FY2018

Science and Technology Research Partnership for Sustainable Development (SATREPS)

International collaborative research program

Invitation for Research Proposals

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.

Application Guideline (Provisional Translation)

Japan Science and Technology Agency (JST)
Research Partnership for Sustainable Development Group
Department of International Affairs
September, 2017

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Notes for FY2018 Research Proposals

This invitation for research proposals is for proposals that will be implemented under the government's FY2018 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.

http://www.jst.go.jp/global/koubo.html (Japanese)
http://www.jst.go.jp/global/english/koubo.html (English)

1. How to Apply

FY2018 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. 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 October 30, 2017

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 30 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. T**he deadline for submitting the official request for ODA technical cooperation is on Monday October 16, 2017, 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.

JST contributes to achieving sustainable development goals (SDGs)

The "Sustainable Development Summit of the United Nations," held in September 2015, unanimously adopted a resulting document, the "Transforming our world: the 2030 Agenda for Sustainable Development" centered Sustainable Development Goals (SDGs) as a more comprehensive and new goal for globally common actions for humans, the earth, and prosperity. JST takes into account science and technology innovations that are indispensable for achieving SDGs to actively make contributions through the management of the projects.

Michinari HAMAGUCHI
President, Japan Science and Technology Agency (JST)

※See the website below for Sustainable Development Goals and JST's approaches:
http://www.jst.go.jp/pr/intro/sdgs/index.html

I. The Science and Technology Research Partnership for Sustainable Development program (SATREPS program)

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[1] with an objective of utilization of research outcomes[2]. 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.

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[3]"** 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.**

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[1] Global issues: Issues that are difficult to resolve by a single country or region acting on its own and that need to be handled by the international community as a whole

[2] Utilization of research outcomes: The research projects should lead to future social and economic benefits, achieved by using newly obtained knowledge and technology to enhance government services or to develop products that can be deployed in the market.

[3] http://www.un.org/sustainabledevelopment/

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”). 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.

The FY2018 invitation for research proposals seeks projects that reflect these policies while meeting the aims of the SATREPS program.

(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.

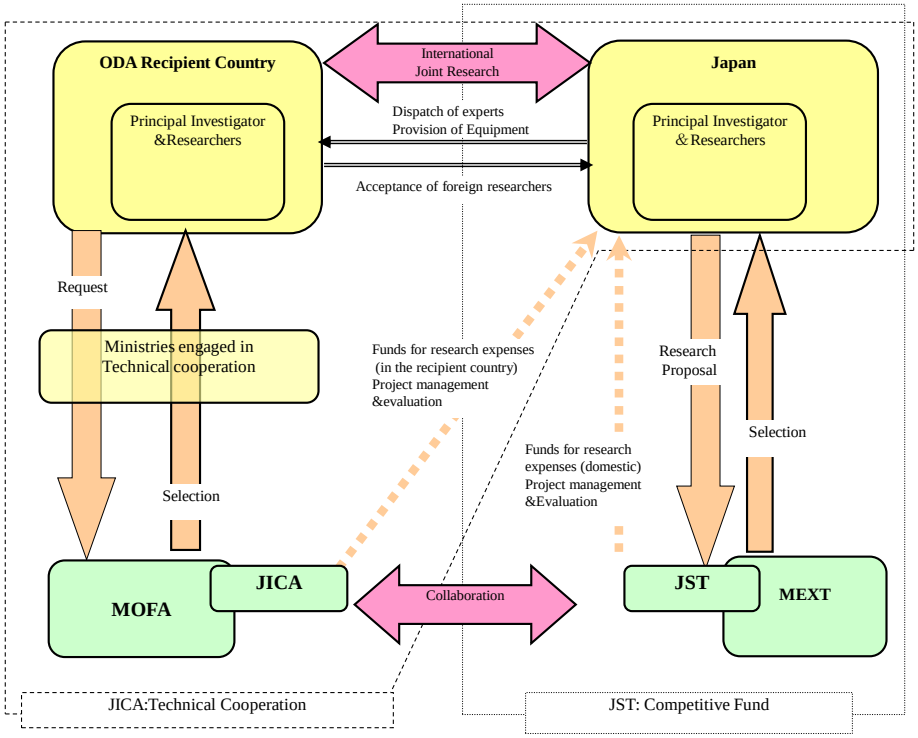

Figure 1. SATREPS Program Structure

(4) SATREPS program main flow

(a) 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.

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.

(b) 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

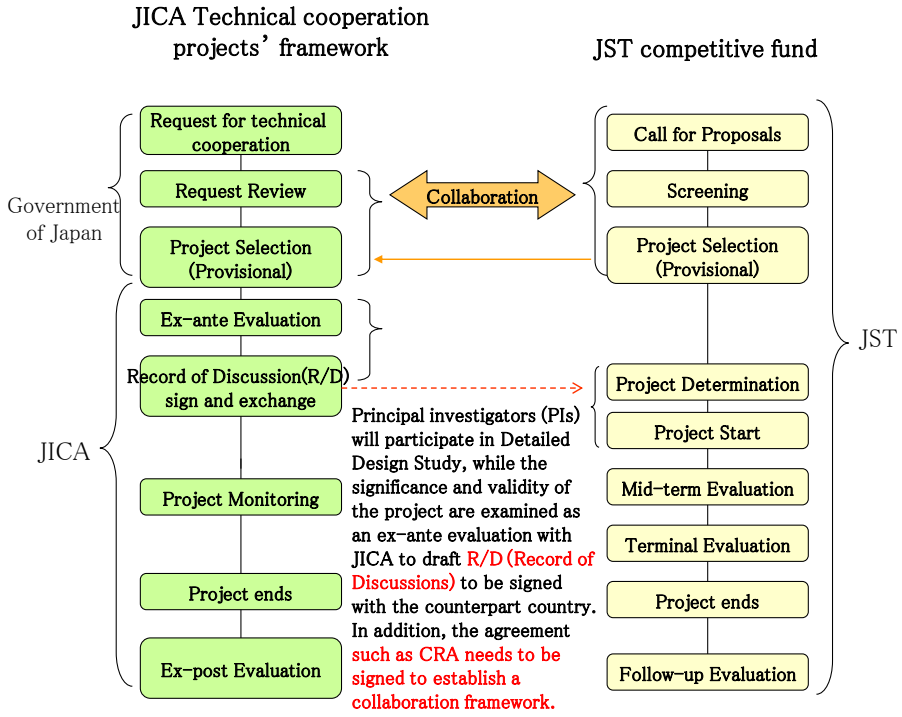

Figure 2. SATREPS Program Flow

(c) 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 can take a long time, and may not even be completed before the end of the year in which the project would be implemented (the end of FY2018). Even if a research project has been selected, if the R/D is not likely to be signed in the near future, or if there are other reasons[4] such as deteriorating public security, preparations for implementing the project may be halted part way through, and 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.

[4] Potential reasons include unavoidable circumstances such as natural disasters or decisions made by the government of the prospective recipient, and circumstances such as improper use of research funds or improper research activities.

(d) 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[5]). The principal investigator shall be responsible for the research project and for coordinating the running and management of the project as a whole. It is not essential for the Japanese principal investigator to be permanently stationed in the partner country for the period of the joint research, but to ensure that the research proceeds smoothly, it is desirable that at least one member of the Japanese research team be stationed there as permanently as possible as an expert (designated under this program as a "dispatch of overseas researchers (Japanese researchers) for overseas research")[6] [7].

(e) Human resource development

- Human resource development through the Japanese Government (MEXT) Scholarship Program

Since FY2010, 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 (Japanese)
http://www.studyjapan.go.jp/en/toj/toj0302e.html (English)

- 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.

- Helping young post-doctoral researchers to secure varied career paths

When a proposal is selected as a SATREPS project, if young post-doctoral researchers are employed to participate in the project using public funds (competitive funding and other project research funding, education and research funding through open funding schemes for universities), there is a requirement to provide active assistance to such researchers to help them to secure varied career paths. This requirement is

[5] The Agreement (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 Agreement and project contract containing an estimate of these expenses and details of accounting procedures, for reference by either party. (JICA will only conclude an Agreement with the principal investigator's institution, not with other research institutions involved in the research project.)

[6] An overseas researcher dispatched to the developing country does not necessarily have to be the principal investigator. Other members of the Japanese research team necessary for the joint development are eligible. However, postgraduate and other students are not eligible to be sent under the "dispatch of overseas researchers (Japanese researchers) for overseas research" designation.

[7] In technical cooperation projects, JICA recruits project coordinators through a transparent recruiting process and stations them in the ODA recipient country to provide support to experts and manage local operating expenses or to support procurement of machinery and equipment by the local JICA office. JICA similarly stations local project coordinators for SATREPS projects. Such staff cannot simultaneously participate in research work.

based on a policy document issued on December 20, 2011 by the Council for Science and Technology's Committee on Human Resources concerning basic policy for securing varied career paths for young post-doctoral researchers employed using public funds from MEXT.

* Employment of research assistants (RA)

The 4th Science and Technology Basic Plan aims to provide more comprehensive economic support in the form of funding fellowships, teaching assistants (TA), and research assistants (RA) so that bright students can feel secure in aiming for graduate school. This is an attempt to accelerate the 3rd Science and Technology Basic Plan's aim to "enable 20 percent of doctoral students (latter stage) to receive an amount equivalent to their living expenses."

Based on this principle, the SATREPS program recommends that when latter stage doctoral students are employed as research assistants on a SATREPS project, they are paid a salary level equivalent to living costs to ensure that they do not need to be concerned about the economic cost of participating.

The following considerations apply when employing a research assistant:

- Assumed to be a doctoral student (latter stage).
- Recommended payment is in the order of 2 million yen per year or 170,000 yen per month. Payments of this level can be handled as research expenses. Take care, however to avoid situations that could be interpreted as the payment being charged to SATREPS but used for simply studying or for research work other than that of the SATREPS program, which would be regarded as inappropriate (fraudulent) use of funds.
- Decisions regarding actual payment amounts and payment periods, etc. should be made by the research institution. JST does not place restrictions on payments above or below the recommended level.
- When research assistants are receiving payments from scholarship loans or other systems, there should be no impediment to the objectives of the scholarship or the research institution that the assistant is affiliated to. JST does not, however, place any systematic restriction on overlapping payments.

It is desirable that the effective use of all of these programs will have a synergistic effect, in terms of developing the skills of key personnel and young researchers promoting research in the developing country and enhancing systems for ongoing international joint research with Japan.

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

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

The 5th Science and Technology Basic Plan (January 22, 2016, Cabinet decision; in Japanese)
http://www8.cao.go.jp/cstp/kihonkeikaku/5honbun.pdf

Comprehensive Strategy on Science, Technology and Innovation (June 2, 2017, Cabinet Decision)
http://www8.cao.go.jp/cstp/sogosenryaku/2017/honbun2017.pdf (Japanese)
http://www8.cao.go.jp/cstp/english/ (English; may not include the latest Japanese version)

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

Basic Plan on Ocean Policy (April 26, 2013, Cabinet decision, in Japanese and English)
http://www.kantei.go.jp/jp/singi/kaiyou/kihonkeikaku/130426kihonkeikaku_je.pdf

Basic Plan on Space Policy (January 25, 2013, Strategic Headquarters for Space Policy)
http://www8.cao.go.jp/space/plan/plan-eng.pdf

II. Guidance for Application and the Project Selection Process

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

* The provisional period is the period before the R/D and CRA are signed and the project officially starts.
[See: 5., 11., 12.]

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:
http://www.amed.go.jp/en/news/program/030120170612.html

The research budget from JST is tentative, and may change due to budgetary considerations.

(2) Application requirements
The applicant must be affiliated with a research institution in Japan, must be able to take responsibility as principal investigator for the international joint research, and must be able to be engaged in the international joint research from beginning to end.
[See: 8.]

(3) Applications deadline
12:00 noon (Japan time) on Monday October 30, 2017 (applications received after the deadline will not be accepted)
The deadline for ODA applications to reach MOFA is on Monday October 16, 2017(Japan time).
[See: 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
http://www.jst.go.jp/global/english/koubo.html

Applications start date	Tuesday September 12, 2017
ODA applications deadline[8]	**Monday October 16, 2017**
Applications deadline	12:00 noon (Japan time) on Monday October 30, 2017 (applications received after the deadline will not be accepted)
Document screening	Mid November 2017 to Mid December 2017
Notification of document screening results	Mid February to March 2018
Interviewing for selection	Late February to Late March 2018
Provisional selection and notification[9]	Mid May 2018 onwards, after JST research budget approval
Start of research	May 2018 or later, following signing of the R/D

3. Countries eligible for the SATREPS program

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

[See: Appendix 1]

4. How to apply

Forms for research proposals for FY2018 (listed in Table 1 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).

http://www.jst.go.jp/global/english/koubo.html (English, with limited information)
http://www.jst.go.jp/global/koubo.html (Japanese, with complete information)

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

[8] 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.

[9] 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.

Form 1	Proposal
Form 2	Research Theme Concept
Form 3	Japanese Institution Implementation Structure
Form 4	Counterpart Institution Implementation Structure
Form 5	Research Expense Plan
Form 6	Grants Received Through Other Programs
Form 7	Contact Information for PI and Affiliated Institution
Form 8	Written Approval from Institution Director
Form 9	Plans by Private-Sector Corporations, etc.
Form 10	Proposal Coordination Status

Table 1. Forms for Research Proposal Applications

[See: Appendix 2]

5. Research fields and areas in which proposals are invited

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).

Eligible research fields and areas

Research Fields	Research Areas
Environment and Energy	1. Research contributing to the solution to global-scale environmental issues (Contributing to SDGs - response to climate change, conservation of ecosystems and biodiversity, sustainable use of natural resources, and pollution prevention and control)
	2. Research contributing to advanced energy systems for low carbon society (Contributing to SDGs - clean energy and climate action)
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 SDGs - analysis of disaster mechanisms, prior countermeasures, and disaster occurrence to post-disaster recovery and reconstruction processes)

* 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 circle 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

* One restriction applied to all research areas is that clinical trials and medical practice are not eligible for the SATREPS program. Note also that for some research topics, there may be a requirement to take specific ethical perspectives into account.

[See: Q&A]

* 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.

* 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.

http://www.amed.go.jp/en/news/program/030120170612.html

(1) Environment and Energy

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

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 climate change, the deterioration of ecosystems and biodiversity, the spread of pollution, the concentration of populations into urban centers, and rising production and consumption.

Many of the Sustainable Development Goals (SDGs) established by the United Nations (UN) are deeply interlinked with the resolution of environmental problems. 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*. Meanwhile, 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.

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 FY2018 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 climate change prediction, adaptation or mitigation
- ♦ Research on chemical pollution and risk reduction
- ♦ Research on water processing and ensuring safe water supply
- ♦ Research on establishing a material-cycle society (including resource recovery and reuse)
- ♦ Research on the conservation and restoration of ecosystems and biological diversity
- ♦ Research on urban environmental conservation (including greening) and environment creation
- ♦ Research on constructing pleasant cities
- ♦ Research on reconstruction and restoration of environments damaged by large-scale disasters
- ♦ Research on sustainable use of resources

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

Research Area 2: Research contributing to advanced energy systems for low carbon society (Contributing to SDGs - clean energy and climate action)

Climate change mitigation is an important global issue which has been recognized as an urgent challenge in UN SDG 13: *Take urgent action to combat climate change and its impacts*. At the same time, the realization of SDG 7: *Ensure access to affordable, reliable, sustainable and modern energy for all* is also important. In order for both of these goals to be achieved concurrently, it is imperative that science and technology are utilized to realize a low carbon society throughout the world.

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 (CO_2) 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 July 2015, Japan also finalized its Intended Nationally Determined Contribution, which targets reducing domestic greenhouse gas emissions levels by 26.0% by FY2030 compared to FY2013 (25.4% reduction compared to FY2005) by lowering emissions and securing carbon sinks.

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.

Promoting the utilization of renewable energies and new energies, using energy from fossil fuel energy cleanly and efficiently, and saving energy is extremely beneficial for the whole world, not just for the countries concerned. Moreover, Japan's contribution to the reduction of greenhouse gas emissions in developing countries helps Japan to achieve its own reduction targets through mechanisms such as the Clean Development Mechanism (CDM) and the Joint Crediting Mechanism (JCM).

Research proposals for FY2018 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 relating to the utilization of renewable and new energies (solar and solar thermal, wind, ocean energy, geothermal, biomass, etc.) (For subjects relating to biomass, please clearly explain sustainability factors such as the sustainability of raw material sourcing and non-rivalness with food, etc., as well as anticipated benefits in terms of energy balance and economic viability.)
- ♦ Research on advanced energy-efficient utilization (including innovative clean and efficient energy utilization technology, energy saving technology utilizing strategies such as high-efficiency equipment or energy recycling, key technologies for carbon dioxide capture and storage (CCS), etc., and energy system technology, etc. for implementing low carbon approaches)

♦ Research relating to the sustainable use of natural resources such as fossil fuels and minerals (resource cycle, urban mining development, resource recovery systems expected to contribute to reducing LCA-CO2 emissions)

♦ Research contributing to the creation of low carbon, resource recycling cities and regions (including smart cities, smart communities, transportation networks, and next generation infrastructure)

(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* and SDG 14: *Conserve and sustainably use the oceans, seas and marine resources for sustainable development.*

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 May 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 FY2018 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 and production of useful substances from bioresources, 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 SDGs - analysis of disaster mechanisms, prior countermeasures, and disaster occurrence to post-disaster recovery and reconstruction processes)

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, and landslides, this research area also includes research on preventing and mitigating threats to urban society (including research on post-disaster recovery and reconstruction). Such threats 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, and a road map to their practical application. This includes analysis and explication of disaster mechanisms, validation of existing disaster risk reduction measures, and verification of risk communication strategies. 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 FY2018 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, and landslides, together with measures to mitigate such disasters

♦ Research and development of measures to mitigate the damage from major disasters that have become more serious with urbanization (fires, chemical plant accidents, earthquakes, flooding, damage to lifelines/transportation networks, etc.)

♦ Research relating to the construction and maintenance of cities with resilient social infrastructure that can withstand natural and man-made disasters

♦ Research relating to the collection, processing, effective provision and utilization of disaster related information to contribute to regional and urban disaster prevention and mitigation (including development of technology to utilize disaster observation satellites, GPS, ICT, GIS, etc.)

6. Review criteria and considerations for the selection process

(1) Review criteria

♦ Direction and feasibility of utilization of research outcomes— The proposed project must envisage utilization of research outcomes in society, including ideas for what can be applied, when it can be applied, how it can be applied, and when the objectives are likely to be realized. Not all above requirement needs to be achieved within the research period; however, the following should be clearly defined: the idea to return

the outcomes expected in the research plan to society, such as by outlining the direction for the partner country's future activities, or for deployment to other regions or markets; and the way in which research outcomes will be utilized in society during the research period.

♦ 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. 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) 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).

♦ A proposal (project) will be highly evaluated if the plan involves scientific and technological research of a high standard, is specific rather than general, and has a clear roadmap, including timing and methodology, for utilizing the research outcomes in society.

♦ Proposals for partnering with countries that have never been selected or rarely been selected are particularly welcome.

♦ As developing countries are facing increasingly obvious and serious issues with urbanization, proposals that address urbanization issues are particularly welcome in each of the research fields and areas.

♦ The direction 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 incorporating partnerships with corporations (industry-academia-government collaboration[10]) which will work with the outcomes, lead the innovation process, or both of the above, are particularly welcome. When making an application for an industry-academia-government collaboration project, the principal investigator's institution should fill in Form 2 (2), and the participating corporation should fill in Form 9, 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 9.) When the research period ends, corporations that submitted Form 9 will submit a report.

♦ 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

[10] For the purposes of this program, entities participating as "industry" players have businesses incorporated in Japan.

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 for research projects involving African nations or least developed countries 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 development and application of appropriate technology or technology of direct utility in coping with problems.

♦ 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 scheduled to engage in the research during the research period) are researchers under 35 years old.

♦ As part of the diversity, proposals by female principal investigators 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.

♦ Proposals similar to the projects selected from FY2008 to FY2017 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.

♦ 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.

♦ Proposals founded on a sound experience working with the partner country in question are encouraged.

♦ 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]

♦ Where necessary, the finances of a corporation or similar entity will be inspected.

♦ 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 10]

7. Selection process

(1) Screening process

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 roadmap 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.

(2) Two-step selection process

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.

(3) Avoiding conflict of interest

In accordance with JST regulations, a person who has a conflict of interest due to his or her relationship with the applicants, etc. will not participate in selection.

(4) Number of projects expected to be selected

The number of projects to be selected will vary according to the Japanese government's FY2018 budget. There is also potential for selection of a number of feasibility studies*.

* 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.

8. Requirements for principal investigator (applicant) and research participants

The principal investigator (PI; applicant) must be affiliated with a Japanese research institution[11], 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.

[11] "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.

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. The principal investigator has to be a Japan side member.
- 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.

9. Responsibilities of principal investigators after selection (provisional selection)

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

(1) Leading and managing the research

- 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.
- 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.
- 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 2018).
- 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.
- 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.
- The principal investigator shall be responsible for consensus-building, communication and coordination with administrative offices and other entities within the research institution.
- 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.
- 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).
- 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.

- When the principal investigator participates in workshops or symposia organized by JST/JICA, he or she is expected to 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 (CITI JAPAN e-learning) and ensuring that the content of the course is understood.

If researchers do not study the research ethics course described in c. above, payment of research expenses may be suspended until the researchers are in compliance.

Note: The obligation to study the research ethics materials and the submission of documents confirming compliance are applicable to research topics selected in FY2013 onwards.

(4) Obligation to study research ethics learning course

In order to prevent misconduct (fabrication, falsification, or plagiarism of research reports, etc.), researchers and others participating in the project are obliged to study the research ethics course stipulated by JST (CITI JAPAN e-learning).

For more details, please refer to the following website:

http://www.jst.go.jp/researchintegrity/education.html#M2 (Japanese)

10. Responsibilities of research institutions after selection (provisional selection)

The responsibilities of Japanese research institutions (institutions to which the principal investigator and main research collaborators in research projects that have been selected or provisionally selected are affiliated) are as described below.

(1) 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).

[See: Form 8]

(2) In order for the research to proceed effectively, it is necessary to ensure the smooth progress of procedures for signing agreements with JST/JICA, submission of required reports to JST/JICA, and the facilitation of surveys of accounting processes by JST/JICA or government accounting audits. Details are given in Japanese in V. (Considerations when submitting an application). Make sure that these requirements are fully understood before submitting an application.

(3) Research institutions, as the bodies 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).

(4) Necessary reports must be made to JST and JICA when applying for and after obtaining intellectual property rights vested in the research institutions in accordance with Article 19 of the Industrial Technology Enhancement Act (Japanese version of the Bayh-Dole Act).

(5) 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.[12] 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: V]

(6) 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).

(7) As part of the effort to prevent misconduct in research and development activities, JST has required researchers, who are part of newly selected research projects and who also are affiliated with research institution to enroll in and complete the educational program on research integrity (The procedures required for enrollment will be handled by JST). Research institutions are to supervise, without fail, the enrollment in and completion of the program by the relevant persons.

In the event that the relevant researchers fail to complete the educational program as stipulated despite repeated reminders by JST, the research institution will be instructed to halt, partially or entirely, the execution of contract research fund payments. In line with this instruction, the research institution is to halt all use of the research funds and not restart their use until further notice from JST.

11. Research period/Duration of research

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.

[12] "Genetic resources" means genetic material of actual or potential value (any material of plant, animal, microbial or other origin containing functional units of heredity). (Convention on Biological Diversity, Article 2.) Virtually all plant, animal, and microbial life on earth is classified as a genetic resource.

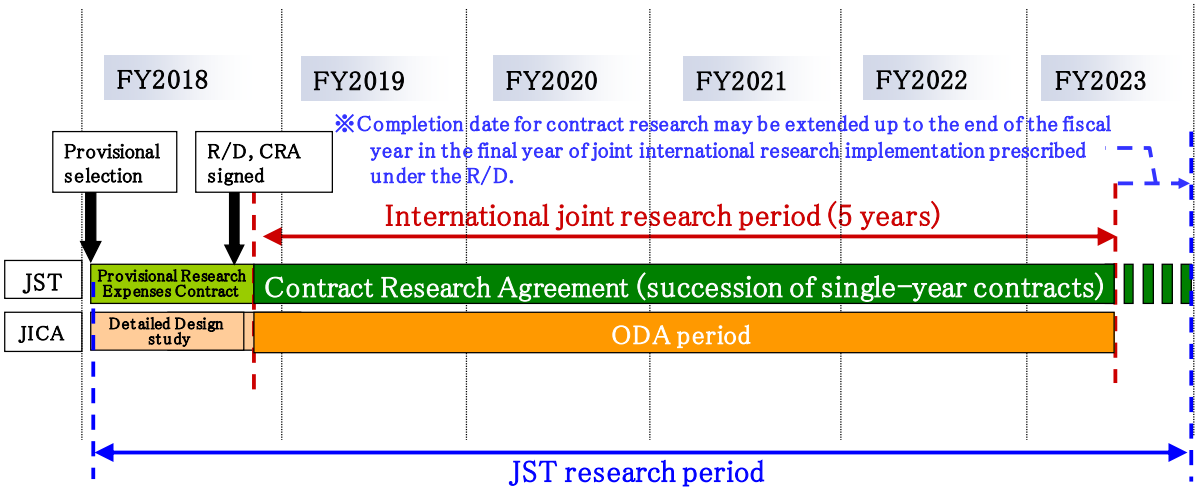

Figure 3. Extent of Research Period (5-year project)

12. Research expenses (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) 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 expenses and overhead.

The amount is a rough indication, and assumes the approval of the FY2018 budget. Please be forewarned that changes and adjustments to amounts and (particularly this year) also to particulars may be required according to budgetary considerations.

Cost performance will also be an important factor for consideration during the selection process. Proposals with high expenses, compared to those with lower expenses, will be expected to yield substantially greater research results, and require much greater responsibility. Carefully examine your research expenses.

JST will distribute the full amount of research funds granted to the research institutions that principal investigator and main research collaborators are affiliated with. The funds should be managed by the institutions. An amount equivalent to up to 30% of the direct cost can be appropriated from within the contract research expenses for indirect research expenses incurred by the research institution in relation to the contract research.

Handling and categorization of expenses for projects are based on cross-ministerial expenses categorization. For details of how to handle expenses, refer to the cross-ministerial expenses categorization table that can be accessed from the website below (only in Japanese):

http://www.jst.go.jp/global/itaku.html

In principle, the research is implemented in line with the research plans for the year in question, but JST has found that single-year accounting presents difficulties for the use of research expenses. In particular, attempting to use up the remains of the budget by the end of each financial year leads to waste and can act as an incitement to improper bookkeeping. For this reason, JST has brought in a simple procedure for carrying amounts over to the next financial year, enabling researchers to avoid the complex authorization requirements that had previously been needed whenever the progress of the project resulted in a need to carry over funds at the end of the year. The system enabling funds to be carried over applies to universities and other entities concluding multi-year contracts. Other details concerning disbursement of JST contract research expenses are available at the following website under Contract Research Agreement Administrative Procedures (Currently Japanese only).

http://www.jst.go.jp/global/itaku.html

(2) 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 IV "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: IV.5.(4)]

13. 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 2.)

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 (Travel expenses to third countries, on-site expenses, etc.)	YES (Note 1)	
B: Costs incurred in partner countries	Exceptionally (Note 2)	YES (Note 3)
B: Travel expenses to invite researchers to Japan from partner countries	Exceptionally (Note 4)	YES
C: Travel expenses between Japan and partner countries	Exceptionally (Note 5)	YES

Table 2. 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.

* 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 (For example, researchers of the developing country institute employed in Japan as post-doctoral researchers, who are not accepted as JICA experts). However, trips covered by JST funds will not be considered activities as prescribed by the R/D for the international joint research in question: tax immunity provisions may not apply, and permission for on-ground activities may not be granted. Consult with JICA in advance.

[See: IV.5.(6)]

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.

III. SATREPS program management by JST

1. 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.

2. 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.

3. Research plans

(1) 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.

(2) 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.

(3) 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.

4. Project evaluation (after research commences)

Evaluation of projects is handled jointly by collaboration between JST and JICA. JST project evaluation follows the procedure set out in the Guidelines for JST Mid-term Evaluation (http://www.jst.go.jp/global/english/hyouka/pdf/mid-evaluation-procedure.pdf), and Guidelines for JST Terminal Evaluation (http://www.jst.go.jp/global/english/hyouka/pdf/end-evaluation-procedure.pdf). JICA mid-term evaluation (JICA uses the term "mid-term review" for mid-term evaluation) is performed through periodical monitoring as part of JICA's project management processes

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 reference 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 IV. Outline of Technical Cooperation through ODA Section 7. Project Evaluation.

5. Research agreements and intellectual property rights

(1) 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. (See Figure 4.)

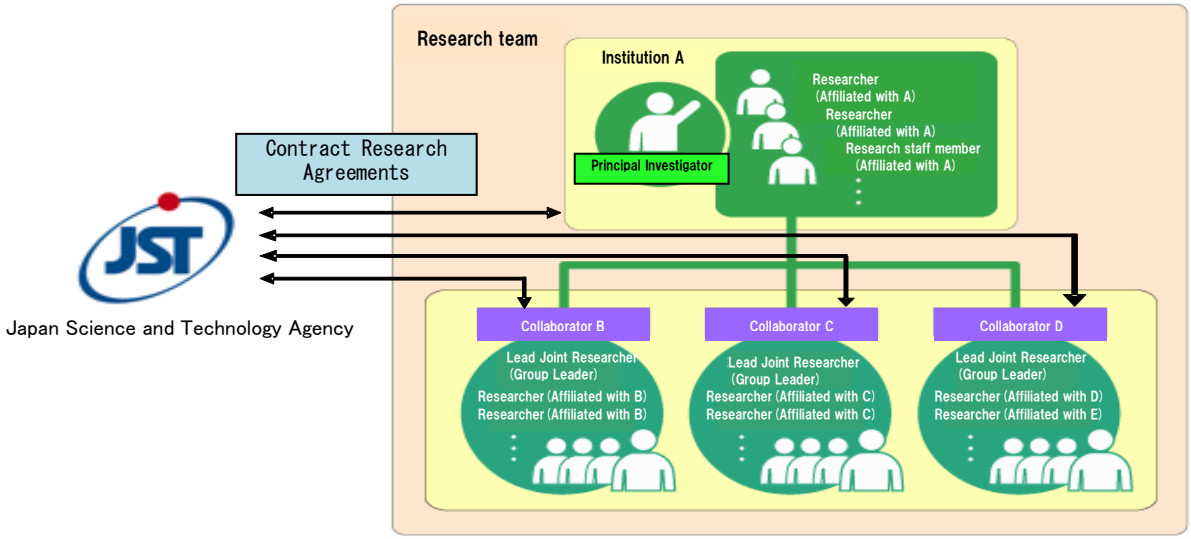

Figure 4. Contract Research Agreements with JST

(2) 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.

(3) 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.

(4) Based on the Contract Research Agreement and subject to conditions including compliance with Article 19 of the Industrial Technology Enhancement Act (the Japanese equivalent of the Bayh-Dole Act), patents and other intellectual property rights arising from the research accrue to the research institution.

IV. 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.

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[13] 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."

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 in order for developing countries to develop capacity to address development issues independently and comprehensively through institution building, capacity and institutional development.

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.

3. 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

[13] The Colombo Plan is a regional organization established in January 1950 in a cooperative attempt to strengthen economic and social development of member countries in South Asia, Southeast Asia and the Asia-Pacific region.

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 2018 must be received by Japan's Ministry of Foreign Affairs (MOFA) in Tokyo on Monday October 16, 2017.

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 FY2017, a country wishing to apply for project selection for FY2018 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[14]. 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

[14] Please refer to the "Project Management Handbook(JICA Research Institute)" chapter 5 for more information about PDM and chapter 6 for PO.

to check progress on expected outcomes based on a R/D and its attachment: PDM and PO. (See Section 7 for details.)

The flow of the above-mentioned processes from (1) to (4) is summarized in Figure 2 on page 8.

(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 (c) "Preparations for implementing selected projects" on page 8.

	Typical timeframe[15]
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[16].	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

(6) Miscellaneous

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

4. 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

[15] Actual time period differs depending on projects.

[16] Project coordinator is explained in detail in Section 6.

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.

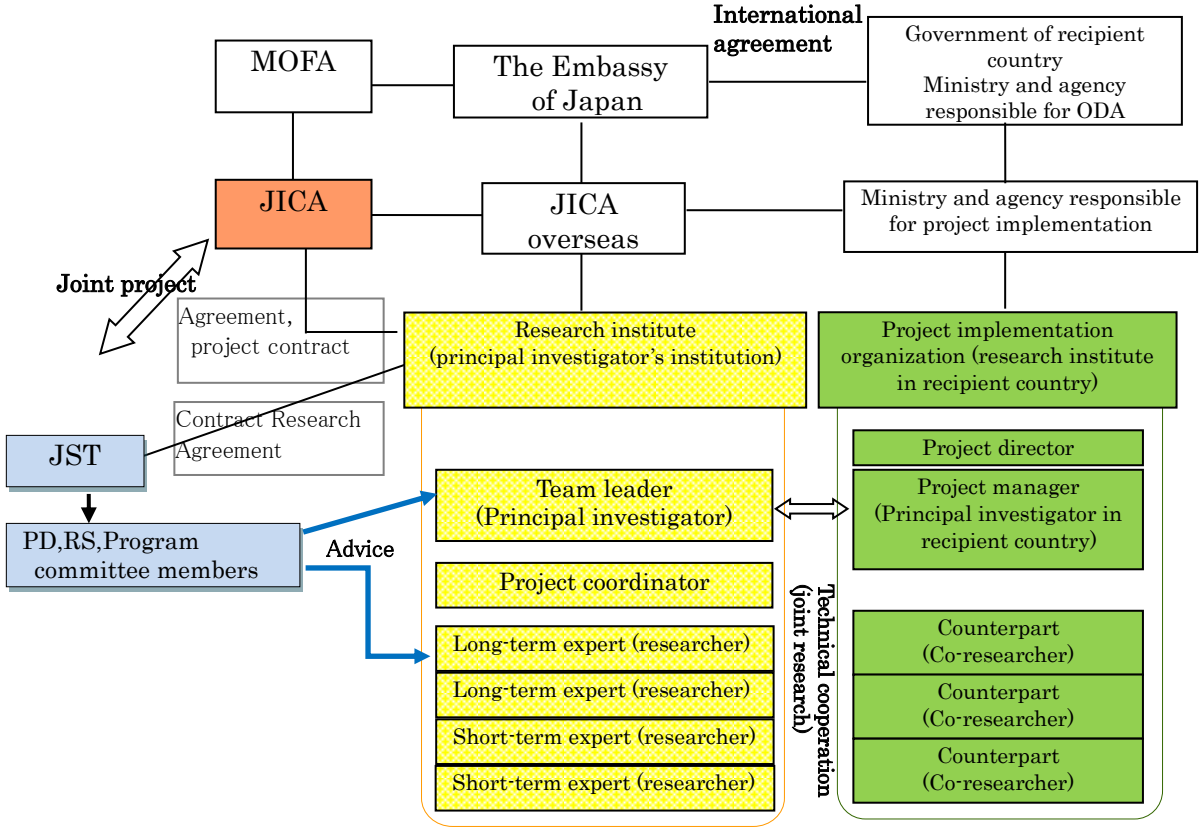

Figure 5. The framework for implementing a technical cooperation project (example)

5. Contract 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 an "agreement regarding the implementation of technical cooperation under the framework of SATREPS" (hereinafter referred to as "the Agreement") and a project contract with JICA. Representing partner research institutes in the selected project in the Japan side, the principal investigator's institute signs the Agreement and the project contract with JICA. Please note that JICA does not sing the Agreement or the project contract 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 conclude with JICA has to be signed per research institute that the principal investigator is affiliated with. The research institute that has already signed the Agreement for other SATREPS project is not required to newly sign the main part of the Agreement, but is required to prepare an appendix that defines the scope of application.

For the forms of the Agreement (the main part), the appendix and the project contract, please refer to

the following websites (only in Japanese):
The main part of the Agreement:
http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements_01.pdf
Appendix:
http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/arrangements_02.pdf
Project contract:
http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/contract_01.pdf

Here explains the Agreement and project contract.

(1) 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' 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.

(2) Preparing a project plan

In launching a project, the both parties discuss to prepare a comprehensive project plan and terminal project plans including budgets of the terms. Based on the terminal plans, a review can be performed to ascertain the progress of the project in the middle of the project and to revise the plans accordingly. Although it is called "a terminal" plan, a period covered in the plan is not necessarily limited to one fiscal year and can enter in the next fiscal years. Where a project contract includes the procurement of machinery and equipment, ensure that a proposed delivery date falls within the project period covered in the terminal plan.

(3) 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. The period to be described in a terminal plan is not necessarily limited to one fiscal year and the project contract can be signed for a period of several fiscal years.

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. The research institute can receive advance payments for its estimated expenses from JICA two times through the contract period (The first advance payment may be up to the half of the contract amount). 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

(4) Project budget limits

ODA project expenses are approximately JPY 60 million per project per year, and are limited to a maximum of JPY 300 million yen over a 5-year project. This includes spending regarding the dispatch of overseas researchers (short and long term), acceptance of foreign researchers, costs associated with the provision of machinery and equipment (e.g. purchase cost, transportation to destination, insurance premium, the procurement of machinery and equipment in the recipient country, etc.), direct administrative cost and costs of local research activities which are managed by project coordinators. A portion of project expenses are also directly spent by JICA. Consequently, the total amount managed by the principal investigator's institution under the project contract will be less than JPY 300 million yen (for a 5-year project).

JICA directly bears the expenditures associated with the dispatches of project coordinators and research supervising groups (for the D/D study, operation guidance, etc.), but those costs are not included in the above-mentioned amount.

(*For project coordinator, see Section 6.)

(5) Expenses that may be incurred

JICA project expenses are in principle used to cover expenditures for joint research in accordance with the JICA's Technical Cooperation scheme. Of such expenses, 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 of activities for the purpose of successful joint research as described in the R/D agreed between JICA and the research institute in the recipient county and the R/D-based comprehensive plan or terminal plans: (1) costs of the dispatch of Japanese side researchers to the recipient country[15], (2) costs of acceptance of the recipient country side researchers[15]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[17] 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).[18]
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. 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

(6) 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. 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

[17] 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.
[18] 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.

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.

(7) 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.

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, arrangements 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 county.

7. Project monitoring

As shown in Figure 2 on page 8, 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:
http://www.jica.go.jp/activities/schemes/science/form/ku57pq00000nj5mf-att/general_01.pdf

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

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. The international agreement is classified into two: "a treaty" that has to be ratified by the national Diet and "an administrative arrangement" that is closed only by the government to "manage foreign affairs". In general, the international agreement has to be approved by the cabinet. In addition to the official international agreement mentioned above, those agreed by the ministry of foreign affairs without the cabinet's approval are also considered as a kind of the international agreement in practice, and this type of agreement is included in the international agreement referred to in this program.

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

V. Considerations when submitting an application

- Violation of the guidelines provided in this chapter or any other inappropriate behavior may result in withdrawal of approval for the research project or cancellation of the research; return of all or part of the project's research funding, and measures taken to publicize the facts of the matter.

- Violation of related laws or guidelines, etc., in conducting research may result in cancellation of your research funding allocation or withdrawal of the research funding allocation decision.

1. Declaration of Research Integrity

The research project applicant (principal investigator) is required to submit a declaration concerning the following items (place a check for each of the individual items on the e-Rad form).

(1) I understand and pledge compliance with the content of the Guidelines for Responding to Misconduct in Research Activities (adopted by MEXT, August 26, 2014).
Guideline for Scientific Misconduct (decided upon by the Minister of Education, Culture, Sports, Science and Technology on August 26, 2014):
http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm (Japanese)

(2) I understand and pledge compliance with the content of the Guidelines for Supervision and Auditing of Public Research Funds at Research Institutions (revised by MEXT, February 18, 2014).
Guidelines for Supervision and Auditing of Public Research Funds at Research Institutions:
http://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm (Japanese)

(3) In the event that the research proposal is selected, I pledge to refrain from research misconduct (fabrication, falsification, or plagiarism) and from inappropriate use of research grants.

(4) I warrant that there was no research misconduct in the research and research outcomes to date given in the research proposal.

2. Enrolling in and Completing the Educational Program for Research Integrity

The research project applicant must complete the educational program for research integrity as a prerequisite for application. Note that if completion of the program cannot be confirmed, the application will be disqualified for failing to meet the requirements (For the SATREPS program, enrollment in and completion of the research integrity educational program by the time of application is not a prerequisite for Lead Joint Researcher applicants).

To enroll in the educational program for research integrity and to submit a declaration of completion, follow either procedure (1) or (2) below.

(1) For applicants who have completed an equivalent program at their institution
Applicants who have already completed an e-learning program or educational seminar on various aspects of research integrity (including the CITI Japan e-learning program) by the time of their application are requested to make the declaration on the e-Rad application information entry screen.

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

a. Applicants who have in the past completed a CITI Japan e-learning program in a JST program.
Applicants who have in the past completed a CITI Japan e-learning program in a JST program by the time of their application are requested to make the declaration on the e-Rad application information entry screen.

b. For other applicants for whom a. above does not apply.
Applicants who find it difficult to enroll in an educational program for research integrity because their institution does not offer such a program at their institution or for other reasons may enroll in and take the condensed version of the CITI Japan e-learning program offered through JST. To take the condensed version of the CITI Japan e-learning program, please register from the following website:
https://edu.citiprogram.jp/jstshinsei.html

There is no cost for enrolling in and completing the program, which will take between one to two hours to complete. Once enrolled, applicants are expected to complete the program without delay and then to declare the completion of the program and to also 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 on the educational program for research integrity
Japan Science and Technology Agency
Department of Audit and Legal Affairs, Research Integrity Division
E-mail: rcr-kousyu[at]jst.go.jp
(replace "[at]" with the @ character before sending)

* Contact for consultation on the public invitation for application
Japan Science and Technology Agency
SATREPS Group
Department of International Affairs
E-mail: global[at]jst.go.jp
(replace "[at]" with the @ character before sending)

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

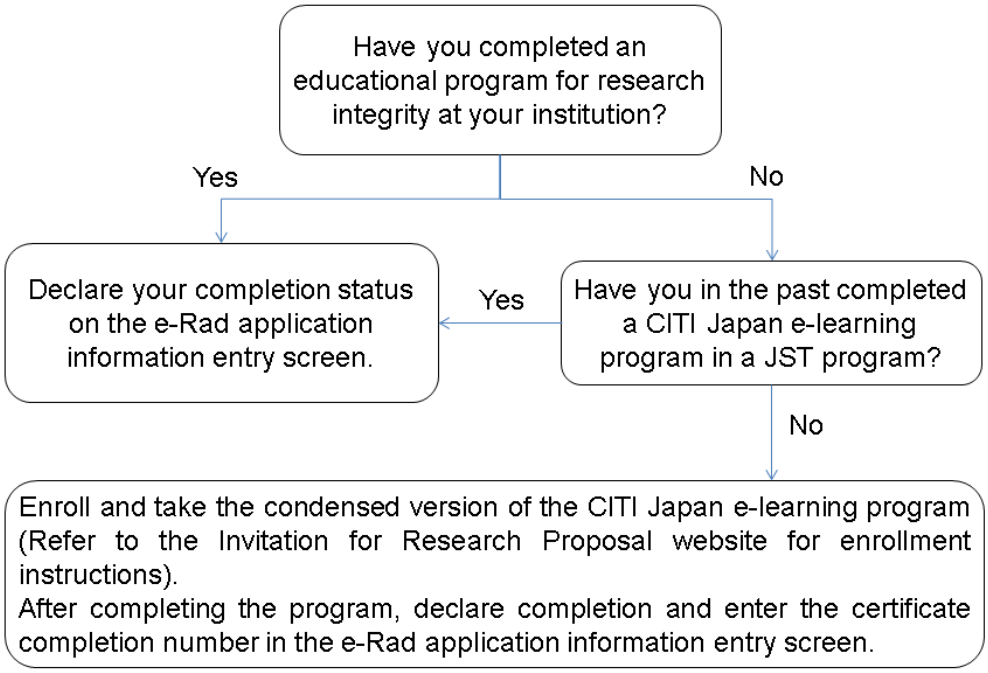

Figure 6. Flow chart for declaring enrollment and completion of the educational program for research integrity.

1. Handling of information included in the research proposal documents, Etc.

From the standpoint of maintaining the interests of the applicant, the "Act on the Protection of Personal Information Held by Independent Administrative Agencies, etc.", and other standpoints, research proposals shall not be used for any purpose other than the selection process. Confidential information regarding research proposal details shall be strictly maintained. For details, please refer to the following website.

http://law.e-gov.go.jp/htmldata/H15/H15HO059.html

2. Handling of information regarding selected projects

Information regarding individual projects that have been selected (name of system, name of research project, name of affiliated research institution, name of Research Director, budget amount, implementation period, etc.) shall be deemed to be "information that is scheduled to be made public" as prescribed under Article 5, Paragraph 1, Item (a) of the "Act on Access to Information Held by Independent Administrative Agencies" (Act No. 140 of 2001).

The name of the researcher, name of the affiliated research institution, name of the research project, and the research project overview summary are scheduled to be made public. In addition, the research proposals of selected applicants may be used by the JST to promote the research after the proposal's approval.

3. Provision of information from the cross-ministerial R&D management system (e-Rad) to the government research and development database

The Fifth Term Basic Plan of Science and Technology is said to attempt to complete the registration of funds for public solicitation for the promotion of science and technology innovation policies based on objective evidence in a research and development management system common to ministries in order to perform evaluation and analysis. Information registered in e-Rad is utilized for properly evaluating research and development with the country's fund and for planning effective and efficient comprehensive strategies. For the purpose, CSTI and relevant ministries have decided to complete registration of achievement information and accounting achievements, such as papers and patents, in e-Rad in order to connect output and outcome information related to inputs to the publicly solicited research fund system.

Information on research achievement and accounting and on use of indirect expenses related to competitive fund for adopted issues shall be input in e-Rad every year. The information necessary for macroscopic analysis, including information on research achievement and accounting performance, will be provided to the cabinet office.

Please see the following portal site for the Cross-ministerial R&D Management System (e-Rad).

http://www.e-rad.go.jp/

4. Measures against unreasonable duplication and excessive concentration

4.1 Measures against "Unreasonable Duplication"

In the case that a researcher is unnecessarily receiving competitive funding from multiple sources for the same research project (name or content of research receiving competitive funding; hereinafter the same shall apply) being undertaken by the same researcher and any of the following applies, the researcher shall be made ineligible to apply for this program, selection of their research project withdrawn, or their research funding reduced (hereinafter referred to as "withdrawal of research project selection").

(1) In the case that simultaneous proposals have been submitted for multiple competitive research funds and duplicate approval granted for essentially the same research project (including cases in which there is a considerable degree of research content duplication; hereinafter the same shall apply).
(2) In the case that a duplicate application is made for funding of a research project that is essentially the same as another research project that has already been selected and has already received competitive research funding.
(3) In the case that there is overlap in the intended application of research funding between multiple research projects.
(4) Other cases equivalent to the above.

Although at the application stage for this program there are no limitations regarding the submission of proposals to other competitive funding programs, etc., in the case that a research project is selected by another competitive funding program, please report this promptly to the JST at the contact address given at the end of this document. If reporting is omitted, the approval decision for the research project may be revoked.

4.2 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 that 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 cannot be used within the research period, and any of the following applies, selection of the research project under this program may be withdrawn.

(1) In the case that an excessive amount of research funding is being received in light of the capabilities of the researchers and the research methods being used, etc.
(2) In the case that an excessive amount of research funding is being received in comparison with the amount of effort (percentage of the researchers' overall working time* that is required for carrying out the said research project) being allocated to the research project.
(3) In the case that highly expensive research equipment is purchased unnecessarily.
(4) Other cases equivalent to the above

For this reason, in the case that 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, please report this promptly to the JST at the contact address given at the end of this document. If reporting is omitted, the approval decision for the research project may be revoked.

* This is based on the Council for Science, Technology and Innovation'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.

In SATREPS, approval by the Research Supervisor is needed to change the amount of effort after the start of the project.

4.3 Providing information included in the research proposal documents against unreasonable duplication and excessive concentration

Various information may be provided to the Government Research and Development Database being developed by the Cabinet Office through the Cross-ministerial R&D Management System (e-Rad), which is managed and operated by the Ministry of Education, Culture, Sports, Science and Technology.
Furthermore, you may be required to provide cooperation with regard to various work tasks and checking in order to prepare this information.

4.4 Applications where researcher is receiving other competitive funding or research grants, including funding from other government agencies

In the case that the researcher is receiving Grants-in-Aid for Scientific Research or other competitive research funding operated by the national government or independent administrative agencies (including national research and development agencies), or other research grants (including funding for which applications have been submitted), please provide information about this funding on the research proposal in accordance with the prescribed format.

Based on information regarding the content of the research proposal and effort (research time allocation rate), in the case that either unreasonable duplication or excessive concentration of competitive funding has occurred, the research proposal may not be selected or selection may be withdrawn, or research funding

may be reduced. Furthermore, the research proposal may also not be selected or selection may be withdrawn, or research funding may also be reduced in the case that the information provided on the research proposal is found to be false.

5. Measures against Inappropriate Usage of Research Funds

Inappropriate use and reception (referred to as "inappropriate use and the like" hereafter) of research expenses related to implemented issues are strictly treated as described below.

○Measures to be taken in case inappropriate use and the like of research expenses are found

5.1 Measures to cancel contracts

Contract research agreement is cancelled or altered concerning issues in which inappropriate use and the like are found and a request is made for refunding all or part of trusted expenses. Contract for the following year and thereafter may not be concluded.

5.2 Measures to restrict application and participation*1

Restriction measures set out in the table below depending on the levels of inappropriate use and the like are taken against application and participation by researchers*2 (including researchers who conspired, referred to as "researchers who conspired inappropriate use and the like") who exercised inappropriate use and the like of research expenses of this project or those whose involvement in inappropriate use and the like is not proven but who violated the duty of good care.

Furthermore, the outlines of pertinent inappropriate use and the like (names of researchers who exercised inappropriate use and the like, project names, affiliations, research issues, amounts of budget, fiscal year of research, contents of inappropriate use and the like, contents of measures taken) are provided to persons of other prefectures and their independent corporations in charge of competitive funds, who may restrict application and participation in other systems for competitive fund of the prefectures.

*1 "Application and participation" means proposal subscription, and application of a new issue; participation in research as a new joint researcher; and participation in an ongoing research issue as a joint researcher.

*2 "researchers who violate the duty of good care" means those whose involvement in inappropriate use and the like is not proven but who violated the duty of good care a good manager should exercise.

Details of Research Funding Usage	Period of Limitation on Application (starting from the next fiscal year in which the misconduct in research activities is deemed to have occurred*)
1. Cases in which the extent of the inappropriate use of research funds, etc. is deemed to have had minimal effect on society and the maliciousness of the action is deemed to be low.	1 year
2. Cases in which the extent of the inappropriate use of research funds, etc. is deemed to have had a large effect on society and the maliciousness of the action is deemed to be high.	5 years
3. Cases apart from 1 and 2 in which the impact of the action on society and its maliciousness are taken into consideration.	2-4 years
4. Cases in which the research funds were used to attain personal economic gain, regardless of 1 to 3.	10 years
5. Cases in which dishonest means, such as deceit, were used to have the research project in question selected for the program.	5 years

6. Although not directly involved in the inappropriate use of research funds, cases in which the use of research funds is deemed to have violated the due care of a prudent manager.	1-2 years

*Limitations shall also be placed on participation for the fiscal year in which the misconduct in research activities is deemed to have occurred

5.3 About public announcement of a case of inappropriate use and the like

Regarding those researchers whose application to or participation in this program, among those who make inappropriate usage of the program's research funds or those who are in breach of their duty for diligence, information regarding the outline of the misconduct etc. (name of researcher, name of program, name of affiliated institution, fiscal year of research, details of the misconduct and details of measures taken) will be disclosed in principle by JST. Moreover, details of the misconduct (the title of the case, type of misconduct the research area of the misconduct case, the name of the funding in regard to which misconduct occurred, the outline of the misconduct case, the measures taken by the research institution, the measures taken by the funding organization, etc.) will be disclosed in principle by MEXT.

Furthermore, according to the "Guidelines of Management and Audit of Public Research Funds in Research Institutes (Implementation standards)", once misconduct is determined as the outcome of an investigation, it will be the responsibility of the research institution to announce the results of the investigation; hence, we ask each institution to deal with the matter appropriately.

http://www.mext.go.jp/a_menu/kansa/houkoku/1364929.htm

5.4 Measures taken for researchers whose application and participation are restricted in other competitive fund system

Researchers on whom restriction is imposed for the reason of inappropriate use and the like of research expenses in other competitive fund system* under the central government or independent corporations are subject to restricted application to and participation in this project while their qualifications are restricted for application in the competitive fund system.

"Other competitive fund systems" include those systems that publicly begin inviting proposals newly in FY 2017 and those the finished before FY 2016.

* For specific information regarding other funding programs, please refer to the list of competitive funding programs on the following website: http://www8.cao.go.jp/cstp/compefund/ (Japanese)

6. Measures regarding Misconduct in Research Activities

In applying to this funding program and conducting research activities, research institutions are required to adherence to the "Guidelines for Responding to Misconduct in Research Activities"(decided by the Minister of Education, Culture, Sports, Science and Technology on August 26, 2014, hereinafter referred to as the "guideline").

http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm

Misconduct in research activities in this funding program, are strictly treated based on the guideline.

Also, JICA may take measures against misconduct based on the JICA Rules on Measures to Suspend Eligibility for Participation in Tenders for Contracts (No. 42 (Proc) of 2008).

http://www.jica.go.jp/english/our_work/types_of_assistance/rule02.html (English)

http://association.joureikun.jp/jica/act/frame/frame110000942.htm (Japanese)

6.1 Measures to cancel contracts

In case this project finds specific misconducts (fabrication, fraudulent alteration, theft) in research issues, contract research agreement is cancelled or altered and a request is made for refunding all or part of trusted expenses. Furthermore, there may be no contract in the following years.

6.2 Measures to restrict qualification for application and participation

Measures given in the table below depending on the level of inappropriateness and responsibility of specific misconduct to restrict application to and participation in this project are imposed upon researchers involved in certain misconduct in research papers or reports of this project and those whose involvement has not been established but who are found responsible to an extent for the violation of the duty of good

care as a manager of pertinent papers and reports. Furthermore, in case such restriction measures are taken on qualification for application and participation, information is provided to pertinent sections of competitive fund systems (referred to as "competitive fund system related to Ministry of Education, Culture, Sport, Science and Technology" hereafter) distributed by MEXT and independent corporations of the ministry and to pertinent sections of competitive fund systems (referred to as "competitive fund systems related to other ministries" hereafter) distributed by other ministries and their independent corporations, which may similarly restrict qualification for application and participation in competitive fund systems related to MEXT and to other ministries.

<table>
<tr><th colspan="3">Persons incurring limitations on applications due to Specific misconduct</th><th>Extent of Specific misconduct</th><th>Period of limitation on applications (Imposed from the fiscal year following the year in which misconduct is officially recognized*)</th></tr>
<tr><td rowspan="5">Person Involved in the Specific misconduct</td><td colspan="2">1. Especially malicious individual who intentionally engages in Specific misconduct from the outset of the research</td><td></td><td>10 years</td></tr>
<tr><td rowspan="3">2. Author of academic paper, etc. related to research in which there has been Specific misconduct</td><td rowspan="2">The author responsible for the academic paper in question (supervisor, first author, or other position of responsibility deemed equivalent)</td><td>The impact on the advancement of research in the relevant field or society is large, and the maliciousness of the misconduct is deemed to be high.</td><td>5-7 years</td></tr>
<tr><td>The impact on the advancement of research in the relevant field or society is small, and the maliciousness of the misconduct is deemed to be low.</td><td>3-5 years</td></tr>
<tr><td>Author other than that listed above</td><td></td><td>2-3 years</td></tr>
<tr><td colspan="2">3. An individual involved in Specific misconduct other than that stipulated in 1 or 2</td><td></td><td>2-3 years</td></tr>
<tr><td colspan="3" rowspan="2">An author responsible for academic papers, etc. related to research in which there has been misconduct but who was not involved in the Specific misconduct (supervisor, first author, or other position of responsibility deemed equivalent)</td><td>The impact on the advancement of research in the relevant field or society is large, and the maliciousness of the misconduct is deemed to be high.</td><td>2-3 years</td></tr>
<tr><td>The impact on the advancement of research in the relevant field or society is small, and the maliciousness of the misconduct is deemed to be low.</td><td>1-2 years</td></tr>
</table>

* Limitations on participation will also be imposed in the fiscal year that the Specific misconduct is officially recognized.

6.3 Measures taken to researchers whose qualification is restricted for application to and participation in competitive fund system and base expenses

Qualification is restricted for application to and participation in this project by researchers whose qualifications are restricted for application to and participation in competitive fund systems related to MEXT; management grant to national university corporations, university joint use organization corporations and independent corporations under the ministry; base expenses including private school subsidies; or competitive fund systems related to other ministries during the period while the restriction is in effect.

6.4 Public announcement of misconducts

In the event that misconduct in research activities conducted under this program is discovered, information regarding the outline of the misconduct (name of researcher, name of program, name of affiliated institution, fiscal year of research, details of the misconduct and details of measures taken) will be disclosed in principle by JST. Moreover, details of the misconduct (the title of the case, type of misconduct the research area of the misconduct case, the name of the funding in regard to which misconduct occurred, the outline of the misconduct case, the measures taken by the research institution, the measures taken by the funding organization, etc.) will be disclosed in principle by MEXT. Furthermore, according to guidelines, once misconduct is determined as the outcome of an investigation, it will be the responsibility of the research institution to announce the results of the investigation; hence, we ask each institution to deal with the matter appropriately.

http://www.mext.go.jp/a_menu/jinzai/fusei/1360483.htm (Japanese)

7. Responsibilities of principal investigators and research institutions after selection (provisional selection)

7.1 About duty to complete education for research ethics and compliance

Researchers who participate in research issues of this project shall receive lectures on research ethics education for the prevention of misconduct in research activities required in “Guidelines for responding to misconducts in research activities” and on compliance education required in “Guidelines for management and audit of public research expenses in research organizations”.

During the process of concluding a contract research agreement after the adoption of proposed research issues, it is necessary for all researchers participating in research issues of this project including research representative and individual researcher to receive lectures on research ethics education and compliance education and submit a document to confirm that they understood the contents of the lectures.

7.2 Cooperation with reports, investigations and audits

Research Institutions shall cooperate by submitting requested reports to JST, and when JST investigates their accounting work, or when government audits are to be implemented.

8. Regarding management and auditing systems and responses to misconduct at research institutions

Control of JST research expenses and JICA project expenses

The institute has a responsibility to maintain an awareness that JST research expenses and JICA project expenses are provided by taxpayers, and, giving consideration to the items set out below, to administer them fairly, appropriately, and efficiently (including creating, implementing, and monitoring implementation of spending plans). The institute must also maintain familiarity with and appropriately manage the research expenses for the whole of the research team. The principal investigator and main research collaborator are required to give consideration to the research environment and the working environment and conditions for research participants who are members of their own group, particularly for researchers and others employed using research expenses provided under this program. Furthermore, the institute is required to facilitate surveys of accounting practices by JST/JICA, or government accounting audits, etc.

8.1 Regarding implementation of systems based on the "Guidelines on Management and Audit of Public Research Funds in Research Institutes (Implementation standards)"

In implementing the program research institutions must stringently observe the "Guidelines on Management and Audit of Public Research Funds in Research Institutes (Implementation standards)" (decided by the Minister of Education, Culture, Sports Science and Technology on February 15, 2007; revised February 18, 2014)

http://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm (Japanese)

There is a need of the research institutions to take responsibility, having implemented a system for managing and auditing public research funds, to make every effort to properly spend the contract research fund in line with the aforementioned guidelines. If the Ministry of Education, Culture, Sports, Science and Technology recognize the system of a research institution for managing and auditing as insufficient based on the investigation according to the guideline, there is a possibility that measures such as reduction of indirect expenses of competitive funding could be taken on the said institution.

8.2 About submission of "Self-evaluation Checklist for Implementation of Proper Systems" based on "Guidelines of Management and Audit of Public Research Funds in Research Institutes (Implementation standards)"

Each research institution* is obliged to regularly report to MEXT the circumstances of the implementation of its system for the management and auditing of public research funds using the "Self-evaluation Checklist for Implementation of Proper Systems" (hereinafter "the checklist"), and to respond to various investigations regarding the system implementation. (The implementation of research will not be approved without the submission of the checklist.)

* this is not only the research institution to which the Research Director is affiliated but also the research institutions to which any other Main Research Collaborator allotted research funds are affiliated.

In principle, research institutions commencing work on the program due to being newly selected and research institutions participating in a research team for the first time must, prior to commencing research (by the date of conclusion of a contract research agreement), in line with the format provided on the web pages below, submit the checklist using the Cross-ministerial R&D Management System (e-Rad system) to the Promotion Policy Division, Office of Research Funding Administration of the Ministry of Education, Culture, Sports, Science and Technology, Research Promotion Bureau. In the event that a checklist has been submitted in and after April2017 in a different opportunity, there is no need to submit the checklist again when concluding a new contract research agreement. For more details on how to submit the checklist please refer to the following web page on the MEXT website (only in Japanese).

http://www.mext.go.jp/a_menu/kansa/houkoku/1301688.htm

Submission of the checklist will require an environment in which it is possible to utilize the e-Rad system; institutions that have not yet completed the procedures for registering with e-Rad are therefore requested to do so at the earliest possible opportunity. Please note that it usually requires an interval of around two weeks for the registration process to be completed. Further details of the procedures please refer to the e-Rad system's website pages, indicated below, on preliminary preparations for using the system (only in Japanese).

http://www.e-rad.go.jp/shozoku/system/index.html

As the guidelines were altered on February 18, 2014, to include the perspectives of transmitting information and promoting greater sharing of it, research institutions are asked to provide coverage of the checklist on their websites and be enthusiastic in their transmission of information.
Where necessary, after the submission of the checklist research institutions may be asked to cooperate in on-site investigations regarding the state of the system implementation conducted by MEXT (including funding agencies).

8.3 Regarding implementation of systems based on the "Guidelines for Responding to Misconduct in Research Activities"

In applying to this funding program and conducting research activities, research institutions are required to adherence to the "Guidelines for Responding to Misconduct in Research Activities"(decided by the

Minister of Education, Culture, Sports, Science and Technology on August 26, 2014, hereinafter referred to as the "guideline").

http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm

If the Ministry of Education, Culture, Sports, Science and Technology recognize any defects in the situation of system preparation by research institutions based on an investigation according to the guidelines, there is a possibility that measures such as reduction of indirect expenses of competitive funding could be taken on the said institution.

8.3 Regarding submission of checklist on the status of activities based on the "Guidelines for Responding to Misconduct in Research Activities"

In applying to this funding program, research institutions* need to submit the "Checklist on the Status of Activities Based on the 'Guidelines for Responding to Misconduct in Research Activities'" (hereinafter referred to as the "checklist"). (The implementation of research will not be approved without the submission of the checklist.)

* this is not only the research institution to which the Research Director is affiliated but also the research institutions to which any other Main Research Collaborator allotted research funds are affiliated.

In principle, research institutions commencing work on the program due to being newly selected and research institutions participating in a research team for the first time must, prior to commencing research (by the date of conclusion of a contract research agreement), in line with the format provided on the web pages below, submit the checklist using the Cross-ministerial R&D Management System (e-Rad system) to Knowledge Infrastructure Policy Division, Office for Research Integrity Promotion, the Ministry of Education, Culture, Sports, Science and Technology, Science and Technology Policy Bureau. In the event that a checklist has been submitted in and after January 2016 in a different opportunity, there is no need to submit the checklist again when concluding a new contract research agreement. For more details on how to submit the checklist please refer to the following web page on the MEXT website (only in Japanese).

http://www.mext.go.jp/a_menu/jinzai/fusei/13745081374697.htm

Submission of the checklist will require an environment in which it is possible to utilize the e-Rad system; institutions that have not yet completed the procedures for registering with e-Rad are therefore requested to do so at the earliest possible opportunity. Please note that it usually requires an interval of around two weeks for the registration process to be completed. Further details of the procedures please refer to the e-Rad system's website pages, indicated below, on preliminary preparations for using the system (only in Japanese).

http://www.e-rad.go.jp/shozoku/system/index.html

9. Related laws and other considerations for implementing research

9.1 Security Export Control (Measures against the Leakage of Technology Internationally)

Many cutting-edge technologies are studied at research institutions. Universities in particular have seen an increase in the number of international students and foreign researchers due to internationalization, and there is an increasing risk of cutting-edge technologies and/or research materials/equipment being leaked or used for bad purposes such as the development and production of weapons of mass destruction. For this reason, in carrying out their various research activities, including the relevant contract research, research institutions are required to take organizational measures to ensure that research results that could be used for military purposes do not fall into the hands of people who could carry out fearful activities such as developers of weapons of mass destruction or terrorist groups.

In Japan there are export controls* based on the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) (hereinafter referred to as the "Foreign Exchange Act"). Accordingly, when attempting to export (provide) goods or technologies controlled by the Foreign Exchange Act, as a general rule it is necessary to obtain the license of the Minister of Economy, Trade and Industry. Be sure to comply with

the Foreign Exchange Act and other laws, ministerial ordinances, and notices issued by government ministries and agencies. Infringement of related laws and regulations during the course of research may result in temporary stoppage or termination of allocated research grants.

*Currently, Japan's security export control system mainly comprises two systems based on international consensus: (1) systems under which the license of the Minister of Economy, Trade and Industry is required as a general rule when attempting to export (provide) goods (technologies) with specifications/functions that are above certain criteria, such as carbon fibers or numerically-controlled machine tools (list control); and (2) systems under which the license of the Minister of Economy, Trade and Industry is required when attempting to export (provide) goods (technologies) to which list controls do not apply and certain requirements (use application requirements, end-user requirements, and notification (inform) requirements) have been met (catch-all control).

Not only the export of goods but also the provision of technology is subject to Foreign Exchange Act controls. When providing list control technologies to foreigners (non-residents), license to provide the information must be obtained in advance. "Technology provision" includes the provision of technology information such as blueprints, specifications, manuals, specimens, and prototypes by means of storage media such as paper, e-mail, CD, and USB memory, and also includes the provision of operational knowledge through technical guidance and skills training as well as technological support through seminars. There are also cases in which technology provision includes a large amount of technology exchange that could be subject to Foreign Exchange Act controls in the acceptance of international students and joint research activities.

Detailed information about security export control is provided on the website of the Japanese Ministry of Economy, Trade and Industry (METI) and other organizations. Please see the list below for details.

- 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 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
- Guidance on machine technology control in relation to security export control (for universities/research institutions)
  http://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf

9.2 Regulations concerning the use of biological/genetic resources

In addition to access to genetic resources in the partner country, when transferring samples, information, or materials* out of or into the partner country, consideration must be given to international rules (Convention on Biological Diversity, foreign exchange laws, security trade control laws, etc.) and to comply with the laws of the partner country and other countries involved. If you plan to use biological/genetic resources of foreign countries for your research, you must sufficiently know in advance about their ratification and municipal law status regarding relevant treaties such as the Cartagena Protocol on Biosafety, the Bonn convention, the Washington Convention, the Ramsar Convention, the Convention on Biological Diversity and so on. Also consider signing a material transfer agreement (MTA). Refer to the following websites for detailed information on the access to biological/genetic resources, the Convention on Biological Diversity, Nagoya Protocol, and International Treaty on Plant Genetic Resources for Food and Agriculture.

Further information: Ministry of Environment http://www.env.go.jp/nature/biodic/abs/
Further information: ABS Task Force Team for Academia http://www.idenshigen.jp/
Further information: Japan Bioindustry Association http://www.mabs.jp/index.html

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

9.3 Responsibility for the safety of researchers

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

9.4 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/

9.5 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.

9.6 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.

9.7 Ban on the military application of research results

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

9.8 Measures in the event of infringement of related laws and regulations

Research must be conducted in compliance with related laws and regulations, guidelines etc. In particular, attention needs to be paid to labor laws in the case of employing local staff, and to laws and regulations pertaining to land and construction in the case of developing or improving facilities, etc., among other laws and regulations. If related laws and regulations, guidelines etc., are violated in implementation of the research, the research may be discontinued, and return of research expenses may be required.

10. Retention of receipts for indirect expenses

Research institutions to which indirect expenses are allocated will be responsible for appropriate management of these costs. Receipts and other documentation proving that indirect costs have been used appropriately must be retained in an appropriate manner for a period of five years beginning from the fiscal year following the one in which the project terminates. Furthermore, for each financial year, the director of an institution to which indirect expenses are allocated must submit a report on the use of indirect expenses to JST through e-Rad by June 30 of the following year.

11. Carryover

In principle, research activities are to be pursued in accordance with annual research plans. However, in consideration of the occasional difficulty of using the entirety of a particular year's research budget and the waste and inappropriate accounting practices that can emerge from unreasonable efforts to use the entirety of a particular year's research budget, JST has adopted a simple carryover system that requires no troublesome application and approval procedures for carrying over to the following year budgeted funds that were not used because progress in implementing the research plan did not warrant them. The carryover system is for research institutes that have entered into multi-year agreements (universities, companies, and other organizations).

12. Cross-ministerial expenses categorization table

This program uses fixed categories of expenses based on the Cross-ministerial expenses categorization table designed for shared use by competitive funding programs. Refer to the Cross-ministerial expenses categorization table at the following link for information on the treatment of expenses.

http://www.jst.go.jp/global/itaku.html

13. Transferring funds to other budget categories

Transferring funds to other budget categories is possible without approval from JST if the amount transferred in each category in that fiscal year does not exceed 50% of total direct costs.

14. Research implementation until the last day of the fiscal year

To enable to conduct the research until the last day of the fiscal year, we have taken the following measures.

(1) Following project completion, research institutions and researchers will swiftly submit a project completion notification as a product of the project, and JST will check the project's completion and research outcomes, etc.

(2) The deadline for submitting the "Actual Performance Report (and Settlement of Balance) for Contract Research" will be May 31 of the next fiscal year.

(3) The deadline for submitting the "Actual Performance Report," the report on research results for this fiscal year, will be May 31 of the next fiscal year.

Research institutions should keep in mind that the measures above have been made to enable research to be conducted until the very last day of the fiscal year; thus, they should make efforts to prepare whatever necessary by that time.

15. Promotion of dialogue and collaboration with the public

Concerning the bilateral communication activities with the public, based on the decision (titled "Concerning the Promotion of Dialogue on in Science and Technology (Basic Policy)" (June 19, 2010, Minister of State for Science and Technology Policy, Diet members with special knowledge of the Council for Science and Technology Policy; in Japanese), it is considered essential for a research and development project. Which has been provided with a minimum of 30 million yen 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 "scientific and technological dialogue with the public;" 2) obtain the public's understanding and support; 3) maintain a standpoint on promoting science and technology jointly with the public; and 4) return the achievements in the development of science and technology to the public for the further development of the field in Japan. In addition, the Fifth-term Basic Plan for Science and Technology, as decided by the cabinet on January 22, 2016, requests the deepening of 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 viewpoints, an approach is requested to explain the contents and achievements of research activities to society and the public in the most widely understandable manner possible. To this end, researchers are requested to actively undertake the continual releases of research achievements, through lectures, symposia, and the internet, and full activities involving the participation of diverse stakeholders in a roundtable process.

"Concerning the Promotion of Dialogue on in Science and Technology (Basic Policy)"http://www8.cao.go.jp/cstp/output/20100619taiwa.pdf (Japanese)

"Fifth-term Basic Plan for Science and Technology"

http://www8.cao.go.jp/cstp/kihonkeikaku/5honbun.pdf (Japanese)

16. Promotion of the sharing of research equipment and apparatuses

"Introduction of New Research Equipment and Apparatuses Operating Integrally with Research Organization Management" (Advance Research Fundamentals Working Group, Scholarship Commission, November 2015) requests that "Research Equipment and Apparatus Sharing Systems by Research Organization Units" (hereinafter, referred to as "apparatus sharing systems") for universities, national research institutes, etc. be implemented. Moreover, "Reformation of Competitive Research Funds for Producing Sustainable Research Results (Interim Report)" (Investigative Commission for the Reformation of Competitive Research Funds, June 24, 2015) states that "Large equipment and apparatuses from competitive funds in principle shall be shared."

Given these intentions, at research institutes such as universities, national research institutes, etc., with respect to research equipment and apparatuses purchased for this program, —in particular, large and versatile systems—it is recommended that purchasing and sharing by aggregating multiple research funds, sharing equipment and apparatuses with other researchers in related fields in a way that does not obstruct the proposed research project, and further utilizing equipment and apparatuses purchased by other research funds, etc., occur. Note that balance needs to be maintained between management of instruments and facilities for joint use and use of instruments for achieving research objectives of relevant research issues.

It is also recommended that the sharing of research equipment and apparatuses across research organizations and institutions is promoted by actively partnering with the "Inter-University Network for Common Utilization of Research Equipments" operated by the Institute for Molecular Science, National Institutes of Natural Sciences, Inter-University Research Institute Corporation with the aim of facilitating the mutual use of equipment nationwide, as well as with the national university-wide sharing system that has been established through the "Equipment Support Center Development Project," etc. at all national universities.

○"Introduction of New Research Equipment and Apparatuses Operating Integrally with Research Organization Management"
(Advance Research Fundamentals Working Group, Scholarship Commission, November 2015)
http://www.mext.go.jp/component/b_menu/shingi/toushin/__icsFiles/afieldfile/2016/01/21/1366216_01_1.pdf (Japanese)

○"Reformation of Competitive Research Funds for Producing Sustainable Research Results (Interim Report)"
(Investigative Commission for the Reformation of Competitive Research Funds, June 24, 2015)
http://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm (Japanese)

○ Unification of Rules on Use of Competitive Funds (agreement of Liaison Conference among Relevant Ministries on Competitive Funds, March 31, 2015)
http://www8.cao.go.jp/cstp/compefund/siyouruuru.pdf

○"Inter-University Network for Common Utilization of Research Equipments"
https://chem-eqnet.ims.ac.jp/

17. Cooperation with the National Bioscience Database Center

The National Bioscience Database Center (NBDC)* hosts the Life Science Database Archive (http://dbarchive.biosciencedbc.jp), an archive that provides access to wholly downloadable datasets generated by researchers in Japan in the life sciences. Another hosted database is the NBDC Human Database (http://humandbs.biosciencedbc.jp), a platform for sharing various human data produced from human-derived specimens such as human genome data.

We ask all researchers to provide NBDC with their data for publishing on the Life Science Database Archive and the NBDC Human Database so that data results from your life sciences research may be used extensively for a long time.

Contact information

Japan Science and Technology Agency
The National Bioscience Database Center (NBDC)
Life Science Database Archive contact: dbarchive@biosciencedbc.jp
Human Database contact: humandbs@biosciencedbc.jp

18. Open Access and Data Management Plan

JST announced the basic policies for handling research achievements toward the promotion of open science in April 2017. The policies stipulate the basic concepts for allowing one's access to papers on research achievements and archiving, as well as on managing and disclosing research data.

Researchers who participate in this project are required to handle research results appropriately complying with this policy.

For details, please refer to the following website.
"JST Policy on Open Access to Research Publications and Research Data Management"
http://www.jst.go.jp/EN/about/openscience/index.html

19. Regarding the Results of JST's Development of Systems and Technology for Advanced Measurement and Analysis Program

JST implements a wide variety of research and development programs ranging from basic research to industry-academia collaborations and so on, and a great deal of these research results have been put into practical use already.

Among these, the development of systems and technology for advanced measurement and analysis program, which seeks to build and develop a basic research and development platform, has resulted in the practical use of many research and development tools.

It would be a pleasure if a researcher sees a research and development tool to be newly examined for the promotion of research and development.

Visit the Advanced Measurement website (http://www.jst.go.jp/sentan/en/index.html) for details.

20. Helping young post-doctoral researchers to secure varied career paths

The Ministry of Education, Culture, Sports, Science and Technology's basic policy for supporting diverse career paths for young research staff who have doctoral qualifications and are being employed with public research funds (December 20, 2011 Council for Science and Technology, Committee on Human Resources) (www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu10/toushin/1317945.htm) states that it is necessary to actively support public research institutions and research directors who are using public research funds to employ young research staff with doctoral qualifications in their efforts to secure diverse domestic and overseas career paths for these young research staff members. Given these intentions, when public research funds (i.e., competitive funds, other project research funds, and project-type education research funds) are used to employ junior doctoral researchers, when projects are adopted, active assistance to ensure that students can pursue various research career paths will be appreciated.

Further, considering the utilization of indirect costs for relevant initiatives will be appreciated.

21. Employment of research assistants (RA)

The 3rd, 4th, and 5th Science and Technology Basic Plan set a numerical target that "enabling 20 percent of doctorate course students to receive an amount equivalent to their living expenses" in order to attract quality students and business persons from Japan and overseas by increasing economic supports.

In "Reformation of Education in Graduated School Leading Future (Deliberation Summary)" (Work Group on Universities, Central Council for Education, September 15, 2015), it was requested that research assistant (RA) employment for (latter-stage) doctoral students be enhanced by various financial resources and that payment for employed (latter-stage) doctoral student RAs and TAs be standardized at a level approximating living expenses.

Given these intentions, the SATREPS program requests latter stage doctoral students be employed as RAs and TAs and that payment at an appropriate level for living expenses and at an appropriate level for hours worked be established.
The following considerations apply when employing a research assistant:

- Assumed to be a doctoral student (latter stage).
- Recommended payment is in the order of 2 million yen per year or 170,000 yen per month. Payments of this level can be handled as research expenses. Take care, however to avoid situations that could be interpreted as the payment being charged to SATREPS but used for simply studying or for research work other than that of the SATREPS program, which would be regarded as inappropriate (fraudulent) use of funds.
- Decisions regarding actual payment amounts and payment periods, etc. should be made by the research institution. JST does not place restrictions on payments above or below the recommended level.
- When research assistants are receiving payments from scholarship loans or other systems, there should be no impediment to the objectives of the scholarship or the research institution that the assistant is affiliated to. JST does not, however, place any systematic restriction on overlapping payments.

22. Registration at researchmap

researchmap (http://researchmap.jp/) is the largest directory of researchers in Japan, and. the information registered by the researcher on his/her research track record can optionally be made accessible to the Internet. Additionally, the compatibility of researchmap with other systems, which enables seamless access to its registered information, allows it to link with e-Rad and many university faculty databases, thereby saving researchers from repetitiously entering the same research record information on multiple applications and databases.

The information registered in researchmap is utilized effectively in national and other academic and science and technology policy formulation research, as well as being used for statistical objectives, so those implementing SATREPS are requested to be sure to register with researchmap.

23. Promotion of Diversity

JST Promotes Diversity!

JST promotes diversity by not only encouraging mutual respect between a diversity of human resources as they each demonstrate their abilities to the maximum, but also emphasizing the diversity of each individual's career and working style. JST generates innovation through diversity, resolving problems for future society and contributing to the strengthening of Japan's industrial competitiveness and spiritual enrichment. The United Nations Sustainable Development Goals (SDGs) also establish a range of targets for gender equality and other diversity promotion. JST aims to contribute to the achievement of this shared global objective, both in Japan and overseas.

Furthermore, with regard to the "Childbirth, Child-raising, Nursing Care Support System" (renamed the "Childbirth, Child-raising, and Other Support System" from FY2015), based on the voices of researchers who are users of this system, JST is contributing to the generation of innovation in Japan through the creation of an environment that enables researchers who have taken leave to return to research while also revising and improving the support system.

When inviting applications for new research projects and during the screening process, applications are also considered from the perspective of diversity. We look forward to researchers actively applying to join these programs.

Michinari HAMAGUCHI
President
Japan Science & Technology Agency (JST)

We Are Waiting for Your Application!

JST promotes diversity under the concept that diversity is a tool for understanding people who think differently from yourself and fusing your thinking with that of the other person to create new value. We believe that doing so will contribute to the resolution of not only domestic issues, but also common global issues. By working together with overseas organizations to promote diversity we aim to tackle key global societal challenges such as the United Nations Sustainable Development Goals.

While the role of women in diversity is very important, JST's diversity policies are also aimed at young researchers and researchers who have foreign citizenship. To ensure that each individual researcher is able to fully exercise their skills, JST provides continual support for researchers' childbirth, child-raising, and nursing care (for elderly relatives), and also endeavors to maintain a balanced membership composition in committees, etc.

We aim to create new value by building an environment where diverse individuals can strive together and learn from one another. To this end, we particularly welcome applications from female researchers, which have been relatively few in past years. We look forward to receiving proposals from a diverse range of applicants, including female researchers.

Miyoko O. WATANABE
Deputy Executive Director and Director of Office for Diversity and Inclusion
Department of Personnel
Japan Science and Technology Agency (JST)

JST is implementing supportive measures to assist researchers achieve balance between their research work and life events (gender equality expenses assistance that can be used to advance the R&D being carried out by the researcher in question or to reduce their financial burden) with the aim of enabling researchers to continue their R&D work without interrupting their careers due to a life event (childbirth, child-raising, nursing of elderly relatives, etc.) or in the case that the researcher must put their career on hold temporarily, enabling them to resume their R&D activities as soon as it becomes possible for them to do so and continue their career from that point onwards. JST also presents role models for female scientists. For details, please refer to the websites below.

JST's Diversity Activities: http://www.jst.go.jp/diversity/research/index.html (Japanese)

Q&A

For questions about the Cross-ministerial R&D Management System (e-Rad), including registration of affiliated research institutions or researchers, and instructions for use of e-Rad, visit the e-Rad portal site:

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

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: 12 projects were selected in FY2008, 20 in FY2009, 17 in FY2010, 10 in FY2011, 8 in FY2012, 10 in FY2013, 10 in FY2014,14 in FY2015, 14 in FY2016, and 10 in FY2017, giving a total of 125 international joint research projects(including projects in Infectious Diseases Control field). Details of these projects are given in the SATREPS brochure and at the following website:

http://www.jst.go.jp/global/english/kadai/index.html

Q: What are the main changes in the FY2018 Invitation for Research Proposals compared to the previous FY?
A: The main changes in the FY2018 Invitation for Research Proposals are listed at the following website:

http://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

For some countries, the website below also lists themes on which JICA considers research is needed, based on the circumstances of the countries:

http://www.jst.go.jp/global/pdf/researchneeds.pdf (Japanese)

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: 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).

http://www.jst.go.jp/global/itaku.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 1-10 have to be completed in Japanese?
A: In principle, Forms 1-10 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.

http://www.jst.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.

http://www.jst.go.jp/global/itaku.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

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 technical cooperation projects on the basis of official requests from the partner country and international commitments between the partner country and Japan. NGOs and simple private-sector companies without government ownership are not covered by the program in principle. However, the participation of private-sector companies and NGOs in the research is possible as partners collaborating with the partner country side research institution within the partner country, when the partner country side research institution is a government entity.

Q: Are international agencies able to participate in a project?

A: Regional international agencies in the developing country are not excluded from participating. However, pre-conditions include submission of an ODA request to the Japanese embassy by the formal route via the partner country government agency handling ODA and the partner country government agency responsible for facilitating operation of the international agencies. 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. Other pre-conditions include securing special privileges and immunities such as tax exemptions provided for the SATREPS program experts and machinery and equipment, etc. under regular technical cooperation projects, and securing the entity's own personnel and costs required to implement the joint research. Handling of intellectual assets also needs to be taken into account.

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.

Q: Why are clinical trials and medical practice not eligible for joint research? (Please give more details.)

A: Refer to the following JICA Policy.

(a) Clinical trials/clinical studies/clinical research

Clinical trials with the aim of development, manufacture, or sale of pharmaceuticals or medical devices, or clinical studies/clinical research that is invasive, or infringes privacy are not acceptable as JICA projects. It is however possible for JICA projects to include training, instruction, or counseling of workers (medical staff, etc.) involved in such activities.

(b) Handling of medical practices*

Medical practices are not acceptable as JICA projects (the reasons are that researchers are not sent abroad with the aim of conducting medical practices, are not licensed as clinicians in the host country, and it is not appropriate for JICA to take responsibility for medical practice).

* What is considered medical practice differs according to each country's circumstances. Even if a certain procedure is considered to constitute medical practice, approval may be granted for procedures such as blood sample collection, fecal examination, and measurement of body temperature or blood pressure after confirming conditions related to safety, responsibility, and other factors.

(c) Safety measures and ethical considerations for research projects

Research projects concerning health care in the partner country must comply with ethical guidelines in Japan and in the partner country. They must be assessed by an ethics committee in the partner country if necessary, and the safety of all persons directly or indirectly involved in the project, together with safety for the environment, must be secured before the project commences.

Appendix 1. Countries eligible for the SATREPS program

No.	Region	Name of Country
1	Asia	India
2		Republic of Indonesia
3		Kingdom of Cambodia
4		Democratic Socialist Republic of Sri Lanka
5		Kingdom of Thailand
6		Nepal
7		Islamic Republic of Pakistan
8		People's Republic of Bangladesh
9		The Democratic Republic of Timor-Leste
10		Republic of the Philippines
11		Kingdom of Bhutan
12		Socialist Republic of Viet Nam
13		Malaysia
14		Union of Myanmar
15		Republic of Maldives
16		Mongolia
17		Lao People's Democratic Republic
18	Middle East	Islamic Republic of Afghanistan
19		Republic of Iraq
20		Islamic Republic of Iran
21		Palestine Liberation Organization
22		Hashemite Kingdom of Jordan
23	Europe	Republic of Azerbaijan
24		Republic of Armenia
25		Republic of Albania
26		Ukraine
27		Republic of Uzbekistan
28		Republic of Kazakhstan
29		Kyrgyz Republic
30		Georgia
31		Republic of Kosovo
32		Republic of Tajikistan
33		Turkmenistan
34		Republic of Serbia
35		Bosnia and Herzegovina
36		Former Yugoslav Republic of Macedonia
37		Republic of Moldova
38		Montenegro

No.	Region	Name of Country
39	Africa	Republic of Angola
40		People's Democratic Republic of Algeria
41		Republic of Uganda
42		Arab Republic of Egypt
43		Federal Democratic Republic of Ethiopia
44		State of Eritrea
45		Republic of Ghana
46		Republic of Cape Verde
47		Gabonese Republic
48		Republic of Cameroon
49		Republic of The Gambia
50		Republic of The Guinea
51		Republic of Guinea-Bissau
52		Republic of Kenya
53		Republic of Cote d'Ivoire
54		Union of Comoros
55		Republic of Congo
56		Democratic Republic of the Congo
57		Democratic Republic of Sao Tome and Principe
58		Republic of Zambia
59		Republic of Sierra Leone
60		Republic of Djibouti
61		Republic of Zimbabwe
62		The Republic of the Sudan
63		Kingdom of Swaziland
64		Republic of Seychelles
65		Republic of Equatorial Guinea
66		Republic of Senegal
67		United Republic of Tanzania
68		Republic of Chad
69		Republic of Tunisia
70		Republic of Togo
71		Federal Republic of Nigeria
72		Republic of Namibia
73		Republic of Niger
74		Burkina Faso
75		Republic of Burundi
76		Republic of Benin
77		Republic of Botswana
78		Republic of Madagascar
79		Republic of Malawi
80		Republic of Mali
81		Republic of South Africa
82		Republic of South Sudan
83		Republic of Mauritius
84		Islamic Republic of Mauritania
85		Republic of Mozambique
86		Kingdom of Morocco
87		Republic of Liberia
88		Republic of Rwanda
89		Kingdom of Lesotho

No.	Region	Name of Country
90	Latin America	Argentine Republic
91		Antigua and Barbuda
92		Republic of Ecuador
93		Republic of El Salvador
94		Republic of Guyana
95		Republic of Cuba
96		Republic of Guatemala
97		Grenada
98		Republic of Costa Rica
99		Republic of Colombia
100		Jamaica
101		Republic of Suriname
102		Saint Vincent and the Grenadines
103		Saint Lucia
104		Commonwealth of Dominica
105		Dominican Republic
106		Republic of Nicaragua
107		Republic of Haiti
108		Republic of Panama
109		Republic of Paraguay
110		Federative Republic of Brazil
111		Bolivarian Republic of Venezuela
112		Belize
113		Republic of Peru
114		Republic of Bolivia
115		Republic of Honduras
116		United Mexican States
117	Pacific	Republic of Kiribati
118		Cook Islands
119		Independent State of Samoa
120		Solomon Islands
121		Tuvalu
122		Kingdom of Tonga
123		Republic of Nauru
124		Niue
125		Republic of Vanuatu
126		Independent State of Papua New Guinea
127		Republic of Palau
128		Republic of the Fiji Islands
129		Republic of the Marshall Islands
130		Federated States of Micronesia

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.

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.

http://www.jst.go.jp/global/koubo.html (Japanese)
http://www.jst.go.jp/global/english/koubo.html (English)

Form 1: Proposal

- 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.

Research field/area (Global-scale Environmental Issues, Low Carbon Society/Energy, Disaster Prevention and Mitigation, Bioresources)
* Circle the research field or area above that is the closest match for the proposed research project.
Please be sure to choose the correct research area when submitting the research proposal via e-Rad.

If the project also relates to other fields or areas, place a check in the appropriate box (or boxes) below.
(□Global-scale Environmental Issues, □Low Carbon Society/Energy, □Disaster Prevention and Mitigation, □Bioresources)

(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. **Make sure to use the same title as the counterpart's ODA technical cooperation project application.**
(b) Research period	____ years 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). 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 **all** researchers, including the name of institute, department/laboratory.
(g) Counterpart country	Give the name of the country in either Japanese or English. (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) * If responding in English, add a translation into Japanese (Max. 250 Japanese characters).
(j) Outline of project	(Approx. 120 words) * If responding in English, add a translation into Japanese (Max. 250 Japanese characters).

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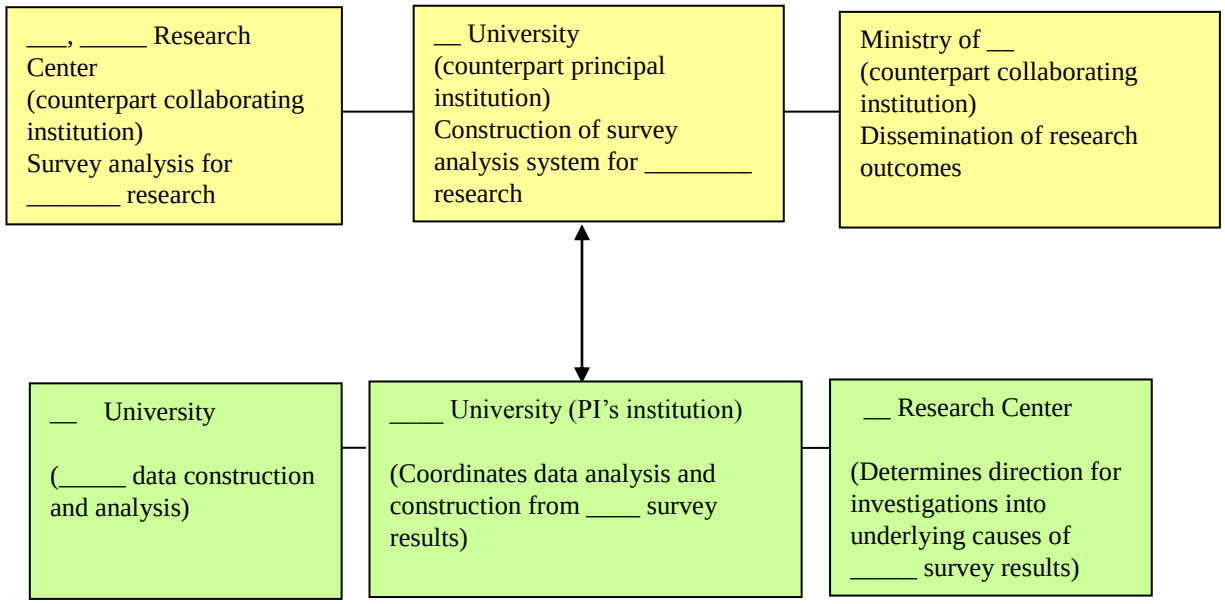
Implementation Structure Concept Diagram

Provide a diagram of the implementation structure for the research theme.
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.



Form 2: Research Theme Concept

1. Background to research

- 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 pages of A4 paper. To ensure impartiality, forms exceeding 12 pages will be considered non-compliant, and excluded from assessment. Use of small print or small figures/tables to fit within the 12 pages limit, or use of 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 20.)

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

2. Research objectives

Specify the objectives of the research initiative.

- Also specify how application of outcomes of this research initiative is envisaged—including anticipated scientific and technical development, creation of new industries, and contributions to society attributable to the project within 5-10 years of the project termination. Include the following perspective as far as possible.
  - Contributions to achieving 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, academia, and government, specify on Form 9 how the businesses involved envisage the project leading to application of outcomes, etc. Submit Form 9 together with the other forms.

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3. Research outcome targets

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.

http://www.jst.go.jp/global/koubo.html (Japanese)
http://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.)

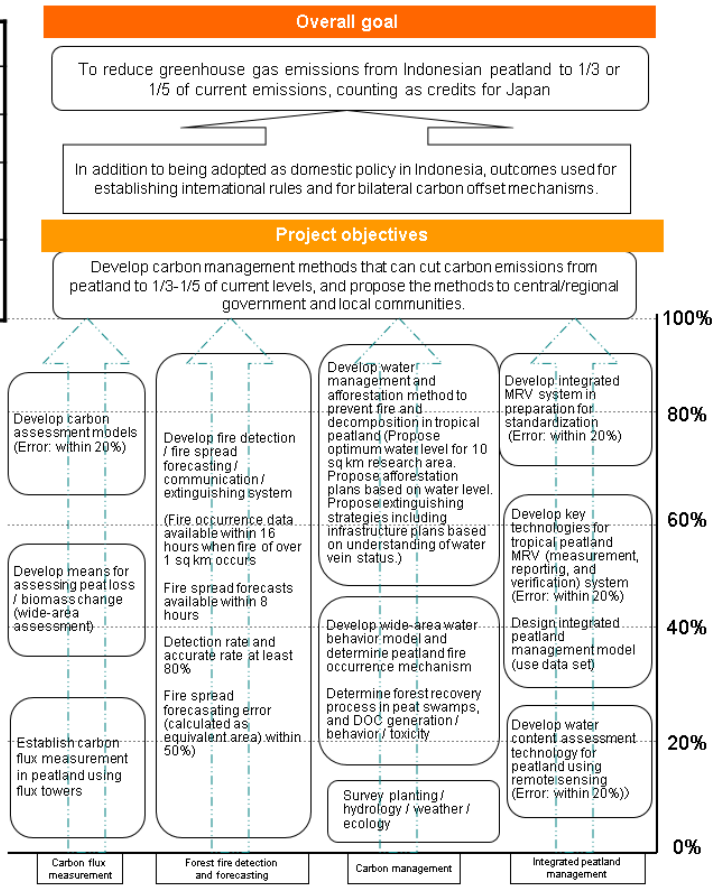
JST overall goal and project objectives, together with evaluation items for contingent outcomes (Example)

Target Outcomes Sheet (example)

Research project title	Wild Fire and Carbon Management in Peat-forest in ■■
Principal investigator (affiliated institution)	■■ ■ (■■■■■ ■■)
Research period	Adopted in 2018 (October 1, 2018-March 31, 2024)
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 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 - Commercial application of outcomes by Japanese companies
Development of science and technology	- Preservation of Indonesia's tropical forests (preservation of ecology / biodiversity) - Feedback to successor entity (Hyper)
Acquisition of intellectual property, international standardization, access to bioresources, etc.	- Fire detection system using satellites - Equipment for quantitative determination of carbon emissions - Development of weirs, methods for restoring forest - 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 - Understanding of carbon flux and carbon dynamics in tropical peatland - Understanding of water behavior mechanisms



The body text should specify the target outcomes (knowledge, technology materials, systems, recommendations, etc.) that this research is attempting to achieve, and give quantitative specifications (for functions, systems, economy, etc.). The items in the description should be consistent with those in the Target Outcomes Sheet, with explanations added where necessary.

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4. Research plans and implementation of plans (Technical cooperation project activity plan)

(1) Overall research activities and research plans (Use the form below)

Indicate the outline framework of a time schedule for achieving the research outcome targets set out in Section 3.“Research outcome targets”, giving research items and milestones (timing and judgment criteria for assessing the level of achievement of the research partway through the research period). Include plans for application of outcomes and for capacity development (developing organizational and individual capacity at Japanese and counterpart institutions; building external links).

- Describe currently-expected issues, together with solutions proposed for such issues in order to attain the research objectives set out in Section 2.“Research objectives”.

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

*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.

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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 item3						
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) Activity plan for application of outcomes

(3-a) Conditions necessary for application of research outcomes

- Specify the methodology for application of outcomes, proposed schedule up to and including application of outcomes, and also the means and targets for application, and issues to be overcome in applying the research outcomes.

(3-b) Activities that can be conducted within the research period for meeting the conditions for application of outcomes set out above, functions required at the partner country institution, and activity plan for the activities

(4) 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.

5. 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) Status of examination into handling of bioresources/intellectual property, etc.

- Give details of coordination with the counterpart institution regarding the ownership of rights to research outcomes, implementation of research outcomes, and incoming and outgoing material transfer, etc.

*Please take care to conduct proper management of intellectual property in order to ensure that research findings are thoroughly secured.

(5) 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

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.

Name (Researcher ID No.[*1])	Affiliated institution, departments, position	specialty, male/female	Age (Age as of April 1, 2018)	Effort[*2] (Proportion of time allocated)(%)	Research responsibility in project	Experience of working on SATREPS project (specify project)
__ ___ (XXXX XXXX)	____ University ____ Faculty ____ Department Professor	forestry science, male		__%	Overall management of the research, _____	
__ ___ (XXXX XXXX)	____ University Associate Professor	aquatic bioscience, female		__%	_____	
__ ___ (XXXX XXXX)	__Research Center Research fellow			__%	_____	
Researcher A (XXXX XXXX[*3])	____ University ____ Faculty ____ Department Post-doc		[*3]	__%	_____	

(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.)

[*1] 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.

[*2] 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.

[*3] 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	
Affiliated institution	
Department/Title	
Academic Background (University onwards)	(Example) 20__: Graduated from ___ University Faculty of ___ 20__: Completed Masters course in ____, ___ University ___ Graduate School (Advisor: ____Professor) 20__: Completed Doctoral course in ____, ___ University ___ Graduate School (Advisor: ____Professor)
Research background (Main professional appointments and research)	(Example) 19__-20__: Research Associate, __ University, Faculty of __ Researched _____ under Professor __ Since 20__: Researcher at ___ Research Center Conducting research into __ under Dr. __
Age at which retirement from current position is scheduled	_____ years of age

Form 4: 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)

<table>
<tr><td>Name</td><td colspan="2">(Give in alphabetic characters)</td><td>Nationality</td><td></td></tr>
<tr><td rowspan="3">Affiliated institution</td><td colspan="4">Japanese name: (omit if Japanese name does not exist)</td></tr>
<tr><td colspan="4">English name: (English name is essential)</td></tr>
<tr><td>Country</td><td></td><td>Position/title</td><td></td></tr>
<tr><td rowspan="3">Background</td><td>Highest level of education attended</td><td colspan="3">20__ (year): Graduated from __ University Faculty of ____</td></tr>
<tr><td>Highest degree earned</td><td colspan="3">20__ (year): PhD (__), __ University)</td></tr>
<tr><td>Main professional appointments and research, etc.</td><td colspan="3">Example:
19__-20__: Research Associate, ___ University, Faculty of _ __
Research into _____
20__-20__: Researcher, ___ University, Faculty of ___
Pursued research into _____</td></tr>
<tr><td>(For reference:) Other participating researcher(s) at same institution</td><td colspan="4">- For each researcher, give name, position/title, and role</td></tr>
<tr><td>(For reference:) Request for ODA technical cooperation submitted by counterpart institution</td><td colspan="4">- Describe as far as possible the particulars of the request for ODA technical cooperation to be submitted by the counterpart institution. When implementing joint research with a number of countries, describe as far as possible the particulars of the requests for ODA technical cooperation to be submitted by the counterpart institution in each country.</td></tr>
</table>

2. Main researcher of collaborating institution in partner country (provide this information for each of the collaborating institutions)

<table>
<tr><td>Name</td><td colspan="2">(Give in alphabetic characters)</td><td>Nationality</td><td></td></tr>
<tr><td rowspan="3">Affiliated institution</td><td colspan="4">Japanese name: (omit if Japanese name does not exist)</td></tr>
<tr><td colspan="4">English name: (English name is essential)</td></tr>
<tr><td>Country</td><td></td><td>Position/title</td><td></td></tr>
<tr><td rowspan="3">Background</td><td>Highest level of education attended</td><td colspan="3">20__ (year): Graduated from __ University Faculty of ____</td></tr>
<tr><td>Highest degree earned</td><td colspan="3">20__ (year): PhD (__), __ University)</td></tr>
<tr><td>Main professional appointments and research, etc.</td><td colspan="3">Example:
19__-20__: Research Associate, ___ University, Faculty of ___
Research into _____
20__-20__: Researcher, ___ University, Faculty of ___
Pursued research into _____</td></tr>
<tr><td>Role in joint research</td><td colspan="4">- Describe the researcher’s specific role in the joint research</td></tr>
<tr><td>(For reference:) Other participating researcher(s) at same institution</td><td colspan="4">- For each researcher, give name, position/title, and role</td></tr>
</table>

Form 5: Research Expense Plan

- 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 24-25 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 pages 25-27.
- 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 (FY2019)	Year 2 (FY2020)	Year 3 (FY2021)	Year 4 (FY2022)	Year 5 (FY2023)	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). 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).

*2 Indirect expenses up to a maximum of 30% of the amount of direct expenses can 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 group

Principal investigator name (Affiliation/position): _____ _____ (__ University __ Research Dept.)

	Provisional selection period	Year 1 (FY2019)	Year 2 (FY2020)	Year 3 (FY2021)	Year 4 (FY2022)	Year 5 (FY2023)	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 group

Name of lead joint researcher (Affiliation/position): _____ _____ (__ University __ Research Dept.)

	Provisional selection period	Year 1 (FY2019)	Year 2 (FY2020)	Year 3 (FY2021)	Year 4 (FY2022)	Year 5 (FY2023)	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.

3. (For reference:) Counterpart institution's research expenses plan

		Year 1	Year 2	Year 3	Year 4	Year 5	Total (Local currency and Yen equivalent)
Costs covered by partner country side (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 (Costs which cannot be covered by the partner country and will be submitted to JICA for funding application.)							Local currency Yen equivalent _____,000 yen (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 6: 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[1)]	Research project title	(1) Research expenses[2)] (entire term) (2) " (FY2019) (3) " (FY2018) (thousand yen)	Research period	Role[3)] (Principal/ Co-researcher)	Effort[4)] (Proportion of time allocated)%	Status (In progress / Under application)	Differences from/relation to proposed research project
SATREPS (This proposal)	_____	(1) 150,000 (thousand yen) (2) 30,000 (thousand yen) (3) 30,000 (thousand yen)	2018-2023	Principal	30%	Under application	
Grants-in-Aid for Scientific Research (S) (Kakenhi Kiban Kenkyu (S))	_____	(1) 100,000 (thousand yen) (2) 20,000 (thousand yen) (3) 20,000 (thousand yen)	2017-2022	Principal	30%	In progress	_____

SATREPS	_____	(1) 100,000 (thousand yen) (2) 25,000 (thousand yen) (3) 20,000 (thousand yen)	2014-2018	Co-researcher	10%	In progress	_____
Funds for Integrated Promotion of Social System Reform and Research and Development	_____	(1) 32,000 (thousand yen) (2) 8,000 (thousand yen) (3) 8,000 (thousand yen)	2018-2021	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 (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[1)]	Research project title	(1) Research expenses[3)] (entire term) (2) " (FY2019) (3) " (FY2018) (thousand yen)	Research period	Role[2)] (Principal/Co-researcher)	Effort[4)] (Proportion of time allocated)%	Status (In progress / Under application)	Differences from/relation to proposed research project
SATREPS (This proposal)	_____	(1) 40,000 (thousand yen) (2) 8,000 (thousand yen) (3) 8,000 (thousand yen)	2018-2023	Co-researcher	10%	Under application	
SATREPS	_____	(1) 80,000 (thousand yen) (2) 30,000 (thousand yen) (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) (2) 25,000 (thousand yen) (3) 20,000 (thousand yen)	2014-2018	Principal	10%	In progress	_____

Funds for Integrated Promotion of Social System Reform and Research and Development	_____	(1) 32,000 (thousand yen) (2) 8,000 (thousand yen) (3) 8,000 (thousand yen)	2016 -2019	Co-researcher	5%	In progress	_____

Form 7: Contact Information for PI and Affiliated Institution

- The contact information for the principal investigator will be used during the assessment of the proposal. Please make sure that the information is up to date. If the principal investigator is unavailable, the administrative contact will be contacted instead.

<table>
<tr><td rowspan="8">Principal investigator</td><td>Name</td><td></td><td>Date of birth</td><td colspan="2">19__ (year) __ (month) __ (day)
(Age: years)
(Age as of April 1, 2018)</td></tr>
<tr><td>Researcher ID No.</td><td colspan="2">(e-Rad Researcher ID No.)</td><td>Male/female</td><td></td></tr>
<tr><td>Institution/ affiliated dept.</td><td colspan="4"></td></tr>
<tr><td>Position/title</td><td colspan="4"></td></tr>
<tr><td>Affiliated institution code</td><td colspan="4">(e-Rad code for affiliated institution)</td></tr>
<tr><td>Address</td><td colspan="4">Postcode:
Address:</td></tr>
<tr><td colspan="3">TEL</td><td colspan="2">FAX</td></tr>
<tr><td colspan="5">E-mail:</td></tr>
<tr><td rowspan="4">Principal investigator's institution administrative contact</td><td>Contact</td><td colspan="2"></td><td>Position/title</td><td></td></tr>
<tr><td>Institution/ affiliated dept.</td><td colspan="4"></td></tr>
<tr><td rowspan="3">Administrative contact information</td><td colspan="4">Postcode:
Address:</td></tr>
<tr><td colspan="3">TEL.</td><td colspan="2">FAX.</td></tr>
<tr><td colspan="5">E-mail:</td></tr>
</table>

Form 8: 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)

Is the principal investigator expected to reach retirement age (or similar) during the duration of the project?	If the answer to this question is YES, please describe how your institution will ensure the continuity of the research implementation structure.
(YES / NO)	

Form 9: Plans by Private-Sector Corporations, etc.
(To be completed by all Japan-side businesses participating in the project)
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, _____ (company) will implement as following.

Company official of participating business (having authority concerning the content of this document):
Signature: _____
Name: _____
Company: _____
Position/title: _____

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 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
- (2) Benefits of cooperation
- (3) Development risks
- (4) Post-research utilization of developed technology, etc.

II. Practical Application
- (1) Method for application of outcomes
- (2) Roadmap and schedule for application of outcomes
- (3) Impact on other countries, including the partner country and Japan
- (4) 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 partner country

1	Regarding the project name and research plans (overall plans including implementation of research in either Japan or the partner country), have you jointly examined the content of the plans in accord with the intent of the SATREPS program and of the research area for which the project is proposed, and reached broad agreement with the partner country researchers?	YES NO
2	An ODA request needs to be submitted to the Japanese government by the partner country side via the government agency handling ODA. Have you confirmed that the partner country researchers will make those arrangements by the domestic deadline in the partner country?	YES NO
3	Have you confirmed the details of the research proposal and ODA request together with the partner country researchers in the light of understanding that (1) ODA support is provided through the framework of a technical cooperation project, (2) no financing is provided to the counterpart institution, and (3) some expenses are subject to the principles of the recipient country's responsibility to shoulder expenses?	YES NO
4	Have you confirmed the partner country researchers understand that the SATREPS program is not simply a technology transfer project; it is a joint research project with the aim of acquiring new knowledge and technology?	YES NO
5	Are you considering the roadmap for future application of outcomes on the basis of policies and views of partner country government agencies and the private sector as well as the partner country research institution?	YES NO
6	Have you confirmed that all institutions in the partner country have agreed to apply for this program, that researchers from the partner country understand that participation in this program requires an organizational response by the research institution(s) in the partner country, and that the aforementioned researchers are working to take the required actions?	YES NO

Status of coordination with joint researchers in Japan

7	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 NO
8	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 NO

Status of coordination with affiliated institution

9	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 8)?	YES NO

10	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 NO
11	Have you completed a research ethics training program (including CITI: CITI Japan e-learning program) at your institution, or a CITI program in a JST program? If not, will you complete the Digest Version of the CITI program before submission of research proposals and give Course Completion Report Number to JST?	YES NO

Status of coordination with principal investigator's other work

12	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 NO

Status of coordination with overseas diplomatic missions

13	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 details of your proposal?	YES NO

Security measures

14	Are you checking the security situation and travel information for the partner country and domestic locations where research will be conducted? 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 (http://www.anzen.mofa.go.jp/) and other sources of information to check foreign travel and security information etc.	YES NO

Counterpart institution implementation structure, etc.

15	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? 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.	YES NO
16	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? 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.	YES NO
17	Is the research staff sufficient (in terms of both abilities and numbers) for conducting joint research? 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.	YES NO

18	Has sufficient budget been acquired for the joint research? (Do the partner country principal research institution and other institutions involved understand that SATREPS does not provide funding from Japan?) 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.	YES NO
19	Has the infrastructure (facilities/machinery and equipment) needed for implementing joint research been put in place at the partner country principal research institution? 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.	YES NO
20	Have you confirmed coordination with and allocation of functions between the counterpart institution's overseeing agency and the other government agencies involved? Explanation: The participation of the supervising agency and the other government agencies involved is important for ensuring the acquisition of a budget 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.	YES NO

Provision of machinery and equipment

21	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? (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.	YES NO
22	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? 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.	YES NO N/A
22	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? 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.	YES NO

Development or improvement of facilities

23	Are you taking account of points requiring special attention when the development or improvement of facilities is included? 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	YES NO N/A

	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.	

Application of outcomes

24	Has a clear roadmap been produced as a practical plan for application of outcomes? 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.	YES NO
25	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? 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.	YES NO

Other Japanese projects in the same field

26	Have you confirmed whether any other Japanese aid projects (JICA projects, etc.) have been implemented or are being implemented in the same field? 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 account, and if circumstances warrant, consider adjusting the timing or content of the proposal.	YES NO

Projects backed by other donors in the same field

27	Have you confirmed whether any other aid projects have been implemented or are being implemented in the same field but backed by other donors? 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.	YES NO

Contribution to SDGs

28	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. (Reference: http://www.un.org/sustainabledevelopment/sustainable-development-goals/)		

Appendix 3. Submitting application via e-Rad

Appendix 3 is only available in Japanese. Before submitting an application, applicants who do not read Japanese are expected to familiarize themselves with the content with the assistance of a research collaborator or member of their institute's staff who is proficient in Japanese.

Inquiries should preferably be made by email, except when urgent.
Updated information will be posted on the SATREPS research proposal website.
http://www.jst.go.jp/global/english/koubo.html

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