

Science and Technology Research Partnership  
for Sustainable Development (SATREPS)  
International collaborative research Program

Public Invitation Guideline for Fiscal Year 2020  
(Provisional Translation)

This Application Guideline is prepared for researchers who belong to Japanese research institutions/universities in Japan.

Researchers in other countries should consult their national government agency responsible for Official Development Assistance (ODA) technical cooperation, the Embassy of Japan, or JICA offices in their resident countries.

Public invitation period

From September 10, 2019 to November 11, 2019



Research Partnership for Sustainable Development Group  
Department of International Affairs  
September, 2019

## Notes for FY2019 Research Proposals

This invitation for research proposals is for proposals that will be implemented under the government's FY2020 budget, but submitted and selected before the budget is finalized. Moreover, the SATREPS (Science and Technology Research Partnership for Sustainable Development) program is linked with the official development assistance (ODA) program, and requires time for coordination with institutions in the counterpart country. For these reasons, in order to start the research projects as soon as possible, the process needs to start before the budget is approved. In consequence, when the budget is finally approved, details and amounts may change, which could potentially affect the fields of research, contract research expenses, and number of projects selected. It may also be necessary to request additional documentation following budget approval.

Changes in budget-related information will be posted on the following website, which should be checked occasionally. After proposals have been submitted, applicants can be notified by email when necessary.

<https://www.jst.go.jp/global/koubo.html> (Japanese)

<https://www.jst.go.jp/global/english/koubo.html> (English)

### 1. How to Apply

FY2020 Research Proposals must be submitted via e-Rad, the Cross-ministerial R&D Management System.

To use e-Rad, researchers who are affiliated with a research institution need to check that their institution has been registered on e-Rad, and that the researcher's information has also been registered on e-Rad by the institution's administrative contact. Japanese researchers who are not affiliated with a research institution need to register their researcher information on e-Rad in advance.

**Please be sure to choose the correct research area when submitting the research proposal via e-Rad.**

Cross-ministerial R&D Management System (e-Rad) Portal Site

<http://www.e-rad.go.jp/> (Japanese)

Deadline for submission of research proposals:

12:00 noon (Japan time) on Monday November 11, 2019

### 2. Submission of request for ODA technical cooperation

The SATREPS program is linked with ODA projects, and therefore, must also assume the role of technical cooperation project. The portion of the expenses attributable to ODA projects is covered not by contract research expenses but under the technical cooperation project framework. In submitting a research proposal to JST, please carefully read page 51 and subsequent pages of this guideline and check that the principal investigator's institution can implement the project in accordance with the Agreement with JICA and "SATREPS Project Jisshino Tebiki". In addition, please liaise sufficiently with the researchers in the counterpart country on the details of the joint research. It is also necessary that the counterpart research institute submits an official request for ODA

technical cooperation to Japan's Ministry of Foreign Affairs (MOFA) via the ministry or agency in the recipient country responsible for ODA and the local Japanese embassy. **The deadline for submitting the official request for ODA technical cooperation is on Monday October 28, 2019(Japan time), which is earlier than the Japanese side.**

The internal deadline used by the counterpart ministry or agency is normally set earlier than the submission deadline, so please take that into account when liaising with the counterpart research institute. If the counterpart government does not request a technical cooperation project, a research proposal submitted in Japan will be considered incomplete and not go through the selection process.

### 3. Outline of the application and project selection process

#### (1) Research fields and areas

Research proposals are currently invited in the following 3 research fields, covering 4 research areas.

| Research fields<br>(number of research areas)           | Cooperation request from developing country | Research period                             | JST/JICA Funding  |
|---|---|---|---|
| Environment and Energy<br>(2 research areas)            | Compulsory                                  | 3 to 5 years<br>(after provisional period*) | Approx. 100 million yen per project per year  |
| Bioresources<br>(1 research area)                       |   |   | Funding split:<br>JST (Contract research expenses, including indirect costs):<br>Approx. 35 million yen per year (Max. 175 million yen over 5 years, including provisional period*) |
| Disaster Prevention and Mitigation<br>(1 research area) |   |   | JICA (ODA project expenses under the technical cooperation framework):<br>Approx. 60 million yen per year<br>(Max. 300 million yen over 5 years)                                    |

\* The provisional period is the period before the R/D and CRA are signed and the project officially starts.

[See chapters 2.1,2.4 and 2.5]

Up to FY2015, the SATREPS Invitation for Research Proposals included the Infectious Diseases Control field. From FY2016, projects in this field are handled by AMED, the Japan Agency for Medical Research and Development. See the AMED website for details regarding the invitation for research proposals in the Infectious Diseases Control field:

[https://www.amed.go.jp/koubo/03/01/0301A\\_00049.html](https://www.amed.go.jp/koubo/03/01/0301A_00049.html) (only in Japanese)

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## Chapter 1 Before Public Invitation of Research Proposals

### 1.1 About SATREPS program

#### 1.1.1 Objective of the research program

The SATREPS (Science and Technology Research Partnership for Sustainable Development) program is a collaboration between two Japanese government agencies: the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). Based on the needs of developing countries, JST and JICA cooperate to promote international joint research targeting global issues with an objective of utilization of research outcomes. Implemented through collaboration with Official Development Assistance (ODA), the aim of the program is to acquire new knowledge and technology that lead to the resolution of global issues and the advance of science and technology, and through this process, to create innovations. International joint research under this program also aims to enhance the research and development capabilities of developing countries, and helps create sustainable research systems able to address and resolve issues.

The SATREPS program constitutes an important component of the science and technology diplomacy promoted by the Japanese government. In addition to providing support for basic and applied research, the program aims to establish a structure for utilization of research outcomes in order to respond to the issues and needs of the counterpart country, thereby strengthening diplomatic relations between Japan and the counterpart country while also contributing to the national interests of Japan.

#### 1.1.2 General Description of the research program

##### (1) Background to the program

There is a need for joint research and capacity building of research institutions based on the requirements of developing countries, as a means by which the promotion of science & technology and the training and development of human resources can boost each other. Japan recognized this need, and has given it the status of a key part in one of its major policies. ("Toward the Reinforcement of Science and Technology Diplomacy," May 19, 2008)

In this context, Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Ministry of Foreign Affairs (MOFA) implemented the SATREPS program in 2008 by creating a close tie between science & technology and official development aid, enabling the research institutions of Japan and developing countries to take part in international joint research that can contribute to the resolution of global issues.

### (2) Program status

Japan's Fifth Science and Technology Basic Plan (approved by the Japanese Cabinet in January 2016) enshrines that Japan will proactively leverage its science and technology potential to help combat global issues, including climate change, declining biodiversity, food and water resource issues, and infectious diseases, and improve the quality of life in developing countries, in order to actively contribute to the sustainable development of the world.

To this end, specifically, Japan needs to partner and cooperate with universities, public research institutions, the business community, as well as other countries and international organizations to carry out research and development to find solutions to global issues. In addition, it needs to promote a wider application and adoption of research outcomes in and outside of Japan, and take a lead in achieving an international consensus. At “United Nations Sustainable Development Summit” held in September 2015, the outcome document “Transforming our world: the 2030 Agenda for Sustainable Development” with **“the Sustainable Development Goals<sup>1</sup>”** as a core component was adopted as a new and more comprehensive world action agenda for people, planet and prosperity. Based on this agenda, **SATREPS program will actively correspond to SDGs and contribute to the international community.**

In scientific and technological cooperation with emerging and developing countries, it is important to break away from the aid-driven forms of cooperation that have prevailed up to now, and move instead towards strategically establishing frameworks for more equitable partnerships with such countries in order to facilitate the generation of socially inclusive and sustainable innovation (“inclusive innovation<sup>2</sup>”). It is also important to strengthen international professional networks. Therefore, in our science and technology cooperation with emerging and developing countries, Japan needs to develop systems to promote inclusive innovation by pursuing collaborations with the counterpart country’s government, universities, public research institutions, funding bodies, and companies, and help to foster young researchers and industry professionals in the country.

Additionally, the Basic Plan presents that to reinforce the foundation of science and technology innovations, Japan will train and secure highly trained personnel who will generate new knowledge and values, and a diversified workforce that will accelerate the creation of innovation. At the same time, Japan will create environments that enable each and every individual to maximize his or her contributions in the most appropriate settings, according to their own capabilities and motivations. It is expected that international joint research projects will also lead to fostering Japanese talents tailored to globalization.

Industry-academia-government partnerships are critical for implementing the Basic Plan. The Basic Plan states that to advance science and technology innovations effectively, the key elements are fleshing out initiatives aimed at strengthening the functions of the diverse implementers of science and technology innovation activities, such as universities, public research institutions, and companies, and expanding industry-academia-government partnerships.

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<sup>1</sup> <http://www.un.org/sustainabledevelopment/>

<sup>2</sup> “Inclusive innovation”: in SATREPS, this refers to innovation that focuses on the potential of developing countries and includes people from those countries in the innovation process.

### (3) SATREPS program structure

The SATREPS program structure is shown in Figure 1. Launched by JST in cooperation with JICA, SATREPS promotes international joint research between Japan and developing countries. Through collaboration with research institutions in developing countries, it aims to facilitate the acquisition of new knowledge and technology that can lead to the resolution of global issues and the advancement of science and technology. Under this program, JST (which possesses expertise in funding research projects in Japan) provides support for research expenses in Japan and elsewhere (but not in the partner country), while JICA bears expenses necessary for the implementation of ODA technical cooperation (including dispatch of experts from Japan to the counterpart country, acceptance of foreign researchers to Japan, and provision of machinery and equipment). Management of R&D for international joint research as a whole is conducted cooperatively between JICA and JST. It is expected that the promotion of international joint research activities under this program will enable Japanese research institutions to conduct research more effectively in fields and targets where it is advantageous to implement the research in developing countries. Meanwhile, it is hoped that for research institutions in the developing countries (primarily universities and research institutions focusing on activities for public benefit, but excluding those related to military affairs), the establishment of research environment and the development of human resources through joint research activities will make it possible to develop self-reliant, sustainable research systems.

In addition, for the FY2020 public invitation period, it has been decided to designate a new category of “Top-Down SATREPS” that sets out eligible regions and research subjects that are important for Japanese diplomatic policy in advance and invites applications for and adopts research proposals in these areas, in order to further promote the achievement of the SDGs through science, technology, and innovation (STI for SDGs). In particular, Top-Down SATREPS projects are premised on the facts that the government of the partner country is specifically aware of the issue involved and that the project forms part of that country's road map or development plan related to STI for SDGs, in the expectation that this will enable smoother progress in both research and implementation.

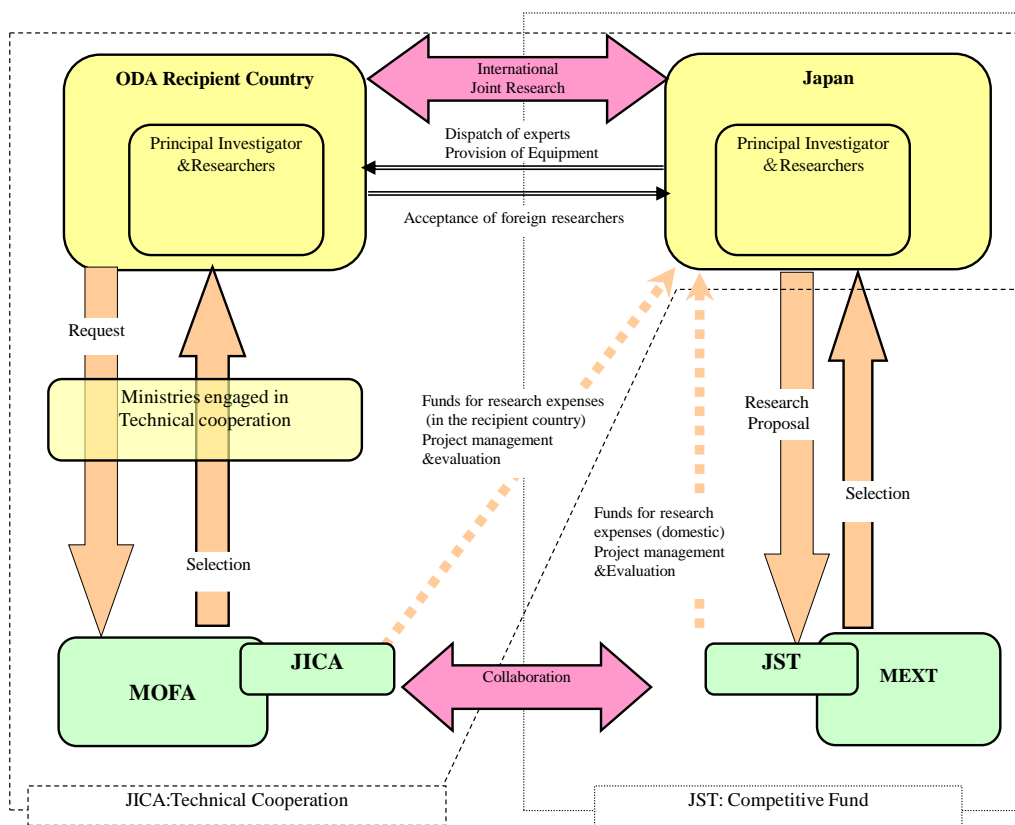


Figure 1. SATREPS Program Structure

#### (4) SATREPS program main flow

##### (i) Setting research areas, and inviting proposals and applications

The Japanese government (MEXT and MOFA) identifies fields of particular importance in resolving global issues and designates them as targets for research promotion under this program. Based on this, JST appoints a program director (PD) with overall responsibility for all research fields and management of the program, and research supervisor (RS) each with responsibility for a single, more specific research area in which they have expertise.

##### a. Program Director (PD) :

The Program Director has overall responsibility for management of the SATREPS program. He or she makes policy decisions on the overall thrust of the program, coordinates the different research fields and areas, decides on project selection (including provisional selection) and chairs the program committee that deliberates on important matters concerning research project management. The program committee consists of the Program Director, Research Supervisors, and external experts.

##### b. Research Supervisors (RS) :

Each of the Research Supervisors has overall responsibility for research in a specific research area. He or she joins external experts on the screening committee, acting as either the chair or a member of the committee. The screening committee is a subcommittee of the program committee, and it decides on candidates for SATREPS projects (including candidates for

provisional selection). After projects have been approved (including provisional selection), the Research Supervisor handles the research management for his or her research area by coordinating the research plans of the individual research projects (including plans concerning research expenses and composition of the research team), exchanging ideas and views with principal investigators, giving advice concerning the research, conducting project evaluations, and by other means as necessary.

The Research Supervisor also gives advice to the collaborating country's researchers.

JST invites researchers at universities and research institutes in Japan to submit research proposals in each research area. Decisions on which research projects are to be selected are made by a screening committee comprising POs and external reviewers.

While JST selects proposals, requests are received from developing countries for ODA technical cooperation for international joint research, and MOFA reviews these requests in conjunction with JICA in Japan. Therefore, it is essential for the principal investigator in Japan to coordinate with researchers in the ODA recipient country in order to confirm the details of the joint research when making an application to JST. It is a requirement that official requests for ODA technical cooperation specified as SATREPS be submitted by the research institution in the recipient country to MOFA in Japan by the specified deadline, via the ministry or agency in the recipient country responsible for ODA and the Japanese embassy that handles affairs for the recipient country. In this fiscal year, for diplomatic considerations the number of applications from a single country is limited to a maximum of twelve, and should this limit be exceeded the government of the partner country will be required to narrow them down.

### (ii) Research project selection by JST in Japan and ODA technical cooperation decisions by MOFA/JICA

The selection process for research projects at JST and the screening process for ODA technical cooperation at MOFA/JICA are interlinked. Both applications, one to JST by the Japanese principal investigator and one for ODA technical cooperation, have to be approved in order for the research project to be provisionally selected for the program. MOFA notifies the prospective recipient country of this decision. The respective processes conducted within the JST and JICA frameworks are outlined in Figure 2.

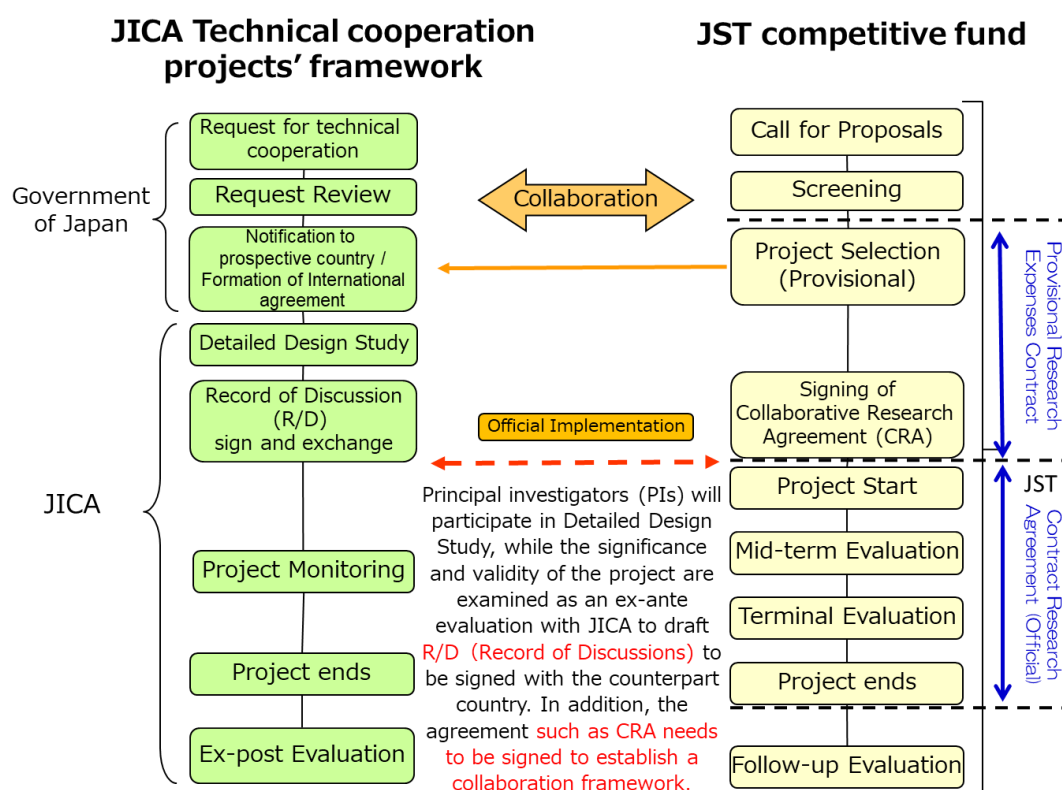


Figure 2. SATREPS Program Flow

## (iii) Preparations for implementing selected projects

To implement the international joint research, a Record of Discussions (R/D) must be signed by the ODA recipient country and JICA to confirm that they agree on the details of the ODA technical cooperation. In addition, a Collaborative Research Agreement (CRA) or similar document about the joint research, of which details shall match the R/D and JST's Contract Research Agreement, must also be signed between the research institutions (parties concerned). Because of this requirement, after receiving notification of provisional selection, the principal investigator and other researchers are requested to work towards the prompt signing of these documents.

After giving notification that a research project has been provisionally approved, JST firstly concludes a Provisional Research Expenses Contract with the principal investigator's institution in Japan. This enables JST to make research funds available to Japanese researchers even before the R/D is signed, in order for international joint research to start as soon as possible after the R/D is signed. Such expenses shall be limited to research expenses incurred in Japan when making preparations for the joint research.

In order to confirm the background and details of the ODA technical cooperation application and discuss details of the joint research, JICA sends an investigation team, comprising of the principal investigator in Japan and other members, to the prospective recipient country. The investigation team performs a Detailed Design (D/D) study and summarizes the results of discussions in a Minutes of Meeting (M/M) document, signed by JICA and the recipient country. JICA shall then create an R/D based on the details of the M/M. Once the R/D is signed by the director of the JICA overseas office and a representative in the developing country, the ODA

technical cooperation project can begin.

However, the signing of the R/D may not be completed before the end of the year in which the project would be implemented (the end of FY2020). Even if a research project has been selected, if the R/D is not likely to be signed in the near future, circumstances may make it impossible for the research to be implemented.

### (iv) Implementation of the international joint research

In order to implement the international joint research as a formal SATREPS project, the principal investigator and other researchers shall act in accordance with a contract (Contract Research Agreement) signed with JST and contracts signed with JICA (Agreement and project contract<sup>3</sup>). The principal investigator shall be responsible for the research project and for coordinating the running and management of the project as a whole.

### ○References

Major science & technology policy and other documents concerning SATREPS:

Toward the Reinforcement of S&T Diplomacy (May 19, 2008)

[http://www8.cao.go.jp/cstp/english/doc/s\\_and\\_t\\_diplomacy/20080519\\_tow\\_the\\_reinforcement\\_of.pdf](http://www8.cao.go.jp/cstp/english/doc/s_and_t_diplomacy/20080519_tow_the_reinforcement_of.pdf)

Task Force Report on Science and Technology Diplomacy (February 2010, Council for Science and Technology Policy; in Japanese)

<http://www8.cao.go.jp/cstp/sonota/kagigaiko/8kai/siryo1-1.pdf>

Recommendation for the Future (STI as a Bridging Force to Provide Solutions for Global Issues: Four Actions of Science and Technology Diplomacy to Implement the SDGs) (May 12, 2017, Advisory Board for the Promotion of Science and Technology Diplomacy)

<https://www.mofa.go.jp/mofaj/files/000255801.pdf>

The 5th Science and Technology Basic Plan (January 22, 2016, Cabinet decision; in Japanese)

<http://www8.cao.go.jp/cstp/kihonkeikaku/5honbun.pdf>

Integrated Innovation Strategy (June 21, 2019, Cabinet decision)

[https://www8.cao.go.jp/cstp/togo2019\\_honbun.pdf](https://www8.cao.go.jp/cstp/togo2019_honbun.pdf) (Japanese)

<http://www8.cao.go.jp/cstp/english/> (English; may not include the latest Japanese version)

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<sup>3</sup> The Arrangement (Agreement regarding the implementation of technical cooperation under the framework of SATREPS) is a comprehensive document stipulating the rights and obligations of JICA and the principal investigator's institution. JICA and the principal investigator's institution shall conclude the Agreement when the R/D for the institute's first project is signed. In addition, JICA and the principal investigator's institution shall clarify the expenses that JICA will bear, and shall sign an Arrangement and project contract containing an estimate of these expenses and details of accounting procedures, for reference by either party. (JICA will only conclude an Arrangement with the principal investigator's institution, not with other research institutions involved in the research project.)

Sustainable Development Goals (SDGs) (September 2015, UN Sustainable Development Summit)  
<http://www.un.org/sustainabledevelopment/>

Sustainable Development Goals (SDGs) Implementation Guiding Principles (September 2015, SDGs Promotion Headquarters Decision)  
<https://www.kantei.go.jp/jp/singi/sdgs/dai2/siryou1e.pdf>

Basic Plan on Ocean Policy (May 15, 2018, Cabinet decision)  
<http://www8.cao.go.jp/ocean/policies/plan/plan03/pdf/plan03.pdf> (Japanese)  
[http://www8.cao.go.jp/ocean/english/plan/pdf/plan03\\_gaiyou\\_e.pdf](http://www8.cao.go.jp/ocean/english/plan/pdf/plan03_gaiyou_e.pdf) (English; outline)

Basic Plan on Space Policy (April 1, 2016, Strategic Headquarters for Space Policy)  
<http://www8.cao.go.jp/space/plan/plan3/plan3.pdf> (Japanese)  
<http://www8.cao.go.jp/space/plan/plan-eng.pdf> (English; the earlier version)

## 1.2 For researchers considering application and participation

### 1.2.1 Contribution towards achieving sustainable development goals (SDGs)

#### **JST contributes to the achievement of Sustainable Development Goals (SDGs)!**

At the UN Sustainable Development Summit held in September 2015, the outcome document **“Transforming Our World: the 2030 Agenda for Sustainable Development”** was unanimously adopted. The document focuses on Sustainable Development Goals (SDGs) as the more comprehensive new global action targets for humanity, the planet and prosperity. The 17 goals of the SDGs not only indicate challenges on sustainability facing humanity, but also require these challenges to be solved in an integrated and inclusive manner. To this end, it is hoped that Science, Technology and Innovation will solve these social issues and provide a scientific basis for making better policy decisions. These roles agree with the new responsibilities of science, i.e., “Science in Society and Science for Society” set forth in the “World Declaration on the Use of Science and Scientific Knowledge” (Budapest Declaration \*) adopted by the International Science Council and UNESCO in 1999. As a core organization promoting Japan’s science and technology policy, JST promotes cutting-edge basic research and is engaged in problem-solving R&D to meet the needs of society. SDGs are universal goals that can cover JST’s mission. JST will co-create values with the industry, academia, government, and public through its programs, and work with the researchers to achieve a sustainable society.

Michinari Hamaguchi, President, Japan Science and Technology Agency

\* The Budapest Declaration states that “Science for Knowledge,” “Science for Peace,” “Science for Development” and “Science in Society and Science for Society” are the responsibilities, challenges and obligations of science in the 21st century.

○ For the Sustainable Development Goals (SDGs) and JST’s commitments, please visit the following website:

(Japanese) <https://www.jst.go.jp/sdgs/actionplan/index.html>

(English) <https://www.jst.go.jp/sdgs/en/actionplan/index.html>



### 1.2.2 Promoting diversity

#### **JST is promoting diversity!**

Diversity is essential for the environment to bring about Science, Technology and Innovation. It is possible to create a new world only when various people of every age, gender and nationality who have diverse expertise and values meet together, share ideas, take co-creative actions and collaborate. By promoting diversity in its all activities in science and technology, JST aims to tackle problems of our future society, and contribute to the enhancement of competitiveness of Japan as well as to the improvement of spiritual richness of its people. JST also aims to contribute to solving not only Japan's domestic issues but also those common throughout the world, in the light of the fact that various targets closely related to diversity promotion including gender equality are set in the "Sustainable Development Goals (SDGs)" agenda of the United Nations.

Currently, women's active participation is considered central to Japan's growth strategy as "the largest potential of Japan". Expanding the participation by women is important for research and development as well, and female researchers and their diverse perspectives are indispensable to scientific and technological innovations. JST expects more female researchers to apply actively. We are continually working to improve our existing "Childbirth, Child-raising, Nursing Care Support System," carefully listening to the opinions of the researchers who have taken advantage of this system to create an environment where other researchers can always return to their work.

We also consider the perspective of diversity when we call for and evaluate new research proposals. We cordially invite you, all researchers, to apply without hesitation .

Michinari Hamaguchi, President, Japan Science and Technology Agency

### **We look forward to your application**

JST is promoting diversity in research, because we believe that diversity means understanding people who have different ideas and merging those ideas with one's own to create new value. Diversity can help us solve not only domestic problems but also problems common throughout the world. Therefore, we will help tackle social issues on a global scale, such as those in the Sustainable Development Goals (SDGs), by working together with overseas institutions to promote diversity in research.

Diversity initiatives at JST target not only women but also early career and non-Japanese researchers. We continue to support our researchers who give birth, raise children or provide nursing care in order for them to fully exercise their abilities, and try to achieve gender balance in our committees and elsewhere. Our goal is to create an environment where people of every background can develop through friendly competition with each other. As we make our efforts to create new value, we particularly welcome applications from female researchers who have been somewhat under-represented in the past.

So we look forward to receiving a lot of active applications, especially from female researchers.

Miyoko O. Watanabe, Deputy Executive Director and General Manager,  
Office for Diversity and Inclusiveness, Department of Strategic Planning and Management, Japan  
Science and Technology Agency

#### 1.2.3 Aiming for fair research activities

### **Conduct for responsible research activities**

The recent incidents involving misconduct and dishonesty in research activities have resulted in an alarming condition that threatens the relationship of trust between science and society, and hinders the healthy development of scientific technologies. To prevent misconduct in research activities, autonomous self-purification of the scientific community must function. Each researcher must strictly discipline him/herself and work to create new knowledge and inventions that are useful for society, based on a high moral standard to meet the expectations of society.

As a funding agency for research, the Japan Science and Technology Agency (JST) considers research misconduct a grave issue and makes every effort to prevent it in cooperation with relevant organizations, thereby aiming to regain public trust.

1. JST believes that honesty in research activities is extremely important for Japan, which seeks to develop itself through science and technology.
2. JST supports honest and responsible research activities.
3. JST strictly condemns any misconduct in research activities.

4. JST will promote education in research integrity and reform its research funding programs in cooperation with relevant organizations, in order to prevent misconduct.

We must develop a healthy scientific culture based on social trust toward building a society filled with hopes and dreams for a bright future. We therefore request the continued understanding and cooperation of the research community and related institutions.

Michinari Hamaguchi, President, Japan Science and Technology Agency

#### 1.2.4 Open access and data management plan

In April 2017, JST announced a basic policy for handling the research results to promote open science. This policy defines the basic concepts of open access, applied to papers of research results, and storing, managing and sharing of research data.

In principle, researchers participating in this program are requested to make their research results openly accessible via institutional repositories, OA journals or other means. They are also requested to develop and submit a data management plan to JST as a part of the research plan. The data management plan defines policies and plans for data storage, data management and data sharing (or not sharing) of research results and they are requested to store, manage and share the research data in accordance with this plan.

For details, please refer to the following.

- JST Policy on Open Access to Research Publications and Research Data Management  
<https://www.jst.go.jp/EN/about/openscience/index.html>

## Chapter 2 Public Invitation and Screening

### 2.1 Research fields and areas for public invitation

An applicant can file only one research proposal as principal investigator for this program across all the research areas (including Infectious Diseases Control field handled by AMED).

In the Top-Down SATREPS category for which applications are invited in this fiscal year, one proposal may be submitted in the three research fields covering four research areas for which the JST is inviting applications and which meets the following conditions.

- Eligible regions and countries:

Following the TICAD 7 conference, applications from Africa are encouraged

- Eligible research topics, etc.:

Subjects that are expected to contribute to resolving social issues through the proactive utilization of ICT in R&D or implementation

The Seventh Tokyo International Conference on African Development (TICAD7), a conference held every three years, was held in August this year (2019) in Yokohama. In advance of TICAD7, the Advisory Board for the Promotion of Science and Technology Diplomacy (chair: Teruo Kishi, Science and Technology Advisor to the Minister for Foreign Affairs) formulated recommendations titled “Achieving an innovation ecosystem together with Africa,” with the aim of establishing an innovation ecosystem in which both Japan and Africa create autonomous and sustainable innovation to enable the sustainable development of the Japan–Africa relationship as equal partners. These recommendations suggested three initiatives--(1) support for the resolution of social issues, including SDGs, harnessing STI; (2) continued and expanded STI human resource development; and (3) social implementation of STI results through enhanced utilization of ICT--based on four keywords beginning with S (SDGs, STI, SATREPS, and Society 5.0). Based on these recommendations, in this year's Top-Down SATREPS program research, proposals that are expected to contribute to resolving social issues by the proactive utilization of ICT in R&D or implementation in Africa are encouraged. Please refer to Section 2.8 (How to apply) for details of how to apply for the Top-Down SATREPS program.

## &lt;Eligible research fields and areas&gt;

| Research Fields                    | Research Areas  |
|------------------------------------|---|
| Environment and Energy             | 1. Research contributing to the solution to global-scale environmental issues (Contributing to SDGs - conservation of ecosystems and biodiversity, sustainable use of natural resources, pollution prevention and control, and response to climate change.)   |
|                                    | 2. Research on realization of low carbon society and efficient use of energy (contributing to climate change mitigation and SDGs - energy conservation, renewable energy, and smart societies )   |
| Bioresources                       | 3. Research contributing to sustainable production and utilization of bioresources (Contributing to SDGs - food security, health promotion, nutrition improvement, and sustainable agriculture, forestry, and fisheries)  |
| Disaster Prevention and Mitigation | 4. Research on disaster prevention and mitigation towards social sustainability (contributing to the Sendai Framework for Disaster Risk Reduction and SDGs - from advance measures such as analysis of disaster mechanisms, building national resilience, strengthening social infrastructure, and appropriate land use planning, to recovery and reconstruction after a disaster has occurred) |

\* To ensure that research proposals are appropriate for this program, please read the research field descriptions below carefully.

- When submitting a research proposal for a project involving interdisciplinary research that extends over multiple fields or areas, in Form 1 check the area that is the closest match. Note that, after examining the content of the proposal, the project may be selected for a different area from that applied for.

\* Applications are accepted for research projects covering topics in developing countries for which research and development to resolve an issue is particularly necessary, and for which capacity building of researchers in that country is required. Projects also ought to envisage their outcomes being applied to the benefit of broader society as well as in the developing country, being used towards the resolution of global issues, and bringing scientific and technological progress. A project is not eligible if it consists merely of transfer of Japanese technology without entailing any joint research, or solely of surveys and other simple operations that do not make any contribution to the advancement of science and technology, or if it produces outcomes that can only be of benefit to one particular country

\* Please be aware that joint projects that include medical acts, excluding the Infectious Disease Control Field, may not be eligible for this program, and that depending on the study, ethical considerations may be required.\* Up to FY2015, the SATREPS Invitation for Research Proposals included the Infectious Diseases Control field. From FY2016, projects in this field are handled by AMED, the Japan Agency for Medical Research and Development. See the AMED website for details regarding the invitation for research proposals in the Infectious Diseases Control field.

[https://www.amed.go.jp/koubo/03/01/0301A\\_00049.html](https://www.amed.go.jp/koubo/03/01/0301A_00049.html) (only in Japanese)

## **(1) Environment and Energy**

### **Research Area 1: Research contributing to the solution to global-scale environmental issues (Contributing to SDGs - conservation of ecosystems and biodiversity, sustainable use of natural resources, pollution prevention and control, and response to climate change.)**

Development of new technologies and their practical application are urgently needed in order to tackle the many environmental issues facing humanity on a global scale, including the deterioration of ecosystems and biodiversity, the concentration of populations into urban centers, rising production and consumption, the spread of pollution, and climate change.

Many of the Sustainable Development Goals (SDGs) established by the United Nations (UN) are deeply interlinked with the resolution of environmental problems. Conservation and restoration of ecosystems and biodiversity in environments such as forests, wetlands, grasslands, and oceans, as well as their sustainable utilization, are outlined in SDG 15: *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*, and SDG 14: *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*.

Other pressing issues that must be tackled in order for humans to live healthy, fulfilling lives include prevention of environmental pollution by harmful substances, restoration of polluted environments, attainment of food and water security, maintenance and upkeep of key social infrastructure in urban areas, and management and prevention of waste. The basis of such efforts include the development of sustainable urban societies based on low- environmental impact production and consumption, and the creation of areas fit for human settlement, which interlink with the UN SDGs in multiple facets. Also, the development of measures to combat climate change, including those to counter related negative impact, is a critical global task, as stated in SDG 13: *Take urgent action to combat climate change and its impacts*.

To solve these issues, it is important that we combine the respective knowledge of natural and social sciences to develop new technologies, apply these in a real-world setting to reduce the impact on the environment and construct sustainable economic and societal systems, work to inform and educate the public, continue to further refine and enhance the knowledge and experience gained through this research, and to communicate this information effectively throughout the world.

Research proposals for FY2020 shall be based on these considerations. Several examples of the main research subjects are listed below, but other subjects are also acceptable if they meet the requirements mentioned above.

- ◆ Research on chemical pollution, its risk reduction and remediation
- ◆ Research on sustainable utilization of water resources along with water processing and ensuring safe water supply
- ◆ Research on establishing a material-cycle society (including collection and reuse of waste and useful resources)
- ◆ Research on the conservation and restoration of ecosystems and biological diversity
- ◆ Research on urban environmental conservation (including greening) and environment creation

- ◆ Research on mitigating environmental degradation caused by urbanization, constructing pleasant cities
- ◆ Research on reconstruction and restoration of environments damaged by large-scale disasters
- ◆ Research on sustainable use of natural resources
- ◆ Research on climate change prediction, adaptation or mitigation

Applications for research proposals relating to systems and key technologies for energy systems for low carbon societies and climate change mitigation, including energy saving, recyclable energy, and new energy types, should be made under Research Area 2, even if they also fit into this category.

Please also consider applying for Disaster Prevention and Mitigation, if a research proposal not only aligns with the purpose of this research area but also that of Research Area 4.

**Research Area 2: Research on realization of low carbon society and efficient use of energy (contributing to climate change mitigation and SDGs - energy conservation, renewable energy, and smart societies )**

One of the United Nations Sustainable Development Goals (SDGs), Goal 7, is an important global-scale issue evident in the SDGs, which aim to *leave no one behind*. Meanwhile, in order to achieve the mitigation of climate change (SDG-13), the whole world must realize a low-carbon society. In this research area, proposals are invited that will contribute to achieving a low-carbon society through research in areas such as limiting energy consumption, promoting renewable energy, and smart societies.

The Paris Agreement, which was adopted at the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) held in November 2015, set the target of restricting the increase in the global average temperature to below 2 °C. In order to achieve this, greenhouse gas emissions need to be reduced to the level of approximately 24 billion tons by the year 2050, requiring more than 30 billion tons of additional reductions. In addition, Japan's Plan for Global Warming Countermeasures approved by cabinet decision in May 2016 sets a target to reduce GHG emissions by 26.0% (relative to FY2013) by FY2030 (a 25.4% reduction relative to FY2005). In the long term, Japan also aims to reduce GHG emissions by 80% by 2050.

Achieving the above objectives will require collaboration between advanced nations and developing countries in order to generate the innovations needed to achieve a low-carbon society.

Moreover, Japan's Assistance Initiatives to Address Climate Change 2017 also promotes "co-innovation," which generates innovation through collaboration—while specifically keeping the issues and the needs of the developing nations in mind—and emphasizes the reduction of GHG emissions on a global basis. Additionally, Japan's contribution to the reduction of GHG emissions in developing nations is expected to play a role in achieving Japan's reduction targets through the Joint Crediting Mechanism (JCM).

Research proposals for FY2020 shall be based on these considerations. Several examples of the main research subjects are listed below, but other subjects are also acceptable if they meet the requirements mentioned above. Please specifically indicate how the energy and social systems to be

developed present a greater possibility of realizing a low-carbon society and advantages over the existing systems in terms of economic performance and energy balance, in the proposal.

- ◆ Research on energy conservation, such as highly efficient, clean energy use technology, the introduction of highly efficient machinery and energy recycling technology, and the development of energy systems that contribute to using less carbon
- ◆ Research on renewable energy, such as sunlight and solar heat, wind power, ocean energy, geothermal energy, and biomass. Research on promoting the utilization of renewable energy.
- ◆ Research utilizing means such as ICT, IoT, and AI to create low-carbon, resource-recycling cities and regions, in forms such as smart cities, smart communities, smart agriculture, transport networks, and next-generation infrastructure.
- ◆ Research on the sustainable use of natural resources such as fossil fuels and minerals, such as component technologies related to carbon capture, usage, and storage (CCUS); resource recycling; “urban mine” development; and resource collection systems.

### (2) Bioresources

#### **Research Area 3: Research contributing to sustainable production and utilization of bioresources (Contributing to SDGs - food security, health promotion, nutrition improvement, and sustainable agriculture, forestry, and fisheries)**

Since ancient times, human beings have utilized a diversity of bioresources for energy and to provide the necessities for healthy lives, such as food and fodder, medicine, and textiles. With recent global-level population increases and climate change, there is a need to develop radical, fundamental technology to deal with desertification; drying, salt accumulation and spread of insect pests and viral diseases in agricultural land; less reliable temperature and rainfall levels, etc., all of which threaten the sustainable production of bioresources. In addition, the United Nations Sustainable Development Goals (SDGs) set forth objectives for the utilization of bioresources in SDG 2: *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*, SDG 14: *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*, and SDG 15: *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*.

The Conference of Parties to the Convention on Biological Diversity recognizes that biodiversity supports the existence of humans and provides a variety of benefits to humans. The Convention on Biological Diversity, Nagoya Protocol, and International Treaty on Plant Genetic Resources for Food and Agriculture were established by international agreement, with their objectives being the conservation of biological diversity and the sustainable use of its components, and fair and equitable sharing of benefits arising from genetic resources. The countries that are the parties to the convention are now putting into place the legislative framework to achieve these objectives. Japan ratified the Nagoya Protocol in August 2017, and will henceforth be required to adhere to further international treaties.

In order that we can continue to enjoy the benefits of bioresources in the context of such global change, the importance of research and development into the production, utilization, and management of bioresources, particularly in developing countries, has been identified, and there is growing demand for the rapid deployment of the outcomes of such research to benefit society.

Research proposals for FY2020 shall be based on these considerations. Several examples of the main research subjects are listed below, but other subjects are also acceptable if they meet the requirements mentioned above.

- ◆ Research and development contributing to the sustainable production and utilization of bioresources (including resource management, breeding, cultivation, propagation and culturing technology for plant, animal, marine and microbial resources, production systems)
- ◆ Research contributing to the evaluation and effective utilization of bioresources (including using biodiversity for discovery, identification, and production of valuable substances derived from biological resources but excluding human drug development)

Applications for projects focusing on the following topics should be made under Environment and Energy.

- ◆ Research contributing to the conservation and restoration of ecosystems and biodiversity (Environment and Energy, Research Area 1)
- ◆ Research contributing to the utilization of biomass energy (Environment and Energy, Research Area 2)
- ◆ Research activities that primarily address environment and energy issues (Environment and Energy, Research Areas 1 and 2)

### **(3) Disaster Prevention and Mitigation**

**Research Area 4: Research on disaster prevention and mitigation towards social sustainability (contributing to the Sendai Framework for Disaster Risk Reduction and SDGs - from advance measures such as analysis of disaster mechanisms, building national resilience, strengthening social infrastructure, and appropriate land use planning, to recovery and reconstruction after a disaster has occurred)**

As outlined in the United Nations Sustainable Development Goals (SDGs) under SDG 11: *Make cities and human settlements inclusive, safe, resilient and sustainable*, and SDG 13: *Take urgent action to combat climate change and its impacts*, disaster prevention and mitigation is a key issue facing humanity on a worldwide scale. In order to work toward the realization of safe, resilient, and sustainable cities and societies, it is necessary to conduct research that is founded soundly on local needs, and whose findings can be applied back to society. When addressing this need, in addition to utilizing Japan's knowledge and experience it is important that research and development is

conducted not only in Japan but as part of a worldwide framework, in a comprehensive and systematic manner. Plans such as the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Sendai Cooperation Initiative for Disaster Risk Reduction, which were established at the Third UN World Conference on Disaster Risk Reduction in March 2015 call for collaboration between disaster prevention policy and scientific research as well as support for developing countries, including technology transfer. In addition, the Paris Agreement finalized at COP21 in December 2015 outlines international targets and contribution in the DRR field, and research toward disaster risk prevention and mitigation is widely recognized as a key task both in Japan and overseas.

Amidst these circumstances, in addition to addressing natural disasters such as earthquakes, tsunami, volcanic eruptions, storms, storm surges, inundation, drought, heat waves, and landslides, this research area also includes research on preventing and mitigating disasters that urbanization may exacerbate (including research on post-disaster recovery and reconstruction). Examples include large fires in densely populated urban areas, flood damage, traffic and transportation accidents, damage to social infrastructure, and large-scale accidents at industrial complexes. It is important to adopt an integrated approach spanning disaster occurrence, forecasting, countermeasures in light of the effectiveness of investment in disaster risk reduction, and a plan to practical application while also seeking interdisciplinary collaboration with various fields beyond one's field of expertise. This includes analysis and explication of disaster mechanisms, validation of existing disaster risk reduction measures, and verification of risk communication strategies. In addition, studies are also required in areas such as building national resilience, land use planning, and improving social infrastructure, which are directly connected to strengthening social resilience in future. When studying post-disaster recovery and reconstruction it is particularly important that those vulnerable to damage, such as women, children, and persons with disabilities, are taken into consideration. In this regard, research topics which incorporate the perspective of SDG 5: *Achieve gender equality and empower all women and girls* are particularly welcome.

Research proposals for FY2019 shall be based on these considerations. Several examples of the main research subjects are listed below, but other subjects are also acceptable if they meet the requirements mentioned above.

- ◆ Research on clarifying the mechanisms of disasters associated with natural phenomena such as earthquakes, tsunami, volcanic eruptions, storms, storm surges, inundation, drought, heat waves, and landslides, together with measures to mitigate such disasters and risks, as well as measures for restoration and reconstruction, and research on effectiveness of investment in disaster risk reduction.
- ◆ Research and development of measures to mitigate the damage from major disasters that have become more serious with urbanization (fires, flooding, damage to lifelines/transportation networks, etc.)
- ◆ Research on building national resilience to create disaster-resistant, resilient communities, land use planning and urban design, and improvements to social infrastructure and its sustainable operation
- ◆ Research contributing to the prevention and mitigation of regional and urban disasters through

the prompt collection and effective utilization of disaster information (including development of technology to utilize disaster observation satellites, remote sensing, GIS, GNSS, ICT, IoT, UAV, etc.)

- ◆ Research for the prevention of, mitigation of, and recovery from disasters that combines approaches across the natural sciences, humanities, and social sciences to help establish precise and practical disaster forecasting and enable effective recovery

## 2.2 Schedule for application and selection

The schedule for applications and selection is set out below. The applications start date and deadline are fixed, but the other dates are provisional. They may change without notification. Please see the program website for up-to-date schedule details.

SATREPS research proposals website  
<https://www.jst.go.jp/global/english/koubo.html>

|   |  |
|---|--|
| Applications start date                             | Tuesday September 10, 2019   |
| <b>ODA applications deadline<sup>4</sup></b>        | <b>Monday October 28, 2019(Japan time)<br/>(applications received after the deadline will not be accepted)</b>                     |
| <b>Applications deadline</b>                        | <b>12:00 noon (Japan time) on Monday<br/>November 11, 2019 (applications received<br/>after the deadline will not be accepted)</b> |
| Document screening                                  | Late November 2019 to<br>February 2020   |
| Notification of document screening results          | Late February to Mid March 2020  |
| Interviewing for selection                          | Mid March to Early April 2020  |
| Provisional selection and notification <sup>5</sup> | Mid May 2020 onwards,<br>after JST research budget approval  |
| Start of research                                   | May 2020 or later,<br>following signing of the R/D   |

<sup>4</sup> MOFA must receive an application for ODA from the government of the prospective recipient country by the deadline. This is one of the conditions for selection. In this fiscal year, for diplomatic considerations the number of applications from a single country is limited to a maximum of twelve, and should this limit be exceeded the government of the partner country will be required to narrow them down.

<sup>5</sup> Around the same time as the provisional selection of research projects in Japan, notification regarding selections for the corresponding ODA technical cooperation will be made to applicant governments. Subsequently, when the R/D is signed between JICA and the counterpart, the research project will be formally approved for awarding, and international joint research will begin. Selection of the research project in Japan will be announced to the public by JST and JICA at an appropriate time after notifying the principal investigator of provisional selection.

## 2.3 Countries eligible for SATREPS program

Please refer to Appendix 1 for the countries that are eligible to request ODA.

[See: Appendix 1]

## 2.4 Research period

The period of international joint research (period to conduct the technical cooperation project set out in the R/D) is three to five years.

As shown in Figure 3, within the limits of the budget for JST contract research expenses determined at the time of provisional selection, it may be possible to extend the completion date for research activities in Japan funded by JST contract research expenses up to the end of the fiscal year in the final year of joint international research implementation prescribed under the R/D (in such cases, payment of expenses incurred by the ODA side extending past the period stated in the R/D will not be made).

Following provisional selection of research projects, JST contract research expenses are available to Japanese research institutions before the signing of R/D and other agreements (CRA, etc.) to ensure swift implementation of the international joint research project after the R/D and other agreements are signed. This coverage only extends to research expenses incurred by the Japanese team for the purpose of preparation for the international joint research activities.

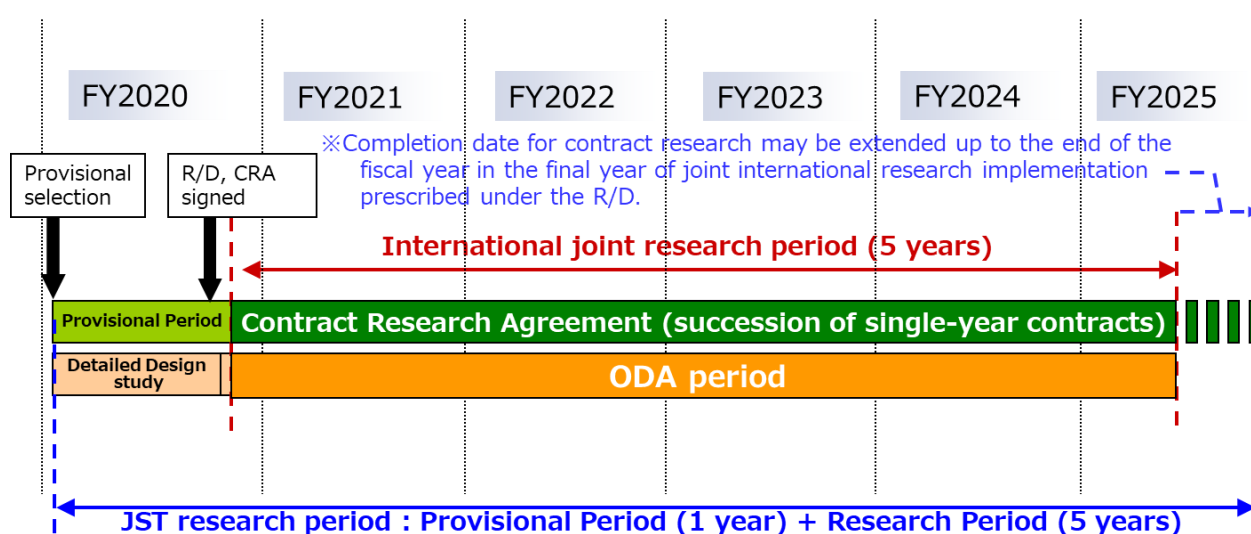


Figure 3. Extent of Research Period (5-year project)

## 2.5 Research expenses

### 2.5.1 JST contract research expenses and ODA project expenses

In this program, JST will provide financial support to the Japanese research institution for the project activities in Japan and JICA will bear the expenses necessary for the implementation of ODA technical cooperation (including dispatch of experts from Japan, acceptance of foreign researchers, and provision of machinery and equipment) in the partner country, which is the recipient country under the ODA technical cooperation framework.

### (1) Research expenses awarded by JST

The overall contract research expenses awarded by JST per project shall be approximately JPY 35 million per year (and not exceed a total of JPY 175 million for a five year project), including indirect costs and overhead. The amount is a rough indication, and assumes the approval of the FY2020 budget. Please be forewarned that changes and adjustments to amounts and (particularly this year) also to particulars may be required according to budgetary considerations.

JST will distribute the full amount of research funds granted to the research institutions that principal investigator and main research collaborators are affiliated with. Based on the Contract Research Agreement, JST will pay the research institute contract research expenses, which consist of research expenses (direct costs) and indirect costs (in principle, 30% of the direct costs). Additionally, rules and guidelines unique to this project have been set for certain items in line with the Contract Research Agreement, Administrative Procedures, cross-ministerial expenses categorization table, etc. The handling of universities (recognized as such by JST, including universities, public research institutes, public service corporations, etc.) may differ from that of corporations, etc. (mainly non-university-affiliated research institutes of private-sector corporations).

Other details concerning disbursement of JST contract research expenses are available at the following website under Contract Research Agreement Administrative Procedures (Currently Japanese only).

<https://www.jst.go.jp/contract/index2.html>

### (2) ODA project expenses provided by JICA

For each project, ODA project expenses are approximately JPY 60 million per year, and are limited to a maximum of JPY 300 million yen over a 5-year project. The actual budget is fixed after the Detailed Design (D/D) study of the research project, which does not occur until after provisional selection of the project.

The ODA project expenses provided by JICA are technical cooperation costs, and the project contract is basically an agreement whereby the principal investigator's institution undertakes to provide the technical cooperation services on JICA's behalf. Consequently, the approach to the use of funds and supervision of expenditures is very different from that applying with other research subsidies and grants. Details of expenses that can be met are given in chapter 4 "Overview of ODA Technical Cooperation", which should be studied carefully.

The current invitation for research proposals has been made before the government budget has been approved. Consequently, depending on the details and the amounts included in the government budget that is finally approved, there may be changes in the upper limit to the funding available per project.

[See: 4.5.4(3)]

## 2.5.2 Expenses covered by JST and JICA

As a rule, research expenses are categorized into those covered by JST as contract research expenses and those covered by JICA as project expenses, as described below: (See also Table 1.)

- A. Research expenses incurred in Japan and other locations outside the developing country will be supported by JST as contract research expenses.
- B. Costs incurred within the developing country (on-site machinery and equipment procurement, etc.) and expenses needed to invite researchers to Japan from the recipient country (round trip travel expenses, lodging charge, domestic travel expenses, part of costs of acceptance) are shouldered by JICA.
- C. As a rule, travel costs and on-ground expenses for researchers from Japan dispatched to the counterpart institutes on official business shall be borne by JICA (for those who are dispatched for more than one year, travel cost for dispatch and return, transfer allowance, other allowances, etc.). Activities relating to the international joint research undertaken by researchers from Japan within the developing country will be governed by the provisions on tax immunity and permission for activities prescribed in the R/D concluded between JICA and the counterpart institutes.

When SATREPS project team members are dispatched to the ODA recipient country, JICA does not cover supplementary labor costs and overhead costs or in-country salary (paid directly as a fixed monthly amount when the team member is affiliated with an institution but not paid during the dispatch period) incurred by the researcher's institution. This is also the same in the case of companies or NGOs.

As JICA supports that country with ODA under the technical cooperation framework, the country is required to depend on its own efforts. Consequently, the local institution's costs incurred for the project (labor costs, rent, consumables used by local researchers, operation and maintenance of machinery and equipment supplied, domestic transportation fees for local researchers, daily allowance for attending a meeting, and other miscellaneous costs) should in principle be covered by its own country.

| Expenses   | JST                       | JICA            |
|--|---------------------------|-----------------|
| A: Research expenses incurred in Japan   | YES                       |                 |
| A: Research expenses incurred outside of partner countries<br>(Travel expenses to third countries, on-site expenses, etc.) | YES<br>(Note 1)           |                 |
| B: Costs incurred in partner countries   | Exceptionally<br>(Note 2) | YES<br>(Note 3) |
| B: Travel expenses to invite researchers to Japan from<br>partner countries  | Exceptionally<br>(Note 4) | YES             |
| C: Travel expenses between Japan and partner countries   | Exceptionally<br>(Note 5) | YES             |

Table 1. Categories of expenses covered by JST and JICA

Note 1: Joint projects with research institutions in a third country are not covered.

Note 2: In principle, financial support from JST is limited to costs that can be covered as research expenses in the partner country, and that cannot be covered by JICA, such as travel costs and on-ground expenses incurred through activities considered to be an extension of research in Japan.\*

Note 3: Research expenses incurred in the ODA recipient country include equipment, research supplies, and consumables required for the Japanese researchers to conduct international joint research in the partner country. (As JICA supports that country with ODA under the technical cooperation framework, the country is required to depend on its own efforts. Consequently, the local institution's costs incurred for the project (labor costs, rent, consumables used by local researchers, operation and maintenance of machinery and equipment supplied, domestic transportation fees for local researchers, daily allowance for attending a meeting, and other miscellaneous costs) should in principle be covered by its own country.)

Note 4: Limited to external experts, etc. who are not part of the partner country's research team.

Note 5: Limited to students, external experts, etc., and other cases where dispatched to the partner country as JICA experts is not possible. However, if students are traveling to engage in research, the institution with which they are affiliated must take sole responsibility for their trip (including the duty to ensure their safety) as well as making all the arrangements and completing all the administrative procedures, and must meet all the required conditions.

\* In some exceptional cases, it may be possible for costs relating to official trips to the developing country to be covered by JST research expenses. See Contract Research Agreement Administrative Procedures for details. (Currently Japanese only).

<https://www.jst.go.jp/contract/index2.html>

When a private-sector corporation or similar entity submits an application as the research institution, coverage of expenses may differ from the description given above. Consult JST/JICA in advance for details.

### **2.6 Number of research projects to be selected**

The number of projects to be selected will vary according to the Japanese government's FY2020 budget. There is also potential for selection of a number of feasibility studies\*. Out of all the selected projects, a maximum of two will be selected as Top-Down SATREPS projects.

\* A feasibility study may be selected by the program committee in circumstances when a proposed project that is not selected this year has desirable characteristics, such as being a proposal involving a country for which no projects (or very few projects) have yet been selected, or a proposal with a desirable research topic, and furthermore, has the potential for becoming a substantially improved project proposal one year later if rewritten after conducting preliminary surveys, etc. When a proposal is selected for a feasibility study, funding is provided for feasibility study costs. Having been selected for a feasibility study does not give the project any special priority in the next or subsequent year's selection process.

## 2.7 Application requirements

### 2.7.1 Applicant

- The principal investigator (PI; applicant) must be affiliated with a Japanese research institution<sup>6</sup>, be able to fulfill the duties as principal investigator for the international joint research project, and be able to engage in the international joint research from start to finish.
- The application should be written by the principal investigator in person.

### 2.7.2 Research Participants and Research institution(s)

- Japan side research participants are required to be affiliated with a research institution in Japan.
- If a researcher has posts at both a Japanese research institution and a research institution in the partner country, he or she cannot be included in both institutions' lists of members, so has to choose which one.
- If a researcher not affiliated with the research institution is required to participate in the project, appropriate procedures need to be taken.
- An institution in a third country (neither Japan nor the partner country) cannot participate in the joint research. Moreover, a researcher whose only affiliation is an institution in a third country cannot participate in the joint research. See the Q&A for details.
- International agencies can participate, but with certain limitations. See the Q&A for details.
- The lists of members should be shared between the Japan side and the partner country side.
- Proposals involving a corporation or similar entity as the principal investigator's institution need to meet certain conditions to be eligible for selection.

[See: Q&A]

## 2.8 How to apply

Forms for research proposals for FY2020 (listed in Table 2 below) shall be downloaded from the SATREPS website below, filled in, and then submitted using e-Rad. Submit as a single file, utilizing PDF etc. as the file format where necessary. Refer to the guidelines for the target outcomes sheet of Form 2 and to the e-Rad manual (additional information for the use of researchers submitting SATREPS proposals) (only in Japanese).

<https://www.jst.go.jp/global/english/koubo.html> (English, with limited information)

<https://www.jst.go.jp/global/koubo.html> (Japanese, with complete information)

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<sup>6</sup> "Japanese research institutions" refers to universities, National Institute of Technology, independent administrative institutions, public-sector research and development institutes, public-service corporations, or private-sector corporations, etc., each of which must be incorporated in Japan, and also to national institutes that are not incorporated. For incorporated entities, no distinction is made between the forms of incorporation, but the corporation's ability to implement research is scrutinized during the selection process.

**Please be sure to choose the correct research area when submitting the research proposal via e-Rad.**

When proposing a Top-Down SATREPS project, the check box on Page 1 of Form 1: Proposal submitted by the principal investigator asking “Is this application for a Top-Down SATREPS project?” must be checked, and check box 8 stating that the proposal is either “Included in the STI for SDGs Road Map” or “Included in a National Development Plan” in the ODA Application submitted by the principal investigator in the partner country must also be checked.

|        |  |
|--------|--|
| Form 1 | Proposal   |
| Form 2 | Research Theme Concept                           |
| Form 3 | Japanese Institution Implementation Structure    |
| Form 4 | Grants Received Through Other Programs           |
| Form 5 | Counterpart Institution Implementation Structure |
| Form 6 | Research Expense Plan                            |
| Form 7 | Written Approval from Institution Director       |
| Form 8 | Plans by Private-Sector Corporations, etc.       |
| Form 9 | Proposal Coordination Status                     |

Table 2. Forms for Research Proposal Applications

[See: Appendix 2]

## 2.9 Selection method

### 2.9.1 Screening method

At the selection stage, JST/MEXT and JICA/MOFA collaborate to screen applications. JST/MEXT primarily screen applications from a science and technology viewpoint. In contrast, JICA/MOFA primarily screen applications from an ODA viewpoint. As the research outside Japan is implemented as an ODA project, the research needs to take the form of cooperation, contributing to addressing or resolving issues faced by the partner country and fitting in with the Country Assistance Policy. It must also display a practical approach, showing a plan for applying the research outcomes to the benefit of society. Please be aware that JST will provide submitted documents and the results of documents and interview screenings to MOFA, MEXT, and JICA.

During the assessment of proposals for Top-Down SATREPS research projects, checks will be made to confirm that they are included in the eligible regions and countries indicated in Section 2.1 (Research fields and areas for public invitation) and that they meet the conditions for research topics.

### 2.9.2 Screening flow

The screening committee composed of external experts in their relevant scientific disciplines appointed by JST will conduct the selection in two steps—document screening and interview.

A maximum of two of the research topics proposed as Top-Down SATREPS projects will be selected as this type of project. Research topics not selected as Top-Down SATREPS projects may be selected as regular SATREPS projects. The screening process for Top-Down SATREPS projects will include confirmation that both the check boxes in Form 1: Proposal, submitted by the principal investigator, and the ODA Application have been checked, as well as confirmation that they are associated with the STI for SDGs Road Map or Development Plan of the partner country. If both the check boxes are not checked, or if the association with the STI for SDGs Road Map or Development Plan of the partner country cannot be confirmed, they will not be selected as Top-Down SATREPS projects.

### 2.9.3 Managing Conflicts of Interest (COI)

To achieve fair and transparent evaluation and research fund allocation, JST will manage COI as follows in accordance with JST's rules.

#### (1) Managing COI of those involved in screening.

For fair and transparent evaluation, the following stakeholders having connections with the principal investigator do not participate in the screening.

- a. A person who is in kinship with the principal investigator.
- b. A person who belongs to the same department or has the same specialization at a research institution, such as a university or national R&D agency, or belongs to the same company with the principal investigator.
- c. A person who conducts a joint research closely with the principal investigator. (For example, a person performing a joint project or writing a co-authored research paper, a research member having the same purpose, or a joint researcher pursuing the proposer's research project who is considered to belong to a research group substantially the same as that of the proposer)
- d. A person who has a close teacher-and-student relationship or a direct employment relationship with the principal investigator.
- e. A person who is in an academic competition with the research project of the principal investigator or belongs to a company in a competitive relationship in the market.
- f. Others determined by JST to be a stakeholder.

#### (2) Managing COI of the principal investigator

If the principal investigator makes a research proposal with a "principal investigator-related organization" specified as a joint research institution, and JST allocates research funds to the "principal investigator-related organization," it may fall under COI. JST properly determines and manages COI between the principal investigator and the "principal investigator-related organizations" in consideration of the necessity, rationality and appropriateness of their relationship to avoid any doubt from third parties.

The “principal investigator-related organizations” refer to the joint research institutions that fall under any of the following. For “a” and “b,” not only the principal investigator but also the spouses and relatives within the first degree of the principal investigator (hereinafter collectively referred to as “Principal investigator, etc.”) shall be handled as follows.

- a. An organization established based on the R&D results of “principal investigator, etc.” (including the cases where the principal investigator, etc. is not directly involved in management and only holds the title of a technical adviser, or where the principal investigator, etc. only hold shares.)
- b. An organization where the “principal investigator, etc.” is appointed as an officer (including CTO but not a technical advisor).
- c. An organization where the “principal investigator” holds shares.
- d. An organization from which the “principal investigator” earns royalty income.

JST will deliberate a research proposal with a “principal investigator -related organization” specified as a joint research institution at a program committee from the perspective of necessity, rationality and appropriateness of selecting the principal investigator-related organization.

To specify a “principal investigator -related organization” as a joint research institution, the applicant is requested to declare that the “principal investigator -related organization” is listed in the joint research institutions in the Form 9 of proposal].

JST may request applicants to submit additional documents to manage COI of the principal investigator.

### (3) Managing COI of JST

Selecting a JST-invested company (hereinafter referred to as the “invested company”) for the program, and allocating research funds to the invested company may fall under the COI of JST. JST properly determines and manages COI between JST and the invested company to avoid any doubt from third parties.

JST will deliberate a research proposal with a JST invested company specified as a participating organization at a program committee from the perspective of necessity, rationality and appropriateness of selecting the invested company.

To specify the JST invested company as a participating organization, the applicant is requested to declare that the JST invested company is listed in the participating organizations in the Form 9 of proposal.

JST manages COI to secure the fairness and transparency of JST, and does not handle a JST-invested company unfavorably. Cooperation with the JST’s management of COI is requested for.

\* For JST invested companies, please visit the following website. For companies investment in which is completed, the above declaration is not needed as they are no longer project to COI management.

<https://www.jst.go.jp/entre/result.html#M01>

\* The reference date for the declaration is the start date of public invitation for this program. The

declaration should be made for companies investment in which by JST has been publicized as of the date. For companies investment in which is internally determined but not disclosed, no declaration is needed for the confidentiality within JST.

For the JST-invested companies that are publicized, please visit the following website:

<https://www.jst.go.jp/entre/news.html>

## **2.10 Review criteria and considerations for the selection process**

### **2.10.1 Review Criteria**

- ◆ Implementation plan and feasibility— There must be an implementation plan (content, timing, framework, method, and realization of objectives). Although a project may not be fully implemented during the research collaboration period, the research plan must include specific proposals for how to connect the anticipated research results with their utilization in society (body promoting/expanding implementation, framework, activities by the partner country, and proposals for its expansion to other regions or markets) and plans for activities with a view to implementation that are to be conducted during the research period.  
Consider the participation of a private-sector company, public agency in the partner country, or other organization that can act as the body responsible for implementation or expansion.
- ◆ Alignment with ODA policy and appropriateness as ODA project— The proposal must be based a clear need for the ODA recipient country to address a global issue, must be largely in line with Japan's ODA policy with regard to that country, and must be feasible and appropriate as an ODA project aiming to utilize the research outcomes to benefit society.
- ◆ Scientific/technological value— The proposal must target the acquisition of new knowledge that can lead to the advancement of science and technology and to the development of new technology for addressing global issues.
- ◆ Merits for Japan— The project must have the potential to develop science and technology that could not be achieved by research in Japan alone, to contribute to society or the business community, to train young Japanese researchers, to make effective use of Japan's science and technology in the developing country and globally, and moreover, to strengthen Japan's presence.
- ◆ Setup for research in both countries— There must be a concrete plan for joint research with the developing country, a clear designation of the chief researcher in Japan and in the partner country, and of research institutes or other setups in both countries to undertake the research activities; research institutes in the partner country must not be engaged in other projects that require excessive effort, and a framework for implementing the research must be in place. Moreover, at the end of the joint research period, the developing country must have prospects for continuing to manage and maintain the machinery and equipment provided and continue with research.
- ◆ Efficient & appropriate research plan— There must be a suitable research expenses plan that takes into account research cost performance in the promotion of joint research.

- ◆ Competent principal investigator— It is vital for the principal investigator to possess strong resolve and enthusiasm for promoting joint international research as the leader of a joint research team as well as exhibit strong and trustworthy leadership under JICA technical cooperation.

### 2.10.2 Considerations for the selection process

- ◆ From the perspectives of diplomatic policy and science and technology policy, the selection process takes into account the need to ensure that there is an appropriate regional balance of selected projects among recipient countries (for instance, to prevent projects from clustering in one region), and also a balance in terms of project topics (for instance, to prevent excessive concentration of one particular type of research).
- ◆ The security situation and circumstances in parts of the partner country where research will be conducted may be examined as part of the selection process because of the potential for restrictions on travel to the country and on the ability to implement the project.
- ◆ Proposals for partnering with countries that have never been selected or rarely been selected are particularly welcome.
- ◆ The plan for returning research outcomes to society after the research project terminates is clearer if the entity likely to take on that role participates from the initial stages of research and development. In addition, broadening the scope of partnership between industry, academia, and government is critical in order to pursue technological innovation in an efficient manner. From this perspective, proposals that involve collaboration with corporations (industry-academia-government collaboration<sup>7</sup>) capable of leading research, development, and practical application are welcome. When making an application for an industry-academia-government collaboration project, the principal investigator's institution should fill in Form 2 (5. Plan to practical application and feasibility), and the participating corporation should fill in Form 8, with both explaining in detail their ideas for the collaboration. (If the principal investigator's institution is a private sector business, also fill in and submit Form 8.) When the research period ends, corporations that submitted Form 8 will submit a report.
- ◆ Where necessary, the finances of a corporation or similar entity will be inspected.
- ◆ Proposals for research projects involving African nations or least developed countries (LDCs)<sup>8</sup> are particularly welcome, especially projects that address the needs of these countries by incorporating initiatives for capacity development, local surveys and data analysis, and the

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<sup>7</sup> For the purposes of this program, entities participating as "industry" players have businesses incorporated in Japan.

<sup>8</sup> As of September 2018, the following 47 countries are designated as Least developed Countries (LDC).

- ◆ Africa (33): Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, the Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Uganda, Tanzania, Zambia

- ◆ Asia (9): Afghanistan, Bangladesh, Bhutan, Cambodia, Laos, Maldives, Myanmar, Nepal, Yemen

- ◆ Pacific Islands (4): Kiribati, Solomon Islands, Tuvalu, Vanuatu

- ◆ Latin America (1): Haiti

development and application of appropriate technology or technology of direct utility in coping with problems. To ensure sustainable research activities in LDCs, many cases will require medium- to long-term assistance such as technical cooperation from institutions (JICA, etc.) and the corresponding research proposer's action plan for after the completion of the SATREPS project. Consequently, it is preferable that proposals targeting LDCs include plans for medium- to long-term assistance at the time of proposal.

- ◆ Proposals that are expected to contribute to resolving social issues through the proactive utilization of ICT in research or implementation are encouraged.
- ◆ Considering the importance of nurturing young talent, applications are encouraged that propose research teams whose principal investigator is a young researcher under 45 years old or on which more than half of the researchers in the research team in Japan (researchers listed in Form 3) are researchers under 35 years old.
- ◆ As part of the diversity, proposals by female researchers are particularly welcome. The active participation of female researchers in research teams is also encouraged.
- ◆ There are expectations for systematic initiatives based on the partner country's policies and needs, and incorporating the partner country's government agencies and similar entities in the proposal.
- ◆ It is desirable that the institution in the developing country constructs partnerships with private-sector and affiliated government entities during the period of the project, so that when the project comes to an end, the setup remains in place and capabilities continue to be strengthened, enabling the research and development process to continue, and the research outcomes to be utilized in society. Alternatively, it would be desirable for the approach for returning outcomes to society to involve partnerships with private businesses such as BOP (base of pyramid) businesses or Japanese SMEs (small and medium enterprises) expanding internationally, or with NPOs, and other grassroots activities.
- ◆ Utilization of research institutions and universities that have previously been developed by Japan's ODA and outstanding research sites in relevant regions is encouraged as a strategy for research to make the utmost use of the features of ODA recipient countries.
- ◆ In view of the nature of the program in dealing with issues on a global scale, proposals for conducting international joint research involving Japan and more than one other country are also possible. Research projects extending over several countries need to ensure that the ODA applications from each country are submitted by the deadline. If the documents are not submitted by all countries, the whole application is judged to be incomplete and excluded from selection. It is also necessary to have a signed R/D from all associated countries in order for the project to start.
- ◆ Proposals similar to the projects selected from FY2008 to FY2019 will be reviewed based on viewpoints such as whether noticeable differences exist in terms of aspects of the research objective, target, approach, region of implementation, etc. or whether a greater contribution to

the resolution of global issues can be expected under competitive implementation with existing similar projects. In particular, proposals that build upon the research target and region of implementation of earlier projects will be studied carefully in terms of to what extent they bring new contribution to the resolution of the issues.

- ◆ Proposals founded on a sound experience working with the partner country in question are encouraged.
- ◆ It is also important for the institutions where the researchers are affiliated to possess the infrastructure for international research activities necessary to undertake the proposed joint research, as well as having the intention to provide sufficient support and cooperation.
- ◆ From an ODA viewpoint, selection will take into account the following perspectives.

- Aligned with ODA principles

From a diplomatic perspective, is implementation of the project significant or necessary? Does it match with the partner country's development policy and needs? Does it fit in with the Development Cooperation Charter, Country Assistance Policy, or priority areas?

- Counterpart Institution Implementation Structure

Does the partner country's implementation structure have budget, staff, and facilities (equipment)? Has a counterpart appropriate for an ODA project been selected? Can capacity development be anticipated? Does the counterpart have an adequate record in terms of research activities and results?

- Relevance, effectiveness, efficiency, impact, and sustainability as a project

Is the content of the request (proposal) appropriate for resolving the development issues of a developing country? Is the objective achievable by the project? Are machinery and equipment plans appropriate (Are they minimum required machinery and equipment?; Obstacles from a procurement perspective, structure for maintenance and management after the project finishes, etc.)? If the project involves the development or improvement of facilities, is its plan appropriate (Is it minimum necessary development or improvement? Can it be finished within the project period? Is its budget appropriately estimated? Are the safety considerations for the handling of hazardous materials sufficient? Are there any problems with the post-construction maintenance and management structure or the counterpart's budget? etc.)? Is it clear how outcomes will be applied to benefit society?

<http://www.jica.go.jp/activities/evaluation/about.html> (Japanese)

- Relationship with other projects in the same field funded by Japanese and other donors

What sort of relationship will this project have with other aid projects in the same field? Will there be any overlap or negative effects?

- Project proposal demonstrating awareness of implementation through ODA.

Does the proposer of the research sufficiently appreciate the significance of implementing the joint research using an ODA framework in addition to a competitive funding framework? Does the proposal properly state why ODA is necessary?

In addition to these considerations, the appropriateness of machinery and equipment plans (obstacles from a procurement perspective, structure for maintenance and management after the project finishes) will be taken into account, and projects considered particularly feasible as ODA projects will be given precedence.

[See: Form 9]

## Chapter 3 Promoting Research after Selection

### 3.1 Interim period

After provisional selection, in the period before the signing of documents such as the R/D and CRA marking the official start of joint research (the interim period), the principal investigator and study participants shall go ahead with preparations for international joint research, with a view to the rapid exchange of documents of agreement. Specifically, they shall participate in a Detailed Design Study for JICA that will be implemented in the partner country, participate in meetings held prior to this in Japan (several times), prepare a Research Plan and other documentation, and coordinate with research institutions in the partner country that are concerned with the Detailed Design Study and with the preparation of materials for the Research Plan and other documentation. Please refer to Section 4.4(5) (Points of note regarding project implementation) on page 54, for the schedule and other details of the interim period.

During the interim period, the principal investigator's institution shall conclude an Interim Contract Research Agreement with the JST and may incur JST contract research expenses within the amount budgeted in the proposal, limited to the costs of preparing the above international joint study (e.g. domestic and international travel costs of Japanese researchers during the interim period). While the agreement with the principal investigator's institution is an Interim Contract Research Agreement, no Contract Research Agreements will be concluded with joint research institutions, and joint research activities during the interim period are limited to activities such as requested visits from the principal investigator's institution.

For details of the execution of JST contract research expenses in the interim period, please refer to the FY2019 Contract Research Agreement Administration Manual on the following website.

<https://www.jst.go.jp/contract/index2.html>

However, the signing of the R/D may not be completed before the end of the year in which the project would be implemented (the end of FY2020). Even if a research project has been selected, if the R/D is not likely to be signed in the near future, circumstances may make it impossible for the research to be implemented. Please note that if it becomes impossible for the R/D to be signed, the selected research project cannot be implemented, and from that point, JST shall no longer provide research funding.

### 3.2 Creating a research plan

a. After provisional selection, in the period leading up to the signing of documents such as the R/D and CRA (between provisional selection and the end of that FY), the principal investigator shall draw up research plans, beginning with the Provisional Research Plan. In parallel, he or she shall draw up an Overall Research Plan that covers the entire period of the research project. The principal investigator also draws up an Annual Research Plan each year. Research plans shall include budgets for research expenses, composition of the research team, and overall plans for the international joint research.

- b. Each research plan (both Overall Research Plan and Annual Research Plans) is finalized after liaison with and confirmation by the Research Supervisor. The Research Supervisor shall offer advice, make adjustments, or give instructions as necessary for matters concerning the research plans based on the selection process, exchanges of opinions with the principal investigator, familiarity with daily progress in the research, and results of project evaluations. Major decisions, such as significant changes to research plans, may need to be examined by the program committee.
- c. When making decisions on project research plans, Research Supervisors may make adjustments between projects for reasons such as accomplishing the overall goals of the research area.

### **3.3 Contract Research agreement**

- a. In the period between provisional selection of a project and formal selection, JST concludes a Contract Research Agreement only with the principal investigator's institution. However, after JICA has signed the R/D with the research institution etc. in the partner country and memorandums (MOU etc.) concerning the implementation of joint research have been come into effect (following formal selection of the project), JST concludes Contract Research Agreements with both the principal investigator's institution, and where necessary, the lead joint researchers' institutions. The research institute, in principle, must conclude a Research Agreement under the terms and conditions indicated by JST. The research institute will be obligated to conduct the research in proper accordance with the Research Agreement, Administrative Procedures, and Research Plan.
- b. If it is not possible to conclude a Contract Research Agreement with a research institution, or if it is not possible to put in place a setup to control and audit the use of public research funding, or alternatively, if there is significant instability in an institution's finances, it may not be possible to implement the research at that institution. If JST deems certain measures necessary as a result of investigations of the research institute's administrative structure or financial conditions, the research institute must comply with said measures, including changes to the payment method of the contract research expenses and the reduction of research expenses. For details, please refer to 3.6 "Responsibilities of principal investigator and lead joint researchers" (on page 44).
- c. When a national or public research institute concludes a Contract Research Agreement, if prior budgetary or other measures are required due to the Public Accounting Act or other regulations, the institute must take responsibility for completing the procedures for such measures etc. before the commencement of the Contract Research Agreement. If, after concluding the Agreement, it is discovered that the measures have not been implemented, it may be necessary to revoke or terminate the Contract Research Agreement and take measures for the return of all or part of any contract research funds disbursed.
- d. Intellectual property rights, such as patent rights resulting from research, in principle, belong to the relevant research institution in accordance with the Contract Research Agreement provided that the research institution complies with the items set forth in Article 19 (Bayh-Dole clause of Japanese version) of the Industrial Technology Enhancement Act. However, this does not apply to overseas research institutions.

### 3.4 JST Research Funds

JST provides research funds which consist of direct costs as well as indirect costs (in principle, 30% of direct costs) to the research institution as contract research budget based on the Contract Research Agreement.

#### 3.4.1 Direct costs

Direct costs refer to costs that are directly required to carry out research, and can be used for the following purposes:

- a. Commodity costs: Costs for purchasing new facilities (\* 1), equipment, consumables, etc.
- b. Travel costs: Travel costs for the researchers and research participants set forth in the research plan
- c. Personnel costs and rewards: Personnel costs and rewards for research participants, excluding researchers
- d. Others: Research results presentation costs (posting fee etc.), equipment leasing costs, transportation costs etc.

\* 1 The purchase of new research facilities and equipment will proceed according to a “system for the joint use of research facilities and equipment for each research institution” (hereinafter referred to as the “equipment joint use system”). The equipment joint use system should be operated based on “Introduction of new research facilities and equipment system integrated with the management of research institution” (Advanced Research Base Subcommittee, Council for Science, Technology, November, 2015). For details, please refer to 5.14 “Promoting the joint use of research facilities and equipment” (on page 71).

(Note) Example of costs that cannot be expended as direct costs

- Costs that do not meet the research purpose.
- Expenditures as indirect costs are considered appropriate.
- Costs determined to be inappropriate by JST in the settlement of contract research costs etc. (\*2)

\*2 For some costs, JST has program-specific rules and guidelines in the form of the Contract Research Agreement, administration manuals or the cross-ministerial cost categorization table. These may be handled differently in part for SATREPS in some cases. Some costs are handled differently between universities (the universities, public research institutions and public-service corporations accepted by JST) and companies (mainly the research institutions of private enterprises other than universities). For details, please refer to the latest administration manuals at the following URL: <https://www.jst.go.jp/contract/index2.html>

#### 3.4.2 Indirect costs

Indirect costs are costs required for the management of research institutions pursuing research; they are, in principle, capped at 30% of direct costs. Research institutions are required to create policies regarding the use of indirect costs and execute them systematically and properly to ensure that the use is transparent in line with the “Common Guidance for the Execution of Indirect Costs of the Competitive Fund” (agreed upon by the coordination committees of relevant ministries and agencies on competitive funds on April 20, 2001 and revised on May 29, 2014).

### 3.4.3 Multi-fiscal year contract and carryover

From the perspective of the effective and efficient use of research expenses to maximize research results and prevent misconduct, JST concludes a multi-fiscal year Contract Research Agreement so that research costs can be carried over across the next fiscal years, or a procurement contract that spans the fiscal years can be concluded (The handling of the carryover system varies depending on the universities and companies, and the multi-fiscal year contract and the carryover may not be permitted due to the administrative management system of a research institution).

## 3.5 Evaluation

Evaluation of projects is handled jointly by collaboration between JST and JICA. JST project evaluation follows the procedure set out in following Guidelines, and JICA performs periodical monitoring as part of JICA's project management processes.

Mid-Term Evaluation:

<https://www.jst.go.jp/global/english/hyouka/pdf/mid-evaluation-procedure.pdf>

Terminal Evaluation:

<https://www.jst.go.jp/global/english/hyouka/pdf/end-evaluation-procedure.pdf>

Follow-up Evaluation (only in Japanese):

<https://www.jst.go.jp/global/hyouka/pdf/follow-up-evaluation-procedure.pdf>

For JST project evaluation, the following types of evaluation are conducted;

- a. Mid-term Evaluation, conducted in or about the middle year of the period of international joint research (the third year of a five-year project)
- b. Terminal Evaluation, conducted before the end of the research period
- c. Follow-up Evaluation, conducted a certain period after the research period has ended (JICA uses the term "ex-post evaluation" for follow-up evaluations)

The JST Evaluations are published as reports and made available online. The findings of the Mid-term Evaluation in particular are used as the basis for subsequent adjustments to research plans and allocation of resources (including changes to budgets for research expenses and to the composition of the research team). In some cases, this may lead to measures such as adjustment between research projects or termination of a Contract Research Agreement. For research projects of less than five years, the necessity for conducting a Mid-term Evaluation will be decided following discussion between the people and entities involved in the specific project. For details of evaluation by JICA, see Chapter 4. Outline of Technical Cooperation through ODA Section 4.7 Project Monitoring.

## 3.6 Responsibilities of principal investigator and lead joint researchers

The following responsibilities will take effect for the principal investigator (etc.) upon provisional selection.

### (1) Leading and managing the research

- a. The principal investigator must assume responsibility for the entire international joint research

for the full duration of its implementation. The principal investigator, based on his or her own research concept, must be able to form a research team best suited to the implementation of the research subject, and exercise leadership while engaging directly in the research subject. Under this program, research teams may be formed including researchers affiliated with other research institutions in Japan (including private enterprises, etc.) and researchers specializing in other research fields, including the humanities and social sciences, and conduct joint research with research institutions in developing countries.

- b. The principal investigator must act as the leader of the project under JICA technical cooperation to oversee and liaise with the counterpart and others to coordinate the planning and implementation of Japan's inputs (including experts dispatch, acceptance of trainees, provision of machinery and equipment), reporting regularly to JST/JICA, submitting to JST/JICA's project appraisal, and appropriately managing the execution of the project, and must manage and control the SATREPS project as a whole. As a rule, unilateral termination of the research activity at the principal investigator's wishes midway through the implementation period will not be allowed.
- c. After provisional selection, the principal investigator must be able to attend meetings in Japan with JST/ JICA (three to five times) and to visit the prospective ODA recipient country in a part of JICA's Detailed Design Study (approx. 10 to 14 days during the period between August and October 2020).
- d. The principal investigator shall be responsible for research, for planning and implementation of inputs, and in the case of a research team being formed in Japan, for that research team. In planning and implementing the dispatch of joint researchers and provision of machinery and equipment, the principal investigator shall take particular care to ensure full communication with the counterpart country, and to secure roles for young researchers from both Japan and the partner country. The principal investigator shall also attend meetings of the Joint Coordinating Committee (JCC) held in the developing country to report on progress of the research and discuss operation and management.
- e. The principal investigator shall submit reports and other materials required by JST/JICA and submit to project appraisal by JST/JICA. The principal investigator shall also report on the progress of research whenever requested by the JST/JICA.
- f. The principal investigator shall be responsible for consensus-building, communication and coordination with administrative offices and other entities within the research institution.
- g. This fund is supported by the Government of Japan. Therefore, the principal investigators are encouraged to actively publicize research outcomes both domestically and internationally while taking into consideration the handling of intellectual property rights.
- h. If any result achieved through the research project is to be publicized in a paper or other form or presented at a conference or other venue, it should be indicated that the outcome has been achieved with support of the JST/JICA Science and Technology Research Partnership for Sustainable Development (SATREPS).
- i Taking into account that this is an international joint research initiative, the principal investigators are required to actively acquire intellectual property rights where that is not to the disadvantage of the partner. In principle, applications for intellectual property rights shall be conducted by the institution on the basis of the Contract Research Agreement.

- j. He or she is expected to participate in workshops or symposia organized by JST/JICA and make a presentation of research outcomes.

(2) Compliance with research agreement etc.

Each principal investigator shall comply with the research agreement between JST and research institutions, other JST rules and regulations, JICA's Agreement for Technical Cooperation and project contract, the R/D concluded between JICA and counterpart research institutions, and CRA related to the joint research concluded between research institutions.

(3) Submission of documentation confirming compliance

After a project proposal has been selected, the principal investigator will, via an explanatory meeting held by JST, confirm compliance with the following items, and notify JST in writing that compliance has been confirmed.

- a. Compliance with the requirements of the Application Guideline
- b. The research funding provided by JST is paid for from national taxes. The principal investigator must promise not to act in an illicit manner or make illicit use of anything in the course of the research.
- c. In order to prevent misconduct by researchers and others participating in the project, the principal investigator shall commit to publicizing the obligation to study the research ethics course stipulated by JST (e-APRIN (formerly known as CITI) and ensuring that the content of the course is understood.

### 3.7 Responsibilities of research institutions, etc.

In conducting research, the research institutions must be fully aware that the funds for contract research costs are public funds. So, they must comply with relevant laws and regulations, and strive to carry out research efficiently. Research institutions that fail to fulfill the responsibilities listed below are not eligible to perform research. At the time of application, please be sure to obtain prior consent from all research institutions planning to conduct research (hereinafter referred to as "participating organizations").

- a. Research institutions shall, in principle, enter into a research agreement with the contents presented by JST. They have an obligation to carry out research properly in accordance with the research agreement, administration manuals and the research plan. If the research agreement cannot be concluded or if JST determines that the research will not be conducted properly, the research implementation at the relevant research institution is not permitted.

\* For the latest template for the Contract Research Agreement, please visit the following URL:

<https://www.jst.go.jp/global/itaku.html> (only in Japanese)

- b. The research institution must secure a structure for conducting the research. Also, the director of the institution must give maximum consideration to the status of the principal investigator during the term of the research. The director of the institution is considered to be the president or chair of the board or other person with responsibility for the whole of the institution, or in

the case of entities such as private-sector corporations, it should be a person in a position of responsibility to ensure the required support and setup throughout the period of research. It does not normally include executives or management at a lower level in the organization, such as general managers, directors of divisions or centers, or heads of departments).

- c. Based on “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)” (Adopted by the Minister of Education, Science, Culture, Sports, Science and Technology on February 15, 2007, revised on February 18, 2014), the research institutions shall establish a system for managing and auditing the public research funds under their responsibility and strive to execute the contract research costs properly. The research institutions have an obligation to report the implementation status, including the state of establishing a system for managing and auditing the public research funds, regularly to the Ministry of Education, Culture, Sports, Science and Technology and respond to various surveys on system establishment. (Refer to 5.19 (1) “About implementation of proper systems in accordance with the “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)” (page 76)).

[http://www.mext.go.jp/a\\_menu/kansa/houkoku/1343904.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm)

- d. Based on “Guidelines for Responding to Misconduct in Research (Adopted by the Minister of Education, Culture, Sports, Sciences and Technology on August 26, 2014),” the research institutions shall establish necessary regulations and systems under their responsibility, and strive to prevent misconduct. Research institutions have an obligation to respond to various surveys on system establishment based on the guidelines. (Refer to 5.20 (1) “About implementation of proper systems in accordance with Guidelines for Responding to Misconduct in Research” (page 77)).

[http://www.mext.go.jp/b\\_menu/houdou/26/08/1351568.htm](http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm)

- e. Research institutions have an obligation to make research participants fully aware of the contents of the guidelines set forth in “b” and “c” above, and have them learn materials related to the research integrity defined by JST.
- f. In executing research expenses, the research institutions shall spend and manage them properly in accordance with its own regulations while taking flexibility in consideration. For items for which program-specific rules are provided in the JST’s administration manuals, the research institutions shall follow these rules. (For items not set forth in the administration manuals regarding the use of contract research grants, a research institution that receives it may follow the rules for handling it at its own discretion.)
- g. The Principal investigator’s institution, as the body which implement ODA technical cooperation, are required to act in accordance with R/D, etc. Only the principal investigator’s institution will sign the Agreement and project contract with JICA and promise to run the project; however, other research institutions involved in the research project are required to provide support for activities in accordance with the R/D, etc. The principal investigator's institution, acting as the principal investigator's institution for the Japan side, must oversee the activities of Japan side researchers in the partner country to ensure that they are conducted appropriately, and in addition, concerning the Agreement with JICA, must handle project operations and accounting operations appropriately in accordance with the Agreement, project

contract, and “SATREPS Project Jisshino Tebiki (only in Japanese)” stipulated by JICA (including reporting to JICA as required).

- h. Research institutions shall exchange an agreement with the research participants stating that the intellectual property right arising out of research belongs to the research institutions, or establish job rules stating the same. In particular, if a student without an employment relationship with a research institution participates in a research there, the research institution should preliminarily take necessary measures, such as signing an agreement with the student to ensure that intellectual property rights pertaining to invention (including ideas) made by the student during the research belong to the research institution unless the student is not clearly able to become an inventor. In the case of assignment or transfer of an intellectual property right from a student, an inventor, the research institution should take a proper care of his/her compensation so that he/she will not be disadvantaged.

In addition, in the case of transferring an intellectual property right or setting a dedicated license for the intellectual property right, the research institution shall, in principle, obtain prior approval from JST. In the case of applying for, registering, implementing or abandoning patent rights, the research institution has an obligation to make required reports to JST and JICA.

- i. Research institutions have an obligation to respond to accounting investigations by JST/JICA and account audits by the Government.
- j. Research institutions shall follow measures, such as changing the terms of payment or reduction in payments, decided upon by JST based on JST investigations on the administrative management system, financial conditions, etc.

Depending on the results of the program evaluation at the end of the JST’s mid- and long-term objective periods, it may be called for dissolution or contraction. In the case of any changes to national budgetary measures, JST may take such measures as contract termination or reduction in contract research expenses, during the term of the contract pursuant to the special provisions of the Contract Research Agreement. Based on the results of the mid-term evaluation, etc. of the research project, JST may take measures, such as changing the contract research funds or the contract period or cancelling the research. If JST determines that the continuation of research is not appropriate, it may take measures, such as cancellation of the contract even during the term of the contract. The research institutions need to follow these measures.

- k. If a research institution which is a national or municipal organization concludes a Contract Research Agreement, the research institution shall implement necessary budgetary measures before the start of the Contract Research Agreement under its responsibility. (In the case where it becomes apparent that necessary procedures have not been performed after the conclusion of the agreement, JST may take measures, such as cancellation of the Contract Research Agreement, refunding of the contract research costs, etc.)
- l. As part of efforts to prevent misconduct during research activities, JST has decided to require researchers, etc. who participate in newly selected research projects and belong to the research institutions to receive and complete educational materials on research integrity. (Mandatory procedures required for attendance will be conducted by JST). The research institutions shall ensure that the target people attend and complete it.

If a researcher, etc. fails to fulfill the duty to complete the education, despite repeated requests from JST, JST will instruct the relevant research institution to suspend the execution of all or part of the contract research funds. The research institution shall stop expending the research funds in accordance with the instruction and shall not resume the execution until instructed.

- m. Apart from the R/D, the principal investigator's institution must sign a Collaborative Research Agreement (CRA) with the research institution in the partner country regarding the international research collaboration. The CRA should include the treatment of intellectual property rights, handling of confidential information, publication of research results, warranty and indemnification, and access to and transfer of the partner country's bio-resources. A draft of the document should be checked by JST before signing. It is best to sign and exchange CRA simultaneously with the signing and exchange of R/D between JICA and the institution(s) of the ODA recipient country in order to match the content with the R/D. All researchers and members in the research team in Japan shall observe the CRA signed by the principal investigator's institution.

[See: 5.18.1 (on page 74)]

- n. A research institution entering a Contract Research Agreement with JST wishing to include researcher(s) not affiliated with that institution must exchange appropriate documents between the two institutions in order to ensure compliance with the JST Contract Research Agreement, Joint Research Agreement and content of R/D (e.g. When a researcher affiliated with University B is to participate on a research team at University A which has entered a Contract Research Agreement with JST). For details see "Handling in cases where researchers affiliated with other institutions are to engage in contract research" below.

[https://www.jst.go.jp/global/keiyaku/seiyaku2018\\_2.pdf](https://www.jst.go.jp/global/keiyaku/seiyaku2018_2.pdf) (only in Japanese)

- o. Since the contract research budget is funded by national funds, the research institutions shall take appropriate measures to fulfill their accountability in consideration of economics, efficiency, effectiveness, legality, and accuracy. The research institutions shall strive to execute them in accordance with a plan and shall not procure something to consume budgetary funds at the end of the research period or at the end of the fiscal year.

### 3.8 Human resource development

#### 3.8.1 Japanese Government (MEXT) Scholarship Program

MEXT has a "SATREPS Section" within its Japanese government scholarship program (University Recommendation) for SATREPS projects. The aim of the SATREPS Section is to facilitate the development of young researchers with the potential to be future key players in relevant research in their own countries by studying or conducting research as a research student and taking a doctorate at a Japanese institution. Invitation for this Japanese government scholarship program is implemented by MEXT, and scholarship is budgeted separately from SATREPS. For more details, please refer to the Japanese government (MEXT) scholarship program website. Please note that this scholarship program may be altered depending on the final budget.

Japanese government (MEXT/Monbukagakusho) scholarship program

[http://www.mext.go.jp/a\\_menu/koutou/ryugaku/06032818.htm](http://www.mext.go.jp/a_menu/koutou/ryugaku/06032818.htm) (Japanese)

<http://www.studyjapan.go.jp/en/toj/toj0302e.html> (English)

### 3.8.2 Acceptance of foreign researchers

There is also the “acceptance of trainees” system (which is called “acceptance of foreign researchers” in the SATREPS program) for inviting researchers from the ODA recipient country to Japan using the ODA budget. The researchers are invited from the research institution carrying out the international joint research in the developing country to Japan, where they carry out research. It is hoped that such researchers will play a long-term key role at their research institution after their return from Japan. They are considered as indispensable for promoting the joint research. Please note that the acceptance of foreign researchers under this system is normally conditional on the researcher's period of research in Japan terminating within the period for joint research specified in the R/D.

## 3.9 Other notes

### 3.7.1 Childbirth, Child Care and Nursing Care Support System

JST operates “childbirth, child care, nursing care support system” as part of its efforts to promote gender equality. This system is intended to support researchers who are full-time employees of JST, whose pay comes from the research funds (direct costs) of a JST program, to continue their research at various stages of life (when giving birth, raising children and providing nursing care) or resume their research activities whenever they wish if a temporary interruption is unavoidable. In this system, JST pays “gender equality promotion fund” (maximum amount: JPY250,000/month × the number of months supported) for the research projects.

For details, please visit the following website:

<https://www.jst.go.jp/diversity/about/research/child-care.html>

## Chapter 4 Outline of technical cooperation through ODA

Before you apply for this program, please ensure that you fully understand the following since this program is implemented using the ODA framework.

### 4.1 What is official development assistance?

Official Development Assistance (ODA) is development cooperation using public funds in the forms of financial support and technical cooperation provided by donor governments or their implementing agencies to recipient countries, aiming to contribute to the promotion of the economic development and welfare of developing countries as well as the stabilization of people's livelihood. Japan joined the Colombo Plan in 1954 and at the same time started providing development-cooperation. Japan has been providing economic and technical cooperation to developing countries ever since.

The Japanese government sets forth its philosophy on ODA, priority policy, and the framework for implementing its ODA policy in its "Development Cooperation Charter"(February 2015). In the Development Cooperation Charter, having asserted that "global challenges cannot be dealt with by a single country and require united efforts at the regional level or by the international community as a whole," Japan states, "Japan will take the lead in addressing these challenges... Through these efforts, Japan will seek to contribute to building a sustainable and resilient international community."

### 4.2 What is technical cooperation?

JICA aims to contribute to the promotion of international development cooperation and sound economic growth of Japan and the international community by contributing to the socioeconomic development, recovery and economic stability of developing countries. JICA's activities include: technical cooperation (acceptance of trainees, expert dispatch, provision of machinery and equipment, etc.), loans and grant aid, the promotion of cooperation activities by Japanese nationals (dispatch of Japan Overseas Cooperation Volunteers, etc.) and international disaster relief.

Technical cooperation provides technical assistance, based on the international agreement with the developing country, in order for the developing country to develop the capacity to address development issues independently, comprehensively, and spontaneously through institutional development, organizational reinforcement, human-resource development, etc.

A form of technical cooperation is a technical cooperation project, which is key activity to be conducted by choosing the best combination of "acceptance of trainees" "expert dispatch" and "provision of machinery and equipment". JICA pursues best outcomes by engaging in technical cooperation in a planned and comprehensive way from planning through implementation to the assessment of outcomes and by working together with relevant institutions in recipient countries.

The current Science and Technology Research Partnership for Sustainable Development (SATREPS) program promotes international joint research between research institutes in Japan and research institutes in ODA recipient countries using the technical cooperation project framework. It is expected to promote international joint research projects in the form of ODA projects that aim to utilize research outcomes for the benefit of society.

For details on SATREPS project implementation, please refer to the following:

JICA "Science and Technology Research Partnership for Sustainable Development (SATREPS)

Project Jisshino Tebiki (only in Japanese)”

[http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/general\\_01.pdf](http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/general_01.pdf)

### 4.3 Framework for implementing a technical cooperation project

JICA's technical cooperation project is conducted jointly with recipient countries. Recipient country ownership is important in promoting the country's independence and development. Recipient country's principal investigator's responsibility as project manager is as serious as the Japanese principal investigator's responsibility as project leader. (See Figure 5.) Furthermore, Joint Coordinating Committee (JCC) is established and meets on a regular basis to discuss and solve issues so that joint research is conducted smoothly. JCC, as a general rule, consists of related parties from the Japan and recipient country's sides (the Japan side: the Embassy of Japan, the head (Resident Representative) of JICA overseas office, the principal investigator, researchers, project coordinators, etc.; the recipient country's side: ministry and agency responsible for ODA, ministry and agency controlling research institutes, related authorities, research institutes, etc.). Given that this program is international joint research, JCC shall be operated jointly by the Japan and recipient country's sides.

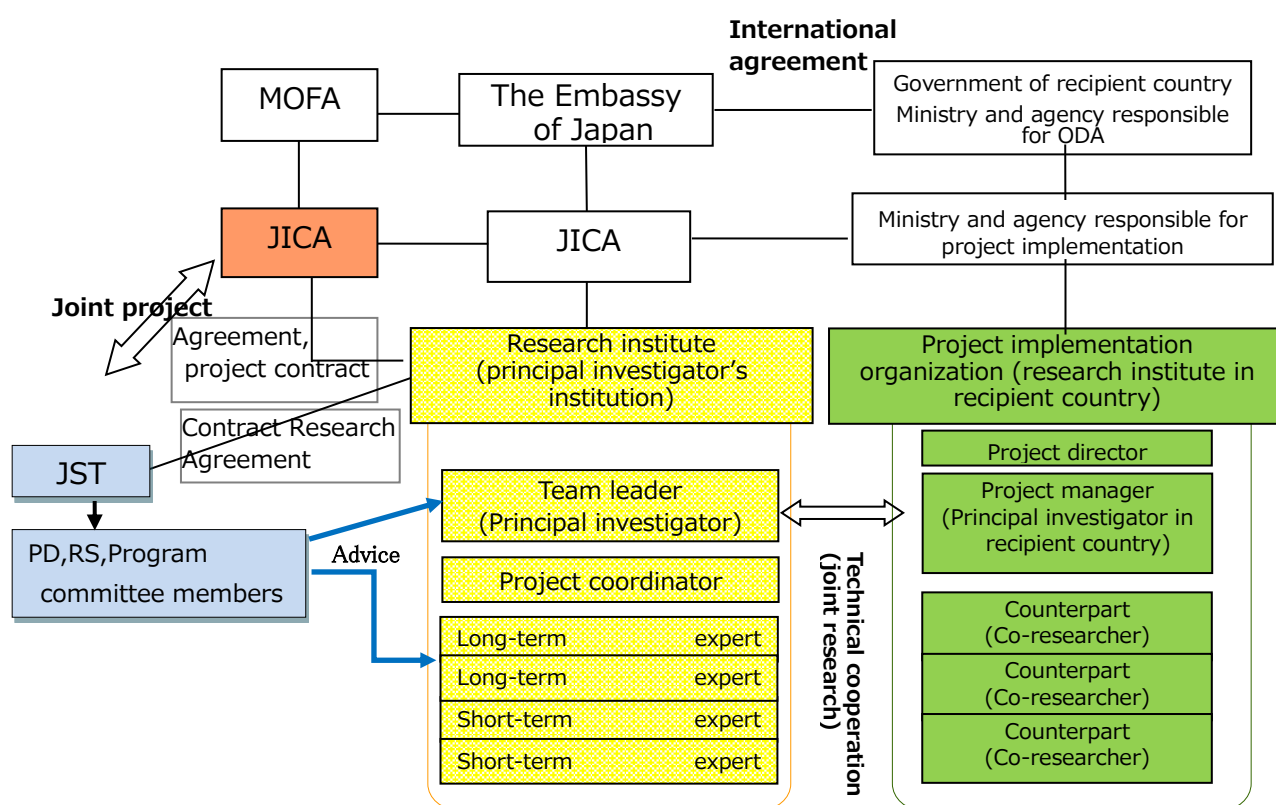


Figure 5. The framework for implementing a technical cooperation project (example)

#### 4.4 Technical cooperation project flow

- (1) From the submission of a request for cooperation to the examination and adoption of a project  
JICA's technical cooperation is initiated at the receipt of requests from developing countries.

Japan's ODA involves a process called "request survey", in which a research institute in a developing country wishing to obtain technical cooperation from JICA for a new project to be launched in and after the following fiscal year is invited to submit a request. The actual procedures are as follows: a research institute that wishes to launch a new project under the framework of JICA's technical cooperation prepares a request form, gains approval from competent authority and submits the form through the country's ministry responsible for ODA to the Embassy of Japan in the country. Then, the Embassy of Japan forwards the request form with other necessary documents to the Ministry of Foreign Affairs (MOFA) in Japan.

Upon the receipt of the request, the government of Japan screens the requested project and when it is deemed that the project should proceed, a project selection notice is sent to the recipient country's government by the Embassy of Japan and international agreement is made between Japanese government and the recipient country's government (The Embassy of Japan in the recipient country and the recipient country's responsible authority issue a verbal note, etc.) As for a request for SATREPS project, this project screening is conducted by the screening committee formed by JST or AMED.

All requests for cooperation regarding the SATREPS program for fiscal year 2020 must be received by Japan's Ministry of Foreign Affairs (MOFA) in Tokyo on Monday October 28, 2019(Japan time).

Please note that requesting countries' governments usually set an application deadline before the above-mentioned deadline. So please bear that in mind when you coordinate schedules with research institutes in requesting countries. As in the deadline for research proposal through e-Rad system, requests received after the deadline will not be considered.

Regardless of requests submitted for projects up to FY2019, a country wishing to apply for project selection for FY2020 is required to submit a request form again. Please note that requests not received by the deadline will not be considered even if the research proposal has been submitted.

- (2) Preparing for a Detailed Design study

After a project selection notice is sent from the Embassy of Japan to the recipient country's government, and a note verbal is exchanged, JICA conducts a Detailed Design (D/D) study. The D/D study is to examine the current status of possible cooperation field and the background to a request for cooperation. During the process, JICA discusses with the requesting country's related parties on basic project plans, implementation structure and responsibilities of donor and recipient countries, and what was discussed during the meetings is summarized in a Minutes of Meeting (M/M) to be signed by the both parties. The principal investigator who manages the Japan research team (i.e. the project leader) is required to participate in the D/D study. In addition, in the D/D study, the expected outcomes from the planned project are more clearly identified and ex-ante evaluation is performed to examine the appropriateness of the project comprehensively.

If the study discovers significant issues concerning the requesting country's implementation structure or responsibilities, etc. and it is judged that they would make it difficult to implement the project as planned, significant revisions to the plans are required and it may be necessary to consider abandoning the plan altogether.

### (3) Signing a Record of Discussions (R/D)

After completing the D/D study, JICA prepares a Record of Discussions (R/D) to be signed by JICA and an implementing agency of the recipient country, while going through the approval process. The R/D is an official agreement on the implementation of a project, specifying the details of project activities and necessary measures. In concluding R/D, ensuring consistency with contents of research proposal, JICA also prepares a Project Design Matrix (PDM) which indicates cause and effect relationship of inputs, activities, outcomes, and goals (logical framework), and a Plan of Operation (PO) and then submit them to the recipient country for confirmation. PDM and PO will be a part of R/D as attachments.

### (4) From the commencement to the end of a project

In accordance with a cooperation period stipulated in the R/D, a project is launched. Based on the R/D, inputs including expert dispatch (dispatch of Japanese researchers for overseas research) are provided to meet project objectives.

Furthermore, during the project implementation period, the project is monitored on a regular basis to check the progress of the project in terms of technical cooperation, the status of publication of research results, improvements to issues that were matters of concern when the project was selected, and the feasibility of the implementation plan based on a R/D and its attachment: PDM and PO.

The flow of the above-mentioned processes from (1) to (4) is summarized in Figure 2 on page 13.

### (5) Points of note regarding project implementation

A project provisionally accepted may take time before the R/D is signed (please refer to Table 3 for a typical timeframe between the provisional selection of a project and the signing of the R/D). JICA's expenses may be incurred only after a project contract is signed between JICA and the principal investigator's institution after the signing of the R/D. In addition, please note that JICA's spending shall be based on the R/D signed between JICA and the research institute in the recipient country concerned and JICA cannot fund any expenses associated with a project under this program before an R/D is signed and after the cooperation period specified in the R/D is over.\*

\* See (iii) "Preparations for implementing selected projects" on page 13.

|  | Typical timeframe <sup>9</sup>                                |
|--|---|
| Prepares for a Detailed Design study (meetings, contract with consultant (members responsible for evaluation analysis), formalities for dispatching research group)  | About 2.5 months  |
| Conducts the Detailed Design study (local survey), signs M/M and reports on the study in Japan   | About 0.5 - 1 month   |
| JICA performs ex-ante evaluation   | About 1.5 - 2 months  |
| The R/D is signed (between the head (Resident Representative) of JICA overseas office and competent authority or the head of research institute in the recipient country)  | About 0.5 - 2 months  |
| Prepares for launching a project, including procedures for approving project implementation, the Agreement and project contract are signed between JICA and the principal investigator's institution, selection and dispatch of project coordinators <sup>10</sup> . | About 2 - 3 months  |
| Project commencement   | About 7-10 months after the project is provisionally accepted |

Table 3. Timeframe from the provisional selection of projects through the signing of an R/D to the launch of the project

## 4.5 Contract between JICA and the principal investigator's institution

### 4.5.1 Agreement concluded between JICA and the principal investigator's institution

The research institute that the principal investigator of the selected project is affiliated with, signs a Contract Research Agreement with JST and is also required to sign three documents with JICA, an "agreement regarding the implementation of technical cooperation under the framework of SATREPS" (hereinafter referred to as "the Agreement"), an Annex attached to the Agreement and a project contract. Representing partner research institutes in the selected project in the Japan side, the principal investigator's institute signs these documents with JICA. Please note that JICA does not sign these documents with any other research institutes but the research institute the principal investigator is affiliated with.

The Agreement that JICA signs with principal investigator's institute specifies duties and responsibilities of JICA, the principal investigator and the principal investigator's institution regarding the selected project. The Agreement is intended to help clarify the research institute's roles and responsibilities in conducting joint research in developing countries. Please note that the Agreement concluded with JICA has to be signed by the research institute with which the principal investigator is affiliated. That is, if agreements have already been agreed between JICA and the

<sup>9</sup> Actual time period differs depending on projects.

<sup>10</sup> Project coordinator is explained in detail in Section 6.

principal investigator's institution and a SATREPS project is already underway, no new agreements need be agreed. Even if agreements had previously been agreed, if a SATREPS project has already been completed and no such project is currently underway, agreements must be agreed again.

A new annex of agreement must be concluded for each project.

A project contract must be concluded for every contract period during the 5-year project implementation period. For example, if the contract is divided into five periods, a contract must be concluded for each period.

### 4.5.2 The Agreement

The Agreement is signed between the principal investigator's institution and JICA to stipulate the both parties' duties and responsibilities, etc. The responsibilities of the principal investigator's institution including activities of partner research institutes in the Japan side covers: dispatch of Japanese researchers to the recipient country, invitation of the recipient country's researchers to Japan, procurement of machinery and equipment and workplace health and safety promotion. In practice, although consideration is given to the investigator's institution's rules and regulations including those on accounting, where the principal investigator's institution carries out its responsibilities, the organization's rules and regulations apply to such activities.

For the form of the Agreement (the main part), please refer to the following website (only in Japanese):

[https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements\\_01.pdf](https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements_01.pdf)

### 4.5.3 The Annex of Agreement

The Annex of Agreement stipulates matters including the name of the project and the project cooperation period.

Please refer to the following website for the format for the Annex.

[https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements\\_02.pdf](https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements_02.pdf)

### 4.5.4 Project contract

#### (1) Project design when drawing up the project contract

The guideline figure for expenses per project is 60 million yen per year, with an upper limit of 300 million yen over five years. Please note that because this 300 million yen includes the expenses directly incurred by JICA-- described in detail in the Science and Technology Research Recipientships for Sustainable Development (SATREPS) Project Implementation Guide--the project contract funding managed by the principal investigator's institution will not necessarily total 300 million yen (for a five-year project).

In light of this, an overall plan and plans for each period shall be formulated on the basis of mutual discussions in the process of preparing the project contract. These plans may be adjusted in accordance with the progress of the project at intermediate points during the project contract period, based on the plans for each period. The periods covered by each plan need not necessarily be within a single fiscal year, but may also be assigned to span several fiscal years. If the project contract includes equipment procurement or facilities construction, the dates of equipment delivery and completion of work on facilities must be adjusted so as to fall within the period

covered by each plan.

## (2) The content of the project contract

The project contract stipulates the content of a project and who is responsible for expenses and accounting, and is signed for every terminal plan between JICA and the principal investigator's institution. The plan includes all the activities by the principle investigator's institution and its partner research institutions in the Japan side. Expenses shall be incurred only after the project contract is signed.

Based on the Agreement and project contract signed, the principal investigator's institution shall incur expenses and settle them within the project contract period in accordance with their organization's rules and regulations. Payments need not be made as final payments, but may be disbursed in advance as approximate payments during the contract period.

[https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/contract\\_01.pdf](https://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/contract_01.pdf)

For policies and regulations concerning administration, such as expenditure items, estimation, advance payment based on the estimate, settlement, etc., see "SATREPS Project Jisshino Tebiki (only in Japanese)" on the JICA's website:

[http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/general\\_01.pdf](http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/general_01.pdf)

## (3) Costs that may be covered in the project contract

The contract amount as agreed in the project contract signed with the principle investigator's institution may only be used to cover the following costs: (1) costs of the dispatch of Japanese side researchers to the recipient country<sup>15</sup>, (2) costs of acceptance of the recipient country side researchers<sup>15</sup> in Japan, (3) costs of supplying machinery and equipment needed for joint research in the recipient country, and (4) direct administrative cost in Japan (Table 4).

|  |   |
|--|---|
| 1. Costs of the dispatch of Japanese researchers for overseas research <sup>17</sup> from Japan to recipient country | Air fare, daily allowance, accommodation cost, sundry expenses, etc. (For those who are dispatched for more than one year, travel cost for dispatch and return, transfer allowance, other allowances, etc.) |
| 2. Costs of acceptance of foreign researchers (researchers in the recipient country)                                 | Air fare, daily allowance, accommodation cost, training expenses, etc. Acceptance period is classified into two: short-term (less than one year) and long term (one year and over). <sup>18</sup>           |

<sup>17</sup> Undergraduates and postgraduates cannot be dispatched as overseas researchers to a beneficiary country even if he or she is a member of Japanese research team.

<sup>18</sup> Since foreign researchers (on short- and long-term dispatch) shall not be accepted beyond the joint research period (i.e. project implementation period as described in the R/D), the principal investigator's institution is kindly requested to carefully prepare acceptance of foreign researchers from the planning phase.

|   |  |
|---|--|
| 3. Costs of supplying machinery and equipment needed for joint research | Purchase cost, transportation cost and cost for set-up and adjustment. In terms of Security Trade Control, the principle investigator's institution is responsible for purchase, transportation and setup of supplying machinery. Such amount will be transferred to the partner country's government immediately upon arrival and used for joint research.<br>Machinery and equipment to be used in Japan are not included, and the costs are covered under the JST's Contract Research Agreement, etc. |
| 4. Administrative cost in Japan   | Labor costs of part-time administrative workers, the cost of office supplies, etc. (excluding expenditures on research supplies).  |

Table 4. Expenditures to be shouldered by JICA

For the Estimation Form attached to the project contract, please refer to the Estimation Form on the following website.

<https://www.jica.go.jp/activities/schemes/science/form/index.html>

(4) The principles of the recipient country's responsibility to shoulder expenses

With focus on the recipient country's self-help efforts and sustainable development after the project is completed, ODA projects generally require the recipient country to shoulder certain expenditures. Please note that, in line with these practices, JICA does not offer financial support for all expenses in this program, which is conducted as part of international cooperation through ODA, but requires the recipient country to shoulder some expenses to promote its self-help efforts. The costs to be borne by the partner country are listed in the Record of Discussions (R/D) described in Section 4.4 (Technical cooperation project flow) subsection (3) [Signing a Record of Discussions (R/D)].

Examples of expenditures to be shouldered by the recipient country are as follows:

- a. Labor costs of the researchers at research institute(s) in the recipient country and the related parties, and staff employed directly by the research institute(s).
- b. Rent and utility cost of project office.
- c. Transportation fees, travel expenses (daily allowance and accommodation cost) and daily allowances for attending meetings arising from the domestic business trips required for regular works or researches by researchers at the research institute(s) and the related parties in the recipient country.
- d. Costs of equipment, office supplies and facilities used for research activities in which the Japan side is not engaged, when they are used for researches by the recipient researchers only.

Note that JICA requests the recipient country that it should shoulder expenses for facilities and

equipment needed for joint research and utilize existing facilities and equipment, in order to inject resources on key focus areas.

### (5) Expense management

With regard to ODA project expenses, except for expenses in the recipient country that JICA directly shoulders, in accordance with the Agreement signed between the Japanese research institute and JICA, costs of execution of the project contract to be shouldered by the Japanese research institute are managed by the principal investigator's institution.

In JICA's ODA technical cooperation projects, no fund is directly given to the recipient country, and no financial assistance is given to such activities by research institutes in the recipient country.

Especially, since there has been some misunderstanding of JICA's policy of not directly giving project funds to research institutes in the recipient country, please ensure that the partner country is given an explanation beforehand.

## 4.6 Project coordinator

JICA generally invites the public to apply for the position of a project coordinator, and ensure that the selected project coordinator will start working at the earliest possible date after the R/D is signed. Project coordinator's responsibilities include project monitoring, expense management (including budget implementation) in the recipient country, agreements with governmental institutions in the recipient country regarding the dispatch of Japanese side researchers to the recipient country and acceptance of the recipient country side researchers in Japan and communication with the local JICA office regarding the procurement of machinery and equipment. The project coordinator is a member of the Japanese project team working together with researchers and those engaged in joint research, although the project coordinator won't be involved in research activities. JICA requires the project coordinator to share information with a representative of researchers and other team members to ensure that the project is conducted smoothly and properly.

JICA may not dispatch a project coordinator and instead ask a principal investigator's institution to include the jobs of a project coordinator in its project contract with an administrative indirect expense when it is deemed necessary and appropriate for the recipient country.

## 4.7 Project monitoring

As shown in Figure 2 on page 13 the technical cooperation project is monitored on a regular basis to check the progress and is reviewed jointly with the recipient country's related parties during the project based on the R/D and its attachments: PDM and PO. As the monitoring during the period of a technical cooperation project is performed as part of the overall management of the project, the Japanese research institutions and the recipient country research institutions etc. are expected to be active participants in its process.

For the details of monitoring for JICA technical cooperation projects, see "SATREPS Project Jisshino Tebiki (only in Japanese)" on the JICA's website.

#### 4.8 Contact concerning ODA

(1) JICA headquarters

Office for Science and Technology Cooperation of the JICA headquarters acts as a point of contact for inquiries concerning this project. For inquiries on framework of ODA technical cooperation, please contact:

Office for Science and Technology Cooperation, Japan International Cooperation Agency (JICA)

E-mail: [eigst@jica.go.jp](mailto:eigst@jica.go.jp)

For inquiries on SATREPS Application Guideline, please contact JST or AMED.

(2) JICA: domestic and overseas offices

A list of domestic offices

<http://www.jica.go.jp/about/structure/domestic/index.html> (Japanese)

<http://www.jica.go.jp/english/about/organization/domestic/index.html> (English)

A list of overseas offices

<http://www.jica.go.jp/about/structure/overseas/index.html> (Japanese)

<http://www.jica.go.jp/english/about/organization/overseas/index.html> (English)

(3) Useful websites on ODA and technical cooperation

Ministry of Foreign Affairs of Japan - ODA

<http://www.mofa.go.jp/mofaj/gaiko/oda/index.html>

“ODA Kunibetsu Chiikibetsu Seisaku/Joho” (policy and information on ODA by country and region) (Only in Japanese)

(The website offers information for you to check whether or not your research field is in line with Japan’s ODA policy in the beneficiary country and related region.)

<http://www.mofa.go.jp/mofaj/gaiko/oda/region/index.html>

“JICA “Technical cooperation project”” (the website explains JICA ODA technical cooperation projects in general.)

<http://www.jica.go.jp/project/index.html>

“JICA Science and Technology Cooperation on Global Issues” (including SATREPS)

<http://www.jica.go.jp/activities/schemes/science/index.html>

“JICA Toshokan Zousho Kensaku” (JICA Library search)

(When you search by project name, Adobe PDF documents on SATREPS report publications are returned in the search result.)

<http://libopac.jica.go.jp/>

## **Terminology of ODA**

### **Ministry and agency responsible for ODA:**

The partner/requesting country's ministry and agency responsible for international assistance. The ministry and agency responsible for ODA differ depending on country, - for instance, the ministry of foreign affairs, the ministry of finance, the ministry of planning, etc.

### **Request for technical cooperation:**

A request from the government wishing to obtain technical cooperation from JICA (the ministry and agency responsible for ODA) to the government of Japan. The ministry of foreign affairs of Japan and JICA receive requests for technical projects expected to be launched for the next fiscal year onwards. The request for technical cooperation from the requesting country's government is submitted to the ministry of foreign affairs in Japan through the Embassy of Japan in the requesting country.

### **International agreement:**

An agreement that is entered under international law by country or international organization as actor, establishing the respective parties' rights and obligations.

### **Technical cooperation project:**

Activities that aims to address issues in developing countries and are conducted by combining three cooperation tools, i.e. "expert dispatch", "acceptance of trainees" and "provision of machinery and equipment", as a project within a certain timeframe to achieve objectives set.

### **Expert dispatch:**

Dispatch of personnel from Japan to the recipient country to guide counterparts (administrators, engineers related to technical cooperation project) in the transfer of technology, policy and project management and so forth. In this program, Japanese researchers who conduct research in the recipient country as JICA experts are referred to as "overseas researchers", and those who are dispatched for a period exceeding one year per dispatch (i.e. From departure date to return date) are referred to as "long-term overseas researchers" and those who are dispatched for a period not exceeding one year as "short-term overseas researchers". Procedures concerning the dispatch of short-term overseas researchers are taken by the principal investigator's institution (Expenses for dispatching short-term overseas researcher are included in the contract amount described in the project contract signed between JICA and the research institute). However, procedures for dispatching long-term overseas researchers are taken directly by JICA (and expenses for their dispatch are not included in the contract amount described in the project contract signed between the parties concerned).

### **Acceptance of trainees:**

A form of capacity development initiative on the transfer of expertise and technology in various fields through acceptance of counterparts from developing countries as trainees in Japan or a third country. In this SATREPS program, researchers invited for joint research from recipient countries are referred to as "foreign researchers", who are accepted as JICA trainees.

**Ex-ante evaluation:**

Evaluation on the appropriateness of the proposed cooperation, which is conducted to examine priorities and necessities prior to the commencement of cooperation and to specify the content of cooperation and clarify expected outcome. Evaluation indicators set in ex-ante evaluation are used as criteria to measure the progress and effects of the cooperation throughout the life of a project.

**Local cost:**

Costs to be shouldered by the recipient country in implementing and managing the cooperation project. Specifically, local cost includes, but not limited to, personnel expenses, land acquisition cost, transportation cost concerning machinery and equipment provided, recurrent cost (i.e. the regular cost incurred repeatedly, - for instance, costs of the operation and management of facilities built or machinery and equipment provided in the course of cooperation, or employment costs.)

**Capacity development (CD):**

Developing countries' efforts to strengthen their abilities (capacity) to address their respective development issues. JICA serves as a facilitator that supports developing countries' capacity development.

<http://libopac.jica.go.jp/>

For instance, type in "capacity" in the above-mentioned JICA library search, you will get results containing the word, including the "Capacity Assessment handbook" (only in Japanese) as shown below.

<http://libopac.jica.go.jp/images/report/P0000245021.html>

## Chapter 5 Key Points for Application

### 5.1 Taking and completing research ethics education program

A research proposer must complete the research ethics education program before he/she can apply. If JST cannot confirm his/her completion, he/she is considered to have failed to meet the application requirements.

To take research ethics education programs and to submit a declaration of completion, follow either procedure (1) or (2) below. For how to enter with e-Rad, please refer to Chapter 6 "Submission via the Cross-ministerial R&D Management System (e-Rad)" (see page 82).

(1) For applicants who have completed an equivalent program at their organization

Applicants who have already completed an e-learning program or research ethics education programs (including eAPRIN (formerly CITI)) by the time of their application are requested to declare the completion on the e-Rad application information entry screen.

(2) For applicants who have not completed an equivalent program at their organization (including for applicants at their organization that do not have such a program)

a. If applicants have completed eAPRIN (formerly CITI) in the past JST program, etc.

Applicants who have completed eAPRIN (formerly CITI) at the time of application for JST programs are requested to declare the completion on the e-Rad application information entry screen.

b. Other than "a" above

Applicants who find it difficult to take a research ethics education program because their organization does not offer such a program or for other reasons may take the condensed version of the eAPRIN (formerly CITI) through JST.

Applicants are requested to take the program from the following URL:

<https://eduprv.aprin.or.jp/jstshinsei.html>

No cost is incurred for taking the program, which takes about one to two hours to complete. Applicants take and complete the program without delay, declare the completion of the program, and enter the certificate completion number from the completion certificate (the Ref # to the right of the completion date) in the e-Rad application information entry screen.

■ Contact for consultation over the research ethics education programs

Research Integrity Division, Department of Audit and Legal Affairs, Japan Science and Technology Agency

E-mail : [rcr-kousyu@jst.go.jp](mailto:rcr-kousyu@jst.go.jp)

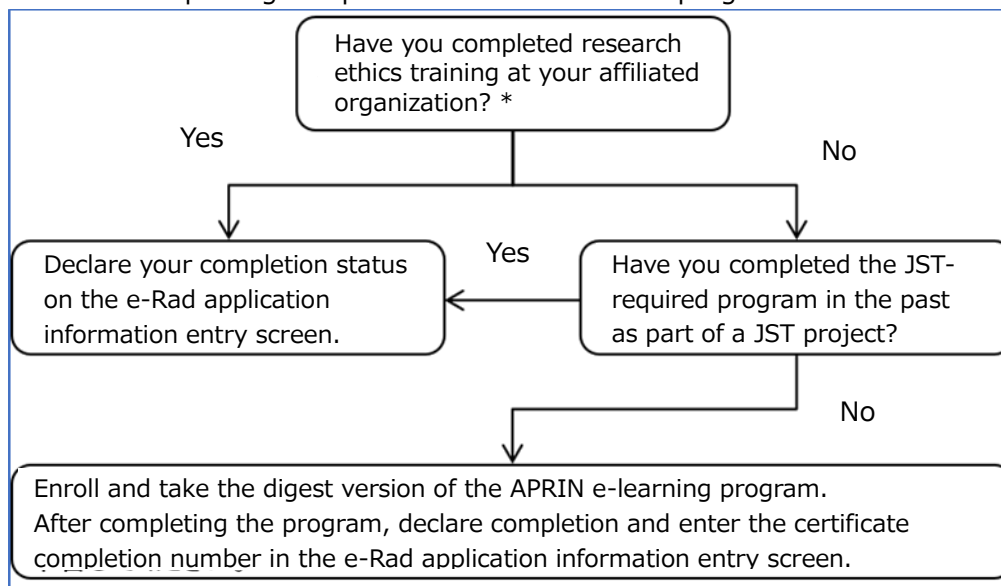
■ Contact for consultation over the public invitation for application

SATREPS Group, Department of International Affairs, Japan Science and Technology Agency

E-mail : [global@jst.go.jp](mailto:global@jst.go.jp)

\* Include the program name, e-Rad project ID, research applicant name and project title in the body of email.

Flow chart for reporting completion of research ethics programs



JST has required researchers participating in this program to take and complete the “eAPRIN (formerly CITI).” Since this requirement will remain unchanged for the next fiscal year, in principle, all research participants will be required to take and complete the eAPRIN (formerly CITI) except those applicants who have already completed it at their organization or in a JST program.

## 5.2 Measures against unreasonable duplication and excessive concentration

### ○Measures against unreasonable duplication

In the case where a researcher is unnecessarily receiving competitive funding from multiple sources by the government or independent administrative corporations (including national R&D agencies) for the same research project (in terms of its title or the content of research receiving competitive funding; hereinafter the same shall apply) being undertaken by the same researcher and the researchers shall be made ineligible to apply for this program, the selection decision for their research program revoked or their research funding reduced (hereinafter referred to as “revoking of the selection decision for the research project”) in cases falling under any of the following.

- In the case where simultaneous proposals have been submitted for multiple competitive research funds and a duplicate approval has been granted for essentially the same research project (including overlapping cases, the same shall apply hereinafter).
- In the case where a duplicate application is made for funding a research project that is essentially the same as another research project that has already been selected and received competitive research funding.
- In the case where there is overlap in the intended use of research funds between multiple

research projects

- Other cases equivalent to the above

Even at the application stage of this program, no restriction is imposed on the application for other competitive funding programs. However, if the research project is selected by another competitive funding program, it shall be conveyed promptly to the clerk in charge of this program. If there is any omission in this report, the selection decision for the research project may be revoked.

#### ○Measures against excessive concentration

Even if the content of the research proposed for this program differs from the content of research being carried out under another competitive funding program, in the case where the overall research funding allocated to the same researcher or research group (hereinafter referred to as “researchers”) in the relevant fiscal year exceeds an amount that can be utilized effectively and efficiently and can be used within the research period, and the selection decision may be revoked in this project in cases falling under any of the following.

- In the case where an excessive amount of research funding is being received in light of the capabilities of the researchers and the research methods being used, etc.
- In the case where an excessive amount of research funding is being received in comparison with the amount of effort allocated to the research project (the percentage of working hours required for conducting the relevant research in the total working hours (\*))
- In the case where highly expensive research equipment is purchased unnecessarily
- Other cases equivalent to the above

In the case where you submit proposals to other competitive funding programs after submitting your application for this program, and the research project is selected by another competitive funding program or if any information provided on your application changes, it shall be conveyed promptly to the clerk in charge of this program. If reporting is omitted, the selection decision for the research project may be revoked.

- \* The researcher’s total working hours do not only refer to the hours for research activities, but also to substantially all working hours including those for educational activities and management tasks.

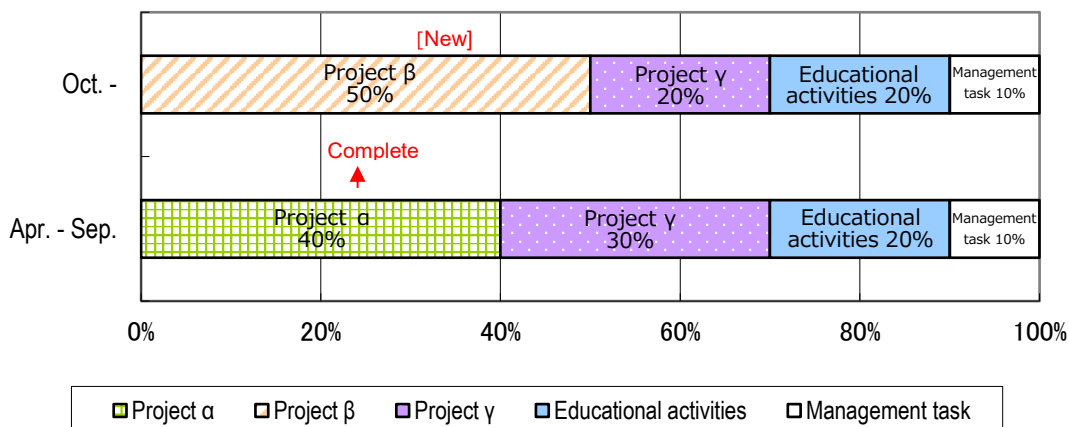
#### Concept of effort

##### About the definition of effort

- The 3rd Science and Technology Basic Plan defines an effort as “a percentage of working hours for a researcher to engage in each task, such as research, education, or management.”
- When researchers apply for a research project, they will be asked to indicate “the proportion of the time required for conducting the research to the total working hours.”
- It is important to note that this “total working hours” include not only the time spent on research activities, but also the time spent on educational activities and management tasks.
- The effort value may be changed according to the review and assessment of the research plan.  
In SATREPS, approval by the Research Supervisor is needed to change the amount of effort

after the start of the project.

Ex.: Percentages of working hours for projects  $\alpha$ ,  $\beta$  and  $\gamma$  in the total working hours whereby project  $\alpha$  is discontinued and project  $\beta$  is selected in the middle of the fiscal year, and project  $\gamma$  is implemented throughout the year



- The project  $\alpha$  ended at the end of September (allocation rate 40%) and the project  $\beta$  was newly started from October (allocation rate 50%) which will change the effort value of the project  $\gamma$  from 30% to 20%.

\* “Guidelines for Appropriate Execution of Competitive Funds” (agreed upon by the coordination committees of relevant ministries and agencies on competitive funds, revised on June 22, 2017)

#### ○ Providing information on application content to eliminate unreasonable duplication and excessive concentration

In order to eliminate unreasonable duplication and excessive concentration, JST may partially provide information on the application content (or selected research projects or programs) to persons in charge of other competitive funding programs, including at other ministries and agencies, to the extent necessary, through cross-ministerial R&D Management System (e-Rad). When asked, JST may also provide information in the same way to facilitate these checks at other competitive funding programs.

### 5.3 Status of acceptance of other applied competitive funds, including of those of other ministries and agencies

If the content of the entry regarding the elimination of unreasonable duplication and excessive concentration is described differently from the facts, it may result in the rejection of a research project, revoking of selection decision or reduction in research funds.

### 5.4 Measures against an improper use and improper receipt

JST will respond strictly to an improper use and improper receipt of research funds (hereinafter referred to as a “improper use and the like”) as follows.

○Measures to be taken when an improper use and the like of research costs is found

(i) Measures to cancel the agreement

For a research project for which an improper use and the like has been found, JST will cancel or change the consigned contract and request for return of all or part of the consignment expenses. In addition, JST may not enter into a contract for the next and subsequent fiscal years.

(ii) Measures to restrict eligibility for application and participation\*<sup>1</sup>

If a researcher who has made an improper use and the like of research funds of a program (including a researcher who has conspired; hereinafter referred to as a “researcher who made an improper use and the like”) or is accredited to have been involved in the improper use and the like will be regarded as to have violated the duty of due care required of a prudent manager\*<sup>2</sup>, JST will restrict his/her eligibility for application for or participation in this program or give him/her a strict reprimand as shown in the following table, depending on the degree of injustice.

JST may provide the persons in charge of other competitive funding programs, including those of other ministries and agencies and independent administrative corporations under their jurisdiction, with a summary of the improper use and the like (name of the researcher who has made the improper use and the like, project title, affiliated organization, research project, amount of budget, fiscal year of research, description of misconduct, and description of measures that have been taken).

\*1 The “application and participation” refers to proposal of or application for a new project, new participation in research as a joint researcher, or participation in an ongoing research project (continued project) as a principal investigator or joint researcher.

\* 2 “A researcher who has violated the duty of due care required of a prudent manager” refers to a researcher who was not recognized as being involved in an improper use and the like but has violated the duty to conduct the project with the attention of a prudent manager.

| Classification of improper use or improper receipt  | Degree of improper use           |   | Application prohibited period * <sup>3</sup> |
|---|----------------------------------|---|--|
| Those researchers who engaged in improper use and any researchers colluding in the said improper use * <sup>1</sup> | 1 Personal use for personal gain |   | 10 years                                     |
|   | 2 Other than above               | ① Major influences on society, or strongly aggravated | 5 years                                      |
|   |                                  | ② Improper use other than ① or ③                      | 2–4 years                                    |
|   |                                  | ③ Minor influence on society, or weakly aggravated    | 1 year                                       |
| Those researchers awarded competitive funding through false or other improper                                       |                                  |   | 5 years                                      |

|  |  |   |
|--|--|---|
| means and any researchers colluding in the said improper use   |  |   |
| Those researchers who were not involved in the improper use but were in violation of the requirement to exercise the duty of due care required of a prudent manager * <sup>2</sup> |  | A minimum of 1 year to a maximum of 2 years according to the researcher's degree of violation of the duty of due care required of a prudent manager |

In the following cases, there will be no restriction on eligibility, but a reprimand will be issued.

- \* 1: Improper use having a minor impact on society and that is deemed to have been done with little malicious intent, and the amount of improper used funds is small.
- \* 2: Improper use having a minor impact on society and that is deemed to have been done with little malicious intent.
- \* 3: The eligibility for participation is also restricted for the fiscal year in which the improper use and the like has been determined as such.

### (iii) About publication of misconduct case

For the researchers, who have made an improper use and the like of research funds and violated the duty of due care required of a prudent manager in this project, are subject to restrictions on eligibility for application for and participation in it. JST will publicly disclose the overview of the misconduct case (researcher name, project title, affiliate organization, fiscal year of research, description of misconduct, and description of measures that have been taken). The overview of the misconduct case (program name, affiliate organization, fiscal year of research, content of misconduct, and description of measures that have been taken) is also released, in principle, by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

"Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)" states that if the misconduct is found and determined as a result of the survey, the research institution is required to announce the survey results promptly. Each organization should act properly in accordance with the guidelines.

- \* For the outline of the misconduct cases currently published on the website of MEXT, please refer to the following URL.

[http://www.mext.go.jp/a\\_menu/kansa/houkoku/1364929.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1364929.htm)

## **5.5 Measures taken against researchers whose eligibility for applications and participation have been restricted under other competitive funding programs**

For researchers who have been restricted due to the improper use and the like of research funds in other competitive funding programs \* of the government or independent administrative corporations are also restricted on eligibility for application for and participation in this program during that restriction period.

The other competitive funding programs also include ones for which public invitation will start from the FY2019. The other competitive funding programs also include ones for which public invitation ended before the fiscal year FY2018.

\* For specific target competitive funding programs, please visit the following website:

<https://www8.cao.go.jp/cstp/compefund/>

### **5.6 Measures taken against violation of related laws and regulations**

If research is conducted in violation of the relevant laws and regulations or guidelines, the researcher will be subject to disposal and penalties pursuant to the laws and regulations, the termination of research fund allocation, or revoking of the decision on research fund allocation.

### **5.7 Storage of receipts pertaining to indirect costs and report on actual use**

Research institutions that receive allocated indirect costs are requested to manage them properly and store documents, such as receipts, that prove their appropriate use for five years from the fiscal year following the fiscal year of project completion.

Research institutions that have received allocated indirect costs should report their actual use for each fiscal year by June 30 of the following fiscal year to JST through cross-ministerial R&D Management System (e-Rad) (Research institutions that have acquired multiple competitive funds are requested to report all the indirect costs relevant to them). If you do not know how to operate e-Rad for reporting, refer to e-Rad Operation Manual ([https://www.e-rad.go.jp/manual/for\\_organ.html](https://www.e-rad.go.jp/manual/for_organ.html)) or "Frequently Asked Questions." (<http://faq.e-rad.go.jp/EokpControl?&event=CE0002&cid=13593>).

### **5.8 About carryover**

If a research institution finds it difficult to finish spending its research fund within the fiscal year along with the progress of the project due to difficulties in prior investigation or determination of research methods, various conditions related to planning or design, weather conditions, difficulties in obtaining materials or for other unavoidable reasons, JST may allow the research fund to be carried over to the end of the next fiscal year.

### **5.9 About cross-ministerial cost categorization table**

In this program, the cost structure is determined based on the cross-ministerial cost categorization table that is to be commonly used for competitive funds. For the handling of costs, please refer to the following cross-ministerial cost categorization table.

[http://www.mext.go.jp/a\\_menu/jinzai/fusei/13745081374697.htm](http://www.mext.go.jp/a_menu/jinzai/fusei/13745081374697.htm) (only in Japanese)

### **5.10 Diversion of cost among items**

For diversion of cost among the items, the amount of diversion permitted without JST approval is capped at 50% of the total direct costs.

### **5.11 Securing research period up to the end of fiscal year**

JST takes the following measures for all the competitive funds so that researchers can conduct their research until the end of the fiscal year.

- (1) Research institutions and researchers shall submit a project completion notice as an outcome promptly after the completion of the project. JST will confirm it and perform acceptance inspection of the research results.
- (2) The deadline for submitting the accounting performance report shall be May 31.
- (3) The deadline for submission of the research results report shall be May 31.

Each research institution should strive to establish a necessary system based on the understanding that these measures are taken to secure the research period which ends at the end of the fiscal year.

### **5.12 Promoting dialogue and collaboration with the public**

In Promoting “Dialogue on Science and Technology with the Public (Basic Approach Policy),” adopted on June 19, 2010 by the Minister of State for Science and Technology Policy in charge and by the decision of the expert diet members, it is considered essential for a selected research project to receive a minimum of JPY 30 million per year of public research fund (competitive or project research fund) to fulfill the following objectives: 1) Achieve continued excellent results in the field of science and technology through the Dialogue on Science and Technology with the Public, 2) Return the achievements in science and technology to the public for further development of the field in Japan, and 3) Promote science and technology jointly with the public, while obtaining their understanding and support. In the “5th Science and Technology Basic Plan,” as decided by the Cabinet on January 22, 2016, it is required to deepen the relationship for dialogue and collaboration among various stakeholders, such as researchers, the public, media, industries, and policy makers. Such relationship is considered as a “joint creation,” and is contrary to the conventional relationship in which science and technology and society stand opposite each other. From these points of view, an approach is required to explain the contents and achievements of research activities to society and public in the most widely understandable manner possible. To this end, researchers are required to actively undertake the continuous releases of research achievements through lectures, symposiums, and the internet, and full activities involving diverse stakeholders in the roundtable meetings.

(Reference) Promoting Dialogue on Science and Technology with the Public (Basic Approach Policy)

<https://www8.cao.go.jp/cstp/output/20100619taiwa.pdf> (Only in Japanese)

(Reference) “5th Science and Technology Basic Plan”

<https://www8.cao.go.jp/cstp/kihonkeikaku/5honbun.pdf> (Only in Japanese)

### **5.13 data publishing from National Bioscience Database Center**

The National Bioscience Database Center (NBDC) (<https://biosciencedbc.jp/>) which established in JST in April 2011 promotes integrated use of life sciences databases created by various research

institutions. “Provision Translation: Progress and future direction of the Life Sciences Database Integration Project” (January 17, 2013) states that NBDC will play a central role in database-integration and expand coverage of projects receiving data and databases.

Based on these circumstances, researchers are requested to cooperate in publishing the following types of data or databases produced in this program.

| No. | Data type   | Hosted by                     | URL   |
|-----|---|-------------------------------|---|
| 1   | Overview of published database  | Integbio Database Catalog     | <a href="https://integbio.jp/db/catalog/">https://integbio.jp/db/catalog/</a>         |
| 2   | Copies of data associated with a research article etc. or a copy of a public database | Life Science Database Archive | <a href="https://dbarchive.biosciencedbc.jp/">https://dbarchive.biosciencedbc.jp/</a> |
| 3   | Data related to human of above 2  | NBDC Human Database           | <a href="https://humandbs.biosciencedbc.jp/">https://humandbs.biosciencedbc.jp/</a>   |

#### <Contact information>

National Bioscience Database Center, Japan Science and Technology Agency

Phone: 03-5214-8491

e-mail: [nbdc-kikaku@jst.go.jp](mailto:nbdc-kikaku@jst.go.jp)

### 5.14 Promoting the joint use of research facilities and equipment

“About reforming competitive research expenses toward sustainable creation of research achievements (mid-term summary)” (Committee for reforming competitive research expenses, June 24, 2015) considers it proper to share relatively large facilities and equipment for universal use while aiming to fully achieve the research objectives.

In addition, “About introduction of a joint use system for new research facilities and equipment integrated with research organization management” (Advanced Research Base Subcommittee, Council for Science, Technology, November 2015) requests that universities and national research and development corporations should operate a “joint use system for research facilities and equipment for each research organization unit” (hereafter referred to as “equipment joint use system”).

Based on these, research institutions are requested to promote joint use of research facilities and equipment purchased by this project, in particular, large and versatile ones, so as not preclude the performance of research projects. Such purchase shall be made within control conditions of other research costs and in accordance with the equipment joint use system in the affiliated organization. The use of facilities and equipment purchased with other research funds and purchase or use with combined multiple research funds shall also be actively promoted. Note that the management of shared facilities and equipment should be balanced with their use to achieve the purposes of the research projects.

Besides the above equipment joint use system, the research institutions are requested to collaborate actively with the “University Collaborative Research Facility Network Project” and with a university-wide joint use system to promote the joint use of research facilities and equipment

beyond the framework of research organizations or institutions (The “University Collaborative Research Facility Network Project” is operated by the Institute for Molecular Science, National Institutes of Natural Sciences, and Inter-University Research Institute Corporation to promote joint use of nation-wide facilities. The university-wide joint use system has been established at each national university as part of the maintenance project of the equipment support center).

- “About introduction of a joint use system for new research facilities and equipment integrated with research organization management”  
(Advanced Research Base Subcommittee, Council for Science, Technology, November 25, 2015)  
[http://www.mext.go.jp/component/b\\_menu/shingi/toushin/\\_icsFiles/afieldfile/2016/01/21/1366216\\_01\\_1.pdf](http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2016/01/21/1366216_01_1.pdf)
- “About reforming competitive research expenses toward sustainable creation of research achievements (mid-term summary)”  
(Committee for reforming competitive research expenses, June 24, 2015)  
[http://www.mext.go.jp/b\\_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm](http://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm)
- “About unifying the rules for the use of competitive funds”  
(Agreed upon by the coordination committees of relevant ministries and agencies on competitive funds, revised on April 20, 2017)  
[https://www8.cao.go.jp/cstp/compefund/shishin3\\_siyouruuru.pdf](https://www8.cao.go.jp/cstp/compefund/shishin3_siyouruuru.pdf)
- “University Collaborative Research Facility Network Project”  
<https://chem-eqnet.ims.ac.jp/>

### 5.15 Improving the treatment of (latter-stage) doctoral students

In order to attract outstanding students and working people from home and abroad, the 3rd, 4th and 5th Science and Technology Basic Plan has set up a numerical goal of providing about 20% of the (latter-stage) doctoral students with grants equivalent to their living costs as part of an enhanced financial support for graduate students, especially for the (latter stage) doctoral students.

“Reformation of Education in Postgraduate School Leading to the Future (Deliberation Summary)” (Central Council for Education, University Division, September 15, 2015) also requests that the employment of (latter-stage) doctoral students as Research Assistants (RAs) and Teaching Assistants (TAs) should be promoted with diverse resources, and that a salary equivalent to the cost of living should be paid for RA and TA employment.

Based on the understanding of these circumstances, it is requested that the (latter-stage) doctoral students be employed as RAs and TAs and that the payment of salary equivalent to the cost of living and at an appropriate level for working hours be established for this program.

### 5.16 Supporting various career paths for young post-doctoral researchers

In “Basic Policy for Supporting Various Diverse Career Paths of Young Post-doctoral Researchers Employed with Public Research Funds of the Ministry of Education, Culture, Sports, Science and Technology” (Human Resources Committee, Council for Science, Technology, December 20, 2011) ([http://www.mext.go.jp/b\\_menu/shingi/gijyutu/gijyutu10/toushin/1317945.htm](http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu10/toushin/1317945.htm)), it is requested that public research institutions employing young post-doctoral researchers with public research

funds and principal investigators should actively work for young post-doctoral researchers to secure various career paths in Japan and abroad. Based on the understanding of these circumstances, if research institutions employing post-doctoral researchers with public research funds (competitive funds, other project research funds, or public research funds for universities) after selecting their research projects in the public invitation, they are requested to provide various supports to secure various career paths for the researchers.

The research institutions should consider utilizing the indirect costs for the efforts.

### **5.17 Security export control (to prevent technology leakage to foreign countries)**

A lot of cutting-edge technologies are being researched at research institutions, and in particular at universities, leading-edge technologies, as well as materials and equipment used for research, are leaked due to an increase of foreign students and researchers through internationalization, which has increased the risk of these technologies being exploited for the development and manufacture of weapons of mass destruction, etc. In order for research institutions to carry out various research activities, including contract Research, they are required to take systematic responses to ensure that research results that may be diverted militarily are not passed on to those who may perform these activities, such as developing of weapons of mass destruction for terrorist groups.

In Japan, exports are restricted \* pursuant to the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) (hereinafter referred to as the "Foreign Exchange Law"). This, in principle, requires those who intend to export (provide) freight or technologies regulated by the Foreign Exchange Law to obtain approval from the Minister of Economy, Trade and Industry. Research institutions are required to comply with the foreign exchange law, as well as the country's laws and regulations, guidelines and notifications. If they conduct research in violation of relevant laws and regulations or guidelines, they are subject to termination of research funding allocation or revoking of the decision on research fund allocation, besides legal dispositions and penalties.

\* At present, Japan's security export control system has two main systems based on international agreements: List Regulation and Catch-all Regulation. The List Regulation system is a system which, in principle, requires those intended to export or provide freight (or technologies) that meet specifications or functions of a certain level or higher, such as carbon fibers, numerical control machine tools, etc., to obtain approval from the Minister of Economy, Trade and Industry. The Catch-all Regulation system is a system that requires those intended to export or provide freight (or technologies) not subject to the List Regulation system which meet certain requirements, such as application, customer or notification requirements, to obtain approval from the Minister of Economy, Trade and Industry.

Not only the export of goods but also the provision of technology are also subject to the regulation of the Foreign Exchange Law. Providing technologies subject to the List Regulatory to non-residents or those in foreign countries requires prior permission. Providing technical information includes providing technical information, such as design drawings, specifications, manuals, samples and prototypes in storage media, such as paper, e-mail, CD, DVD, or USB memory and providing work knowledge through technical guidance, training or technical assistance in seminars. Acceptance of foreign students from foreign countries, and activities, such as joint research, may also involve

many exchanges of technologies that may be subject to foreign exchange law.

The details of security export control are disclosed on websites, such as of the Ministry of Economy, Trade and Industry. For details, refer to the following.

- Ministry of Economy, Trade and Industry (METI):Security Export Control (general)  
<http://www.meti.go.jp/policy/anpo/>
- Ministry of Economy, Trade and Industry (METI):Security Export Control Handbook  
<http://www.meti.go.jp/policy/anpo/seminer/shiryo/handbook.pdf>
- Center for Information on Security Trade Control  
<http://www.cistec.or.jp/index.html>
- Ministry of Economy, Trade and Industry (METI): Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions  
[http://www.meti.go.jp/policy/anpo/law\\_document/tutatu/t07sonota/t07sonota\\_jishukanri03.pdf](http://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf)

### 5.18 Related Laws and Other Considerations for Implementing Research

#### 5.18.1 Acquisition and use of genetic resources

When obtaining or using genetic resources (including related traditional knowledge) from another country, including the partner country, in the process of promoting research through a project, please comply with the Convention on Biological Diversity, the Nagoya Protocol, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), and related legislation and other regulations of the country providing the genetic resources be observed, and also deal appropriately with the Japanese domestic measure that came into force on August 20, 2017 (the ABS\* Guideline). Depending on the status of ratification of related treaties and other agreements by the partner country and the state of its domestic legislation, please endeavor to conclude any contracts and obtain any permissions required, as well as concluding a Material Transfer Agreement (MTA) for the transfer of genetic resources between Japan and the partner country. For details on access to genetic resources, profit allocation, ABS<sup>11</sup> Guidelines, the Convention on Biological Diversity and ITPGR, refer to the following websites.

Ministry of Environment: <http://www.env.go.jp/naure/biodic/abs/>

ABS Task Force Team for Academia: <http://www.idenshigen.jp/>

Japan Bioindustry Association: <http://www.mabs.jp/index.html>

Convention on Biological Diversity: <http://www.cbd.int/>

ITPGR: <http://www.fao.org/plant-treaty/en/>

- \* This restriction is not limited to items related to the research. Care must be taken with all genetic resources (materials) including commercial goods.

#### 5.18.2 Responsibility for the safety of researchers

JST and JICA will not assume any responsibility for injuries, illnesses, or other accidents that

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<sup>11</sup> ABS: Access and Benefit-Sharing and Benefit-Sharing

occur during the period of joint research for this project. When traveling overseas, a researcher must be enrolled in an overseas travel accident insurance that includes adequate coverage for medical and rescuer's expenses.

Regarding management of safety and health, the research institution must establish a management system and internal regulations, comply with the Industrial Safety and Health Act and other laws and regulations, and endeavor to prevent accidents. In the event of an accident or injury to a researcher, etc. in association with an accident occurring due to the contract research, this must be reported promptly to JST and JICA in writing.

In addition, in light of the recent international situation, please make maximum efforts to protect the safety of researchers and other project staff based on information and guidance provided by MOFA and JICA, including ensuring that they have registered their overseas residence (Overseas Residential Registration) or registered on "Tabi-Regi" (Overseas Travel Registration).

On the following website, JICA provides measures for ensuring safety in different countries, Safety Manuals for different countries, warning information, and scheduled safety training sessions. Researchers going overseas are requested to obtain this safety information in advance and to attend safety training. When in another country, please observe the safety measures put in place by the JICA Office and provide emergency contact details and travel information.

○JICA Safety Information by Country <https://www.jica.go.jp/about/safety/rule.html>

○JICA Safety Training <https://www.jica.go.jp/about/safety/training.html>

### 5.18.3 Bioethics and Safety Assurance

When conducting life science research, laws, ordinances, and guidelines issued by each Ministry to ensure bioethics and safety must be observed. If approvals, reports, or confirmations etc. by the director of the institution to which researchers are affiliated are required in association with the research, the specified procedures must be followed.

The main laws and regulations issued by various Ministries can be found at the following links.

Life Sciences no Hiroba "Measures on Bioethics and Safety Assurance":

<http://www.lifescience.mext.go.jp/bioethics/index.html> (Japanese)

Further information: Ministry of Health, Labour and Welfare's research guidelines:

<http://www.mhlw.go.jp/general/seido/kousei/i-kenkyu/>

### 5.18.4 Protection of interests and human rights

If a research plan requires agreements or cooperation from parties involved or social consensus, a researcher must make appropriate preparations regarding the protection of interests and human rights before application.

### 5.18.5 Social and Ethical Considerations

A research plan or its implementation deemed unacceptable from a social and ethical standpoint will not be considered during the selection process. Also, any violation of the above mentioned guidelines or any inappropriate conduct after the commencement of research may result in the

cancellation of the selection or the termination of the research project, full or partial return of research expenses, and a public announcement of the misconduct.

#### 5.18.6 Ban on the military application of research results

The military application of research results from this joint research program is strictly prohibited.

### **5.19 Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)**

#### (1) About implementation of proper systems in accordance with the “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)”

The research institutions applying for this program and conducting research should comply with the contents of the “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)” (revised on February 18, 2014) <sup>\*1</sup>.

Research institutions are requested to establish a system for managing and auditing research funds under their responsibility in accordance with the above-mentioned guidelines and strive for proper execution of research funds. If the Ministry of Education, Culture, Sports, Science and Technology(MEXT) finds the system implementation of a research institution inadequate as a result of investigation of the status of system implementation in accordance with the above-mentioned guidelines, JST may take measures, such as reduction in the indirect costs of all the competitive funds distributed from the MEXT and the independent administrative corporations under its jurisdiction.

<sup>\*1</sup> For “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards),” visit the following web site:

[http://www.mext.go.jp/a\\_menu/kansa/houkoku/1343904.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm)

#### (2) Submission of “Self-evaluation Checklist for Implementation of Proper Systems” based on “Guidelines for Management and Audit of Public Research Funds in Research Institutions (Implementation Standards)”

Before concluding an agreement for this program, each research institution is requested to establish a system for managing and auditing research costs in accordance with the above-mentioned guidelines, and submit Self-evaluation Checklist for Implementation of Proper Systems (hereinafter referred to as the “checklist”), and a report indicating the status of system implementation. (A research institution that fails to submit the checklist cannot conduct research.)

Research institutions need to submit the checklist to Competitive Funding Coordination Office, Promotion Planning Division, Research Promotion Bureau, the MEXT using a form available on the website shown below by the date of concluding the Contract Research Agreement via the cross-ministerial R&D Management System (e-Rad). Research institutions that have submitted the checklist on a separate occasion after April, 2020 need not submit it this time. The organizations that do not conduct research activities or those that conduct research activities but do not receive budgetary allocations or measures from MEXT or independent administrative corporations under its jurisdiction do not need to submit the checklist.

For details on submitting the checklist, visit the following MEXT website:

[http://www.mext.go.jp/a\\_menu/kansa/houkoku/1301688.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1301688.htm)

\*Note: Research institutions must have their e-Rad environment available before they can submit the checklist. Please note that the registration usually takes about two weeks. For details on the procedure for using e-Rad, visit the website below.

<https://www.e-rad.go.jp/organ/index.html>

The above-mentioned guidelines include a focus on “promoting the dissemination and sharing of information.” Research institutions are requested to post this checklist on their websites, etc. to actively send information.

## **5.20 Guidelines for Responding to Misconduct in Research**

- (1) About implementation of proper systems in accordance with “Guidelines for Responding to Misconduct in Research”

Research institutions are requested to comply with the “Guidelines for Responding to Misconduct in Research” (Adopted by the Minister of Education, Culture, Sports, Science and Technology, August 26, 2014)\*<sup>1</sup> before applying for this program and performing research activities.

If the Ministry of Education, Culture, Sports, Science and Technology(MEXT) finds the system implementation of a research institution inadequate as a result of investigation of the status of system implementation in accordance with the above-mentioned guidelines, JST may take measures, such as reduction in the indirect costs of all the competitive funds distributed from MEXT and the independent administrative corporations under its jurisdiction.

\*1 For “Guidelines for Responding to Misconduct in Research,” please visit the following website:

[http://www.mext.go.jp/b\\_menu/houdou/26/08/1351568.htm](http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm)

- (2) About the submission of the checklist on the status of efforts in accordance with the “Guidelines for Responding to Misconduct in Research”

Before concluding an agreement for this program, each research institution needs to submit the checklist on the status of implementation in accordance with the “Guidelines for Responding to Misconduct in Research” (hereinafter referred to as the “Research Misconduct Checklist. (A research institution that fails to submit the checklist cannot conduct research.)

Research institutions need to submit the Research Misconduct Checklist in a form available on the website shown below to Research Integrity Promotion Office, Human Resources Policy Division, Science, Technology and Academic Policy Bureau, the MEXT by the date of concluding the Contract Research Agreement via the cross-ministerial R&D Management System (e-Rad). Research institutions that have submitted the Research Misconduct Checklist on a separate occasion after April, 2020 need not submit it this time. The organizations that do not conduct research activities or those who conduct research activities but do not receive budgetary allocations or measures from MEXT or independent administrative corporations under its jurisdiction do not need to submit the checklist.

For details on submitting the Research Misconduct Checklist, please visit the following MEXT

website:

[http://www.mext.go.jp/a\\_menu/jinzai/fusei/1374697.htm](http://www.mext.go.jp/a_menu/jinzai/fusei/1374697.htm)

\*Note: Research institutions must have their e-Rad environment available before they can submit the checklist. Please note that the registration usually takes about two weeks. For details on the procedure for using e-Rad, visit the website below:

<https://www.e-rad.go.jp/organ/index.html>

(3) About measures against misconduct in research activities in accordance with the “Guidelines for Responding to Misconduct in Research”

JST will respond strictly to any misconduct found in the research activities of this program as follows:

(i) Measures to cancel the agreement

If a specific misconduct, such as fabricating, falsification or plagiarism, is found in this project, JST will cancel or change the Contract Research Agreement and request for refunding of all or part of the Contract Research costs, depending on the nature of the misconduct. JST may not enter into a contract for the next and subsequent fiscal years.

(ii) Measures to restrict eligibility for application and participation

For a person involved in a specific misconduct in research papers or reports in this project or a person who is determined to have neglected the duty of care as a person responsible for the papers, reports, etc., although they cannot be determined to have been involved in the misconduct, JST will restrict eligibility for application for or participation in this program, depending on the degree of viciousness and responsibility for the specific misconduct.

If JST takes measures to restrict eligibility for application and participation, JST provides the information to persons in charge of competitive funds distributed from MEXT and the independent administrative corporation under its jurisdiction (hereinafter referred to as “MEXT-related competitive funding programs”) and to those in charge of competitive funds distributed from other ministries and agencies and the independent administrative corporation under their jurisdiction (hereinafter referred to as “other ministry-related competitive funding programs”). This may also result in restrictions on eligibility for application for and participation in MEXT and other ministry-related competitive funding programs.

| Applicants subject to restrictions on application due to a specific misconduct |   |  | Degree of misconduct                                    | Application prohibited period * |
|--|---|--|---|---------------------------------|
| Those related to the misconduct  | 1. Aggravated Misconduct because intended or planned at the start |  |   | 10 years                        |
|  | 2. Authors of publications  | Person in charge of the publication (supervising | Major influences on development of the research area or | 5-7 years                       |

|  |  |  |  |           |
|--|--|--|--|-----------|
|  | guilty of misconduct                                     | editor, representative author, or those with equal responsibility) | society, or strongly aggravated.   |           |
|  |  |  | Minor influences on development of the research area or society, or weakly aggravated.         | 3-5 years |
|  |  | Other than the above   |  | 2-3 years |
|  | 3. Those involved in misconduct other than 1 and 2 above |  |  | 2-3 years |
| Those responsible for the publication based on misconduct but not related to the misconduct themselves (supervising editor, representative author, or those with equal responsibility) |  |  | Major influences on development of the research area or the society, or strongly aggravated.   | 2-3 years |
|  |  |  | Minor influences on the development of the research area or the society, or weakly aggravated. | 1-2 years |
|  |  |  |  |           |

\* Eligibility for participation is also restricted for the fiscal year in which a specific misconduct is determined as such.

- (iii) Measures against researchers who have been subject to restrictions on their eligibility for application for the competitive funding programs and for basic expenses

For researchers whose eligibility for application and participation have been restricted due to a specific misconduct in research activities that receive MEXT-related competitive funds, operating costs subsidies provided to national university corporations, Inter-University Research Institution Corporation and independent administrative corporations under the jurisdiction of MEXT, private school subsidies or other basic expenses, or other ministry-related competitive funds, JST will restrict eligibility for application and participation in the program.

- (iv) Publication of misconduct case

If a researcher committed a misconduct in the research activities in this project, JST will

publish the outline (researcher name, program name, affiliated organization, fiscal year of research, description of misconduct, and description of measures that have been taken) of the misconduct case. The description of misconduct case (name, type, research field and outline of misconduct case, name of expenses involved in misconduct, measures that were taken by research institution and by funding agency) are also, in principle, published by the MEXT.

The above-mentioned guidelines state that if it is determined that misconduct has been found, research institutions shall publish the results of investigation promptly. The research institutions are requested to respond properly.

[http://www.mext.go.jp/a\\_menu/jinzai/fusei/1360483.htm](http://www.mext.go.jp/a_menu/jinzai/fusei/1360483.htm)

### (v) Measures taken by JICA to deal with misconduct

Should it come to light that the principal investigator's institution or a research institution under contract from the principal investigator's institution has engaged in misconduct in the execution of its project contract with JICA, is in a relationship with antisocial forces, or has infringed the Ethical Guidelines for Persons Engaged in Activities of the Japan International Cooperation Agency set out by JICA, JICA shall invoice the principal investigator's institution for a penalty fee and dissolve the project contract with the principal investigator's institution. Should researchers or others participating in the project engage in misconduct (including data fabrication, falsification, or plagiarism) that has been factually confirmed by JICA, the necessary measures shall be taken in accordance with the Guidelines for Responding to Misconduct in Research (adopted on August 26, 2014 by the Ministry of Education, Culture, Sports, Science, and Technology).

## **5.21 Mandatory education on research integrity and compliance**

Researchers who are to participate in this project shall receive education on research integrity to prevent misconducts in research activities, as requested in "Guidelines for Responding to Misconduct in Research," and on compliance, as requested in the "Guidelines for Management and Audit of Public Research Funds in Research Institutions."

During the conclusion of a contract research agreement after adopting a proposed research project, the principal investigator must submit a document that confirms that all researchers who are to participate in this project have received education on research integrity and compliance, and have understood the contents.

## **5.22 Handling of information, such as research projects, on e-Rad**

JST handles the information related to each selected research project on e-Rad (program name, project title, name of affiliated research institution, name of principal investigator, amounts of budget, implementation period, and project summary) as the information to be released as set forth in Article 5, item (i) (a) of "Act on Disclosure of Information Held by Independent Administrative Corporations" (Act No. 140 of 2001). After selecting a research project, JST will publish this information on the website of the program, as appropriate.

### **5.23 Providing information to the Cabinet Office through e-Rad**

In order to promote science and technology innovation policies based on objective grounds, the 5th Science and Technology Basic Plan (Cabinet Decision of January, 2016) requires a thorough registration of public funds in the cross-ministerial R&D Management System (e-Rad) to facilitate evaluation and analysis. The information registered in e-Rad is used to evaluate the nationally funded R&D properly and plan effective and efficient comprehensive strategies, resource allocation policies, etc. Based on the information registered in e-Rad, CSTI and related ministries and agencies associate the output and outcome information with input to the publicly funded research program. To this end, a thorough registration of outcome information, such as papers, patents, and accounting performance, is called for.

It is also requested to enter information on the research results, accounting performance and the execution performance of indirect costs for the competitive funds for an selected research project for each fiscal year in e-Rad.

This provides the Cabinet Office with the information necessary for macroeconomic analysis, such as information on the research results, accounting performance.

### **5.24 Registering researcher information to researchmap**

Researchmap (<https://researchmap.jp/>) is the largest researcher information database in Japan in the form of a comprehensive list of Japanese researchers, and the registered performance information can be published through the Internet. The researchmap is also linked to e-Rad and the faculty databases of many universities to allow the registered information to be used by other systems as well. This eliminates the needs for researchers to repeatedly register the same performance in various applications and databases.

The information registered in the researchmap is also effectively used for investigation for planning of national scientific and technological policies and for statistical utilization. Researchers are requested to register information to researchmap.

### **5.25 Patent application by JST**

If a research institution will not acquire any rights for an invention, JST may acquire the rights. If the research institution does not intend to acquire rights for the invention, the researcher should convey the information on the invention promptly to JST in any format. (The above “information on the invention” refers to the information required for JST to determine whether or not an application can be filed, such as a copy of the invention report used in the research institution.)

JST will conduct a review based on the information, and as a result, if JST determines that the invention can be filed, the research institution and JST will conclude an agreement for transferring the right to receive a patent.

## Chapter 6 Submission via the Cross-ministerial R&D Management System

### 6.1 Cross-ministerial R&D Management System (e-Rad)

The cross-ministerial R&D Management System (e-Rad) is a cross-ministerial system that provides a series of on-line processes to manage the publicly funded research programs under the jurisdiction of ministries and agencies (Acceptance of applications → Screening → Selection → Management of selected project → Registration of research results and accounting performance).

\* The “e-Rad” is the abbreviation of the cross-ministerial R&D Management System, which is created by adding the capital letter of “e” of “Electric” to the capital letters of “Research and Development” for science and technology.

### 6.2 Application method using e-Rad

Research institutions are requested to make an application using e-Rad.

For the application flow, refer to the flowchart.

Please be aware of the following points when submitting your application.

#### (1) Pre-registration for using e-Rad

Research institutions and researchers must be pre-registered before e-Rad can be used.

##### ①Registration of research institution

A research institution needs to be registered to e-Rad by the time of application. A research institution is requested to appoint one administrative representative in charge of the e-Rad who download the form of research institution registration from the e-Rad portal site (hereinafter referred to as the “portal site”), and apply by mail to us. Since registration takes several days, the research institution should perform the registration procedure more than two weeks before. Once the registration is completed, the research institution needs not to register the information again when applying for a programs under the jurisdiction of other ministries or agencies. Similarly, if the research institution has already registered its information in a programs under the jurisdiction of other ministry or agency, it need not register its information again.

##### ②Registration of researcher

The research institution must register its researcher information and issue a log-in ID and a password.

For how to register researcher information, refer to the manuals, posted on the portal site, for the administrative representative of the research institution and for persons in charge of administrative work.

#### (2) Application using e-Rad application

For application using e-Rad application by researchers, refer to researchers’ manual posted on the portal site.

<Note>

①Application requires entry of application information on the website and the attachment of an application form.

The application form that can be uploaded is a single file having the maximum capacity of 10 MB. If you include image data in the file, be careful of the file size. If the upper limit is exceeded, contact a person in charge of program before uploading.

- ②The created application form file must be uploaded in PDF format. The e-Rad has a function to convert a WORD or Ichitaro file into a PDF file. The PDF conversion software that can be used on your PC can also be downloaded. The use of these functions and software is not always mandatory for PDF conversion, however, if you do use them, be sure to refer to the researchers' manual for usage and precautions.
- ③If approval of the administrative representative of the research institution is required for application, the status of the application becomes "Processing (Research Institution)" after the submission of the application by the researcher. Confirm the application status on the "List of Applications and Approved Projects" screen.
- ④An application whose status is not changed to "Processing (Distribution institution)" or "Accepted" will be invalidated by the submission deadline. Confirm the application status on the "List of Applications and Approved Projects" screen. For application that requires approval from the administrative representative of the research institution, that approval must be made by the deadline of submission.

If the status has not been changed despite the submission of application by the researcher and approval by the administrative representative of the research institution by the deadline, please contact the person in charge of program.

### (3) Other

An incomplete application form will not be subject to screening. Be sure to read "Public Invitation Guideline" and "Procedure for Preparing Application Forms" and then fill out the form carefully (Do not change the format of the application form). JST does not accept a request to replace or return the application form.

## 6.3 Others

### (1) How to operate e-Rad

For how to operate e-Rad, visit the portal site (<https://www.e-rad.go.jp/>) or download the manual from the site. Be sure to agree to the terms of use before making an application.

### (2) Where to direct questions on how to use the e-Rad system

Questions about the program itself are answered by a person in charge of program, just as usual. Questions about e-Rad operation methods are answered by e-Rad Help Desk. Before asking questions, be sure to read the website for public invitation for this program and e-Rad Portal site carefully. JST will not answer any questions regarding the status of the screening or acceptance.

|  |   |   |
|--|---|---|
| Questions about programs and procedures for preparing and submitting application documents | SATREPS Groups,<br>Department of<br>International Affairs,<br>JST | 03-5214-8085<br>10:00~12:00/13:00~17:00<br>* Excluding Saturday, Sunday, public<br>holidays and New Year holidays |
| Questions about e-Rad  | e-Rad Help Desk   | 0570-066-877 (navi dial)  |

|                   |  |  |
|-------------------|--|--|
| operation methods |  | 9:00~18:00 * Excluding Saturday, Sunday, public holidays and New Year holidays |
|-------------------|--|--|

○ SATREPS program website: <https://www.jst.go.jp/global/>

○ Portal site: <https://www.e-rad.go.jp/>

### (3) Availability of e-Rad

As a rule, e-Rad operates 24 hours a day, 365 days a year, but JST may stop the service for system maintenance. If JST decides to do so, it will be preliminarily notified on the portal site.

## Q&A

### 1. Q&A about the SATREPS program objectives and purposes

Q: How many projects have been selected so far, and what sort of projects are they?

A: A total of 145 international joint research projects have been selected for this program so far (including projects in Infectious Diseases Control field) .

| Selected Year | Number of Projects Selected | Selected Year | Number of Projects Selected |
|---------------|-----------------------------|---------------|-----------------------------|
| FY2008        | 12                          | FY2014        | 10                          |
| FY2009        | 20                          | FY2015        | 14                          |
| FY2010        | 17                          | FY2016        | 14                          |
| FY2011        | 10                          | FY2017        | 9                           |
| FY2012        | 8                           | FY2018        | 9                           |
| FY2013        | 10                          | FY2019        | 12                          |

Q: What are the main changes in the FY2020 Invitation for Research Proposals compared to the previous FY?

A: The main changes in the FY2020 Invitation for Research Proposals are listed at the following website:

<https://www.jst.go.jp/global/koubo.html> (Japanese)

Q: How should I gain an understanding of the developing country's needs?

A: Under the SATREPS program, one of the key perspectives applied when selecting projects is whether a research proposal is in line with the needs of the developing country. Proposals are expected to show a proper understanding of the partner country needs, obtained through means such as prior contact and interaction in a research context. One useful reference is the Country Assistance Policy (an ODA policy that MOFA establishes by comprehensively taking into account factors such as the local political, economic, and social situations, development plan, and development challenges) which has been formulated for some countries. Country Assistance Policies are published on the MOFA website:

<http://www.mofa.go.jp/policy/oda/assistance/index2.html>

Furthermore, in order to conduct international joint research with the aim of application of outcomes, a systematic approach is expected in the partner country, bringing in partner country government agencies, etc. The selection process takes into account whether the structure is adequate for that purpose. When setting up a project, we also recommend liaising in advance with the Japanese embassy in the partner country and with the local JICA office.

Q: Does having the project linked to ODA mean that the principal investigator needs to be stationed in the partner country (long term overseas dispatch)?

A: The principal investigator does not necessarily need to be stationed in the partner country, but it is considered important for the principal investigator to visit the partner country and manage the project on the ground. Technical cooperation projects allow for flexibility, including dispatch on a short-term shuttle basis. Nevertheless, in order to ensure that the activities in the partner country proceed smoothly and to enhance the effectiveness of the project, it is of course desirable for Japan-side researchers to be either be stationed in the partner country full time or close to full time. When planning the dispatch of researchers to the partner country, take into consideration that the Japan-side researchers are required to contribute through the joint research to developing the partner country's self-reliant research and capacity development, and that as project director the principal investigator is responsible for the dispatch of researchers overseas as part of the international joint research.

Q: Is it necessary to station Japan-side research participants other than the principal investigator in the partner country?

A: It is not necessarily the case that Japan-side researchers have to be stationed in the partner country, but an appropriate strategy is essential. In order for the joint research to proceed smoothly in the partner country (a developing country), and because the purpose of the project is capacity development of the developing country through joint research, if researchers are not stationed overseas, it is necessary for them to be regularly dispatched to the partner country and that their emphasis is on their research overseas, such as by spending three months in the partner country followed by one month back in Japan. Projects are selected through an overall evaluation that includes consideration of the Japan-side implementation structure described in the proposal.

Q: Can a researcher affiliated with a research institution in a third country (not the partner country) participate in the project?

A: In principle, a researcher affiliated with a research institution located in a third country cannot participate in the project. However, such researchers can be invited to workshops, etc. Moreover it is possible for such a researcher to become affiliated (as a visiting researcher, etc.) with an institution participating in the joint research (including the principal investigator's institution), and participate in the research under the auspices of that institution.

Q: Is there a restriction on the number of SATREPS program applications that can be made per institution?

A: There is no restriction on the number of applications that can be made per institution. If multiple applications are made from a single institution, each set of research proposal documents is required to include a separate written approval from the director of the institution (president or chair of the board, etc.).

## **2. Q&A about operation of the parts of the program handled mainly by JST (Q&A mainly about selection and implementation of research within Japan)**

### **(1) Application requirements**

Q: What requirements do private-sector companies need to satisfy to apply for the program?

A: The requirements include the company being incorporated in Japan.

Q: Can a private-sector company be a principal investigator's institution?

A: Yes, it can. However, the following point needs to be taken into account.

- A company conducting activities with a public nature can become the principal investigator's institution for a project. Even if the company is not conducting activities with a public nature, it can still become the principal investigator's institution if it makes a joint proposal with a university or similar institution.

Q: How can private-sector companies and similar organizations take part?

A: A company or similar organization may either take part as the principal investigator's institution, or may participate by one of the methods below.

a. The company or other organization concludes a Contract Research Agreement with the JST as a joint research institution, in which case it may take part as an institution responsible for research or implementation, etc.

b. Even if the company or other organization concerned does not conclude a contract research agreement with the JST, persons working for it may take part as members of the principal investigator's institution or a joint research institution.

Furthermore, even if persons working for the company or other organization concerned do not become participants in the research project, it may be associated with the project as an external supporting institution (such as an advisory institution, an institution responsible for future implementation, or a contract institution undertaking test work or other work not including research components). Note: If a company is associated with project participation as an external supporting institution, Form 8 need not necessarily be submitted.

Q: What points need to be borne in mind when a private-sector company participates?

A: The following points need to be borne in mind.

- Before JST can conclude a Contract Research Agreement with a company or similar entity, it screens the company to determine whether the contract is possible and what sort of form the contract should take. As a result of this screening, JST may require compliance with a particular form of contractual relationship. If the company's state of finances is markedly unstable, the contract may be judged unfeasible, preventing the research project from being conducted at the proposed research institution. In such a case, the proposer may be required to take action such as reviewing the implementation structure.
- The SATREPS program is based on the premise of joint research with a partner country. In addition to implementing the research, there are requirements for publication of outcomes and sharing of intellectual assets, and for outgoing transfer of samples and information, etc. The company is requested to confirm in advance with the partner country side that entering into such a relationship with private-sector affiliated researchers is not a problem.
- Salary etc. for the person in charge of the research (principal investigator/lead joint researcher) cannot be covered as direct expenses.
- If certain conditions are satisfied, it is possible to cover salary etc. for other research participants (members involved with a specific research item).
- When using ODA costs to procure goods, in principle a competitive procurement process should be used (either bidding or comparative quotes), based on specifications that do not require specific brands.

Details are available at the following website under Contract Research Agreement Administrative Procedures (for private-sector companies).

<https://www.jst.go.jp/contract/index2.html> (Japanese)

Q: Can a post-doc submit an application as principal investigator?

A: A Post-doc cannot apply as principal investigator or lead joint researcher.

Q: Can post-doc students or graduate school or similar students participate in the research project?

A: Postdoctoral research fellows and graduate students can take on specific roles in the research project, and by being listed as research participants in the research plan documents, can participate as members in the project. Undergraduate students can also participate under similar conditions as part of the process of nurturing excellent researchers in Japan. Because of their status as students, graduate students and undergraduates cannot be dispatched to the partner country as overseas researchers using ODA costs, but if certain conditions are satisfied (concluding an employment contract with the affiliated institution, traveling together with an overseas researcher, etc.), it is possible to cover travel and the costs of employment of students as research assistants under JST contract research expenses. See the Contract Research Agreement Administrative Procedures etc. for details.

Q: Can a researcher who is not a Japanese national submit an application as principal investigator?

A: As long as he or she is affiliated with a research institution in Japan, a non-Japanese national researcher can apply as principal investigator.

Q: Can a researcher who is not a Japanese national apply as an overseas researcher?

A: The SATREPS is based on Japan providing technical cooperation and building relationships with the partner country, so in principle, it assumes the dispatch of researchers who are Japanese nationals. Nevertheless, if there are no other researchers with specific skills required and a non-Japanese national is irreplaceable for the project, then that researcher may be dispatched as an overseas researcher as long as the partner country government accepts the dispatch. In such cases, the researcher can be dispatched under ODA costs (and in cases where dispatch as an overseas researcher is not possible, traveling to the partner country under JST contract research expenses is in principle possible, although the researcher may not be eligible for rights and exemptions applied under agreements with the partner country, including tax exemptions and legal immunity).

Q: Can researchers without a specific affiliation participate?

A: In principle, researchers without a specific affiliation cannot participate in the joint research. However it is possible for a participating institution (including the principal investigator's institution) to give affiliation status (visiting researcher, etc.) to the researcher so that he or she can participate in the research with that institution providing coverage and taking responsibility.

Q: On the premise that research will be implemented at the counterpart institution, can a Japanese national resident outside Japan submit an application as principal investigator?

A: In principle, this is not permitted. The program envisages a principal investigator based in Japan and the institution he or she is affiliated with conducting joint research with a principal investigator based in the partner country and the institution he or she is affiliated with.

Q: Can a part-time staff member (visiting researcher, etc.) submit an application as principal investigator?

A: This is possible if the researcher can provide an implementation structure at a research institution in Japan for the duration of the research period. Whether it is possible to make an agreement and sign a contract with the research institution for the part-time staff member to be principal investigator depends on the contractual relationship between the research institution and the part-time staff member.

Q: Do Forms 1-9 have to be completed in Japanese?

A: In principle, Forms 1-9 should be completed in Japanese. However, if that is problematic, English is acceptable. English-language copies of the application forms are posted on the English-language SATREPS website.

<https://www.ist.go.jp/global/english/koubo.html>

The research proposal forms must be submitted via e-Rad, the Cross-ministerial R&D Management System. This system has some sections that require entry in Japanese. For those sections, seek assistance from a Japanese speaker.

Interviews in the selection process are also in principle conducted in Japanese, but if that is problematic, English is acceptable.

## (2) JST contract research expenses

Q: Are there restrictions on how JST contract research expenses can be used?

A: Details regarding contract research expenses are available at the following website under Contract Research Agreement Administrative Procedures.

<https://www.ist.go.jp/contract/index2.html> (Japanese)

## (3) Implementation structure

Q: Can the implementation structure described in the research proposal documents be changed during interviews or after selection?

A: The selection process is based on the research proposal documents, so the structure should be given careful consideration when writing the research proposal, in order to ensure that no need for unnecessary changes arises. Adjustments etc. may be made if authorized by the Research Supervisor (RS), and changes may be requested during the process of JICA signing the R/D with the counterpart institution before commencing the international joint research.

## (4) Research contracts

Q: Can the research contract with the lead joint researcher's institution in Japan be structured as subcontracting (see note) via the principal investigator's institution?

Note: Subcontracting in the research contract refers to a situation where only the principal investigator's institution signs a contract with JST, and a research contract is signed by that affiliated institution and the joint researcher's affiliated institution.

A: Under the SATREPS program, a subcontracting structure is not used for research contracts. JST concludes separate research contracts with the research institutions that the principal investigator and lead joint researcher are affiliated with. \* JICA only has a contractual relationship with the principal investigator's institution, not with any other institutions involved in the joint research.

### **3. Q&A about JICA/ODA (mainly Q&A about implementation of research in the partner country)**

(1) Countries eligible for international joint research

Q: Is it possible to conduct joint research with multiple research institutions in the partner country?

A: Yes, it is possible to conduct joint research with multiple research institutions in a single partner country. In such cases, the names of all institutions must be listed in the ODA request form, and the main research institution for joint research in the partner country must be specified.

(2) ODA application by the partner country

Q: In addition to the proposal documents submitted to JST, is it necessary for the government agency handling ODA in the partner country, at the instigation of the counterpart research institution in the partner country, to make a request for the implementation of an ODA technical cooperation project (submit a request for cooperation)?

A: It is essential for the partner country side to submit a request for ODA, in addition to the proposal documents for a research project submitted to JST. Only projects where both the research proposal and the ODA request have been submitted are screened. If either of these documents is not received by the specified deadline, the project will be automatically excluded from selection.

Q: Is it necessary for the details of the technical cooperation project in the partner country to have already been fixed in the request form at the point that the proposal documents are submitted to JST?

A: You need to coordinate the content of the request from the partner country before the request form is submitted. In particular, as noted on the proposal forms, there needs to be consensus between the Japan-side and the partner country side regarding the proposed research project title (English), research objectives, research outcome targets, research plans and implementation of plans, implementation structure, approximate amounts and details of machinery and equipment, personnel, etc. to be used, and research period, etc. After provisional selection, JICA will finalize detailed plans for the purpose of signing the R/D with the partner country institution. Please understand that as a result of that process, you may be required to modify the research plans presented in the proposal. The research project title (English) has to be the same as the project name on the ODA technical cooperation project request form. Ensure that there is sufficient coordination with the counterpart institution on this point.

Q: Where can I obtain the ODA request form?

A: A template for the ODA request form is available on the following JICA website, but the actual ODA request form is fixed by the government agency handling ODA in each country. For details, the counterpart institution should contact the government agency that covers it, or the government agency handling ODA.

[https://www.jica.go.jp/activities/schemes/science/faq/ku57pq00000nj7se-att/SATREPS\\_application\\_form.pdf](https://www.jica.go.jp/activities/schemes/science/faq/ku57pq00000nj7se-att/SATREPS_application_form.pdf)

Q: Has JICA informed each developing country of the purposes and structure of the SATREPS program? Also, does the applicant in Japan need to be able to respond to the partner country's inquiries about procedures, etc.?

A: MOFA/JICA has informed the government agency handling ODA in each of the developing countries eligible for the program. However, applicants should be aware that the extent to which the program is known by researchers in the counterpart country may vary due to internal circumstances. Where necessary, please ask the counterpart researcher(s) (and their institution of affiliation) to confirm with the partner country government agency handling ODA.

(3) Eligible counterpart institutions, partner country researchers; relationships

Q: Are companies and NGOs in other countries able to participate in a project?

A: The SATREPS program is implemented as a technical cooperation project on the basis of an official request from a partner country and international agreements between the partner country and Japan; in principle, the program does not cover private-sector companies or NGOs without government ownership. However, if the partner country's research institute is a government entity, private-sector companies and NGOs may participate in the research, provided that the research institute recognizes said organizations as collaborating partners and said organizations pay for their own expenses.

Q: Are international agencies and the partner country's private universities able to participate in the project?

A: Regional international agencies and private universities in the developing country are not excluded from participating. However, preconditions include approval by the partner country's government of the implementation of the ODA project by said international agency or private university, submission of an ODA request to the Japanese embassy via the official route through the government agency in the partner country granting privileges and immunities to international agencies and the government agency in the partner country handling ODA. In addition, an R/D (Record of Discussions) must be concluded during the Detailed Design Study conducted by JICA in the same manner as cases in which the counterparty is a government agency.

Q: If the principal investigator's institution in Japan has already signed agreements with the partner country government or research institution, is there any need for JICA to sign a new agreement of some form with the partner country side in order to implement the project?

A: Yes, it is necessary. The SATREPS program is a collaborative program linked with ODA, and projects are implemented as JICA technical cooperation projects based on international commitments between the two countries. Therefore, based on these international commitments, JICA must again sign documents such as an R/D with the partner country side.

(4) ODA project expenses, etc.

Q: What level of authority is required for signing the Agreement and project contract between JICA and the principal investigator's institution?

A: For the main Agreement, which only needs to be signed once on the first occasion for each principal investigator's institution, we envisage the Agreement being signed at the institute's top level (president or chair of the board of a university), and by the president of JICA. For the annexes to the Agreement (signed for each project), we envisage them being signed by the head of research at the principal investigator's institution (dean, etc.) and by JICA's director of the department in charge of the project. For the project contract, we envisage it being signed by a director of the principal investigator's institution with authority for contracts, and by JICA's vice-president in charge of finance and accounting.

#### **4. Contact information**

Note: Inquiries should preferably be made by email, except when urgent.

For inquiries on SATREPS Application Guideline, please contact :

SATREPS Group, Department of International Affairs, Japan Science and Technology Agency

Tokyo Headquarters, 8th Floor, K's Gobancho

7, Gobancho, Chiyoda-ku, Tokyo, 102-0076 Japan

E-mail: [global@jst.go.jp](mailto:global@jst.go.jp)

電話 : 03-5214-8085

For inquiries on framework of ODA technical cooperation, please contact :

Office for Science and Technology Cooperation, Japan International Cooperation Agency (JICA)

E-mail : [eigst@jica.go.jp](mailto:eigst@jica.go.jp)

## Appendix 1. Countries eligible for the SATREPS program

| No. | Region  | Name of Country                            | No. | Region                     | Name of Country                              | No. | Region   | Name of Country                           |
|-----|---|--|-----|----------------------------|--|-----|--|---|
| 1   | A<br>s<br>i<br>a  | India                                      | 39  | A<br>f<br>r<br>i<br>c<br>a | Republic of Angola                           | 89  | L<br>a<br>t<br>i<br>n<br><br>A<br>m<br>e<br>r<br>i<br>c<br>a | Argentine Republic                        |
| 2   |   | Republic of Indonesia                      | 40  |                            | People's Democratic Republic of Algeria      | 90  |  | Antigua and Barbuda                       |
| 3   |   | Kingdom of Cambodia                        | 41  |                            | Republic of Uganda                           | 91  |  | Oriental Republic of Uruguay              |
| 4   |   | Democratic Socialist Republic of Sri Lanka | 42  |                            | Arab Republic of Egypt                       | 92  |  | Republic of Ecuador                       |
| 5   |   | Kingdom of Thailand                        | 43  |                            | Kingdom of Eswatini                          | 93  |  | Republic of El Salvador                   |
| 6   |   | Nepal                                      | 44  |                            | Federal Democratic Republic of Ethiopia      | 94  |  | Republic of Guyana                        |
| 7   |   | Islamic Republic of Pakistan               | 45  |                            | State of Eritrea                             | 95  |  | Republic of Cuba                          |
| 8   |   | People's Republic of Bangladesh            | 46  |                            | Republic of Ghana                            | 96  |  | Republic of Guatemala                     |
| 9   |   | The Democratic Republic of Timor-Leste     | 47  |                            | Republic of Cape Verde                       | 97  |  | Grenada                                   |
| 10  |   | Republic of the Philippines                | 48  |                            | Gabonese Republic                            | 98  |  | Republic of Costa Rica                    |
| 11  |   | Kingdom of Bhutan                          | 49  |                            | Republic of Cameroon                         | 99  |  | Republic of Colombia                      |
| 12  |   | Socialist Republic of Viet Nam             | 50  |                            | Republic of The Gambia                       | 100 |  | Jamaica                                   |
| 13  |   | Malaysia                                   | 51  |                            | Republic of The Guinea                       | 101 |  | Republic of Suriname                      |
| 14  |   | Union of Myanmar                           | 52  |                            | Republic of Guinea-Bissau                    | 102 |  | Federation of Saint Christopher and Nevis |
| 15  |   | Republic of Maldives                       | 53  |                            | Republic of Kenya                            | 103 |  | Saint Vincent and the Grenadines          |
| 16  |   | Mongolia                                   | 54  |                            | Republic of Cote d'Ivoire                    | 104 |  | Saint Lucia                               |
| 17  |   | Lao People's Democratic Republic           | 55  |                            | Union of Comoros                             | 105 |  | Republic of Chile                         |
| 18  | M<br>e<br>d<br>i<br>t<br>e<br>r<br>r<br>a<br>n<br>e<br>a<br>n | Islamic Republic of Afghanistan            | 56  | A<br>f<br>r<br>i<br>c<br>a | Republic of Congo                            | 106 | L<br>a<br>t<br>i<br>n<br><br>A<br>m<br>e<br>r<br>i<br>c<br>a | Commonwealth of Dominica                  |
| 19  |   | Republic of Iraq                           | 57  |                            | Democratic Republic of the Congo             | 107 |  | Dominican Republic                        |
| 20  |   | Islamic Republic of Iran                   | 58  |                            | Democratic Republic of Sao Tome and Principe | 108 |  | Republic of Trinidad and Tobago           |
| 21  |   | Palestine Liberation Organization          | 59  |                            | Republic of Zambia                           | 109 |  | Republic of Nicaragua                     |
| 22  |   | Hashemite Kingdom of Jordan                | 60  |                            | Republic of Sierra Leone                     | 110 |  | Republic of Haiti                         |
| 23  | E<br>u<br>r<br>o<br>p<br>e                                    | Republic of Azerbaijan                     | 61  |                            | Republic of Djibouti                         | 111 |  | Republic of Panama                        |
| 24  |   | Republic of Armenia                        | 62  |                            | Republic of Zimbabwe                         | 112 |  | Commonwealth of The Bahamas               |
| 25  |   | Republic of Albania                        | 63  |                            | Republic of Seychelles                       | 113 |  | Republic of Paraguay                      |
| 26  |   | Ukraine                                    | 64  |                            | Republic of Equatorial Guinea                | 114 |  | Barbados                                  |
| 27  |   | Republic of Uzbekistan                     | 65  |                            | Republic of Senegal                          | 115 |  | Federative Republic of Brazil             |
| 28  |   | Republic of Kazakhstan                     | 66  |                            | United Republic of Tanzania                  | 116 |  | Belize                                    |
| 29  |   | Kyrgyz Republic                            | 67  |                            | Republic of Chad                             | 117 |  | Republic of Peru                          |
| 30  |   | Georgia                                    | 68  |                            | Republic of Tunisia                          | 118 |  | Republic of Bolivia                       |
| 31  |   | Republic of Kosovo                         | 69  |                            | Republic of Togo                             | 119 |  | Republic of Honduras                      |
| 32  |   | Republic of Tajikistan                     | 70  |                            | Federal Republic of Nigeria                  | 120 |  | United Mexican States                     |
| 33  |   | Turkmenistan                               | 71  |                            | Republic of Namibia                          | 121 | p<br>a<br>c<br>i<br>f<br>i<br>c                              | Republic of Kiribati                      |
| 34  |   | Republic of Serbia                         | 72  |                            | Republic of Niger                            | 122 |  | Cook Islands                              |
| 35  |   | Bosnia and Herzegovina                     | 73  |                            | Burkina Faso                                 | 123 |  | Independent State of Samoa                |
| 36  |   | Republic of North Macedonia                | 74  |                            | Republic of Burundi                          | 124 |  | Solomon Islands                           |
| 37  |   | Republic of Moldova                        | 75  |                            | Republic of Benin                            | 125 |  | Tuvalu                                    |
| 38  |   | Montenegro                                 | 76  |                            | Republic of Botswana                         | 126 |  | Kingdom of Tonga                          |
|     |   |  | 77  |                            | Republic of Madagascar                       | 127 |  | Republic of Nauru                         |
|     |   |  | 78  |                            | Republic of Malawi                           | 128 |  | Niue                                      |
|     |   |  | 79  |                            | Republic of Mali                             | 129 |  | Republic of Vanuatu                       |
|     |   |  | 80  |                            | Republic of South Africa                     | 130 |  | Independent State of Papua New Guinea     |
|     |   |  | 81  |                            | Republic of South Sudan                      | 131 |  | Republic of Palau                         |
|     |   |  | 82  |                            | Republic of Mauritius                        | 132 |  | Republic of the Fiji Islands              |
|     |   |  | 83  |                            | Islamic Republic of Mauritania               | 133 |  | Republic of the Marshall Islands          |
|     |   |  | 84  |                            | Republic of Mozambique                       | 134 |  | Federated States of Micronesia            |
|     |   |  | 85  |                            | Kingdom of Morocco                           |     |  |   |
|     |   |  | 86  |                            | Republic of Liberia                          |     |  |   |
|     |   |  | 87  |                            | Republic of Rwanda                           |     |  |   |
|     |   |  | 88  |                            | Kingdom of Lesotho                           |     |  |   |

Note1: This table is subject to change depending on a country's situation.

Note2: The security situation and circumstances in parts of the partner country where research will be conducted may be examined as part of the selection process for proposals where they may result in restrictions on travel to the country and on the ability to implement the project.

Note3: Adequate supports from JICA may not be accessible if research will be conducted in a country where JICA does not have an office.

Note4: In this fiscal year, for diplomatic considerations the number of applications from a single country is limited to a maximum of twelve, and should this limit be exceeded the government of the partner country will be required to narrow them down.

## **Appendix 2. Instructions for research proposal forms**

There is no overall restriction on the number of pages in the research proposal documents. However, a clearly legible font size should be selected (about 10.5 points on Windows) to ensure legibility when printed, and the content should be clear and simple, but cover all essential points.

Please add a running page number at the bottom of each page.

The comments, explanations, and examples in the forms are not needed when the forms are submitted. Please delete them before submission.

The research proposal forms, and Instructions on how to formulate the Target Outcomes Sheet in Form 2, are available from the following website.

<https://www.jst.go.jp/global/koubo.html> (Japanese)

<https://www.jst.go.jp/global/english/koubo.html> (English)

- The information given in Form 1 will be published if the project is selected. The completed form should fit on no more than 2-3 sheets of A4 paper.
- Items (a)-(j) need to be directly entered into e-Rad.
- If the proposal includes the participation of multiple collaborating institutions in Japan and/or counterpart institutions, the names and roles of all the institutions involved must be included in the Implementation Structure Concept Diagram on the next page.

Check the research field or area below that is the closest match for the proposed research project.

- ☐ Global-scale Environmental Issues    ☐ Low Carbon Society/Energy  
☐ Bioresources    ☐ Disaster Prevention and Mitigation

**Please be sure to choose the correct research area when submitting the research proposal via e-Rad.**

Indicate the associated research area/field that is the closest match as 1, and, if applicable, the second and third closest matches as 2 and 3, respectively.

Content of science and technology/research conducted

- ( ) Global-scale Environmental Issues    ( ) Low Carbon Society/Energy  
( ) Bioresources    ( ) Disaster Prevention and Mitigation    ( ) Other

Global-scale issue to be resolved

- ( ) Global-scale Environmental Issues    ( ) Low Carbon Society/Energy  
( ) Bioresources    ( ) Disaster Prevention and Mitigation    ( ) Other

Is this application for a Top-Down SATREPS project?

- ☐ Yes    ☐ No

(To undergo screening as a Top-Down SATREPS project, the check box in the ODA application submitted by the research institution in the partner country must also be checked. Please refer to Section 2.8 (How to apply))

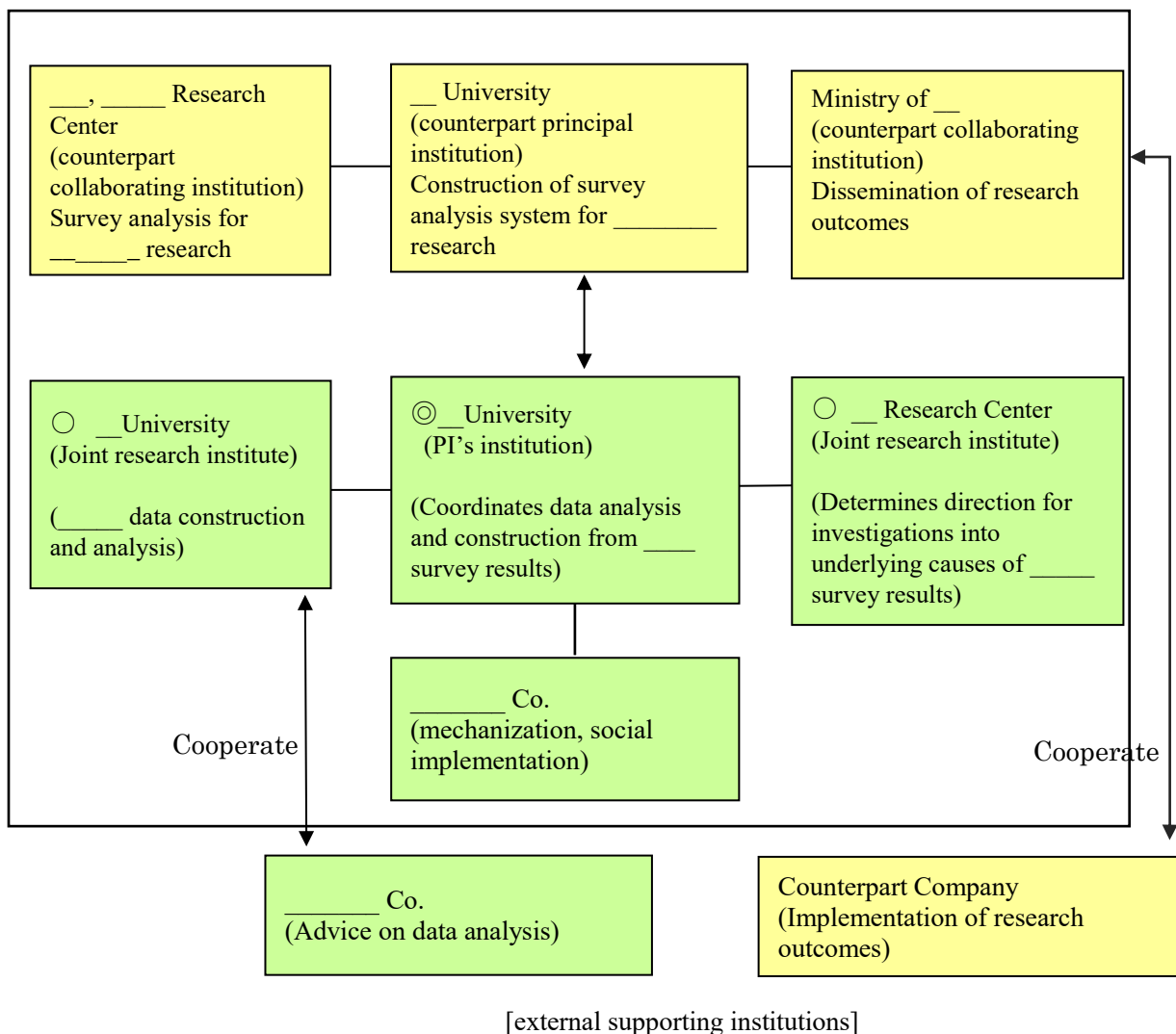
|   |   |
|---|---|
| (a) Title of proposed research project (Japanese)                   | Do not include a subtitle in the proposed research project's title.   |
| (English)   | Liaise carefully and agree choice of English title of research project with the counterpart institution. <b>Make sure to use the same title as the counterpart's ODA technical cooperation project application.</b> |
| (b) Research period   | ____ years<br>Give the period of joint research agreed with the counterpart institution. It does not include the time leading up to the signing of the R/D (about six months).                                      |
| (c) Total research expenses (Japan: JST contract research expenses) | Give in thousand yen units (round to the nearest 1,000).<br>Total ____,000 yen (including indirect expenses)  |
| (ODA project expenses)  | Total ____,000 yen (no indirect expenses)   |
| (d) Principal investigator's name and title                         | Give the principal investigator's name and title.   |
| (e) Principal investigator's affiliation                            | Give full title of affiliated institution for principal investigator, including the name of institute, department/laboratory.   |
| (f) Collaborating institutions in Japan                             | Give full titles of affiliated institutions for <b>all</b> researchers, including the name of institute, department/laboratory.   |
| (g) Counterpart country   | Give the name of the country in either Japanese or English.<br>(If there is more than one partner country, list all countries with which an actual R/D will be signed.)   |
| (h) Counterpart institution(s)                                      | Give names of institutions in both Japanese and English. The Japanese   |

|                        |  |
|------------------------|--|
|                        | rendering may be omitted if none exists (when completing the form in English). If there are multiple counterpart institutions, list the principal institution before the collaborating institutions. |
| (i) Project objective  | (Approx. 120 words)<br>* If responding in English, add a translation into Japanese (Max. 250 Japanese characters).   |
| (j) Outline of project | (Approx. 120 words)<br>* If responding in English, add a translation into Japanese (Max. 250 Japanese characters).   |

(Continued on next page)

### Implementation Structure Concept Diagram

Make sure to clearly show the division of roles between the Japanese institution and the counterpart institution, together with the structure of links between institutions. The following diagram is just one example, and external supporting institutions need not necessarily be included.



Principal investigator's institution: ©

Participating institution that has not entered into a contract research agreement with the JST: No symbol

Note: Please submit Form 8 for all the corporations among the institutions participating in the study on the

Japanese side. However, for corporations acting as external support institutions this submission is voluntary.

- Include figures or tables if necessary. Black-and-white copies are used for assessment, so make sure that any figures or tables are comprehensible without color.
- Form 2 must not exceed 12 A4 pages. Please use a font size of at least 10.5 points. To ensure impartiality, forms exceeding 12 pages will be considered non-compliant, and excluded from assessment. Using small print or small figures/tables, reducing the space between lines to fit within the 12-page limit, or using reduced-size (2-in-1) copies to fit two pages of information onto one page is not acceptable.
- Include a description from the perspectives of relevance, effectiveness, efficiency, impact, and sustainability as an ODA project. (See page 37-39.)

## 1. Background to research

### (1) Background to research theme that contributes to resolving global issue(s)

Specify the global issue (unresolved science and technology issue, and the socioeconomic disadvantages and international trends attributable to it) addressed by this research initiative. Also specify the role of the research initiative in contributing to the resolution of the issue, including the following perspectives.

- Significance of contribution to resolving the global issue
- Science and technology/academic creativity and novelty

### (2) Partner country needs

Specify how the research initiative can contribute to meeting the needs of the partner country, including a description of current status and issues associated with the partner country's socioeconomic and science and technology background. Give a description of the structure and capacity etc. of the counterpart institution, and a description of the need for assistance and effectiveness of assistance. If Ministry of Foreign Affairs (MOFA) has published a Country Assistance Policy or Rolling Plan\* for the partner country, describe how the research initiative is related to that policy or plan, taking into account consistency with the partner country's development strategy. If the project is also likely to make a contribution outside the partner country, describe that too.

\*For details see the MOFA website, including the following pages:

Country Assistance Policies:

<http://www.mofa.go.jp/mofaj/gaiko/oda/region/index.html> (Japanese)

<http://www.mofa.go.jp/policy/oda/assistance/index2.html> (English)

ODA policies (Rolling Plans):

[http://www.mofa.go.jp/mofaj/gaiko/oda/seisaku/kuni\\_enjyo.html](http://www.mofa.go.jp/mofaj/gaiko/oda/seisaku/kuni_enjyo.html) (Japanese)

<http://www.mofa.go.jp/policy/oda/policy.html> (English)

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## 2. Target Outcomes Sheet

Create a Target Outcomes Sheet for the proposed research project.

An explanation (in Japanese) of how to create a Target Outcomes Sheet can be downloaded from the following website, including a template and descriptions of each of the items.

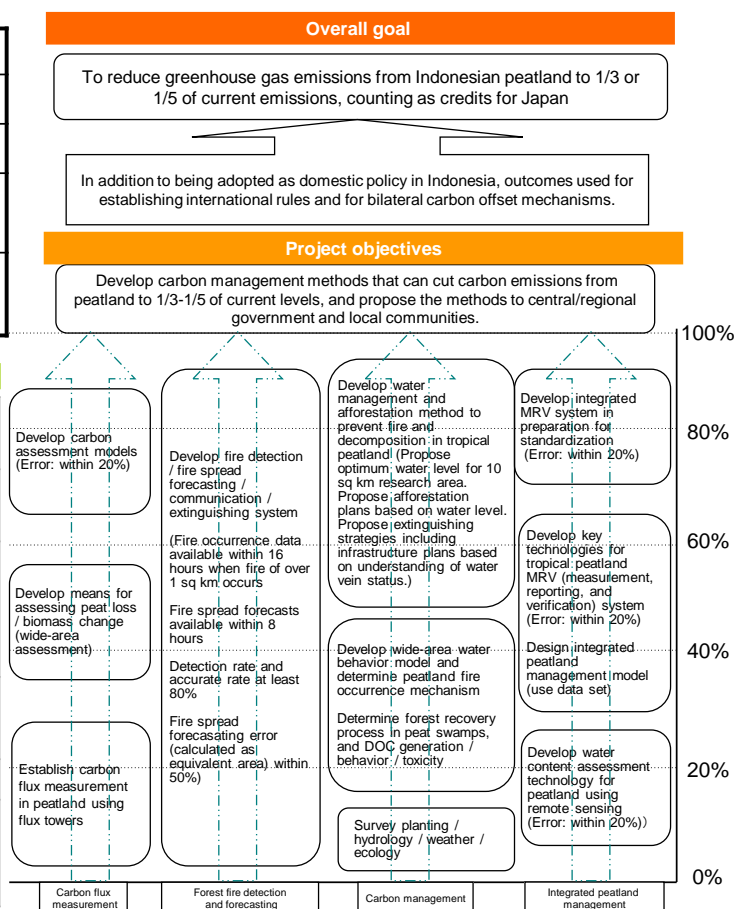
<https://www.jst.go.jp/global/koubo.html> (Japanese)  
<https://www.jst.go.jp/global/english/koubo.html> (English)

After filling out the template, attach it as part of Form 2 like the example below (for format, use PDF etc.)

Target Outcomes Sheet (example)

|   |  |
|---|--|
| Research project title                                    | Wild Fire and Carbon Management in Peat-forest in ■■   |
| Principal investigator (affiliated institution)           | ■■ ■■<br>(■■■■■ ■■)  |
| Research period   | Adopted in 2020<br>(June 1, 2020-March 31, 2026)   |
| Partner country/Main partner country research institution | Republic of ■■■/National Standardization Agency of ■■ University of ■■, ■■ National Institute of Aeronautics and Space, Forestry Research and Development Agency (FORDA) |
| Related SDGs  | Goal 13. Take urgent action to combat climate change and its impacts<br>Goal 12. Ensure sustainable consumption and production patterns                                  |

| Contingent outcomes   |   |
|---|---|
| Contribution to Japanese government, society, and industry  | - Utilization in climate change frameworks at global level<br>- Commercial application of outcomes by Japanese companies  |
| Development of science and technology   | - Preservation of Indonesia's tropical forests (preservation of ecology / biodiversity)<br>- Feedback to successor entity (Hyper)   |
| Acquisition of intellectual property, international standardization, access to bioresources, etc.         | - Fire detection system using satellites<br>- Equipment for quantitative determination of carbon emissions<br>- Development of weirs, methods for restoring forest<br>- Samples of peat decomposition microorganisms, vegetation that can grow in a strongly acidic environment |
| Training Japanese human resources capable of working on the global stage                                  | - Training young Japanese researchers resources to be able to work internationally (ability to lead international conferences, publish papers in peer-reviewed journals, etc.)  |
| Building of technology and human networks   | None  |
| Other practical outcomes (recommendation documents, academic publications, programs, manuals, data, etc.) | - Fire detection system using satellites<br>- Understanding of carbon flux and carbon dynamics in tropical peatland<br>- Understanding of water behavior mechanisms   |



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### **3. Research Objectives**

- Specify the objectives of the research initiative in concrete terms (“Overall goal” in the Target Outcomes Sheet in Section 2 above; concept for applying anticipated outcomes, including scientific and technical development, creation of new industries, and contributions to society, within 5–10 years of project conclusion).
- To the fullest extent possible, address the issue of contributing to the achievement of Japan’s major science and technology policies, such as policies set out in the 5th Science and Technology Basic Plan, etc. When making a research proposal that involves collaboration between industry, academics, and government, specify on Form 8 how the businesses involved envisage the project leading to application of outcomes, etc. Fill out and submit Form 8 together with the other forms.

### **4. Research target outcomes**

- Specify the target outcomes of the research initiative (“Project objectives” in the Target Outcomes Sheet in Section 2 above; knowledge, technology, materials, systems, recommendations, etc. that the research is attempting to achieve during the research period) and give quantitative specifications (for functions, systems, economy, etc.) that clarify the nature and levels of the target outcomes.
- The items in the description should be consistent with those in the Target Outcomes Sheet.

### **5. Plan to practical application and feasibility**

Please describe a specific plan for implementing the results of the study (content, timing, framework, method, and realization of objectives). In this description, please clearly differentiate between the proposed implementation plan to connect the anticipated research results with their utilization in society (the body promoting/disseminating implementation, framework, activities by the partner country, and proposals for its expansion to other regions or markets) and plans for activities with a view to implementation that are to be conducted during the research period.

- Please also describe any participation by a private-sector company, public agency in the partner country, or other organization that can act as the body responsible for implementation or expansion.
- Please also include descriptions of the conditions required to connect the results of the study with its implementation, issues with implementation, and related matters.

### **6. Research plans and implementation of plans (Technical cooperation project activity plan)**

#### **(1) Overall research activities and research plans**

- Use the form below to indicate a basic schedule for achieving the research outcome targets set out in Section 4 (“Research target outcomes”), indicating research items and milestones (timing and judgment criteria for assessing the level of achievement of the research partway through the research period).
- Please describe the planned activities in detail in the text in such a way that they correspond with the table.
- Include plans (objectives and activities) for the application of outcomes and capacity development (developing organizational and individual capacities at Japanese and counterpart institutes; building external links, etc.)
- Describe currently expected issues, together with solutions proposed for such issues, in attaining the research objectives set out in Section 3 (“Research objectives”).

| Research item/activity                      | Provisional Year*            | Year 1 | Year 2                  | Year 3                 | Year 4               | Year 5 |
|---|------------------------------|--------|-------------------------|------------------------|----------------------|--------|
| 1. Research item 1<br>(Outcome 1)           | Gather information for _____ |        | Realization of _____    |                        |                      |        |
| 1-1 Research activity 1-1<br>(Activity 1-1) |                              |        |                         |                        | Achievement of _____ |        |
| 1-2 Research activity 1-2<br>(Activity 1-2) |                              |        |                         |                        |                      |        |
| 2. Research item 2<br>(Outcome 2)           |                              |        |                         | Realization of _____   |                      |        |
| 2-1 Research activity 2-1<br>(Activity 2-1) |                              |        |                         |                        | Development of _____ |        |
| 2-2 Research activity 2-2<br>(Activity 2-2) |                              |        |                         |                        |                      |        |
| 3. Research item 3<br>(Outcome 3)           |                              |        | _____ scheme submission |                        |                      |        |
| 3-1 Research activity 3-1<br>(Activity 3-1) |                              |        |                         | Establishment of _____ |                      |        |
| 3-2 Research activity 3-2<br>(Activity 3-2) |                              |        |                         |                        | Achievement of _____ |        |
| 3-3 Research activity 3-3<br>(Activity 3-3) |                              |        |                         |                        |                      |        |

\*The provisional selection period is used to prepare for the commencement of research. Full-scale research activities are to begin once the project officially starts. Please see page 41 of the Public Invitation Guideline for details of activities to be carried out during the interim period.

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(2) Collaboration and division of functions etc. with counterpart institution for each research item

| Research item/activity    | Details of research to be conducted jointly | Roles of Japan-side institutions (Leader's name) | Roles of partner country institutions (Leader's name) | Plan for travel to partner country by Japan-side researchers *1 | Plan for inviting researchers from partner country to Japan *2 | Machinery and equipment provided to partner country *3 |
|---------------------------|---|--|---|---|--|--|
| 1. Research item 1        |   | Research for ○○ (AA bb)                          | Survey for ×× (CC dd)                                 |   |  |  |
| 1-1 Research activity 1-1 |   |  |   |   |  |  |
| 1-2 Research activity 1-2 |   |  |   |   |  |  |
| 2. Research item 2        |   |  |   |   |  |  |
| 2-1 Research activity 2-1 |   |  |   |   |  |  |
| 2-2 Research activity 2-2 |   |  |   |   |  |  |
| 3. Research item 3        |   |  |   |   |  |  |
| 3-1 Research activity 3-1 |   |  |   |   |  |  |
| 3-2 Research activity 3-2 |   |  |   |   |  |  |
| 3-3 Research activity 3-3 |   |  |   |   |  |  |

Note 1. - Give the plan for visits required by Japan-side researchers, in terms of the number of days per visit and the number of visits.

- Give the plan for visits by the principal investigator for the purpose of overseeing the project.

(Give information in this format: Year 1: \_\_ days x \_ visits, Year 2: \_\_ days x \_ visits, ...)

- Give details of researchers who can follow the principal investigator and be stationed in the partner country full-time or close to full-time.

(Give information in this format: Name/affiliation/position/age/specialty, stationed for \_\_ days per year.

If there are multiple researchers in this category, give the same information for each researcher.

If there are none, write "N/A.")

Note 2. - To the extent possible give plans for inviting people from the partner country to Japan (length of visit, number of people, etc.)

- In particular, describe any plans for long-term visits as government-sponsored foreign students, JICA long-term trainees, or using similar schemes.

Note 3. - List the main items of machinery and equipment provided to the partner country, including their main specifications (differentiate between general purpose machinery and equipment and machinery and equipment requiring customization/special order), estimated price, country of purchase (differentiate between local purchases and purchases in Japan). Machinery and equipment maintenance (consumables, spare parts, inspection, adjustment, repair, etc.) and running costs (electricity/gas/water, raw materials, operator labor costs, etc.) should in principle be covered by the partner country.

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(3) Partner country capacity development plan

- Describe policy and plans for capacity development at organizational, individual, and external link levels, including construction of links between the counterpart institution's research implementation structure and administrative entities and the private sector, and training and capacity development of researchers.

## **7. Basis for research and state of preparations**

(1) Current basis for research

(1-a) Research and research outcomes to date

- Give an outline and results etc. for domestic and international research outcomes, and of research by the research proposer in person (and if necessary, research participants), that will form the basis for the research initiative.

(1-b) List of academic papers and books (author, title, journal, volume/page/year of publication)

- Give details of recent books and papers published in academic journals etc. by researchers included in the implementation structure, focusing on important publications that are relevant to the proposal. Select up to 10 publications for the project as a whole, and list them in date order, with the most recent first.

(1-c) List of associated patents (application No./inventor/title/applicant/date of application)

- Give details of patents applied for recently by research participants, selecting important applications that are relevant to the proposal. Select up to 10 patents for the project as a whole.

(2) State of preparation in conjunction with counterpart institution

- Describe the construction of infrastructure at the counterpart institution, the basis of research by the counterpart institution that was the reason for choice of institution, the state of coordination with partner country's government agencies, etc., and the state of preparation for international joint research. If an agreement has already been signed with the counterpart institution, give details of the agreement and current contact and interaction with the institution.

(3) Ethical considerations

- State any requirement for inspection of compliance with ethical standards of the country where the research is implemented (partner country or Japan), and the status of any such inspection.

(4) Consideration of the handling of genetic resources and state of preparation

- When obtaining or using genetic resources (including related traditional knowledge) from another country, including the partner country, in the process of a project, please describe specific measures deemed necessary for promoting R&D in light of international rules, domestic and international legislation, and other regulations\*, as well as the status of compliance by partner company research institutions or related government ministries, and other bodies.

\*The Convention on Biological Diversity, the Nagoya Protocol, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), and related legislation and other regulations of the country providing the genetic resources and the country where they are used all apply. Please see page 74 and the webpage <https://www.jst.go.jp/global/iden.html> for details.

(5) Status of consideration of handling of intellectual property and similar

- Please describe the status of meetings with the partner country research institution concerning matters including the ascription of the results of the study and their implementation.

Note: Please be careful about intellectual property management with the goal of reliably securing the results of the study.

(6) Improvements from past proposals (write only where applicable)

- If you have submitted a similar proposal in the past, describe the improvements that have been made in your current proposal.

Form 3: Japanese Institution Implementation Structure

|  |
|--|
| <ul style="list-style-type: none"> <li>List the researchers expected to participate in the Japan-side research team, giving name, researcher ID No., affiliation, position, specialty, male/female, age, effort, and a brief outline of research responsibility.</li> <li>Japan-side participants must be (1) affiliated with a research institute in Japan, and (2) not included in the list of members of the partner country's institution.</li> <li>For the "Type" column, enter the appropriate classification symbol(s) as shown below:<br/>Principal investigator • • • ◎<br/>Lead joint researcher • • • ○</li> <li>The principal investigator and the lead joint researcher in this list must be consistent with the principal investigator (principal investigator's institution) and the lead joint researcher (joint research institutions) on Forms 4 and 6.</li> </ul> |
|--|

| Name<br>(Researcher ID No.* <sup>1</sup> )     | Type | Affiliated institution,<br>departments,<br>position             | specialty,<br>male/female        | Age<br>(Age as of<br>April 1,<br>2020) | Effort* <sup>2</sup><br>(%) | Research<br>responsibility<br>in project     | Experience of<br>working on<br>SATREPS<br>project<br>(specify<br>project) |
|--|------|---|----------------------------------|--|-----------------------------|--|---|
| _____<br>(XXXXXX<br>XXX)                       | ◎    | ____ University<br>____ Faculty<br>____ Department<br>Professor | forestry<br>science, male        |  | ____%                       | Overall<br>management<br>of the<br>research, |   |
| _____<br>(XXXXXX<br>XXX)                       | ○    | ____ University<br>Associate Professor                          | aquatic<br>bioscience,<br>female |  | ____%                       | _____  |   |
| _____<br>(XXXXXX<br>XXX)                       |      | ____ Research Center<br>Research fellow                         |                                  |  | ____%                       | _____  |   |
| Researcher A<br>(XXXXXX<br>XXX* <sup>3</sup> ) |      | ____ University<br>____ Faculty<br>____ Department<br>Post-doc  |                                  | * <sup>3</sup>                         | ____%                       | _____  |   |

\*<sup>1</sup> For the Researcher ID No., give the ID No. registered with e-Rad. Each lead joint researcher intending to conclude a Contract Research Agreement with JST must acquire a Researcher ID No. in advance of the Contract Research Agreement.

\*<sup>2</sup> This is based on the Council for Science and Technology Policy's definition of 'effort', which is "the percentage of working hours required for conducting the relevant research when the researcher's total annual working hours are 100%". Note that "total working hours" does not refer only to the number of hours spent in research activities but to the substantive total working hours, including educational and medical activities.

\*<sup>3</sup> If the appointment of a researcher has not been finalized at the application stage, "Researcher A" etc. can be used instead of the researcher's name. In such cases, the Researcher ID No., affiliated institution, and current position etc. can be left blank for that researcher, but other items (age, effort, research responsibility in project) should be completed as conditions envisaged for the post.

Give the following details for the Japan-side principal investigator.

**Principal investigator**

|  |  |           |      |
|--|--|-----------|------|
| Name   |  |           |      |
| Researcher ID No.  | (e-Rad Researcher ID No.)  |           |      |
| Date of birth  | 19__ (year) __ (month) __ (day), (Age: _____ years as of April 1, 2019)  |           |      |
| Affiliated institution   |  |           |      |
| Affiliated institution code  | (e-Rad code for affiliated institution)  |           |      |
| Department/Title   |  |           |      |
| Academic background<br>(University onwards)                          | (Example)<br>20__: Graduated from __ University Faculty of __<br>20__: Completed Masters course in ____, __ University __ Graduate School<br>(Advisor: ____Professor)<br>20__: Completed Doctoral course in ____, __ University __ Graduate School<br>(Advisor: ____Professor) |           |      |
| Research background<br>(Main professional appointments and research) | (Example)<br>19__-20__: Research Associate, __ University, Faculty of __<br>Researched _____ under Professor __<br>Since 20__: Researcher at __ Research Center<br>Conducting research into __ under Dr. __  |           |      |
| Age at which retirement from current position is scheduled           | _____ years of age   |           |      |
| Contact Information of the Principal investigator                    | Postcode:  |           |      |
|  | Address:   |           |      |
|  | TEL:   | FAX:      |      |
|  | E-mail:  |           |      |
| Principal investigator's institution administrative contact          | Contact  |           |      |
|  | Position/title   |           |      |
|  | Institution/affiliated dept.   |           |      |
|  | Administrative contact information   | Postcode: |      |
|  |  | Address:  |      |
|  |  | TEL:      | FAX: |
|  |  | E-mail:   |      |



## Form 4: Grants Received Through Other Programs

- List any grants under national competitive funding schemes or other research grant schemes that the principal investigator and lead joint researchers are currently receiving, are currently applying for, or are planning to apply for. For each funding program, include details of the research project title, research period, amount of research expenses, role of researcher, and differences from/relation to the proposed research project.

**Principal investigator (research proposer):** Name \_\_\_\_\_

| Funding program <sup>1)</sup>   | Research project title | (1) Research expenses <sup>2)</sup> (entire term)<br>(2) "<br>(FY2021)<br>(3) "<br>(FY2020)<br>(thousand yen) | Research period | Role <sup>3)</sup><br>(Principal/<br>Co-researcher) | Effort <sup>4)</sup><br>(Proportion of time allocated)% | Status<br>(In progress /<br>Under application) | Differences from/relation to proposed research project |
|---|------------------------|---|-----------------|---|---|--|--|
| SATREPS (This proposal)   | _____                  | (1) 150,000<br>(thousand yen)<br>(2) 30,000<br>(thousand yen)<br>(3) 5,000<br>(thousand yen)                  | 2020-2025       | Principal   | 30%   | Under application                              |  |
| Grants-in-Aid for Scientific Research (S) (Kakenhi Kiban Kenkyu (S) ) | _____                  | (1) 100,000<br>(thousand yen)<br>(2) 20,000<br>(thousand yen)<br>(3) 20,000<br>(thousand yen)                 | 2017-2022       | Principal   | 30%   | In progress                                    | _____  |

|   |       |   |           |               |     |                   |       |
|---|-------|---|-----------|---------------|-----|-------------------|-------|
| SATREPS   | _____ | (1) 100,000<br>(thousand yen)<br>(2) 25,000<br>(thousand yen)<br>(3) 20,000<br>(thousand yen) | 2015-2019 | Co-researcher | 10% | In progress       | _____ |
| Funds for<br>Integrated<br>Promotion of<br>Social System<br>Reform and<br>Research and<br>Development | _____ | (1) 32,000<br>(thousand yen)<br>(2) 8,000<br>(thousand yen)<br>(3) 8,000<br>(thousand yen)    | 2020-2024 | Co-researcher | 5%  | Under application | _____ |

- 1) Write this proposal on the top, then give details of grants etc. currently received, or already finalized, listing the grants in order of size of research expenses (entire term) with the largest first. Then give details of grants etc. already applied for or scheduled to be applied for (mark the project as “Under application” etc. under Status.)
- 2) Under Research expenses, give the amount received by the researcher in person (including in-direct expenses).
- 3) Under Role, specify the researcher’s role (principal researcher or co-researcher etc.) in each project.
- 4) Under Effort, give a figure based on the Council for Science and Technology Policy’s definition of ‘effort’, which is “the percentage of working hours required for conducting the relevant research when the researcher’s total annual working hours are 100%”. Note that “total working hours” does not refer only to the number of hours spent in research activities but to the substantive total working hours, including educational and medical activities. Give the figure envisaged after the project is selected for the SATREPS program.

\* If false information is provided here, the application may be rejected, or have the selection decision reversed or the project budget reduced.

Lead joint researcher: Name \_\_\_\_\_

| Funding program <sup>1)</sup>   | Research project title | (1) Research expenses <sup>3)</sup><br>(entire term)<br>(2) " (FY2021)<br>(3) " (FY2020)<br>(thousand yen) | Research period | Role <sup>2)</sup><br>(Principal/Co-researcher) | Effort <sup>4)</sup><br>(Proportion of time allocated)% | Status<br>(In progress / Under application) | Differences from/relation to proposed research project |
|---|------------------------|--|-----------------|---|---|---|--|
| SATREPS (This proposal)   | _____                  | (1) 40,000 (thousand yen)<br>(2) 5,000 (thousand yen)<br>(3) 0 (thousand yen)                              | 2020-2025       | Co-researcher                                   | 10%   | Under application                           |  |
| SATREPS   | _____                  | (1) 80,000 (thousand yen)<br>(2) 30,000 (thousand yen)<br>(3) 30,000 (thousand yen)                        | 2017-2021       | Co-researcher                                   | 15%   | In progress                                 | _____  |
| Grants-in-Aid for Scientific Research (S) (Kakenhi Kiban Kenkyu (S) ) | _____                  | (1) 70,000 (thousand yen)<br>(2) 25,000 (thousand yen)<br>(3) 20,000 (thousand yen)                        | 2015-2019       | Principal                                       | 10%   | In progress                                 | _____<br>—   |

|   |       |   |               |               |    |             |       |
|---|-------|---|---------------|---------------|----|-------------|-------|
| Funds for Integrated<br>Promotion of Social<br>System Reform and<br>Research and<br>Development | _____ | (1) 32,000 (thousand yen)<br>(2) 8,000 (thousand yen)<br>(3) 8,000 (thousand yen) | 2016<br>-2019 | Co-researcher | 5% | In progress | _____ |
|---|-------|---|---------------|---------------|----|-------------|-------|

Form 5: Counterpart Institution Implementation Structure

- To the extent possible, give the joint research partner country, counterpart institution, research location, partner country principal investigator's name and title, partner country principal investigator's profile, research activities and role in joint research, etc.
- Briefly, and to the extent possible, describe the collaborative relationship etc. with counterpart institutions, including particulars for which the counterpart institution is considering making an application for technical cooperation.
- The outline for each counterpart institution is generally about one page of A4 paper, but as it is important to give all the necessary information, no specific restriction is placed on size.
- If conducting joint research with multiple research institutions in one partner country, it is necessary to specify the research institution that will be the main joint research entity in the partner country. For that reason, the main research institution in the partner country should be listed as the principal institution, and the other research institutions in the partner country should be listed as collaborating institutions. Normally, only information concerning a single researcher should be given for each counterpart institution.
- If conducting joint research with multiple partner countries, the information for the principal institution (and collaborating institutions) should be given for each country.
- If organization charts etc. for the counterpart institutions are available, include them in the text.

**1. Principal investigator of principal research institution in partner country (provide this information for each of the partner countries)**

|   |   |  |                |
|---|---|--|----------------|
| Name  | (Give in alphabetic characters)   | Nationality  |                |
| Affiliated institution  | Japanese name: (omit if Japanese name does not exist)   |  |                |
|   | English name: (English name is essential)   |  |                |
|   | Country   |  | Position/title |
| Background  | Highest level of education attended   | 20__ (year): Graduated from __ University Faculty of __<br>–   |                |
|   | Highest degree earned   | 20__ (year): PhD (__), __ University)  |                |
|   | Main professional appointments and research, etc.   | Example:<br>19__-20__: Research Associate, __ University, Faculty of __<br>Research into ____<br>20__-20__: Researcher, __ University, Faculty of __<br>Pursued research into ____ |                |
| (For reference:) Other participating researcher(s) at same institution                      | - For each researcher, give name, position/title, and role  |  |                |
| (For reference:) Request for ODA technical cooperation submitted by counterpart institution | - Describe as far as possible the particulars of the request for ODA technical cooperation to be submitted by the counterpart institution. <u>When implementing joint research with a number of countries</u> , describe as far as possible the particulars of the requests for ODA technical cooperation to be submitted by the counterpart institution in each country. |  |                |

**2. Main researcher of collaborating institution in partner country (provide this information for each of the collaborating institutions)**

|  |   |  |                |
|--|---|--|----------------|
| Name   | (Give in alphabetic characters)                                 | Nationality  |                |
| Affiliated institution   | Japanese name: (omit if Japanese name does not exist)           |  |                |
|  | English name: (English name is essential)                       |  |                |
|  | Country   |  | Position/title |
| Background   | Highest level of education attended                             | 20__ (year): Graduated from __ University Faculty of ____  |                |
|  | Highest degree earned   | 20__ (year): PhD (__), __ University)  |                |
|  | Main professional appointments and research, etc.               | Example:<br>19__-20__: Research Associate, __ University, Faculty of ____<br>Research into ____<br>20__-20__: Researcher, __ University, Faculty of ____<br>Pursued research into ____ |                |
| Role in joint research   | - Describe the researcher's specific role in the joint research |  |                |
| (For reference:) Other participating researcher(s) at same institution | - For each researcher, give name, position/title, and role      |  |                |

- Submit the plan (budget) for contract research expenses from JST, listing expenses by category.
- The start of the research period varies according to when the R/D is signed (as described on page 28 of the Invitation for Research Proposals). Consequently, the specific FY is not required for this form (Example FY is written only for a guide).
- The uses for which JST contract research expenses can be disbursed are explained on chapters 2.5 and 3.4.
- If separate research groups are to be formed in Japan, also provide the research expenses plan for each research group.
- When a project is selected, the actual budget available for research may not match the amount given in this research expenses plan. This is regarded as the plan at the application stage. After selection, the plan will be adjusted, including support for the counterpart institution, etc.

### 1. JST contract research expenses plan for whole research group

|  | Provisional selection period*1 | Year 1 (FY2021) | Year 2 (FY2022) | Year 3 (FY2023) | Year 4 (FY2024) | Year 5 (FY2025) | Total (thousand yen) |
|--|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|
| Equipment                                |                                |                 |                 |                 |                 |                 |                      |
| Materials/Consumables                    |                                |                 |                 |                 |                 |                 |                      |
| Travel                                   |                                |                 |                 |                 |                 |                 |                      |
| Personnel and services                   |                                |                 |                 |                 |                 |                 |                      |
| Other                                    |                                |                 |                 |                 |                 |                 |                      |
| Subtotal: Direct expenses (thousand yen) |                                |                 |                 |                 |                 |                 |                      |
| Indirect expenses*2 (thousand yen)       |                                |                 |                 |                 |                 |                 |                      |
| Total (thousand yen)                     |                                |                 |                 |                 |                 |                 |                      |

\*1 Expenses for the provisional selection period up to the point where the R/D and CRA are signed are limited to a maximum of 6.5 million yen (including indirect expenses). Please see p. 41 of the Public Invitation Guideline for details of activities to be carried out during the interim period. Expenses for each of the Years 1-5 should be about 35 million yen (including indirect expenses). Expenses for each fiscal year may be slightly adjusted according to the research plan, provided, however, that the total expenses, including expenses for the provisional selection period, must not exceed 175 million yen for a 5-year project, 140 million yen for a 4-year project, or 105 million yen for a 3-year project (including indirect expenses). Actual contract research expenses will be determined after selection, by means of screening and approval by a senior scientist of the research plan submitted by the principal investigator.

\*2 In principle, indirect expenses equivalent to 30% of direct expenses may be included in the contract research expenses.

When including indirect expenses, calculate as Indirect expenses = Direct expenses x 0.3.

Employment risks: When making employment decisions during the provisional selection period, be aware of the risk that the R/D may not be signed, and the project may not go ahead. Ensure that any employees appointed during that period are also aware of the risk.

Tax: Give expenses as amounts including Japanese consumption tax. The tax rate may be raised to 10% in October 2019,

## 2. JST contract research expenses plan by group

●Principal investigator's institution

Principal investigator name (Affiliation/position): ( University Research Dept.)

|  | Provisional selection period | Year 1 (FY2020) | Year 2 (FY2021) | Year 3 (FY2022) | Year 4 (FY2023) | Year 5 (FY2024) | Total (thousand yen) |
|--|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|
| Equipment                                |                              |                 |                 |                 |                 |                 |                      |
| Materials/Consumables                    |                              |                 |                 |                 |                 |                 |                      |
| Travel                                   |                              |                 |                 |                 |                 |                 |                      |
| Personnel and services                   |                              |                 |                 |                 |                 |                 |                      |
| Other                                    |                              |                 |                 |                 |                 |                 |                      |
| Subtotal: Direct expenses (thousand yen) |                              |                 |                 |                 |                 |                 |                      |
| Indirect expenses (thousand yen)         |                              |                 |                 |                 |                 |                 |                      |
| Total (thousand yen)                     |                              |                 |                 |                 |                 |                 |                      |

●Joint research institution

Name of lead joint researcher (Affiliation/position): ( University Research Dept.)

|  | Provisional selection period | Year 1 (FY2020) | Year 2 (FY2021) | Year 3 (FY2022) | Year 4 (FY2023) | Year 5 (FY2024) | Total (thousand yen) |
|--|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|
| Equipment                                |                              |                 |                 |                 |                 |                 |                      |
| Materials/Consumables                    |                              |                 |                 |                 |                 |                 |                      |
| Travel                                   |                              |                 |                 |                 |                 |                 |                      |
| Personnel and services                   |                              |                 |                 |                 |                 |                 |                      |
| Other                                    |                              |                 |                 |                 |                 |                 |                      |
| Subtotal: Direct expenses (thousand yen) |                              |                 |                 |                 |                 |                 |                      |
| Indirect expenses (thousand yen)         |                              |                 |                 |                 |                 |                 |                      |
| Total (thousand yen)                     |                              |                 |                 |                 |                 |                 |                      |

\* During the provisional selection period, only the principal investigator's group is counted. During the interim period, the JST will conclude a Contract Research Agreement with the principal investigator's institution alone. Please see page 41 for details of activities to be conducted during the interim period.

Note: Please add tables according to the number of joint research institutions scheduled to conclude Contract Research Agreements with the JST after the first year. If a single research institution will conclude multiple Contract Research Agreements with the JST, please create tables according to the number of contracts.

### 3. Research cost plan to be actioned by the partner country research institution (anticipated)

|  |                        | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total<br>(Local currency and Yen equivalent) |
|--|------------------------|--------|--------|--------|--------|--------|--|
| Costs covered by partner country side<br>(Budget which can be devoted to the research in question by the partner country institution.) | Equipment              |        |        |        |        |        |  |
|  | Materials/ Consumables |        |        |        |        |        |  |
|  | Travel                 |        |        |        |        |        |  |
|  | Personnel and services |        |        |        |        |        |  |
|  | Other                  |        |        |        |        |        |  |
|  | Total                  |        |        |        |        |        |  |

|   |  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total  |
|---|--|--------|--------|--------|--------|--------|--|
| ODA project expenses<br>(Costs which cannot be covered by the partner country and will be submitted to JICA for funding application.) |  |        |        |        |        |        | Local currency<br><br>Yen equivalent<br>_____,000 yen<br>(Maximum 300million yen in 5 years) |

- Describe in as much detail as possible the financial situation of the partner country after consulting with the research institution in the partner country.
- When conducting joint research with multiple countries, add extra rows to the table for the additional information.

- ODA cannot cover all the costs for the developing country side. In order to encourage self-reliant and sustainable economic growth, the developing country is expected to bear a portion of the costs. Consequently, costs such as the partner country side's labor costs, office rental in the partner country, consumables and the costs of operating and maintaining provided machinery and equipment in the partner country, and travel by partner country researchers within the partner country are in principle borne by the partner country side. This point applies equally to the SATREPS program, so the whole of the amount required above will not be provided as ODA. JICA's D/D study includes discussion of an appropriate level of costs to be borne by the partner country side, including costs for securing research locations in the partner country, and personnel costs for the partner country side researchers. Please understand that the budget for ODA project expenses (=Costs which cannot be covered by the partner country and will be submitted to JICA for funding application.) will only be fixed after the D/D study.

Form 7: Written Approval from Institution Director

Date: \_\_\_\_\_

**Written Approval**

To:

Japan Science and Technology Agency  
Japan International Cooperation Agency

I hereby declare that if the underwritten research project proposed for the SATREPS (Science and Technology Research Partnership for Sustainable Development) program is selected, this institution will carry out the international joint research as set out below.

(Principal investigator's institution)

Director (name, title): \_\_\_\_\_

Institution: \_\_\_\_\_  
(Official Seal):

Research project

Research project title: \_\_\_\_\_

Principal investigator: \_\_\_\_\_

Support to be provided

- Support for the exchange of documents agreeing to the implementation of international joint research with the counterpart institution
- Commitment to sign and comply with the Agreement (Agreement Regarding the Implementation of Technical Cooperation Under the Framework of SATREPS) and execute the Project Contract with JICA, and to administer expenses
- Compliance with the responsibilities of the principal investigator's institution in the case of a joint research framework being constructed
- Compliance with all laws and regulations related to international joint research, such as those governing security export control and use of genetic resources
- Provision of systems for clarifying responsibility and safety management in relation to the international dispatch of students and graduate students as part of efforts to train young researchers
- Support for other procedures, etc., required in order to conduct international joint research
- Establishment of a research framework which enables the principal investigator to be engaged in the proposed international joint research project from beginning to end. (Also respond to the question etc. below)

|  |   |
|--|---|
| <u>Is the principal investigator expected to reach retirement age (or complete his or her term of employment ) during the duration of the project?</u> | <u>If the answer to this question is YES, please describe how your institution will ensure the continuity of the research implementation structure.</u> |
| ( YES / NO )   |   |

Date: \_\_\_\_\_

### Corporate initiatives concerning application of outcomes

To:  
Japan Science and Technology Agency  
Japan International Cooperation Agency

I hereby declare that if the underwritten research project proposed for the SATREPS (Science and Technology Research Partnership for Sustainable Development) program is selected, *=Name of the company=* will cooperate with the principal investigator and other related parties to implement the following initiatives in accordance with the research plan formulated by the principal investigator.

Company official of participating business (having responsibility concerning the content of this document):

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Position/title: \_\_\_\_\_

(Official Seal):

#### Research project

Research project title: \_\_\_\_\_

Principal investigator: \_\_\_\_\_

In the case that the company in question will participate in research and development, complete I; in the case that the company in question will participate in practical application, complete II; in the case that the company in question will participate in both of the above phases, complete both I and II. Please provide as many details as possible.

#### I. Overview of Research and Development

- (1) Method (Including specific timetable and funding plan)
- (2) Benefits of cooperation
- (3) Development risks
- (4) Post-research utilization of developed technology, etc.

#### II. Practical Application

- (1) Method (Including specific timetable and funding plan)
- (2) Impact on other countries, including the partner country and Japan
- (3) Risks pertaining to commercialization/practical application, etc.

## Form 10: Proposal Coordination Status

- In response to each of the following questions, circle either YES or NO (or alternatively, strike out the answer that does not apply).
- Note that selection of a project is not conditional on a YES response to all questions. Details of the proposal and the coordination status are considered together when making selection decisions.

## Status of coordination with joint researchers in Japan

|   |  |           |
|---|--|-----------|
| 1 | Have you confirmed that each joint researcher understands that unlike regular competitive funding schemes, capacity development of the partner country institution through joint research is included in the SATREPS program because the project is linked with ODA? | YES<br>NO |
| 2 | Form 2 of the research proposal documents is limited to a maximum of 12 A4 pages. To ensure impartiality, forms exceeding 12 pages will be considered non-compliant. Is your Form 2 within the 12-page limit?  | YES<br>NO |

## Status of coordination with affiliated institution

|   |   |           |
|---|---|-----------|
| 3 | The SATREPS program involves responsibilities not required for ordinary competitive funding schemes, such as requiring an agreement for the implementation of joint research to be signed with the partner country institution, an Agreement and project contract for the technical cooperation project to be signed with JICA, and the use of appropriate ODA cost accounting. Have you held discussions with the institution you are affiliated with, including discussion of this point, and obtained a Written Approval from Institution Director (Form 7)? | YES<br>NO |
| 4 | Because the SATREPS program combines ODA and a competitive funding program, a variety of administrative tasks will arise that are not part of ordinary competitive funding programs. Are you fully aware that this will result in considerable work for not only researchers but also the administrative contact?   | YES<br>NO |

## Status of coordination with principal investigator's other work

|   |   |           |
|---|---|-----------|
| 5 | Under the SATREPS program, the principal investigator is required to provide more management than ordinary competitive funding schemes, and to commit to the necessary effort. In particular, the principal investigator needs to spend time liaising between Japan and the partner country in the period leading up to the signing of the R/D. Based on that point, have you investigated whether you can arrange to devote the necessary effort when the project is selected? | YES<br>NO |
|---|---|-----------|

## Management of conflicts of interest by the principal researcher

|   |   |           |
|---|---|-----------|
| 6 | Do the joint research institutions include any institutions that have a relationship with the principal investigator?<br>Explanation: Please see Section 2.9.3 (2) (Managing COI of the principal investigator) on page 34 concerning institutions that have a relationship with the principal investigator.  | YES<br>NO |
| 7 | If you answered "Yes" to 6, please give the name of the joint research institution(s) concerned.<br>( )   |           |
| 8 | Do the joint research institutions include companies in which the JST is an investor?<br>Explanation: Please see this webpage ( <a href="https://www.jst.go.jp/entre/result.html#M01">https://www.jst.go.jp/entre/result.html#M01</a> ) concerning companies in which the JST is an investor. Companies for which this investment has finished are not subject to COI management, and need not be declared. | YES<br>NO |
| 9 | If you answered "Yes" to 6, please give the name of the company(s) concerned.<br>( )  |           |

## Status of coordination with overseas diplomatic missions

|    |   |           |
|----|---|-----------|
| 10 | In applying for the SATREPS program, have you exchanged information sufficiently with overseas diplomatic missions and JICA local offices as part of the process of examining the | YES<br>NO |
|----|---|-----------|

|  |                           |  |
|--|---------------------------|--|
|  | details of your proposal? |  |
|--|---------------------------|--|

#### Security measures

|    |  |                   |
|----|--|-------------------|
| 11 | <p>Are you checking the security situation and travel information for the partner country and domestic locations where research will be conducted?</p> <p>Explanation: Projects cannot be implemented in areas where it is judged difficult to ensure the security of people involved in the project. Access the MOFA website (<a href="http://www.anzen.mofa.go.jp/">http://www.anzen.mofa.go.jp/</a>) and other sources of information to check foreign travel and security information etc. The Japanese members of the adopted project will engage in research activities in the partner country in compliance with the security measures set forth by JICA.</p> | <p>YES<br/>NO</p> |
|----|--|-------------------|

#### Counterpart institution implementation structure, etc.

|    |  |                   |
|----|--|-------------------|
| 12 | <p>Have you reached agreement with the partner country principal research institution concerning the research activities and how the research will actually progress? Does the institute have a sufficient understanding of the SATREPS system? In particular, does the institute understand that ODA assistance will be conducted through the framework of technical cooperation projects, and that it does not constitute a provision of funds to the research institute of the partner country?</p> <p>Explanation: Lack of sufficient agreement in advance has a substantial influence on subsequent progress. In some cases, a difference of expectations between the parties can make it difficult to proceed with the research.</p>   | <p>YES<br/>NO</p> |
| 13 | <p>Is the counterpart's principal investigator a principal researcher with the ability to unify the partner country implementation structure, including the various institutions involved in the project? Also, does the research institution have an adequate support structure?</p> <p>Explanation: Under SATREPS, which is a program for joint research between institutions in Japan and in developing countries, the partner country's principal investigator, in addition to personally having research abilities, must have the ability to unify the whole of the counterpart's implementation structure, and must also receive sufficient support from affiliated institutions. This is a key factor in the smooth implementation of the project.</p>  | <p>YES<br/>NO</p> |
| 14 | <p>Is the research staff sufficient (in terms of both abilities and numbers) for conducting joint research?</p> <p>Explanation: To conduct joint research effectively, it is important that the counterpart institution allocates a sufficient number of capable research staff members. Having an inadequate staff may adversely affect the progress of the project, or may result in the research being over-reliant on the Japan side, making it difficult to promote capacity development at the counterpart institution.</p>  | <p>YES<br/>NO</p> |
| 15 | <p>Has sufficient budget been acquired for the joint research? Does the partner country understand that there are expenses to be borne by the partner country?</p> <p>Explanation: Under the SATREPS system, as an ODA project, the partner country is required to bear an appropriate amount of expenses to encourage self-reliant development. For this reason, the counterpart side must acquire a budget to cover its expenses. To ensure this, it is important to obtain the understanding of the overseeing agency involved in budgeting. If you do not already have experience of joint research with the partner country, particular attention must be paid to whether a budget has been acquired.</p>   | <p>YES<br/>NO</p> |
| 16 | <p>Has the infrastructure (facilities/machinery and equipment) needed for implementing joint research been put in place at the partner country principal research institution?</p> <p>Explanation: Provision of the required facilities and space for the joint research is in principle the responsibility of the partner country. Providing the counterpart institution with facilities and machinery and equipment is not one of the aims of the SATREPS project. If there are problems with the current infrastructure, it is necessary to check whether sufficient maintenance will be possible after the project finishes.</p>   | <p>YES<br/>NO</p> |
| 17 | <p>Have you confirmed coordination with and allocation of functions between the counterpart institution's overseeing agency and the other government agencies involved? Additionally, is the application of outcomes being considered based on the policies and intentions of the partner country's government agencies and private sector, as well as the partner country's research institute?</p> <p>Explanation: The participation of the supervising agency, the other government agencies involved, and the private sector is important for ensuring the acquisition of budget resources for the smooth implementation of the SATREPS project and in ensuring the application of research outcomes. Furthermore, it is necessary to ensure a clear definition of functions in advance. The supervising agency and other agencies are also involved in the SATREPS application procedure handled by the partner country, so, in addition to the details of the joint research proposal, it is important to explain and obtain sufficient understanding of the costs that need to be borne by the partner country.</p> | <p>YES<br/>NO</p> |

### Provision of machinery and equipment

|    |   |                  |
|----|---|------------------|
| 18 | <p>Does the principal investigator's research institution of affiliation possess the systems required to assume responsibility for purchasing, shipping, and installing the machinery and equipment provided, in line with security export control policy?</p> <p>Explanation: As provision of machinery and equipment requires that all processes from purchase, shipping, and installation be conducted in line with laws and regulations by the principal investigator's research institution of affiliation, please confirm beforehand that the institution in question possesses the necessary systems for handling the export of machinery and equipment.</p>   | YES<br>NO        |
| 19 | <p>Are you taking account of points requiring special attention when the machinery and equipment to be supplied includes specialist machinery and equipment and plant constructed to order?</p> <p>Explanation: It is envisioned that general procurement of machinery and equipment via JICA will be unable to handle specialist machinery and equipment and plant constructed to order. Consequently it is necessary to check in advance that the Japan-side principal investigator's institution has the ability to handle the procurement procedures and the necessary construction and maintenance.</p>  | YES<br>NO<br>N/A |
| 20 | <p>Does the plan for provision of machinery and equipment take account of the setup for handling and maintenance of the machinery and equipment after the project finishes?</p> <p>Explanation: After the SATREPS project finishes, the machinery and equipment provided by Japan are to be used for further research activities, etc., with the partner country becoming responsible for the costs of maintaining the machinery and equipment provided by Japan. Consequently, the introduction of machinery and equipment that exceed the partner country's maintenance capabilities is considered inappropriate, even if the machinery and equipment are essential for the research. Also, machinery and equipment provided by ODA is provided on the assumption that the machinery and equipment will continue to be used after the project finishes for the lifetime of the machinery and equipment, so the system does not cover machinery and equipment that will not be used on an ongoing basis in the partner country, or will only be used for purposes such as gathering data for research.</p> | YES<br>NO        |

### Development or improvement of facilities

|    |   |                  |
|----|---|------------------|
| 21 | <p>Are you taking account of points requiring special attention when the development or improvement of facilities is included?</p> <p>Explanation: The development or improvement of facilities will require, for example, securing land for building the facilities, legal and contractual procedures pertaining to design and construction, safety management for handling hazardous materials, maintenance and management systems, and securing of funding. Please give adequate consideration to these points with the implementing agency of the counterpart country, and include in the plan only those that are essential for project implementation, can be completed within the project period, and can be maintained and managed without any problems following the termination of the project. The development or improvement of facilities that do not meet these requirements will not be permitted. In addition, if during project implementation it becomes clear that the development or improvement of facilities is unlikely to be completed within the project period, you will need to review your plan for the development or improvement of facilities.</p> | YES<br>NO<br>N/A |
|----|---|------------------|

### Application of outcomes

|    |  |           |
|----|--|-----------|
| 22 | <p>Has a clear plan been produced for application of outcomes?</p> <p>Explanation: One of the major characteristics of SATREPS is that the outcomes of joint research are not only used for research. The outcomes are applied to benefit society. Even from an ODA perspective, it is important to have a practical and realistic plan for application of outcomes, not just a hypothetical plan.</p>   | YES<br>NO |
| 23 | <p>In order to prepare for application of outcomes, does the implementation structure include the participation of related institutions or entities such as private sector businesses?</p> <p>Explanation: The SATREPS joint research period lasts a maximum of 5 years. In order to achieve the application of outcomes to a certain extent, it is important to have private sector businesses and other entities that will handle the application of outcomes section of the project actually participate from the idea stage, and prepare for implementation in a planned manner.</p> | YES<br>NO |

### Other Japanese projects in the same field

|    |  |           |
|----|--|-----------|
| 24 | <p>Have you confirmed whether any other Japanese aid projects (JICA projects, etc.) have been implemented or are being implemented in the same field?</p> <p>Explanation: If the partner country principal research institution for the current project has acted as the counterpart (C/P) for other aid projects in a related field in the past, then from the perspective of making effective use of ODA, consider research plans that build on that past experience as far as possible. If there are related ODA aid projects such as JICA technical cooperation projects currently in progress (or scheduled to be implemented soon), confirm that there is no duplication of content between such projects and the proposed SATREPS project. In particular, if the counterpart institution is the same institution, there is a risk of the new project impacting the implementation structure of the existing project. Take this into</p> | YES<br>NO |
|----|--|-----------|

|  |  |  |
|--|--|--|
|  | account, and if circumstances warrant, consider adjusting the timing or content of the proposal. |  |
|--|--|--|

#### Projects backed by other donors in the same field

|    |  |                      |
|----|--|----------------------|
| 25 | <p>Have you confirmed whether any other aid projects have been implemented or are being implemented in the same field but backed by other donors?</p> <p>Explanation: Confirm whether there is any duplication, and how the project is scheduled to proceed. In particular, if the counterpart institution is the same institution, make sure to question the donor's representatives and the counterpart institution sufficiently to confirm the likely extent of the resulting impact if the proposed joint research is implemented.</p> | <p>YES</p> <p>NO</p> |
|----|--|----------------------|

#### Contribution to SDGs

|    |  |  |  |
|----|--|--|--|
| 26 | <p>Which of the 17 United Nations Sustainable Development Goals (SDGs) does your proposal contribute to the most in your opinion? Please write up to 3 goal numbers in the right column. Write the goal number that contributes the most in the upper row.</p> <p>(Reference: <a href="http://www.un.org/sustainabledevelopment/sustainable-development-goals/">http://www.un.org/sustainabledevelopment/sustainable-development-goals/</a>)</p> |  |  |
|----|--|--|--|

Inquiries should preferably be made by email, except when urgent.  
Updated information will be posted on the SATREPS research proposal website.  
<https://www.jst.go.jp/global/english/koubo.html>

Japan Science and Technology Agency (JST)  
SATREPS Group  
Department of International Affairs  
Tokyo Headquarters, 8th Floor, K's Gobancho  
7, Gobancho, Chiyoda-ku, Tokyo, 102-0076 Japan

E-mail: [global@jst.go.jp](mailto:global@jst.go.jp) (Address for inquiries regarding research proposal applications)  
Tel: +81-3-5214-8085 (Mon.-Fri. 10:00-12:00/13:00-17:00, except public holidays)