organization and its researchers. In the mid-term objectives period, for example, the participation of many
	international experts panel and as authors and editors of the IPCC report is not only a participation as researcher in a well-known journal (academ
	of us as important keypersons who lead international programs and works from a scientific and national strategy viewpoints, and we believe that the
	international presence.
	Furthermore, JAMSTEC is able to access deepsea and deep underground environments where nobody has ever reached, and is a rare organizati
	phenomena occurring at those locations, can analyze rare samples, and obtain enormous data; JAMSTEC has demonstrated this potential to its ma
	first discoveries. However, the building of strategies and schemes to tie these scientific knowledges to "outcome creation" that is giving back to so
	been raised in the past. In response to these points, JAMSTEC has proactively worked on areas in particularly the second half of the mid-term obj
	of a platform for society which supports disaster prevention and disaster reduction, the participation in an international framework to respond prop
	the transfer of technology to the private sector as regard development of offshore minerals, the establishment of a scheme for open innovation in t
	field, and the providing of deepsea bioresources to other organizations. We therefore can give good marks to the fact that this scheme to give back
	now functioning.

bromote sustainable usage, what is indispensable by of JAMSTEC's officers as members of the nic publication) but this can be seen as a display this is evidence of the rise in JAMSTEC's

ion in even Japan or abroad that can solve special aximum, and has produced many of the world's ociety is insufficient, and this is a point that has jectives period, which include the establishment perly to the changes in our earth's environment, the marine life science and engineering research a the achievements in research to our society is

- JAMSTEC has produced significant results in all fields with regard to research and development, which is its main business, and has moved forwards research and development that is mindful of outcome. For example, with regard to the research and development on coastal earthquakes generation region, it provided support to the local government on how to apply the tsunami and floods prediction system; with regard to the research and development of deepsea resources, not only did it establish a metallogenic model, we believe that the discovery of a cobalt-rich crust minebed, based on predictions that were made from this model, is an outstanding achievement. Furthermore, it is also appropriately conducting suddenly-occurring work from earthquakes and volcanic eruptions and their follow-up works, in addition to the ordinary business.
- We can give high marks to JAMSTEC for its large contribution to society through, for example, participation at important conferences where international works concerning management and conservation as well as utilization and development of the marine region, the operation of DONET, the second prize at XPRIZE, and the contribution to the recovery post-3.11 are discussed. We believe that this mark of A is close to a mark of S.
- Problems including the negative impact to the ecosystem and pollution from plastic waste is seen as a big problem in all parts of the world, and we believe that these problems will continue to rise in interest in our society going forwards. JAMSTEC started studying countermeasures and collecting information from an early stage with regard to the plastics pollution problem. We expect to put even more efforts into this going forward.
- We can give good marks to the various creative implementations that were made in working towards the hiring of outstanding researchers from overseas so that we can continue to develop as the world's brain center; however, because we are still young at this, we lack concrete achievements, and we therefore wish to see more achievements going forward. [Management as a research institute such as the President's leadership management]
- We can give very high marks to the achievement of preventing micromanagement by conducting a review of the authority of our officers and transferring executive authority to the managers onsite, as part of our fundamental reform of business management at our organization.

However, as a countermeasure to problems of the organization's management, it likely will not be possible to accomplish within a single fiscal year with regard to establishing a culture of reoccurrence prevention policy in regard to all incidents and to finding out the root cause and responding to it; we therefore believe it will be necessary to work on these issues continuously.

- We are noticing the seriousness in the frequent occurrence of large incidents including an incident where personal information was accidently sent, an incident where procedures on publication and usage of data were omitted, and an incident where the number of achievements including papers published and patents were reported incorrectly, and in particular the lack of attention to the continuation of an inappropriate situation over a long period with regard to the first two points. The direct cause of this incident is unmistakably human error and inadequacies in the system and in the rules, the system not performing its purposes, and so on. However, the central problem appears to be perhaps the lack of a sense of responsibility, towards risk management and a sense of crisis and an understanding that these incidents may shake the foundations of public trust towards our organization, at both the management and people onsite. There is a need to review and improve the rules and mechanisms very soon; however, the root of this problem is deep, and as such there is a need to study how to improve the basic culture of this organization, and to work continuously with both the management and local staff from the standpoint of a reform in mindset.
- > It is move forwards research in a broad range of fields, and making achievements on schedule. However, that all research groups are giving themselves a self-evaluation mark of "A" does not sit well with us. Maybe this is because it is not easy to give feedback to other specialty fields, but we feel that people and groups perhaps are covering for each other. We feel that we may need to create a system whose self-evaluation mechanism functions.
- Currently when there are problems in the organization's management, with regard to all self-evaluation marks being "A" with regard to achievements on research and development topics is a concern for us as we believe that this is happening because we are complacent. With regard to the occurrence of serious incidents that may shake the foundation of public trust on an organization, such as an incorrect reporting on the number of achievements including papers published and patents, because this generally tends to happen when we pursue only achievements at our organization, that is, when people develop an automated sense of we have to obtain a mark of "A" no matter the consequence, there is a need to inspect regularly on whether JAMSTEC's culture as an organization has fallen to that level. Furthermore, when performing a self-evaluation, we may need to build a structure through which we do not only look at the result of the evaluation, ie, SABC, which is superficial, and instead a forum where our achievements can be discussed and evaluated openly; for example, "This time the mark was a "B" but let's work harder so that we can get a mark of "A" or "S" next time".
- To increase the number of achievements within the restrictions of the number of staff and our budget, generally we believe that challenging ourselves on higher risk subject matters is a point of hesitation; however, we can give high marks to JAMSTEC's work under the President's leadership to challenge ourselves on projects including plate boundary fault drilling which is technically difficult.
- The challenge at XPRIZE and winning second place demonstrate JAMSTEC's high level of technology as well as the achievement that will serve as an example of how to coordinate industry-academia collaboration. As such, we give this a high mark. And as this was a work that needed coordination with multiple parties unlike in our typical projects, we also give high marks to the high level of management capacity.

Auditor's special comments No special matters to note.

* Evaluation categories are as follows:

- S: Based on the National Research and Development Agency's aims, businesses with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, and efforts through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward "maximization of R&D achievements" under the conditions of appropriate, effective and efficient operations are recognized.
- Based on the National Research and Development Agency's aims, businesses with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, A: and efforts through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward "maximization of R&D achievements" under the conditions of appropriate, effective and efficient operations are recognized.
- Based on the National Research and Development Agency's aims, business with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievement, B: and efforts through its activities, a, certain degree of expectation for the creation of achievement and creation of achievement in the future toward "maximization of R&D achievements" were recognized, and steady business operations have been also recognized.
- C: Based on the National Research and Development Agency's aims, businesses with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, and efforts through its activities, the creation of achievements, further drastic efforts and improvements toward "maximization of R&D achievements" or "appropriate, effective and efficient operations" are anticipated.
- Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business D: achievements, efforts and so on, through its activities, special efforts and improvements including a fundamental drastic review, toward "maximization of R&D achievements" or "the appropriate, effective and efficient operations" are required.

Form 2-2-3 National Research and Development Agency /Evaluation in Mid to Long-term Objective Period (Period Evaluation)/Summary Table for Rating by Item

Mid to long-term objectives		F	Y Rating	gs		N	/lid to	Itemized	Remark		Mid to long-term objectives		F	Y Rating	gs	N	/lid to	Itemized	Remark	
(Mid to long-term plan)						long	g-term	evaluati	s		(Mid to long-term plan)			·	2		long	g-term	evaluati	s
				objective period		on									objectiv	ve period	on			
					eval	uation	docume									eval	uation	docume		
						Estimate	Period	nt No									Estimate	Period	nt No	
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	d evaluatio	evaluation					FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	d evaluatio	evaluation		
	2014	2015	2010	2017	2010	n						2014	2015	2010	2017	2010	n			
I. Maximization of R&D achievemen	nts and q	uality in	nprovem	ent of th	e other o	peration	s	•			I. Items concerning the efficier	ncy of th	e admin	istration	of the o	peration	s			
1.Promoting strategic/focused											1. Flexible and efficient									
research development on a basis of national/social needs	_	—									system operations									
(1) Seabed resources R&D	В	В	A	A	A	А	А	I - 1			(1) Enhancement of internal controls and	В	В	В						
				11	11	11		-(1)			governance	D		D						
(2) Marine and global	В	А	А	А	А	А	А	I - 1			(2) Rational and efficient	В	В	В						
environmental change R&D			11	11	11	11		-(2)			allocation of resources	D		D	-					
(3) Sea area seismogenic zoneR&D	В	А	А	S	А	А	А	$\begin{array}{c c} I - 1 \\ - (3) \end{array}$			(3) Implementation of evaluation	В	В	В	С	В	С	С	$\Pi - 1$	
(4) Marine life science and								I – 1			(4) Promotion of	Ð		Ð						
engineering R&D	В	В	В	A	S	A	A	-(4)			information security measures	В	В	В						
(5)①Promotion of																				
comprehensive offshore drilling	В	A	А	A	A	А	А	I - 1 - (5)			(5) Information disclosure and personal information	В	В	В						
science utilizing advanced			11	11	11	11		-(1)			protection	D		D						
drilling technology								-							-					
(5)②Development for R&D of leading-edge fusion information	В	A	В	A	В	А	А	I - 1 - (5)			(6) Ensuring business	В	В	В						
science				Λ	D	Λ	11	-2			safety	D	D	D						
(5)③Construction of R&D								I - 1												
infrastructure to open up the	В	В	В	В	А	В	А	- (5)			2.Streamlining and efficiency of operations	—	—			_	_			
ocean frontier								-3												
2. Building the basis of R&D		—		_	_						(1) Streamlining and efficiency of operations	В	В	В	В	C	D	С	II - 2	
(1) Ships and deep-sea research	В	В	А	В	В	В	В	$\begin{vmatrix} I - 2 \\ -(1) \end{vmatrix}$			(2) Appropriateness of	В	В	В	D	C	В		-(1) (2)	
systems etc.								I = (1)			salary levels (3) Review of office work								II - 2	
(2) "Earth simulator"	A	В	А	А	А	А	А	-(2)			business	В	В	В	В	В	В	В	-(3)	
(3) Operation of other facilities and equipment	В	В	В	В	В	В	В	I - 2 - (3)			(4) Appropriateness of contract	В	В	В	В	А	В	В	$\frac{\Pi - 2}{-(4)}$	
3. Provision and promotion of usage of the information related	_	_		_	_	_				I	II. Items regarding improveme	nts in fi	nancial r	elated m	natters					

to the marine-earth science																		
(1) Providing and promoting the use of data and samples	В	В	А	А	А	А	А	I - 3 - (1)	Budget (Including personnel expenses)/ income and expenditure plan, and funding plan	В	В	В						111.
(2) PR activities	В	А	А	А	А	А	А	I - 3 - (2)	Limit amount of short-term borrowing	_		—						Evaluated with the
(3) Dissemination of achievements	В	В	С	В	В	В	В	I - 3 - (3)	If the agency intends to transfer or provide as collateral any important property, a plan therefor;		В		В	В	В	В	Ш~VI	items regarding improvem ents in financial
 4. Promotion of the international cooperation and human resources development as a base of brain circulation progresses on a global scale 		_	_	_			_		Purpose of using accumulated profit	_								related matters
(1) International cooperation and the project promotion	В	А	А	А	А	А	А	I - 4 - (1)	IV. Other items									
(2) Improvement of human resource development and qualities	В	В	В	В	В	В	В	$\begin{vmatrix} I - 4 \\ -(2) \end{vmatrix}$	Plans for equipment and facilities	В	В	В	В	_	В	В	VII - 1	
5. Innovation creation and promotion of the return of results to the society through the industry-academia cooperation	_						_		Plans for personnel	В	В	В	В	В	В	В	VII - 2	
(1) Research cooperation through joint research and institutional cooperation	В	В	А	А	В	А	А	I - 5 - (1)	Debt burden over the mid-term objective period					_		_	₩ -3	
(2) Right size and appropriate management of R&D achievements	В	В	В	С	В	В	В	I - 5 - (2)	Use of a reserve fund	_			_	_		_	VII-4	
(3) Practical application and commercialization of R&D achievements	В	В	В	В	В	В	В	I - 5 - (3)										
(4) Promotion of research by external funds	В	В	В	В	А	В	В	I - 5 - (4)										

*1 For items that are set to "high" level of importance, a "circle" shall be marked next to each comment.

*2 For items that are set to "high" level of difficulty, each comment shall be underlined.

*3 Evaluation categories are as follows:

[Administrative and projects related to research and development (I)]

- S: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward "maximization of R&D achievements" under the conditions of appropriate, effective, and efficient operations are recognized.
- A: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, the creation of considerable achievements, anticipated creation of achievements in the future and so on toward "maximization of R&D achievements" under the conditions of appropriate, effective, and efficient operations are recognized.
- B: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency's business achievement, efforts and so on through its activities, a certain degree of expectation for the creation of achievement and creation of achievement in the future toward "maximizing the achievements" were recognized, and steady business operations have been also recognized.
- C: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, the creation of achievements, further drastic efforts and improvements toward "maximization of R&D achievements" or the "appropriate, effective, and efficient operations" are anticipated.
- D: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts through its activities, special efforts and improvements including a fundamental drastic review, toward "maximization of R&D achievements" or the "appropriate, effective, and efficient operations" are required.

[Other than administrative work and projects regarding research and development (After II)]

- S: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized quantitatively and qualitatively in the mid- to long- objective plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term objective value (or planned FY value), and remarkable performance is also recognized qualitatively)
- A: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized in the mid to long- term objective plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term objective value (or planned FY value).
- B: Performance exceeding the intended objectives is recognized in the mid to long- term objective plan (in terms of quantitative indicators, 100% or more but less than 120% vis-à-vis planned mid to long- term objective value (or planned FY value).
- C: Performance falls below the intended objectives in the mid to long- term objective plan, requiring improved performance (in terms of quantitative indicators, 80% or more but less than 100% vis-à-vis planned mid to long- term objective value (or planned FY value).
- D: Performance falls below the intended objectives in the mid to long-term objectives, requiring drastic improvement of business including its abolishment (in terms of quantitative indicators, less than 80% vis-à-vis the planned mid to long-term values (or values on prior fiscal year), or it is recognized that the competent Minister is required to make an order for improving business operation or taking other necessary measures).

The following grades are to be assigned when one is forced to raise an evaluation based on qualitative indicators such as evaluation of internal controls, and when operations performance is difficult to measure such as when meeting certain conditions is set as the target.

S:-

- A:The agency reached the target level, for targets whose difficulty grade were set high.
- B: The agency reached the target level (This excludes items that correspond to "A".).
- C: The agency couldn't reach the target level (This excludes items that corresponding to "D".).D: A fundamental review of operations is needed because the agency couldn't reach the target level, and this includes when the Minister in charge finds that the Minister needs to order improvements in operations management and order other necessary actions.