Evaluation of FY2016 Operating Results for National Research Institute for Earth Science and Disaster Resilience

August 2017
Minister of Education, Culture, Sports, Science and Technology

Form 2-1-1 National Research and Development Agency / FY Evaluation / Overview of the Evaluation

1. Items related to the evaluation							
Agency	National Research Institute for Earth Science and Disaster Resilience						
FY for evaluation	FY2016 (4th term)						
	Mid to long-term objective	FY2016- FY2022					
	period						

2	2. Items related to the assessor									
The Competent Minister Minister of Education, Culture, Sports, Science and Technology										
	Incorporated jurisdiction	Research and Development Bureau	Dept. and person in charge	Earthquake and Disaster-Reduction Research Division, Ei Takeuchi						
	dept.									
	Evaluation and	Science and Technology Policy Bureau	Dept. and person in charge	Planning and Evaluation Division, Kenji Matsuoka						
	inspection dept.									

3. Items regarding implementation of evaluation

On June 26, 2017, we held a meeting of the (12th) National Research Institute for Earth Science and Disaster Resilience (NIED) Sub-Committee of the National Research and Development Agency Council under MEXT (hereinafter called "Sub-Committee") to hear, for the first time, opinions and explanations from Presidents about the results of the agency's self-evaluation, and received recommendations from the committee members in line with scientific knowledge with regard to implementation of the outcome of the evaluation as conducted by the competent minister.

In the (13th) Sub-Committee meeting on July 7, 2017, we had the 2nd hearing on opinions and explanations as to the results of the agency's self-evaluation, and received advice from the committee members in line with scientific knowledge regarding implementation of the evaluation as conducted by the competent minister.

At the (14th) Sub-Committee meeting on July 20, 2017, we received some advice in line with scientific knowledge from the committee before implementing the results of the evaluation by the competent minister.

At the (10th) National Research and Development Agency Council under MEXT on August 3, 2017, we received some advice in line with scientific knowledge from the committee before implementing the evaluation by the competent minister.

4. Important items and others items relating to the evaluation

2016 is the first year of the 4th mid to long-term objectives/plan period.

Form 2-1-2 National Research and Development Agency / FY Evaluation / Overall Rating

1. Overall evaluation										
	B (Reference) Overall rating situation for the past FY years compared with the same period during this F									
			FY2017	FY2018	FY2019	FY2020	FY2021	FY2022		
Rating*1 (S, A, B, C, D)										
(S, A, B, C, D)		В	_	_	_	_	_	_		
D	As shown in the overall evaluation of the agency as a whole, it is recognize	that more progr	ress of performan	ıce than expected	is steadily imple	mented in the mi	l d to long-term plរ	an and the FY		
Reasons for rating	plan.									

2. Evaluation of the whole agency

- oJust before the new period of the mid to long-term plan, the review of the organization <u>made it easier to establish coordination among departments and promote flexible research activities</u>, and establishment a new expanded executive meeting, which <u>helped us share internal information</u> and enhance communication. This is highly evaluated.
- The following activities were highly evaluated: the creation of the innovation hubs, and formation of infrastructures to enable the industry, academia, and government to work on research and development projects integrally, establish centers, faster the environment for R&D, and implement social commercialization in an integrated manner, and pay attention to user's diversified needs, and work on R&D and show who benefits from the achievements.
- o<u>In relation to Kumamoto Earthquake</u> in April 2016, <u>about 800 persons in total went to Kumamoto</u> including researchers and administrative staffs, and centrally collected and transmitted information, including the other institutes', which <u>played a very important role in sharing the situation awareness</u>, and cooperated with external institutes, and <u>contributed to the livelihood recovery of the victims</u>, such as issuing quake-damage certificates, and preventing secondary disasters from sediment from happening after the earthquake and <u>supporting</u> restoration and recovery activities to <u>fulfill requests from Kumamoto Prefecture</u>. <u>These are highly evaluated</u>.
- The launch of the Crisis Response Site for 5 types of 12 disasters, including Kumamoto Earthquake and offered proactive dissemination of information, which provided a great social impact, and so were highly evaluated.
- ○The following can also be highly evaluated: after completion of S-net, the unified management system of fundamental seismic networks on land and below the sea was improved and stable operation began and the social improvement through research achievements was made possible, and consequently, Japan Meteorological Agency started to use data from S-net and DONET 2 (Dense Oceanfloor Network system for Earthquakes and Tsunamis 2) in July 2016 for tsunami monitoring purposes.

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

- OIn opening the Crisis Response Site, the Agency should proactively publish press release on dispatching personnel to local emergency response centers to make the necessary information available to the public more widely (See page 12).
- We expect future efforts to be more effective, because the human resources development program necessary for implementing social commercialization is not good enough (See pages 23 and 24).
- oIt is desirable that along with dispatching researchers as lecturers as is conventionally done, other personnel who can support businesses at the time of responding to disaster should also be dispatched. Besides, activities undertaken at the request of local governments should be evaluated as human resources development activities (See pages 23 and 24).

4. Other items	
Main opinions of the	No special matters to note
council on research and	
development	
Auditor's special comments	No special matters to note

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.

- A: 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.
- B: 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, 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.
- D: 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, special efforts and improvements including a fundamental drastic review, toward "maximization of R&D achievements" or "appropriate, effective and efficient operations" are required.

Form 2-1-3 National Research and Development Agency / FY Evaluation / Ratings Summary Table by Each Item

N (* 1	. 1 1: .:			F	Y Ratin	FY FY FY document Remarks each item ent of the other operations				
Mid to long-term objectives		FY	FY	FY	FY	FY	FY	FY	document	Remarks
(Mid to long-term plan)		2016	2017	2018	2019	2020	2021	2022	each item	
I. M	aximization of R&D achievem	ents an	d quali	ty impre	ovemen	t of the	other o	peratio	ns	
	1. Formation of a core									
	organization for innovation									
	in research on disaster		_							
1	resilience technologies									
	Promotion of collaboration	В							I-1-1	
	among industry, academia									
	and government as a core									
	institution									
	Promotion of utilization	A							I-1-2	
	and sharing of fundamental									
	observation network and									
	cutting-edge research									
	facilities									
	Spread of R&D	В							I-1-3	
	achievements and									
	promotion of utilization of									
	intellectual property									
	The international	В							I-1-4	
	expansion of research and									
	development for disaster									
	resilience									
	Nurturing human resources	В							I-1-5	
	Contribution to disaster	S							I-1-6	
	resilience policy									
	2. Promotion of basic									
	research and fundamental									
	research and development									
	concerning disaster resilience science and		_							
	technology Promotion of research and	В	1						I-2-1	
		ט							1-4-1	
	development for observing									
	and predicting disasters in real time									
	Promotion of research and	В							I-2-2	
	development aimed at	ע							1-2-2	
	improving the resiliency of									
	social infrastructure									
	Promotion of fundamental	В							I-2-3	
	research and development	ב								
	for disaster risk mitigation									
	and reduction									
	una roduction		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L	1	

201.1			No. of						
Mid to long-term objectives (Mid to	FY	FY	FY	Y Ratin FY	FY			document	Remarks
long-term plan)	2016	2017	2018	2019	2020	2021	2022	each item	
II. Items concerning the efficiency of the	ne admi	nistratio	on of the	e opera	tions				
Establishment of flexible and efficient management system		·							
Review of research organization and business	В							II-1-1	
Internal control	В							II-1-2	
Implementation of evaluation concerning research and development, etc.	В							II-1-3	
2. Efficient operations									
Streamlining and efficiency of operational expenses	В							II-2-1	
Streamlining and efficiency of personnel expenses	В							II-2-2	
Review and check of the current contracts' status	В							II-2-3	
Promotion of computerization	В							II-2-4	
III. Items regarding improvements in financial related matters	В							III	
1. Budget (Including personnel expenses)/ income and expenditure plan, and funding plan									

^{*} For items that are set to "high" level of importance, a "circle" shall be marked next to each comment. For items that are set to "high" level of difficulty, each comment shall be underlined.

[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 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 "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, 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.

^{*} The evaluation is based on "Standards concerning the evaluation of independent administrative agencies under the jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology" (as determined by the Minister of Education, Culture, Sports, Science and Technology on June 30, 2015). The details are as follows.

- 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: Through the activities of a corporation, remarkable performance exceeding the intended objectives is recognized quantitatively and qualitatively in the medium-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned medium-term value (or planned FY value), and remarkable performance is also recognized qualitatively)
- A: Through the activities of a corporation, remarkable performance exceeding the intended objectives is recognized in the medium-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned medium-term value (or planned FY value).
- B: Performance exceeding the intended objectives is recognized in the medium-term plan (in terms of quantitative indicators, 100% or more but less than 120% vis-à-vis planned medium-term value (or planned FY value).
- C: Performance falls below the intended objectives in the medium-term plan, requiring improved performance (in terms of quantitative indicators, 80% or more but less than 100% vis-à-vis planned medium-term value (or planned FY value).
- D: Performance falls below the intended objectives in the medium-term plan, requiring drastic improvement of business including its abolition (in terms of quantitative indicators, less than 80% vis-à-vis planned medium-term values (or planned FY value), or it is recognized that the competent Minister is required to ask for improving business operations or taking other necessary measures).