

FY2016

**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, 2015**

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Notes for FY2016 Research Proposals

This invitation for research proposals is for proposals that will be implemented under the government's FY2016 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

FY2016 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.

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 26, 2015

2. Submission of request for ODA technical cooperation

The SATREPS program is linked with ODA projects. In addition to submitting a research proposal to JST, it is necessary to liaise sufficiently with the researchers in the other country on the details of the joint research, and is also necessary that the counterpart research institute submits an official request for ODA technical cooperation to Japan's Ministry of Foreign Affairs (MOFA) via the ministry or agency in the recipient country responsible for ODA and the local Japanese embassy. The deadline for submitting the official request for ODA technical cooperation is also 12:00 noon (Japan time) on Monday October 26, 2015.

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.

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 issues¹ with an objective of future utilization of research outcomes². 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.

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 Fourth Science and Technology Basic Plan (approved by the Japanese Cabinet in August 2011) includes Japan's aims regarding its role in dealing with global issues. It states how the country will take a leading role in working to resolve critical issues occurring on a global scale, including global warming, large-scale natural disasters, and emerging and re-emerging infectious diseases, and how it will actively work through international coordination and cooperation, making use of its experience and achievements, the intellectual property that it has developed, and its creativity. Specifically, Japan will form partnerships with and cooperate with universities, public research institutions, business, and also with foreign and international organizations to work on research and development to find solutions to global issues. In addition, it needs to encourage the deployment of the research outcomes in Japan and in other areas around the world, and take a lead in securing the agreement of the international community. At the same time as tackling global issues, in order to support self-reliant, sustainable development in developing countries in areas such as Asia and Africa, Japan needs to provide assistance in terms of applying and transferring technology from Japan, and there needs to be collaboration between universities and research institutions in Japan and such developing countries, conducting joint research with the aim of developing and utilizing new technologies, and gaining new knowledge, which will also improve overall capabilities at universities and research institutions in the collaborating country and raise science and technology standards in both countries.

The Fourth Basic Plan states that in order to overcome the serious issues facing Japan or the whole world, the government should promote research and development (R&D) and other activities comprehensively and

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.

systematically with the participation of various organizations in industry, academia and government through a cross-sectional approach and by coordinating activities developed by each of these organizations, including basic research, application, development, industrialization, and commercialization, so that such efforts lead to new value creation.

Implementation of the government’s basic plan includes strongly promoting career development, and training personnel to ensure the availability of human resources capable of working in a range of fields both in Japan and overseas, of playing a front-line role in the world, and of leading the next generation. Japan states in the plan that it will step up initiatives that will enable the leaders of the next generation to launch themselves into the world of science and technology innovation full of dreams and hopes for the future. Through international collaborative research, Japan is also able to develop its own human resources for dealing with globalization.

The FY2016 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, acceptance of foreign researchers, 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 center facilities and the development of human resources through joint research activities will make it possible to develop self-reliant, sustainable research systems.

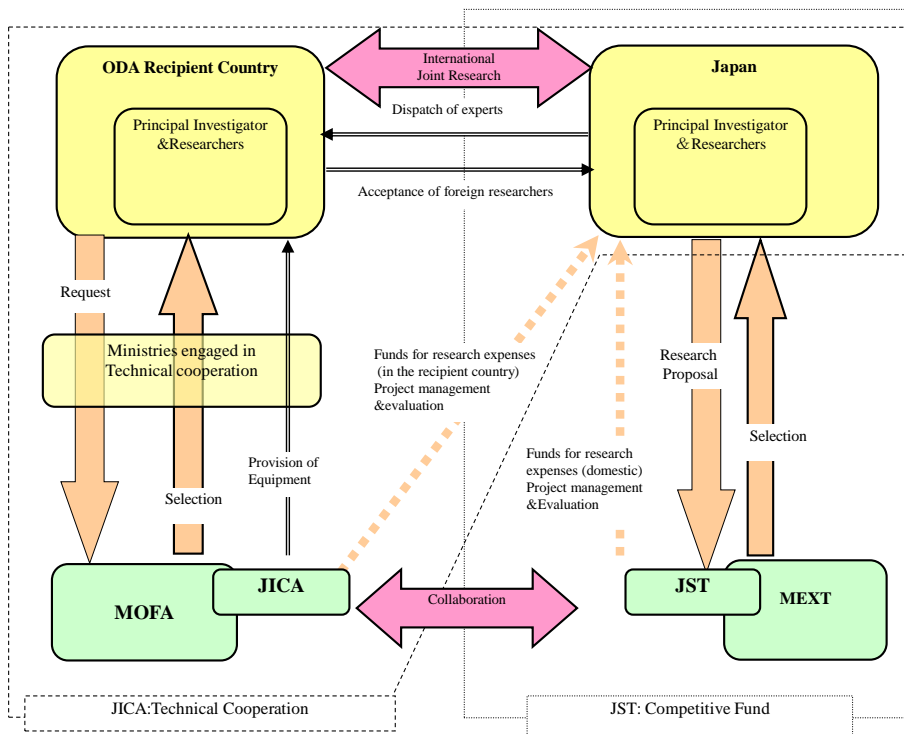


Figure 1. SATREPS Program Structure

(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 program officers (PO) 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 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. (See Figure 2.)

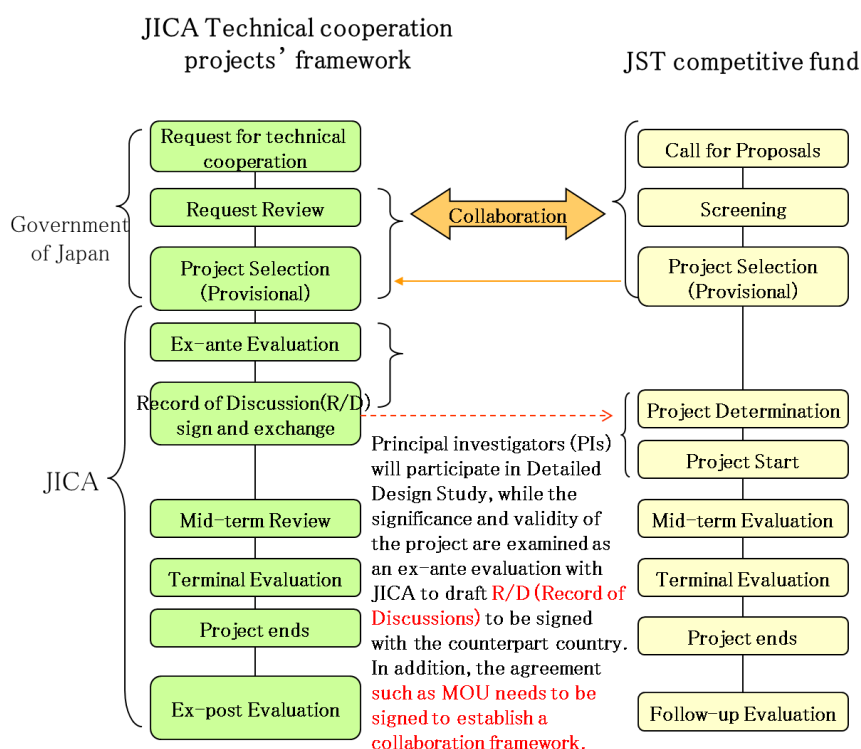


Figure 2. SATREPS Program Flow

(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 Memorandum of Understanding (MOU) 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 FY2016). 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 reasons³ 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.

(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 contract⁴). 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")⁵ ⁶.

³ 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.

⁴ 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.)

⁵ 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.

⁶ 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.

(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 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 4th Science and Technology Basic Plan (August 19, 2011, Cabinet decision; in Japanese)

<http://www8.cao.go.jp/cstp/kihonkeikaku/4honbun.pdf>

FY2013 Action Plan for the Implementation of Important Science and Technology Policy Measures (July 19, 2012, Minister of State for Science and Technology Policy, Diet members with special knowledge of the Council for Science and Technology Policy; in Japanese)

http://www8.cao.go.jp/cstp/budget/h25ap/h25ap_honbun.pdf

Policy for the Allocation of Resources, Including the Science and Technology Budget (July 17, 2014, Council for Science and Technology Policy; in Japanese)

<http://www8.cao.go.jp/cstp/budget/houshin.html>

Comprehensive Strategy on Science, Technology and Innovation (June 19, 2015, Cabinet Decision)

<http://www8.cao.go.jp/cstp/sogosenryaku/2015/honbun2015.pdf> (Japanese)

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

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)
Bioresources (1 research area)			Funding split: JST (Contract research expenses): Approx. 36 million yen per year (Approx. 180 million yen over 5 years)
Disaster Prevention and Mitigation (1 research area)			JICA (ODA project expenses under the technical cooperation framework): Approx. 60 million yen per year (Max. 300 million yen over 5 years)

* The provisional period is the period before the R/D and MOU 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/030120150909.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 (Deadline for ODA applications to reach MOFA is the same)

12:00 noon (Japan time) on Monday October 26, 2015 (applications received after the deadline will not be accepted)

[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	Wednesday September 9, 2015
Applications deadline (Deadline for ODA applications to reach MOFA is the same) ⁷	12:00 noon (Japan time) on Monday October 26, 2015 (applications received after the deadline will not be accepted)
Document screening	Mid November 2015 to Mid December 2015
Notification of document screening results	Mid February 2016
Interviewing for selection	Late February to Late March 2016
Provisional selection and notification ⁸	Mid May 2016 onwards, after JST research budget approval
Start of research	May 2016 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 FY2016 (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)

⁷ 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.

⁸ 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

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 outlined below.

Eligible research fields and areas

Research Fields	Research Areas
Environment and Energy	1. Research contributing to the resolution of global-scale environmental issues
	2. Research contributing to advanced energy systems for low carbon society
Bioresources	3. Research contributing to sustainable utilization of bioresources
Disaster Prevention and Mitigation	4. Research on disaster prevention and mitigation measures attuned to the needs of developing countries

* 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/030120150909.html>

(1) Environment and Energy

Research Area 1: Research contributing to the resolution of global-scale environmental issues

The development of technologies and dissemination of research results worldwide, not just to the country involved, are extremely important in solving global environment and energy issues caused by factors such as climate change, population increase, population overconcentration in large cities, overproduction, and overconsumption. Japan's Development Cooperation Charter, fixed by Cabinet decision on February 10, 2015, lists "Building a sustainable and resilient international community through efforts to address global challenges" as one of the priority issues, and asserts the need for Japan to address challenges including: actions against climate change including adaptation to adverse effects of climate change; the sustainable use of resources from forests, farmlands, and oceans; promotion of a sound water cycle; environmental management and other environmental-related initiatives; sustainable access to resources and energy.

It is not enough just to forecast and mitigate climate change. We also have to reduce the risk by combining this approach with adaptation. Moreover, in order to deal with future population growth, concentration of populations into cities, and urban environment changes due to increased production and consumption, we also need to research systems and develop key technologies for planning, maintaining, and building urban and social infrastructure in such regions. Furthermore, we need to conduct research into systems for continued, sustainable production and consumption of resources.

Research proposals for FY2016 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, including bioremediation
- 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

As population increase and economic growth continue around the globe, it is extremely important to achieve a low carbon society as part of pursuing sustainable development.

During the G7 Summit at Schloss Elmau in June 2015, the G7 leaders, mindful of the global goal to hold the increase in global average temperature below 2 °C, declared that they "support sharing with all parties to the UNFCCC (United Nations Framework Convention on Climate Change) the upper end of the latest IPCC (Intergovernmental Panel on Climate Change) recommendation of 40 to 70 % reductions [in greenhouse gas emissions] by 2050 compared to 2010." Japan had already established its "Action Plan for

Achieving a Low-Carbon Society" in July 2008 and is currently implementing measures toward building a Low-Carbon Society. On June 19, 2015, Cabinet approved the Comprehensive Strategy on Science, Technology and Innovation 2015. This positions the implementation of a clean and economic energy system as the first major policy challenge for resolving economic and social issues. Achieving these objectives requires not only the involvement of advanced nations, but also that of developing countries. 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 FY2016 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, wind wave, geothermal, biomass, etc.) (Subjects relating to biomass are acceptable if a logical explanation can be given of the sustainability of the sources of raw materials, energy balance, carbon reduction, and feasibility of implementation, including 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 utilization of bioresources

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.

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 was established by international agreement, with its 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.

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 FY2016 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 measures attuned to the needs of developing countries

Natural disasters in developing countries have many aspects in common with those experienced in Japan in the past. Japan is a leader in the field of natural disaster prevention, and there are many possibilities for application of the knowledge accumulated in Japan to date. For Japan's benefit, too, it is hoped that further advancements will be made in technology such as earthquake and tsunami early warning systems and high-precision weather forecasting. To achieve this, it will be important not only to gather observation data obtained in Japan and apply it to research and development here, but to also adopt an integrated and organized approach to advancing research and development within a broader global framework.

The Great East Japan Earthquake of March 2011 caused extensive damage to Japan. In the "Basic Policy on Reconstruction Following the Great East Japan Earthquake" (first enacted in July 2011 by the Reconstruction Headquarters in response to the Great East Japan Earthquake), Japan states its intention to strongly promote international cooperation so that the knowledge it obtained and lessons it learned from the earthquake and restoration process can be used to international benefit. It also indicates that it will carry out detailed investigative research, including international joint research, in order to help prevent the occurrence of natural disasters in the future. At the Third UN World Conference on Disaster Risk Reduction in March 2015, The Sendai Framework for Disaster Risk Reduction 2015-2030, which was adopted as a policy for enhancing efforts to strengthen disaster risk reduction (DRR), included as a guiding principle that developing countries need support through technology transfer in addition to finance and capacity building. Also at the Third Conference, Japan made a voluntary commitment in the form of the Sendai Cooperation Initiative for Disaster Risk Reduction, in which the government committed to clearly position DRR in the post-2015 development agenda, and to mainstream disaster risk reduction, introducing the DRR perspective in all development policy and planning, and investing in DRR. In addition, with regard to DRR cooperation, the government committed to contribute to international society by using Japan's knowledge and technology in forms appropriate for local circumstances.

To achieve social infrastructure that can provide safety and security, and to construct disaster-resilient communities and cities in developing countries, it is necessary to collaborate with developing countries in research designed to produce outcomes that can be applied to the benefit of society with particular attention to the needs of developing countries. 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, earthquakes, flood damage, traffic and transportation accidents, and damage to social infrastructure. It is important to take an integrated perspective that covers disaster occurrence, forecasting and countermeasures, including analysis and explication of disaster mechanisms, validation of existing disaster risk reduction measures, verification of approaches to risk communication, etc.

Research proposals for FY2016 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 future 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. This does not necessarily have to be achieved within the research period; however, the idea to return the outcomes expected in the research plan to society should be clearly defined, such as by outlining the direction for the partner country's future activities, or for deployment to other regions or markets.
- 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 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. From that perspective, proposals incorporating partnerships with corporations (industry-academia-government collaboration⁹) to work with the outcomes 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.)

□ 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 welcome. Research projects extending over several countries need to ensure that the ODA applications from each country are submitted by the deadline. If the documents are not submitted by all countries, the whole application is judged to be incomplete and excluded from selection. It is also necessary to have a signed R/D from all associated countries in order for the project to start.

□ Proposals 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.

□ 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.

□ 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 FY2015 will be reviewed based on viewpoints such as whether essential 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.

□ 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 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?

⁹ For the purposes of this program, entities participating as "industry" players have businesses incorporated in Japan.

- 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 (obstacles from a procurement perspective, structure for maintenance and management after the project finishes, 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 FY2016 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 institution¹⁰, be able to fulfill the duties as principal investigator for the international joint research project, and be able to

¹⁰ "Japanese research institutions" refers to universities, independent administrative institutions, public-sector research and development institutes, public-service corporations, or private-sector

engage in the international joint research from start to finish. The application should be written by the principal investigator in person.

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, provision of machinery and equipment, acceptance of trainees), reporting regularly to JST/JICA, submitting to JST/JICA's joint 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 2016).

- 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.

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.

- 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 MOU 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. Concerning the Agreement with JICA, accounting operations must be handled appropriately in accordance with the project contract and the project contract guidelines stipulated by JICA (including reporting to JICA as required).

(3) Research institutions, as the bodies which implement ODA technical cooperation, shall be required to provide support for activities (e.g. procedures to request payment of funds that have been awarded to the principal investigator's institution) in accordance with the Agreement, project contract, and R/D, etc. with JICA. Only the principal investigator's institution will sign the Agreement with JICA; 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 accounting operations appropriately in accordance with the project contract and the project contract guidelines 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 Memorandum of Understanding (MOU) with the research institution in the partner country regarding the international research collaboration. The MOU 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.¹¹ A draft of the document should be checked by JST before signing. It is best to sign and exchange MOU 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 MOU 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).

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 (MOU, etc.) to ensure swift implementation of the international joint research project after the R/D and other agreements are signed.

¹¹ "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.

This coverage only extends to research expenses incurred by the Japanese team for the purpose of preparation for the international joint research activities.

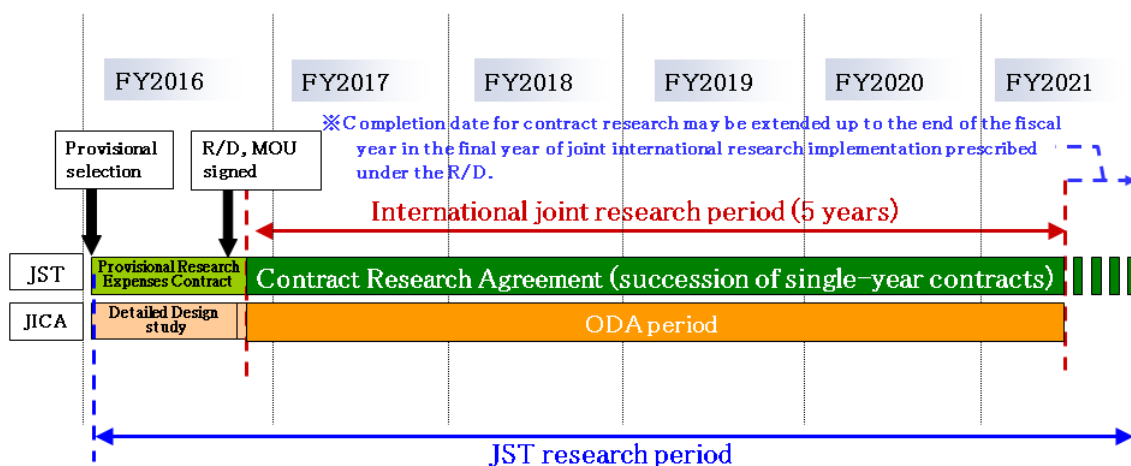


Figure 3. Extent of Research Period (5-year project)

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 36 million per year (and not exceed a total of JPY 180 million for a five year project), including indirect expenses and overhead.

The amount is a rough indication, and assumes the approval of the FY2016 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.) are shouldered by JICA (travel expenses to invite researchers to Japan from the developing country shall also be the responsibility of the 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.).¹² 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.

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.

¹² 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). 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.

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, Program Officers, and external experts.

2. Program Officers (PO)

Each of the Program Officers 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 Program Officer 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 Program Officer 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 MOU (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 Program Officer. The Program Officer 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, Program Officers 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.)

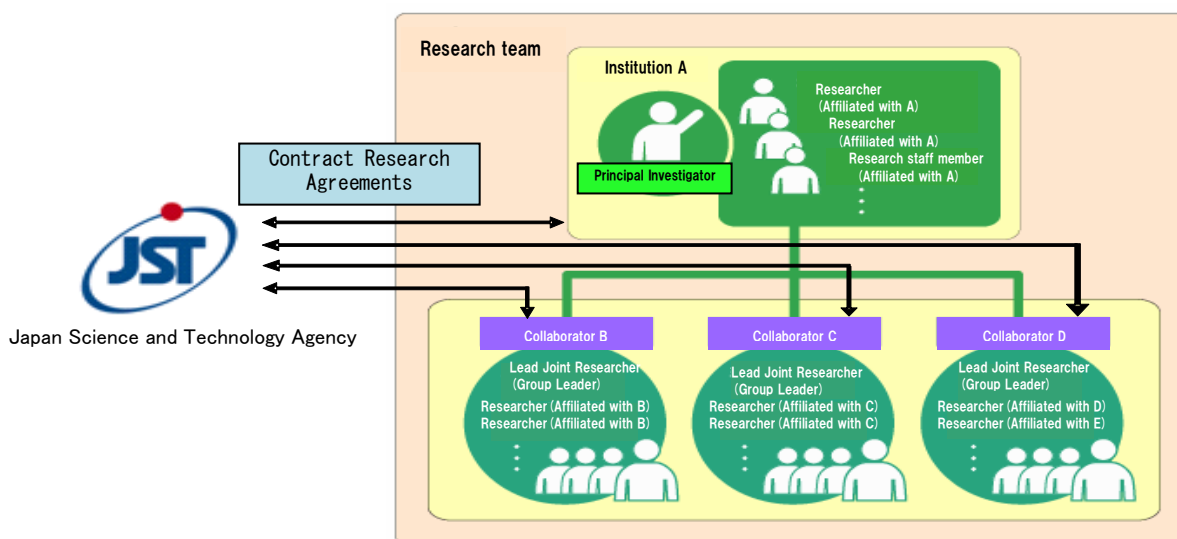


Figure 4. Contract Research Agreements with JST

(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 1954¹² and at the same time started providing development aids. Japan has been providing economic and technical cooperation to developing countries ever since.

The Japanese government sets forth its philosophy on ODA, the principle of ODA implementation and the framework for planning and implementing its ODA policy in its "Development Cooperation Charter". 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 produce 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 country. Then, the Embassy of Japan forwards the request form with other documents to the

¹² 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.

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 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.)

All requests for cooperation regarding the SATREPS program for fiscal year 2016 must be received by Japan's Ministry of Foreign Affairs (MOFA) in Tokyo no later than 12:00 noon (Japan Time) on Monday October 26, 2015.

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 FY2015, a country wishing to apply for project selection for FY2016 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.

In applying (i.e. submitting a request form), you should share the information before hand with the Embassy of Japan and JICA office in partner country.

(2) Preparing for a Detailed Design study

Based on the above-mentioned international agreement, 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.

(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 are provided to meet project objectives.

Furthermore, during the project implementation period, the project is monitored on a regular basis to check progress on expected outcomes. (See Section 7 for details.)

The flow of the above-mentioned processes from (1) to (4) is summarized in Figure 2 on page 6.

(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 6.

	Typical timeframe ¹³
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 ¹⁴ .	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 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/pdf/manual_SATREPS.pdf

4. Framework for implementing a technical cooperation project

(1) Japan's implementation structure

The Embassy of Japan, JICA overseas office and a Japanese research team work together in the recipient country. A research team consists of the project leader (i.e. the principal investigator and the representative of the researchers who leads the research team) and project coordinators* who support the research team and researchers responsible for their respective research fields.

(* See Section 6 for project coordinators.)

(2) Recipient country's implementation structure

Participants from the recipient country will be: ministry and agency responsible for ODA (the ministry of foreign affairs, the ministry of finance, the ministry of planning, etc.), ministry and agency controlling research institutes (the ministry of higher education, the ministry of agriculture, the ministry of health, the ministry of industry, etc.) and research institutes (university, research institute, etc.). The recipient country's team consists of: project director who bears the ultimate responsibility

¹³ Actual time period differs depending on projects.

¹⁴ Project coordinator is explained in detail in Section 6.

for the project, project manager who has the overall responsibility for managing on-site works and essentially serves as the head of the counterparts, and counterparts, i.e. staff who conduct project activities together with the Japanese team.

(3) Joint implementation structure between Japanese team and recipient country’s team

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

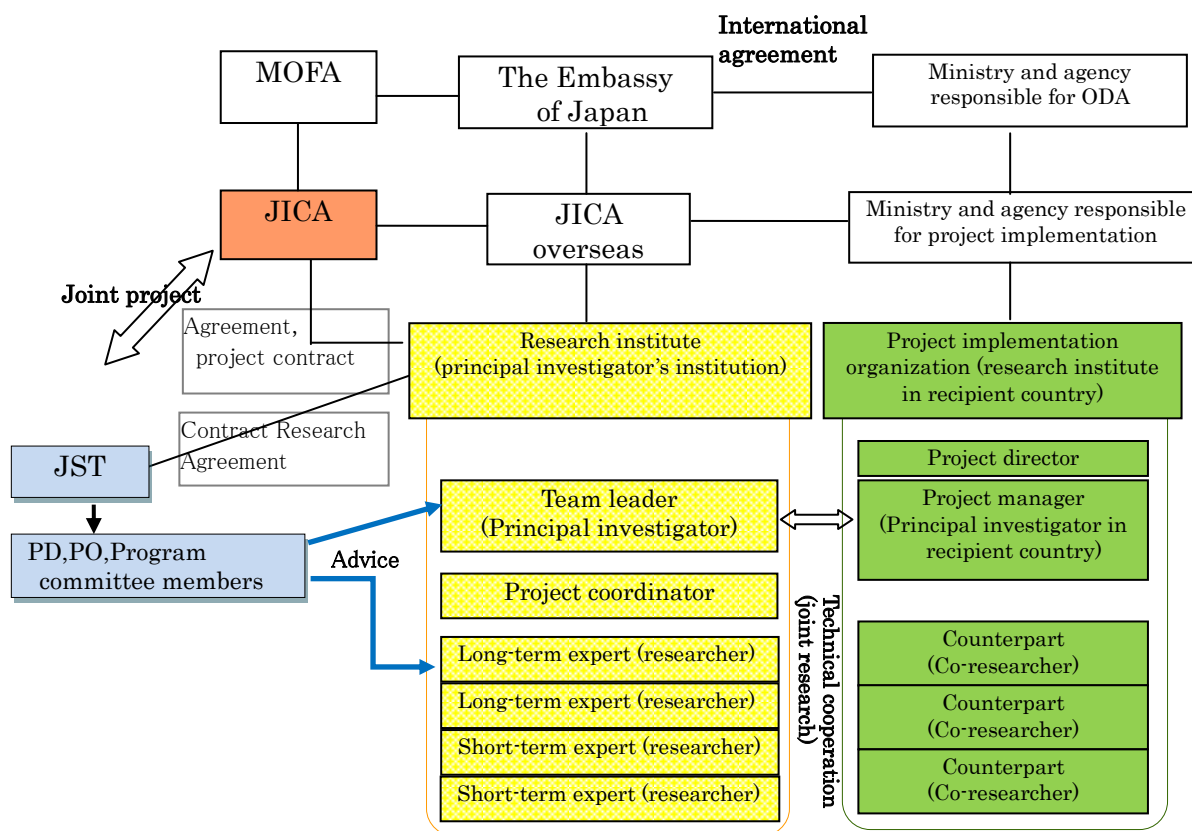


Figure 5. The framework for implementing a technical cooperation project (example)

5. Contract between JICA and the principal investigator’s institution

The research institute 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. The Agreement 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 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 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/pdf/A_1.pdf

Appendix: http://www.jica.go.jp/activities/schemes/science/form/pdf/A_2.pdf

Project contract: http://www.jica.go.jp/activities/schemes/science/form/pdf/B_1.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 include: dispatch of Japanese researchers to the recipient country, invitation of the recipient country's researchers to Japan, procurement of machinery and equipment and workplace health and safety promotion. In practice, although consideration is given to the investigator's institution's rules and regulations including those on accounting, where the principal investigator's institution carries out its responsibilities, the organization's rules and regulations apply to such activities. Any intellectual property rights arising from the project shall belong not to JICA but to the research institute concerned.

(2) Preparing a project plan

In launching a project, the both parties discuss to prepare a comprehensive project plan and annual project plan including budget. Based on the annual plan, a review is performed to ascertain the progress of the project in the middle of the project and to revise the plan accordingly. Although it is called "annual" plan, a period covered in the annual plan is not necessarily limited to one fiscal year and can be over several 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 annual 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 annual plan between JICA and the principal investigator's institution. Expenses may be incurred only after the project contract is signed. The period to be described in annual 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 the organization's rules and regulations. The research institute can receive advance payments for its estimated expenses from JICA when it is halfway through the contract period (The first advance payment may be up to the half of the contract amount). The principal investigator's institution is responsible for managing and accounting for the advance payments received with documentary evidence (e.g. receipts). The organization is required to submit a report on spending, supporting evidence (e.g. copy or certified copy of original documents, etc.) to JICA. For rules and regulations concerning administration, such as expenditure items, estimation, advance payment based on the estimate, settlement, etc., see "SATREPS Jigyo Keiyaku Guideline (only in Japanese)" on the JICA's website:

http://www.jica.go.jp/activities/schemes/science/form/pdf/manual_contract.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. 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).

However, costs concerning the dispatch of project coordinators and that of research groups (for the

D/D study, operation guidance, mid-term review, terminal evaluation, etc.) are not included in the above-mentioned amount, and JICA directly bears the expenditures as need be.

(*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 the recipient country. Of such expenses, the contract amount as agreed in the project contract 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 country and the R/D-based comprehensive plan or annual plan: (1) costs of the dispatch of overseas researchers (Japanese researchers) for overseas research¹⁵, (2) costs of acceptance of foreign researchers¹⁵ (researchers in the recipient country), (3) costs of supplying machinery and equipment needed for joint research, and (4) direct administrative cost in Japan (Table 4).

1. Costs of the dispatch of Japanese researchers for overseas research ¹⁵ 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). ¹⁶
3. Costs of supplying machinery and equipment needed for joint research	Purchase cost, transportation cost and cost for set-up and adjustment. 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 allowance for attending a meeting arising from the domestic business trips required for regular work or research 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, and costs of the operation and maintenance of machinery and equipment supplied.

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

¹⁵ 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.

¹⁶ 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.

equipment needed for 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 project coordinator, and ensure that the selected project coordinators start working at the earliest possible date after the R/D is signed. Project coordinator's responsibilities include: expense management (including budget implementation) in the recipient country as described earlier, arrangements with governments in the recipient country regarding the dispatch of overseas researchers (Japanese researchers) and acceptance of foreign researchers (researchers in the recipient country) 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, while playing an important role in managing expenses in the recipient country. 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.

7. Project evaluation

As shown in Figure 2 on page 6, 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 and when the project is completed (i.e. usually three weeks to two months prior to the completion of the project). Project monitoring and evaluation are basically conducted by people from Japan and the partner country involved with the project (although, in some cases, consultants may be sent from Japan in order to conduct an evaluation). As evaluations during the period of a technical cooperation project (mid-term reviews) are performed as part of the overall management of the project, the Japanese research institutions and partner country research institutions etc. are active participants in such evaluations.

For evaluation of other JICA projects, see the following website:

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

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

(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)

Before contacting us, it will be helpful for you to clarify your research concept and plan through discussions with researchers in the beneficiary country, so that we can deal with your query promptly and efficiently. Please note that JICA domestic and overseas offices do not respond to inquiries on the content of public invitations.

(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 is 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.

(b.1) 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:

<http://edu.citiprogram.jp/jstreg28.html>

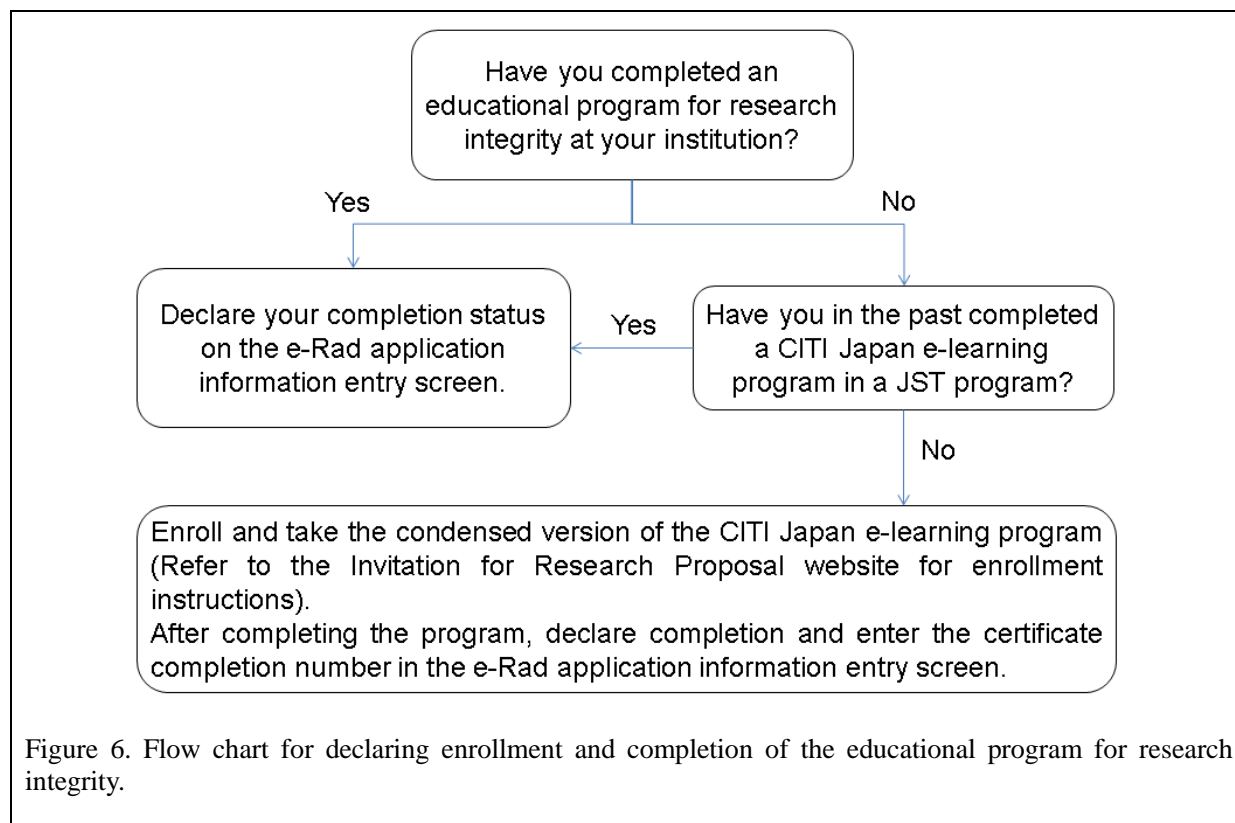
There is no cost for enrolling in and completing the program, which will take between one to two hours to complete. Once enrolled, applicants are expected to complete the program without delay and then to declare the completion of the program and to also enter the certificate completion number from the completion certificate (the Ref # to the right of the completion date) in the e-Rad application information entry screen.

(b.2) Applicants for whom (b.1) above applies and who have not been able to enroll in and complete the program by the time of their application are requested to submit their status on the e-Rad information entry screen and to enroll in and complete the program without delay. A JST representative will contact the applicant via email to confirm completion of the program and for the completion number (the Ref # to the right of the completion date). The declaration deadline is within 30 days from the application deadline (12 P.M., Wednesday, November 25, 2015).

* Contact for consultation on the educational program for research integrity
Japan Science and Technology Agency
Department of General Affairs, Office of Research Integrity,
E-mail: ken_kan[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.



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/htmlldata/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

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. 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.

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 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.

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

□ In the case that research funds intended for use under this program are used for other purposes, the conditions stipulated by the JST for payment of research funds are violated, research funds are received through fraudulent means, or research funds are otherwise used in a manner that runs counter to the objectives of the program, the research project in question may be cancelled; all or part of the project's research funding returned, and measures taken to publicize the facts of the matter. Furthermore, limitations shall be placed for a certain period of time on application to or participation in this program for different projects by researchers found to have used research funds inappropriately (including coconspirator researchers). Moreover, contracts for the following and subsequent years may be limited.

□ With regard to researchers who make inappropriate usage of the program's research funds, any coconspirator researchers, and researchers who although they are not deemed to be involved in inappropriate usage and so on are in breach of their duty for diligence* will be liable, to the extent of the malpractice according to the table below, to measures restricting their applications to and participation in this program, or to serious warning measures. The period of restriction will in principle be for one to ten years running from the fiscal year after the fiscal year in which the contract funds etc. concerning the inappropriate usage of funds have been returned. However, "application and participation" shall refer to the submission of proposals, applications and requests for new research projects by the researcher, or participation in new research as research collaborators etc.

* "Researchers in breach of their duty for diligence" shall refer to researchers who, although they are not deemed to have taken part in inappropriate usage of funds or fraudulent receipt thereof, are in breach of their duty to run the programs with care and as good managers.

□ Limitations shall be placed for a certain period of time on eligibility for application to or participation in this program for researchers who have received funding under MEXT-related or national government ministry competitive funding programs* or programs other than competitive funding programs that are under the jurisdiction of the JST and have used these research funds inappropriately and to whom limitations on application/participation eligibility for the relevant program have been applied. (Limitations shall also be placed on participation for the fiscal year in which the inappropriate usage of research funds is deemed to have occurred. Moreover, limitations may be applied retroactively.)

* 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)

Additionally, this provision also covers programs that will initiate public calls in the 2015 Fiscal Year. Since the programs subject to this provision and the handling of the other funding programs above may change, please verify with JST at the time of your application.

□ In the case that research funds under this program are used inappropriately, information regarding the details of the inappropriate usage by the researcher in question and their coconspirator researchers is provided to those in charge of MEXT-related or national government ministry competitive funding programs (including independent administration agencies). Consequently, limitations may be placed on

application to or participation in MEXT-related or national government ministry competitive funding programs.

Limitations shall be placed on the period of application and participation in this program on researchers who have used research funds inappropriately and their coconspirator researchers in accordance with the degree of inappropriateness. The period of the limitations shall as a general rule be between one and ten years from the fiscal year following the year in which the contract funds related to the inappropriate usage of funds are reimbursed. “Application and participation” refers to the submission of proposals, applications, and requests for new research projects by the researcher or participation in new research by the researcher as a joint researcher.

□ In the event that inappropriate usage etc. of the program’s research funds has occurred, the outline of the said fraudulent matter (researcher name, program name, affiliated organization, fiscal year of research, nature of the fraudulent activity and details of the punitive measures conducted) of the researchers in question and the coconspirator researchers whose applications and participation have been restricted will in principle be publicly announced.

Details of Research Funding Usage	Period Deemed Appropriate
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

Note: The latest revision of JST regulations on misconduct, which applies to new research projects selected in FY2013 or later (including continuing projects) and updates the periods of limitations that are imposed on researchers, was revised as of Dec. 28, 2012 (and took effect on Jan. 1, 2013) in response to the major changes for tougher sanctions against misconduct introduced with the Oct. 17, 2012 revision to the *Guidelines for the Appropriate Implementation of Competitive Research Funds* (by consensus of the Relevant Ministries and Agencies Liaison for Competitive Funding). The guideline revisions are reflected in the periods of limitations in the table above.

6. Measures regarding Misconduct in Research Activities

In applying to this funding program and conducting research activities, research institutions are required to adhere 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”).

If there is misconduct (fabrication, manipulation, plagiarism) in research activities in this funding program, the following measures will be taken based on the guideline.

□ With regard to research projects under this program, in the case that misconduct (fabrication, manipulation, plagiarism) in research activities is discovered, the research project in question may be cancelled; all or part of the project’s research funding returned, and measures taken to publicize the facts of the matter. Furthermore, limitations shall be placed for a certain period of time on the eligibility of those listed below to apply to or newly participate in this program.

As a general rule, the period of limitations shall be between one and ten years. Note that “application or

participation” refers to the submission of proposals, applications, and requests for new research projects by the researcher or participation in new research by the researcher as a joint researcher.

Persons incurring limitations on applications due to misconduct		Extent of Misconduct	Period of limitation on applications (Imposed from the fiscal year following the year in which misconduct is officially recognized*1)	
Person Involved in the Misconduct	1. Especially malicious individual who intentionally engages in misconduct from the outset of the research		10 years	
	2. Author of academic paper, etc. related to research in which there has been misconduct	The author responsible for the academic paper in question (supervisor, first author, or other position of responsibility deemed equivalent)	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.	5-7 years
			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.	3-5 years
		Author other than that listed above		2-3 years
	3. An individual involved in misconduct other than that stipulated in 1 or 2		2-3 years	
An author responsible for academic papers, etc. related to research in which there has been misconduct but who was not involved in the misconduct (supervisor, first author, or other position of responsibility deemed equivalent)		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.	2-3 years	
		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.	1-2 years	

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

Note: The latest revision of JST regulations on misconduct, which applies to new research projects selected in FY2013 or later, was revised as of Dec. 28, 2012 (and took effect on Jan. 1, 2013) to harmonize with the Oct. 17, 2012 revision to the *Guidelines for the Appropriate Implementation of Competitive Research Funds* (by consensus of the Relevant Ministries and Agencies Liaison for Competitive Funding) for the purpose of aligning the periods of limitations that are imposed on researchers with that of other competitive funds. The guideline revisions are reflected in the periods of limitations in the table above.

- Limitations shall be placed for a certain period of time on eligibility for application to or participation in this program for researchers who have been reprimanded for misconduct in research activities conducted under MEXT-related or national government ministry competitive funding programs other than this funding program or programs other than competitive funding programs that are under the jurisdiction of the JST and to whom limitations on application/participation eligibility for the relevant program have been applied.

(Limitations shall also be placed on participation for the fiscal year in which the misconduct in research activities is deemed to have occurred. Moreover, limitations may be applied retroactively.)

- In the case that misconduct in research activities conducted under this program is discovered, information regarding the details of the misconduct by the researcher in question is provided to those in charge of MEXT-related or national government ministry competitive funding programs (including independent administration agencies). Consequently, limitations may be placed on application to or participation in MEXT-related or national government ministry competitive funding programs*.

* 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)

Additionally, this provision also covers programs that will initiate public calls in the 2015 Fiscal Year. Since the programs subject to this provision and the handling of the other funding programs above may change, please verify with JST at the time of your application.

- Fraudulent practices etc. under the project contract signed with JICA.

In the event of the principal investigator's institution under the Agreement and project contract signed with JICA having engaged in false statements, negligent operations, or other corrupt or fraudulent practices (in this section, "fraudulent practices etc."), JICA shall, pursuant to the JICA Rules on Measures to Suspend Eligibility for Participation in Tenders for Contracts (No. 42 (Proc) of 2008), impose measures such as rejecting or eliminating participation of said principal investigator's institution in JICA contracts for a certain period.

When enforcing such measures, in addition to notifying the party subject to the measures, information regarding the subject of measures, period of measures, and details of measures will be publicized on JICA's website on the day of commencement of the measures.

JICA may give a warning or call to attention any necessary matters in either written or verbal form in the event of fraudulent practices, etc. in cases where measures are not imposed.

Refer to the following website for details of fraudulent practices etc. subject to measures, such as the conditions for measures and periods for each of the applicable items.

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

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

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

7.1 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.

7.2 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)

7.3 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.

Regarding implementation of systems for managing and auditing public research funds

In implementing the program research institutions must appreciate that the capital is public funds, stringently observe the relevant national laws, and make every effort to implement the program in an appropriate and efficient manner. In particular, there is a need for measures to be taken in order to prevent misconduct*1 concerning research and development activities and inappropriate accounting practices*2 etc. (hereinafter "misconduct etc.").

*1 Fabrication, falsification or plagiarism in the course of research and development activities.

*2 Cases in which research funds etc. are used for other purposes; cases in which research funds are paid according to a false invoice; cases in which the remuneration etc. of research assistants etc. are fraudulently used according to the intervention of researchers etc.; instances in which research funds are paid in violation of other laws, and cases in which research is adopted as a subject for a research program through dishonesty or any other fraudulent means.

In concrete terms this means that there is a need for 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 funds and take measures against misconduct etc. including compliance education, in line with the "Guidelines for Responding to Misconduct in Research Activities" (August 26, 2014, adopted by the Minister of Education, Culture, Sports, Sciences and Technology) and the "Guidelines of 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). Please refer to the websites (only in Japanese) indicated below for details of the "Guidelines of Management and Audit of Public Research Funds in Research Institutes (Implementation standards)."

http://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm
http://www.mext.go.jp/b_menu/shingi/chousa/gijyutu/008/houkoku/07020815.htm
http://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm

Regarding the "Self-evaluation Checklist for Implementation of Proper Systems"

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. 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

In the event that a checklist has been submitted after the previous fiscal year as the result of applying for a program etc., there is no need to submit the checklist again when concluding a new contract research agreement, but since the submission of the checklist once a year is stipulated in Guidelines of Management and Audit of Public Research Funds it must be submitted again in subsequent years by institutions implementing the program.

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>

NB: In addition to request for the submission of the checklist, MEXT will send an e-mail detailing the hosting of briefing sessions and training meetings regarding the guidelines, so please ensure that the mail address of the "Chief administrative staff" is properly registered with e-Rad.

NB: Please complete the checklist after duly checking the latest information from MEXT and the MEXT website. It is essential that the checklist is examined by the auditor of the research institution or by somebody of similar rank before it is submitted.

- Regarding submission of the Self-evaluation Checklist for Implementation of Proper Systems (notification) (only in Japanese). http://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm

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).

Regarding imposition of management conditions for public research funds and the reduction of indirect costs

If it is judged that reports or investigations of the implementation of systems relating to the management and auditing of public research funds suggest there are faults in the implementation of these systems, or if

an institution is deemed as having been involved in misconduct, management conditions displaying items for improvement and time limits (one year) for their execution may be imposed according to the Guidelines of Management and Audit of Public Research Funds. In the event that the management conditions are not executed despite this, the research institution in question will be subject to measures including having the indirect costs of their competitive funds reduced (by up to 15% according to stage) and the allotment of their competitive funds stopped.

Cooperation in reporting of misconduct, and in investigations

In the event that an accusation of misconduct is leveled at a research institution (including through media reports or accusations by the Board of Audit or other such external organizations), in line with the "Guidelines of Management and Audit of Public Research Funds" and within 30 days of the accusation having been received, examine the reasonableness of the accusation, decide whether or not there is a need to conduct an investigation, and report the need or otherwise of any investigation to JST.

In the event that it is judged that an investigation is necessary, institutions must convene an investigative committee, and discuss with JST the investigation guidelines, scope of investigation and its methods.

Within 210 days of an accusation having been received, please make a final report to JST including the investigation results, the causes of the occurrence of misconduct, the state of the management and auditing system of any competitive funds that those guilty of the misconduct are involved with, and a plan to prevent the occurrence of any further such misconduct. Note that even during the investigative phases if misconduct is partially ascertained it must be swiftly acknowledged and a report made to JST; furthermore, even if the investigation is uncompleted a progress report and interim report must be submitted to JST if they so request.

In addition, unless it will interrupt the investigation or there is a justifiable reason, the institution must cooperate by providing material related to the matter in question or by letting it be perused, and cooperating with on-site investigations.

In the event that the deadline for the final report is extended measures such as reducing a certain proportion of indirect costs and suspending contract research funds will be taken. Please refer to the "Guidelines of Management and Audit of Public Research Funds" for a detailed account of the items that should be incorporated in the final report.

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.

*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 information, materials, or samples* out of or into the partner country, consideration must be given to international rules (foreign exchange laws, security trade control laws, Convention on Biological Diversity, 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 compliance status regarding relevant treaties such as the Cartagena Protocol on Biosafety, 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 and the Convention on Biological Diversity.

Further information: Japan Bioindustry Association

Further information: Convention on Biological Diversity

Further information: ABS Task Force Team for Academia

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

* Handling of materials resulting from research

Regarding research materials created or acquired through the international joint research, in addition to conducting appropriate management based on the institution's own internal regulations, and taking into account the fact that the joint research is international, or in the case of transfer to a third party, in order to ensure that research outcomes can be smoothly applied, it is necessary to take measures such as signing an MTA between each of the institutions participating in the research.

Materials are tangible materials (which excludes copyrightable items such as academic papers, presentations, or other items that are copyright, etc.) having an academic value, asset value, or other value that fall into the following categories

(i) items created or acquired during research that demonstrate that the aims of the research have been achieved.

(ii) items created or acquired during research that are used to obtain (i).

(iii) items created or acquired as derivatives when creating or acquiring (i) or (ii).

Examples: materials, reagents, samples (microorganisms, soil, rock, plants, etc.), laboratory animals, prototypes, models, chemical substances, strains

<http://www.mabs.jp/index.html>

<http://www.cbd.int/>

<http://www.idenshigen.jp/>

9.3 Bioethics and Safety Assurance

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

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

-Life Sciences no Hiroba “Measures on Bioethics and Safety Assurance”

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

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

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

9.4 Protection of interests and human rights

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

9.5 Social and Ethical Considerations

A research plan or its implementation deemed unacceptable from a social and ethical standpoint will not be considered during the selection process. Also, any violation of the above mentioned guidelines or any inappropriate conduct after the commencement of research may result in the cancellation of the selection or the termination of the research project, full or partial return of research expenses, and a public announcement of the misconduct.

9.6 Responsibility for the safety of researchers

JST will not assume any responsibility for injuries, illnesses, or other accidents that occur during the period of joint research for this project. 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 in writing.

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

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 on the specified form 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 universities and other organizations that have entered into multi-year agreements.)

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. Public dialogue in science and technology

Under the "Promotion of Public Dialogue 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), "Public Dialogue in Science and Technology" is discussed in terms of approaches to communicate the details and outcomes of research to the general public in an easy-to-understand manner, and to achieve friendly two-way communication that inspires anticipation and hope. Projects selected under the SATREPS program that receive public research funding of 30 million yen or more per year are requested to take a proactive approach to dialogue with the general public in Japan about science and technology.

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

14. Efficient promotion of research and development through effective use of currently available research facilities and equipment

The Ministry of Education, Culture, Sports, Science and Technology is promoting the development of the grounds for sharing research institutes and facilities and integrating different research fields in accordance with the Act on the Promotion of Public Utilization of the Specific Advanced Large Research Facilities (Act No. 78, 1994); the Act on Enhancement of Research and Development Capacity and Efficient Promotion, etc., of Research and Development, etc., by Advancement of Research and Development System Reform (Act No. 63, 2008); and other laws. If the uses and purchases of research facilities and equipment are being considered upon the application, please consider actively using facilities and equipment owned by universities and national research and development agencies and made available to others and opportunities for cooperation among industries, academia, and the government from the perspective of effective promotion of consigned research in this program; effective use of already available facilities and equipment; and removing overlaps in purchasing facilities and equipment.

On the other hand, there is no restriction on the use for other research of research equipment purchased post-selection with the contract research budget, as long as the use does not impact the contracted research (with the exception of use for a profit-making business).

Reference: Examples of shared facilities and equipment

□ Facilities covered in the Act on the Promotion of Public Utilization of the Specific Advanced Large Research Facilities

- SPring-8, the large synchrotron radiation facility
<http://user.spring8.or.jp/?lang=ja>
- SACLA, an X-ray free-electron laser facility
<http://sacla.xfel.jp/>
- J-PARC, a large intensity proton accelerator
<http://is.j-parc.jp/uo/index.html>

- High Performance Computing Infrastructure (HPCI) including the K computer
<http://www.hpci-office.jp/>
- Projects for promoting the sharing of advanced research facilities
<http://kyoyonavi.mext.go.jp/>
- Nano technology platform
<http://www.nanonet.go.jp/>
- Development of research base network toward the construction of a low-carbon society
<http://www.nims.go.jp/lcnet/>
- Tsukuba Innovation Arena for Nanotechnology (TIA-nano)
<http://tia-nano.jp/>
- Project for Platform for Drug Discovery, Informatics, and Structural Life Science
<http://pford.jp/>
- National BioResource Project
<http://www.nbrp.jp/>
- Japanese Experiment Module (KIBO) / International Space Station (ISS)
<http://iss.jaxa.jp/kiboexp/participation/>

15. 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.

* The National Bioscience Database Center (<http://biosciencedbc.jp/en/>) researches, develops, and provides services for integrating and easily accessing life sciences databases generated in Japan. The objective is to stimulate research and development through extensive sharing and broad use of research data.

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

16. Open Access

JST announced its policy regarding Open Access in April 2013. It is recommended that research results (papers) produced under the CREST or PRESTO programs are made open to the public via institutional repositories or open access publications. For details, please refer to the following website.

<http://www.jst.go.jp/pr/intro/johokokai.html>

http://www.jst.go.jp/pr/intro/pdf/policy_openaccess.pdf

17. 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.

Visit the Advanced Measurement website (<http://www.jst.go.jp/sentan>) for details.

18. 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 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.

19. 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.

20. Regarding Registration with researchmap

As the largest directory of researchers in Japan, researchmap (formerly called "ReaD&Researchmap"*; <http://researchmap.jp/?lang=english>) is a researcher information database of approximately 240,000 registered researchers as of March 2015. 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. With its single sign-on integration with the CV-creation function on JREC-IN Portal (a researcher career site; <https://jrecin.jst.go.jp/seek/SeekTop>) researchmap has become more convenient than ever.

The publishable data registered with researchmap will also be made publicly available by J-GLOBAL(only in Japanese) (<http://jglobal.jst.go.jp/>). The users of researchmap and J-GLOBAL are a broad range of Japanese and overseas universities and companies and offer high expectations for future joint research work and other approaches. Moreover, JST uses researchmap when it examines the research record information of researchers.

The strategic basic research programs (CREST and PRESTO) plan to use researchmap as a master database of research record information and in the future to use it in all sorts of situations, such as research record reports and so on.

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

21. 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.

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.

Michiharu NAKAMURA

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.

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.

JST diversity is aiming to open the way to a new future by responding flexibly to various problems in cooperation with many people with a diverse range of experiences and ways of

thinking. JST promotes diversity for not only JST employees but for all people utilizing the JST system. We look forward to receiving your proactive application to the programs.

Miyoko WATANABE
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, and 12 in FY2015, giving a total of 99 international joint research projects. 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 FY2016 Invitation for Research Proposals compared to the previous FY?

A: The main changes in the FY2016 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 which has been formulated for some countries. Country Assistance Policies are published on the MOFA website:

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

Furthermore, in order to conduct international joint research with the aim of future 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: If the principal investigator moves to a different institution partway through the project term, can the research still continue?

A: Under the SATREPS program, in principle, the principal investigator's institution at the time of project selection is responsible for providing a research implementation structure based around the principal investigator for the duration of the research period. If unavoidable circumstances result in the principal investigator moving to a different institution, consideration needs to be given to a replacement of principal investigator within the principal investigator's institution originally selected. It may also be possible to continue with the research if the principal investigator's new institution is

capable of continuing the research, including the relationship with the partner country side, without problem, and moreover, if it is possible to sign a Contract Research Agreement with JST, make the Agreement with JICA, and sign agreements (MOU etc.) with the counterpart institution. If the possibility of the principal investigator moving to a different institution arises, contact JST and JICA to discuss the issue.

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 program officer (PO), 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.

<http://www.jica.go.jp/activities/schemes/science/faq/answer.html#al-3> (Japanese)

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, due to individual circumstances within each country, that information may not have reached as far as the partner country researchers who are potential research counterparts. The applicant should be aware of that situation and ensure sufficient coordination in advance with the partner country researcher (and his or her affiliated institution).

(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 formal 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. However, this does not prevent the participation of private-sector companies and NGOs in the research as partners collaborating 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, but as explained in the Q&A regarding the ODA request form submission process, pre-conditions include submission to the Japanese embassy of an ODA request 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, providing them with special privileges and immunities, and pledging tax exemptions and other special rights and exemptions for the SATREPS program experts and machinery and equipment, etc. They also include 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. Based on these international commitments, JICA must 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 something is considered to be medical practice, JICA will give approval (with conditions concerning safety and responsibility) if consulted in advance for practices such as blood sample collection, fecal examination, and measurement of body temperature or blood pressure that are not significantly risky. Ask JICA if clarification is required.

(c) Safety measures and ethical considerations for research projects

Research projects must comply with ethical guidelines in Japan and in the partner country. They must be assessed by an ethics committee in the partner country, 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	No.	Region	Name of Country	No.	Region	Name of Country	
1		India	42		Republic of Angola	93		Argentine Republic	
2		Republic of Indonesia	43		People's Democratic Republic of Algeria	94		Antigua and Barbuda	
3		Kingdom of Cambodia	44		Republic of Uganda	95		Oriental Republic of Uruguay	
4		Democratic Socialist Republic of Sri Lanka	45		Arab Republic of Egypt	96		Republic of Ecuador	
5		Kingdom of Thailand	46		Federal Democratic Republic of Ethiopia	97		Republic of El Salvador	
6		Nepal	47		State of Eritrea	98		Republic of Guyana	
7	A s i a	Islamic Republic of Pakistan	48		Republic of Ghana	99		Republic of Cuba	
8		People's Republic of Bangladesh	49		Republic of Cape Verde	100	L a t i n A m e r i c a	Republic of Guatemala	
9		The Democratic Republic of Timor-Leste	50		Gabonese Republic	101		Grenada	
10		Republic of the Philippines	51		Republic of Cameroon	102		Republic of Costa Rica	
11		Kingdom of Bhutan	52		Republic of The Gambia	103		Republic of Colombia	
12		Socialist Republic of Viet Nam	53		Republic of The Guinea	104		Jamaica	
13		Malaysia	54		Republic of Guinea-Bissau	105		Republic of Suriname	
14		Union of Myanmar	55		Republic of Kenya	106		Saint Vincent and the Grenadines	
15		Republic of Maldives	56		Republic of Cote d'Ivoire	107		Saint Lucia	
16		Mongolia	57		Union of Comoros	108		Republic of Chile	
17		Lao People's Democratic Republic	58		Republic of Congo	109		Commonwealth of Dominica	
18		M E d i t e r a n	Islamic Republic of Afghanistan	59		Democratic Republic of the Congo		110	Dominican Republic
19			Republic of Yemen	60		Democratic Republic of Sao Tome and Principe		111	Republic of Nicaragua
20			Republic of Iraq	61		Republic of Zambia		112	Republic of Haiti
21			Islamic Republic of Iran	62		Republic of Sierra Leone		113	Republic of Panama
22			Republic of Turkey	63		Republic of Djibouti		114	Republic of Paraguay
23			Palestine Liberation Organization	64	A f r i c a	Republic of Zimbabwe		115	Federative Republic of Brazil
24	Hashemite Kingdom of Jordan		65	The Republic of the Sudan		116		Bolivarian Republic of Venezuela	
25	Republic of Lebanon		66	Kingdom of Swaziland		117	Belize		
26	Republic of Azerbaijan		67	Republic of Seychelles		118	Republic of Peru		
27	Republic of Armenia	68	Republic of Equatorial Guinea	119		Republic of Bolivia			
28	Republic of Albania	69	Republic of Senegal	120		Republic of Honduras			
29	Ukraine	70	United Republic of Tanzania	121		United Mexican States			
30	Republic of Uzbekistan	71	Republic of Chad	122		Republic of Kiribati			
31	Republic of Kazakhstan	72	Republic of Tunisia	123		Cook Islands			
32	Kyrgyz Republic	73	Republic of Togo	124	Independent State of Samoa				
33	Georgia	74	Federal Republic of Nigeria	125	P a c i f i c	Solomon Islands			
34	Republic of Kosovo	75	Republic of Namibia	126		Tuvalu			
35	Republic of Tajikistan	76	Republic of Niger	127		Kingdom of Tonga			
36	Turkmenistan	77	Burkina Faso	128		Republic of Nauru			
37	Republic of Serbia	78	Republic of Burundi	129		Niue			
38	Bosnia and Herzegovina	79	Republic of Benin	130		Republic of Vanuatu			
39	Former Yugoslav Republic of Macedonia	80	Republic of Botswana	131		Independent State of Papua New Guinea			
40	Republic of Moldova	81	Republic of Madagascar	132		Republic of Palau			
41	Montenegro	82	Republic of Malawi	133		Republic of the Fiji Islands			
		83	Republic of Mali	134		Republic of the Marshall Islands			
		84	Republic of South Africa	135		Federated States of Micronesia			
		85	Republic of South Sudan						
		86	Republic of Mauritius						
		87	Islamic Republic of Mauritania						
		88	Republic of Mozambique						
		89	Kingdom of Morocco						
		90	Republic of Liberia						
		91	Republic of Rwanda						
		92	Kingdom of Lesotho						

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

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

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> (Japanese)

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. 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)

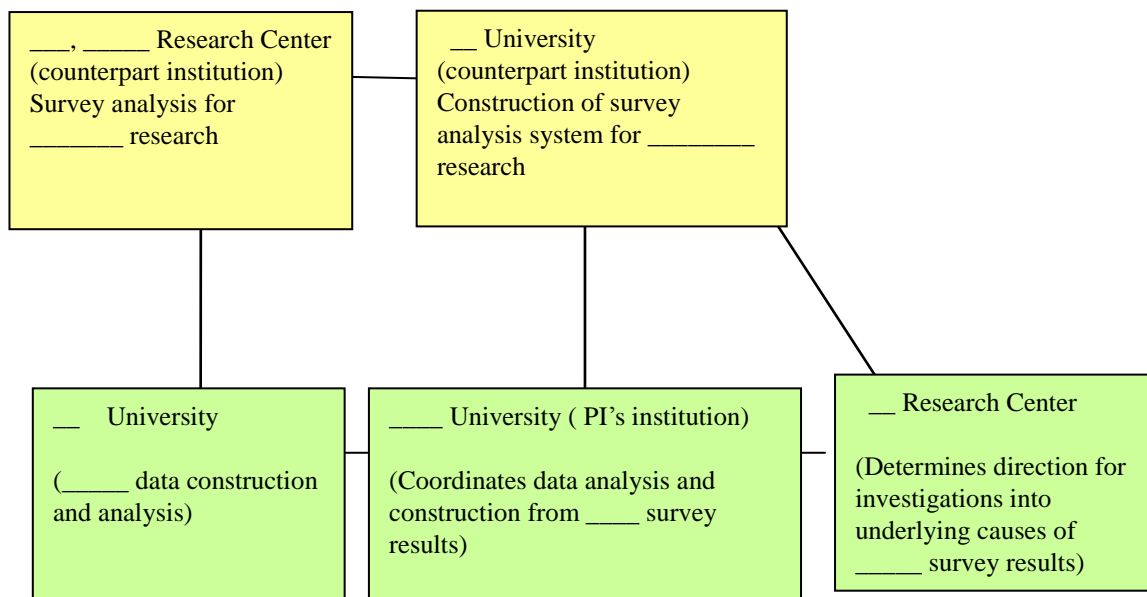
(a) Title of proposed research project	Do not include a subtitle in the proposed research project's title.
(Japanese)	
(English)	Liaise carefully and agree choice of English title of research project with the counterpart institution. Make sure to use the same title as the counterpart's ODA technical 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.



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 page 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 p.17.)

(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 4th 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. 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.

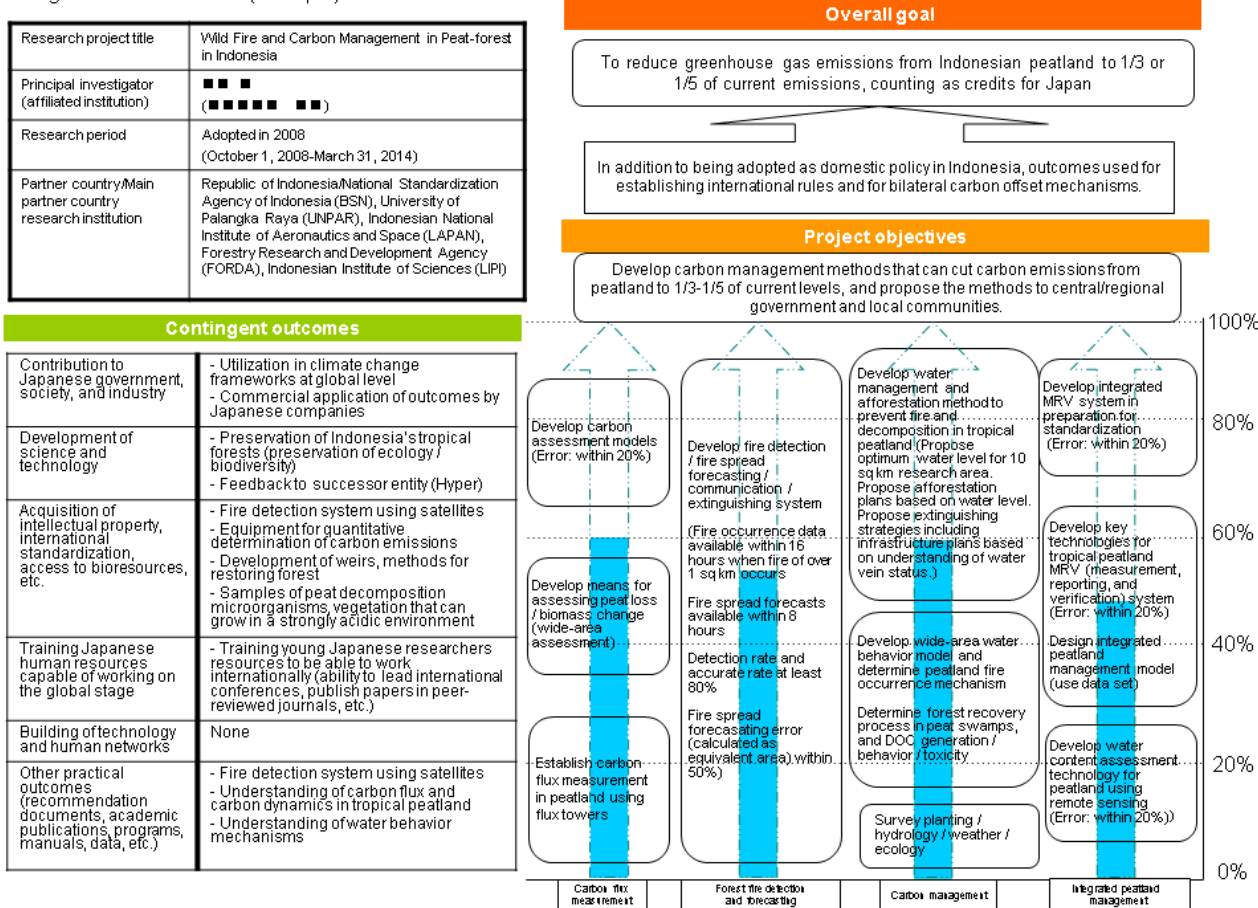
An explanation (in Japanese) of how to create a Target Outcomes Sheet can be downloaded from the following website, including a template and descriptions of each of the items.

- <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)



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	Year 1	Year 2	Year 3	Year 4	Year 5
1. Research item 1 (Outcome 1)			Realization of ____ ▼		
1-1 Research activity 1-1 (Activity 1-1)	←	→		Achievement of ____ ▼	
1-2 Research activity 1-2 (Activity 1-2)			←	→	▼
2. Research item 2 (Outcome 2)			Realization of ____ ▼		
2-1 Research activity 2-1 (Activity 2-1)	←	→		Development of ____ ▼	
2-2 Research activity 2-2 (Activity 2-2)		←	→		▼
3. Research item 3 (Outcome 3)		____ scheme submission			
3-1 Research activity 3-1 (Activity 3-1)	←	→		Establishment of ____ ▼	
3-2 Research activity 3-2 (Activity 3-2)	←	→		Achievement of ____ ▼	
3-3 Research activity 3-3 (Activity 3-3)			←	→	▼

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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	Roles of partner country institutions	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						
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.

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, effort, and a brief outline of research responsibility.

Name (Researcher ID No. ^{*1})	Affiliated institution (country)	Current position, title, etc.	Age (Age as of April 1, 2016)	Effort ² (Proportion of time allocated)(%)	Research responsibility in project	Experience of working on SATREPS project (specify project)
— — (XXXX XXXX)	— University — Faculty — Department	Professor		—%	Overall management of the research, —	
— — (XXXX XXXX)	— University	Associate Professor		—%	—	
— — (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	
<p>Academic Background (University onwards)</p>	<p>(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)</p>
<p>Research background (Main professional appointments and research)</p>	<p>(Example) 19__-20__: Research Associate, __ University, Faculty of __ Researched ____ under Professor __ Since 20__: Researcher at __ Research Center Conducting research into __ under Dr. __</p>
<p>Age at which retirement from current position is scheduled</p>	<p>_____ years of age</p>

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)

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

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

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

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 pages 22-23 of the Invitation for Research Proposals). Consequently, the specific FY is not required for this form.
- The uses for which JST contract research expenses can be disbursed are explained on pages 23-24.
- 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	Year 2	Year 3	Year 4	Year 5	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 MOU are signed are limited to a maximum of 6.5 million yen (including indirect expenses). For each of the Years 2-5, the expenses (budget) should be about 36 million yen (including indirect expenses). The total expenses (budget) for the Provisional selection period and Year 1 should be about 36 million yen (including indirect expenses). Furthermore, the total budget (including indirect expenses) must not exceed 180 million yen for a 5-year project, 144 million yen for a 4-year project, or 108 million yen for a 3-year project.

*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 April 2016,

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	Year 2	Year 3	Year 4	Year 5	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	Year 2	Year 3	Year 4	Year 5	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 (including costs expected to be applied for. List each partner country separately)

(1) ODA project expenses

Principal institution in partner country (Country)	Government agency in partner country handling ODA or responsible for science and technology (Government agency due to file ODA request)	Total research expenses (scheduled) in technical cooperation request (= ODA project expenses budget)	Costs covered by partner country side (scheduled)
		Local currency Yen equivalent _____,000 yen	Local currency Yen equivalent _____,000 yen (To the extent possible, give the counterpart institution’s total budget and budget for this research.)

- When conducting joint research with multiple countries, add extra rows to the table for the additional information.

- Actual budget for ODA project expenses is fixed after the Detailed Design (D/D) study by JICA after the selection of the project. The figures to be given here are “For reference” only.

- 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 set out 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 will only be fixed after the D/D study.

(2) Research expenses plan showing expenses that the counterpart institution will acquire (or plans to acquire) from sources other than the ODA technical cooperation project.

Principal research institution or collaborating institutions in partner country (Country)	Institution supporting research expenses in partner country	Outline of research supported	Total amount of support provided for research expenses
			Local currency Yen equivalent _____,000 yen

- Give details of budgets with the potential to cover the portion to be borne by the partner country side. These are likely to include grants from the partner country government and funding from funding agencies.

- 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 ³⁾ (entire term) (2) " (FY2016) (3) " (FY2015) (thousand yen)	Research period	Role ²⁾ (Principal/ Co-researcher)	Effort ⁴⁾ (Proportion of time allocated)%	Status	Differences from/relation to proposed research project
SATREPS	_____	(1) 100,000 (thousand yen) (2) 20,000 (thousand yen) (3) 20,000 (thousand yen)	2016-2021	Principal	30%	In progress * List any projects in progress or any other projects under application	_____
Grants-in-Aid for Scientific Research (S) (Kakenhi Kiban Kenkyu (S))	_____	(1) 100,000 (thousand yen) (2) 25,000 (thousand yen) (3) 20,000 (thousand yen)	2012-2016	Principal	10%	In progress	_____

Funds for Integrated Promotion of Social System Reform and Research and Development	_____	(1) 32,000 (thousand yen)	2014-2017	Co-researcher	5%	In progress	_____
		(2) 8,000 (thousand yen)					
		(3) 8,000 (thousand yen)					

- 1) 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 “Applied for” etc. under Status.)
- 2) Under Role, specify the researcher’s role (principal researcher or co-researcher etc.) in each project.
- 3) Under Research expenses, give the amount received by the researcher in person (direct expenses).
- 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) " (FY2016) (3) " (FY2015) (thousand yen)	Research period	Role ²⁾ (Principal/Co-researcher)	Effort ⁴⁾ (Proportion of time allocated)%	Status	Differences from/relation to proposed research project
SATREPS	_____	(1) 80,000 (thousand yen) (2) 30,000 (thousand yen) (3) 30,000 (thousand yen)	2016 -2021	Co-researcher	15%	In progress * List any projects in progress or any other projects under application	_____
Grants-in-Aid for Scientific Research (S) (Kakenhi Kiban Kenkyu (S))	_____	(1) 100,000 (thousand yen) (2) 25,000 (thousand yen) (3) 20,000 (thousand yen)	2012 -2016	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)	2014 -2017	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.

Principal investigator	Name		Date of birth	19__ (year) __ (month) __ (day) (Age: years) (Age as of April 1, 2016)
	Researcher ID No.	(e-Rad Researcher ID No.)		Male/female
	Institution/affiliated dept.			
	Position/title			
	Affiliated institution code	(e-Rad code for affiliated institution)		
	Address	Postcode: Address:		
	TEL			FAX
	E-mail:			
Principal investigator's institution administrative contact	Contact			Position/title
	Institution/affiliated dept.			
	Administrative contact information	Postcode:		
		Address:		
		TEL.	FAX.	
E-mail:				

Form 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
- 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
- Provision of a research structure led by the principal investigator for the duration of the research project (Also respond to the question etc. below)

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

Form 9: Plans by Private-Sector Corporations, etc.
(To be completed by 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 initiatives aiming at the application of research outcomes, following the principles set out below.

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: _____

Principles for corporate initiatives concerning application of outcomes

(Give specific details concerning initiatives for the application of research outcomes.)

- (1) Method for application of outcomes:
- (2) Roadmap and schedule for application of outcomes:
- (3) Effects for partner country and other countries (including Japan):
- (4) Utilization and fields of application envisaged for the technology:
- (5) Risks pertaining to commercialization/practical application:

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 the partner country researchers understand and have taken the necessary actions regarding the systematic response required from the counterpart institution under the SATREPS program?	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	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 within 30 days of deadline for submission of research proposals and give Course Completion Report Number to JST?	YES NO

Status of coordination with principal investigator's other work

11	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
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Status of coordination with overseas diplomatic missions

12	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
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Security measures

13	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
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Counterpart institution implementation structure, etc.

14	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
15	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
16	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
17	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
18	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

19	<p>Have you confirmed coordination with and allocation of functions between the counterpart institution's overseeing agency and the other government agencies involved?</p> <p>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.</p>	<p>YES NO</p>
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Provision of machinery and equipment

20	<p>Are you taking account of points requiring special attention when the machinery and equipment to be supplied includes specialist machinery and equipment and plant constructed to order?</p> <p>Explanation: It is envisioned that general procurement of machinery and equipment via JICA will be unable to handle specialist machinery and equipment and plant constructed to order. Consequently it is necessary to check in advance that the Japan-side principal investigator's institution has the ability to handle the procurement procedures and the necessary construction and maintenance.</p>	<p>YES NO N/A</p>
21	<p>Does the plan for provision of machinery and equipment take account of the setup for handling and maintenance of the machinery and equipment after the project finishes?</p> <p>Explanation: After the SATREPS project finishes, the machinery and equipment provided by Japan are to be used for further research activities, etc., with the partner country becoming responsible for the costs of maintaining the machinery and equipment provided by Japan. Consequently, the introduction of machinery and equipment that exceed the partner country's maintenance capabilities is considered inappropriate, even if the machinery and equipment are essential for the research. Also, machinery and equipment provided by ODA is provided on the assumption that the machinery and equipment will continue to be used after the project finishes for the lifetime of the machinery and equipment, so the system does not cover machinery and equipment that will not be used on an ongoing basis in the partner country, or will only be used for purposes such as gathering data for research.</p>	<p>YES NO</p>

Application of outcomes

22	<p>Has a clear roadmap been produced as a practical plan for application of outcomes?</p> <p>Explanation: One of the major characteristics of SATREPS is that the outcomes of joint research are not only used for research. The outcomes are applied to benefit society. Even from an ODA perspective, it is important to have a practical and realistic plan for application of outcomes, not just a hypothetical plan.</p>	<p>YES NO</p>
23	<p>In order to prepare for application of outcomes, does the implementation structure include the participation of related institutions or entities such as private sector businesses?</p> <p>Explanation: The SATREPS joint research period lasts a maximum of 5 years. In order to achieve the application of outcomes to a certain extent, it is important to have private sector businesses and other entities that will handle the application of outcomes section of the project actually participate from the idea stage, and prepare for implementation in a planned manner.</p>	<p>YES NO</p>

Other Japanese projects in the same field

24	<p>Have you confirmed whether any other Japanese aid projects (JICA projects, etc.) have been implemented or are being implemented in the same field?</p> <p>Explanation: If the partner country principal research institution for the current project has acted as the counterpart (C/P) for other aid projects in a related field in the past, then from the perspective of making effective use of ODA, consider research plans that build on that past experience as far as possible. If there are related ODA aid projects such as JICA technical cooperation projects currently in progress (or scheduled to be implemented soon), confirm that there is no duplication of content between such projects and the proposed SATREPS project. In particular, if the counterpart institution is the same institution, there is a risk of the new project impacting the implementation structure of the existing project. Take this into account, and if circumstances warrant, consider adjusting the timing or content of the proposal.</p>	<p>YES NO</p>
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Projects backed by other donors in the same field

25	<p>Have you confirmed whether any other aid projects have been implemented or are being implemented in the same field but backed by other donors?</p> <p>Explanation: Confirm whether there is any duplication, and how the project is scheduled to proceed. In particular, if the counterpart institution is the same institution, make sure to question the donor's representatives and the counterpart institution sufficiently to confirm the likely extent of the resulting impact if the proposed joint research is implemented.</p>	<p>YES NO</p>
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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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