

**FY2014**

**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 Division  
September, 2013**

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## Notes for FY2014 Research Proposals

This invitation for research proposals is for proposals that will be implemented under the government's FY2014 budget, but submitted and selected before the budget is finalized. Moreover, the SATREPS 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

FY2014 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 Friday October 25, 2013

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

The SATREPS (Science and Technology Research Partnership for Sustainable Development) 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 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 12:00 noon (Japan time) on Friday October 25, 2013.

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 selected.

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

## **1. Objective of the research program**

The SATREPS (Science and Technology Research Partnership for Sustainable Development) program is a collaboration between two Japanese government agencies: the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). Based on the needs of developing countries, JST and JICA cooperate to promote international joint research targeting global issues<sup>1</sup> with an objective of future utilization of research outcomes<sup>2</sup>. Implemented through collaboration with Official Development Assistance (ODA), the aim of the program is to acquire new knowledge and technology, and to apply the knowledge and technology acquired to create innovations, leading to the resolution of global issues and the advance of science and technology. 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, MEXT and 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 R&D and other activities comprehensively and systematically with the participation of various organizations in industry, academia and government through a cross-sectional

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<sup>1</sup> 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

<sup>2</sup> 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.

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 is 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 FY2014 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 (which operates technical cooperation projects in developing countries) bears the costs in the partner country, which is the recipient country under the ODA technical cooperation framework. Management of the research and development (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.

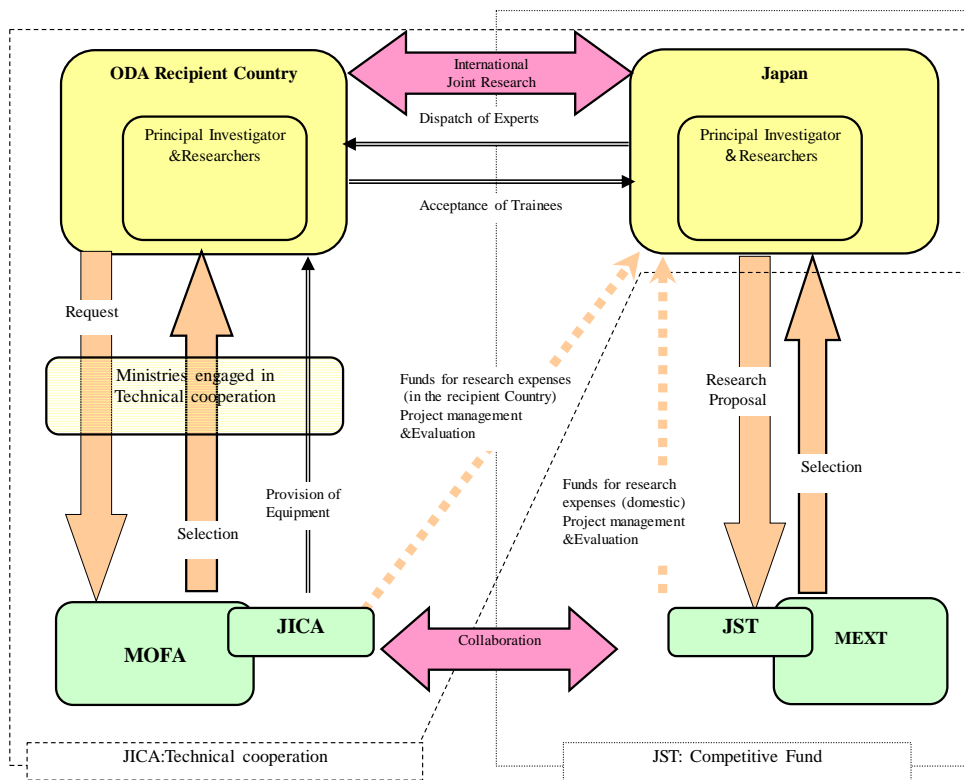


Figure 1. SATREPS Program Structure

(4) SATREPS program main flow

a) Setting research areas, and inviting proposals and applications

The Japanese government (the Ministry of Education, Culture, Sports, Science and Technology, or MEXT) 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 PI 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 by the specified deadline, via the ministry or agency in the recipient country responsible for ODA and the local Japanese embassy.

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 PI and one for ODA technical cooperation, have to be provisionally approved in order for the research project to be supported under the program. MOFA notifies the prospective recipient country of this decision. (See Figure 2.)

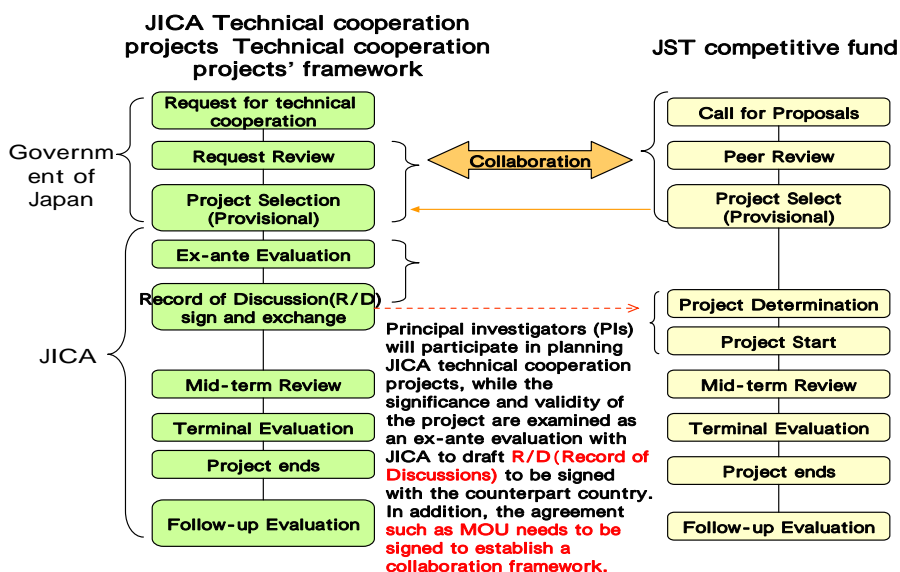


Figure 2. SATREPS Program Flow

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 conditional approval, the PI and other researchers are requested to work towards the prompt signing of these documents.

After giving notification that a research project has been conditionally approved, JST firstly concludes a Provisional Research Expenses Contract with the research institution to which the PI in Japan belongs. 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 PI in Japan and other members, to the prospective recipient country. The investigation team performs a detailed investigation into the planning of the research project 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 FY2014). Even if a research project has been selected, if the R/D is not likely to be signed in the near future, or if there are other reasons<sup>3</sup> 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 PI and other researchers shall act in accordance with a contract (Contract Research Agreement) signed with JST and contracts signed with JICA (Agreement and Operating Contract<sup>4</sup>). The PI 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 PI 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 "research fellow stationed in the developing country")<sup>5</sup> <sup>6</sup>.

#### e) Human resource development

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

Since FY 2010, MEXT has a "Global-Issue Section" within its Japanese government scholarship program (University Recommendation) for SATREPS projects. The aim of the Global-Issue 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 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 can be altered depending on the final budget.

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<sup>3</sup> 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.

<sup>4</sup> The Agreement (Agreement for Technical Cooperation with JICA under SATREPS) is a comprehensive document stipulating the rights and obligations of JICA and the research institution to which the PI belongs. JICA and the research institute to which the PI belongs shall conclude the Agreement when the R/D for the institute's first project is signed. In addition, JICA and the research institute to which the PI belongs shall clarify the expenses that JICA will bear, and shall sign a Operating Contract containing an estimate of these expenses and details of accounting procedures, for reference by either party.

<sup>5</sup> A research fellow stationed in the developing country does not necessarily have to be the PI. 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 "research fellow stationed in the developing country" designation.

<sup>6</sup> 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 equipment by the local JICA office. JICA similarly stations local project coordinators for SATREPS projects. Such staff cannot simultaneously participate in research work.

## Japanese Government (MEXT/Monbukagakusho) Scholarship Program

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

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

- Inviting foreign researchers to Japan

There is also a Guest Researcher Program for inviting researchers from the ODA recipient country to Japan using the ODA budget. In this system, 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 invitations to Japan under this system are 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 costs. 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](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/siryoy1-1.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](http://www8.cao.go.jp/cstp/budget/h25ap/h25ap_honbun.pdf)

Policy for the Allocation of Resources, Including the Science and Technology Budget (July 31, 2013, 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 7, 2013, Cabinet Decision)

[http://www8.cao.go.jp/cstp/english/doc/20130607cao\\_sti\\_strategy\\_provisional.pdf](http://www8.cao.go.jp/cstp/english/doc/20130607cao_sti_strategy_provisional.pdf)

Basic Plan on Ocean Policy (April 26, 2013, Cabinet decision, in Japanese)

<http://www.kantei.go.jp/jp/singi/kaiyou/kihonkeikaku/130426kihonkeikaku.pdf>

Previous Basic Plan on Ocean Policy (March, 2008, Cabinet decision)

[http://www.kantei.go.jp/jp/singi/kaiyou/kihonkeikaku/080318kihonkeikaku\\_E.pdf](http://www.kantei.go.jp/jp/singi/kaiyou/kihonkeikaku/080318kihonkeikaku_E.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. Research areas

Research proposals are currently invited in the following 4 research fields and 5 research areas.

Research fields (number of research areas)	Cooperation request from developing country	Research period	Research budget from JST
Environment and Energy (2 research areas)	Compulsory	3 to 5 years	Approx. ¥36M/year (including indirect costs) (Approx. ¥180 M in total for a 5-year project)
Bioresources (1 research area)			
Natural Disaster Prevention (1 research area)			
Infectious Diseases Control (1 research area)			

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

### 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.

Applications start date	Tuesday September 10, 2013
Applications deadline (Deadline for ODA applications to reach MOFA is the same) <sup>7</sup>	12:00 noon (Japan time) on Friday October 25, 2013 (applications received after the deadline will not be accepted)
Document screening	Early November 2013 to late February 2014
Notification of document screening results	Late February 2014
Interviewing for selection	Late February to mid March 2014
Conditional approval and notification <sup>8</sup>	Late March 2014 onwards, after JST research budget approval
Start of research	April 2014 or later, following signing of the R/D

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

<sup>7</sup> MOFA must receive an application for ODA from the government of the prospective recipient country by the deadline. This is one of the conditions for selection.

<sup>8</sup> Around the same time as the 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 PI of conditional approval.

### 3. Countries covered by the program

Please refer to the following Table 1 for the countries that are eligible to request ODA. Note that this table is subject to change depending on a country's situation.

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

Table1. List of Countries Eligible to Partner in SATREPS

#### 4. How to apply

Forms for research proposals for FY2014 (listed in Table 2 below) shall be downloaded from e-Rad, 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).

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

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

Form 0	Proposal Coordination Status
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

Table 2. Forms for Research Proposal Applications

#### 5. Research fields and areas in which proposals are invited

An applicant can file only one research proposal as PI 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
Natural Disaster Prevention	4. Research on natural disaster prevention and mitigation measures attuned to the needs of developing countries
Infectious Diseases Control	5. Research on measures to address infectious diseases control 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. From FY2014 onwards, “interdisciplinary” proposals (proposals where multiple fields are selected on the research proposal form) are no longer accepted. When submitting a research proposal for a project involving interdisciplinary research that merges or extends over multiple fields or areas, select the area that is the closest match.

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

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, and being used towards the resolution of global issues. A project is not eligible if it consists merely of transfer of Japanese technology without entailing any joint research, and of simple operations that do not make any contribution to the advancement of science and technology.

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

The development of technologies and dissemination of research results 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. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) points out that the climate change can cause the severe adverse effects on water cycle, ecosystem, food production, health, etc. It indicates that, in order to achieve adaptation to and mitigation of climate change, governments should each set policies relating to the improvement of energy supply, transportation, building construction, industry, and waste, with the aim of reducing greenhouse gas emissions.

It is not enough just to continue with current plans and efforts to mitigate climate change. In order to deal with climate change in the future, it is essential to take activities to a higher level. As it is predicted that the effects of climate change are likely to worsen over the long-term, it is clear from the situation now that mitigation measures will be insufficient in tackling climate change. It is necessary to implement a combination of adaptation and climate change mitigation plans in order to reduce climate change and the risks associated with it.

Based on these considerations, research proposals for FY2014 shall consider the social needs of developing countries, and include research that contributes to resolving global environmental issues, that links also to the advancement of science and technology in Japan. Several examples of research subjects are listed below, but other subjects are also acceptable if they meet the requirements mentioned above. For research proposals relating to energy systems for low carbon societies, including utilizing biomass and waste for energy, applications should be made under Research Area 2.

- Research on climate change adaptation or mitigation

- Research on water processing and ensuring safe water supply

- Research on safety controls for risks associated with chemical substances

- Research on establishing a recycling society (including resource recovery and reuse)

- Research on the preservation and restoration of ecosystems and biological diversity, including bioremediation

- Research on reconstruction and restoration of environments damaged by large-scale natural disasters

- Research on urban environmental conservation and environment creation

### **Research Area 2: Research contributing to advanced energy systems for low carbon society**

At the G8 L'Aquila Summit in July 2009, G8 nations recognized that global warming should not exceed two degrees Celsius, and that to achieve that, they needed to undertake quantifiable actions to reach a global reduction of 50% in the greenhouse gas emissions, and leaders agreed on a long-term target of reducing greenhouse gas emissions by 80% by 2050. 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 7, 2013, Cabinet approved the "Comprehensive Strategy on Science, Technology and Innovation - A Challenge for Creating Japan in a New Dimension." This comprehensive STI strategy positions the realization of a clean and economic energy system as one of the challenges to be addressed by science, technology and innovation, and considers a stable and low-cost supply of clean energy to be a focused policy challenge. Japan is not rich in natural resources, and requires safe, stable and economical acquisition and efficient utilization of primary energy sources such as renewable energies and fossil resources. Based

on that awareness, the country is aiming to become a society that has achieved both a stable supply of energy and a reduction in environmental impact.

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, and using energy, including fossil fuel energy, cleanly and efficiently leads to reduced CO<sub>2</sub> emissions. Furthermore, the development of such technologies and the deployment of such outcomes is extremely beneficial for the whole world, not just for the countries concerned.

Based on these considerations, research proposals for FY2014 shall be based on the needs of developing countries, covering subjects that can potentially enhance science and technology in Japan and bring significant scientific and technological benefits. Several examples of such topics are listed below. The list is for reference and is not exhaustive.

Research relating to the utilization of renewable and sustainable energy such as biomass energy

Research on advanced energy-efficient utilization (including innovative clean and efficient energy utilization technology), energy conservation, carbon dioxide capture and storage (CCS), energy systems, simulation technology, etc.

Research contributing to the optimization and efficiency improvement of energy systems (including smart communities) related to sectors such as industry, transportation, and residential/commercial in the developing country

## **(2) Bioresources**

### **Research Area 3: Research contributing to sustainable utilization of bioresources**

Since ancient times, human beings have utilized a diversity of bioresources for food, medicine, fodder, textiles, and energy. With global-level population increases and climate changes, agricultural systems need to be capable of dealing with issues such as desertification, salt accumulation in agricultural land, the spread of diseases and pests, less reliable temperature and rainfall levels, etc., all of which threaten the sustainable production of bioresources. Establishing foundations for sustainable agricultural production is considered important. At the 10th Conference of Parties (COP10) to the Convention on Biological Diversity, held in Nagoya, Japan, in October 2010, the Nagoya-Kuala Lumpur Supplementary Protocol was adopted. Through the Protocol, international rules were established on genetic engineering and overall rules set on access to genetic resources and benefit-sharing (ABS) based on the Nagoya Protocol. This is a step towards establishing an international framework for the increasingly diverse utilization of bioresources.

So that we can continue to enjoy the benefits of bioresources despite globally changing conditions, more research and development into the production, utilization, and management of bioresources is called for and it is hoped that the outcomes of such research will enable us to make a much greater contribution back to society.

Applications are accepted for research projects covering topics in developing countries for which research is particularly necessary and for which capacity building of researchers is required. Project proposals shall cover issues common to both the developing country and Japan so that collaboration can further enhance the development of both countries. The envisaged outcome of proposed joint research projects must be to benefit society, by working to resolve issues on a global scale as well as in the developing country. Proposals for projects that consist merely of transferring technology and providing knowledge from Japan without any joint research, or that consist of simple joint operations that do not contribute to science & technology development shall not be accepted.

Based on these considerations, several examples are given below of the types of research project that may be accepted for FY2014. The list is for reference and is not exhaustive.

Research contributing to the sustainable production of bioresources (including resource management, breeding and cultivation technology for plant, animal and marine bioresources)

Research contributing to the utilization and evaluation of bioresources (including using biodiversity for developing drugs from natural substances, etc.)

Research topics focusing on the following issues are excluded:

Research contributing to the conservation and restoration of bio-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, 2)

### **(3) Natural Disaster Prevention**

#### **Research Area 4: Research on natural 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 the purposes of natural disaster prevention in Japan, 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 United Nations World Conference on Disaster Reduction held in January 2005 produced the "Hyogo Framework for Action", a world-wide strategy for natural disaster prevention for the next ten years. This framework underlines the need for each country to engage in focused efforts toward natural disaster prevention, and the importance of providing technical assistance to developing countries.

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, on this major disaster, in order to help prevent the occurrence of natural disasters in the future. It is recommended that such research incorporate analyses to clarify the mechanisms of earthquakes and tsunami, a review of natural disaster prevention measures to date, and an investigation into risk communication processes, etc.

Applications are accepted for research projects covering topics in developing countries for which research is particularly necessary and for which capacity building of researchers is required. Project proposals shall cover issues common to both the developing country and Japan so that, through collaboration, further advancements can be hoped for in science and technologies for preventing natural disasters. Specifically, eligible proposals shall relate to natural disasters such as earthquakes, tsunami, volcanic eruptions, and landslides, or to the prevention or reduction of disasters such as large-scale fires, chemical plant accidents, and water damage to underground space in highly populated cities.

The envisaged outcome of proposed research projects must benefit society through joint research, by working to resolve global issues in developing countries and elsewhere. Proposals for projects that consist merely of transferring technology and providing knowledge from Japan without any joint research, and whose contribution to natural disaster prevention is limited to only one of the countries involved shall not be accepted.

Based on these considerations, several examples are given below of the types of research project that may be accepted for FY2014. The list is for reference and is not exhaustive.

Research and development contributing to disaster prevention and mitigation by means such as clarifying natural disaster mechanisms through observation of natural phenomena associated with earthquakes, tsunami, volcanic eruptions, landslides, etc.

Research and development for the collection, processing, effective provision and utilization of natural disaster related information (including research into IT utilization techniques)

Research and development relating to technology for measures to minimize damage caused by natural disasters such as earthquakes, tsunami, volcanic eruptions, floods, drought, and landslides

Research and development relating to technology for measures to minimize damage caused by large-scale disasters (inundation, fires, earthquakes, chemical plant accidents, etc.) in cities

#### **(4) Infectious Diseases Control**

##### **Research Area 5: Research on measures to address infectious diseases control attuned to the needs of developing countries**

HIV/AIDS, malaria, dengue fever, tuberculosis, highly-pathogenic avian influenza, and other emerging and re-emerging infectious diseases not only pose a threat to health in developing countries, but act as a major impediment to social and economic development. The frequency with which people and goods are now moving across national borders means that these problems are not confined to developing countries. Japan is consequently keen to boost international cooperation regarding infectious diseases that have the potential to enter Japan, in order to accumulate knowledge in advance of any actual outbreak. Several examples are given below of potential research and development projects that target solutions for global issues in the area of infectious diseases control.

Research and development on Zoonosis such as avian influenza, rabies and others

Research and development for technology related to diagnostics, vaccines and therapeutics for the detection and control of emerging and re-emerging infectious diseases including HIV/AIDS, malaria, Dengue fever and tuberculosis

Regarding research proposals containing drug development and development of new treatment methods, note that clinical trials and medical practice are not eligible for joint research. Details are given in 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 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 host country. They must be assessed by an ethics committee in the host 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.

## **6. Review criteria and considerations for the selection process**

### (1) Review criteria

The proposal must be based on the needs of the ODA recipient country, and be largely in line with Japan's ODA policy with regard to that country—Aligned with ODA policy.

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 knowledge and technology for addressing global issues—Scientific/technical value.



The proposed project must envisage future utilization of research outcomes in society (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)—Direction for utilization of research outcomes.

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—Merits for Japan.

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 equipment provided and continue with research—Setup for research in both countries.

There must be a suitable research expense plan that takes into account research cost performance in the promotion of joint research—Efficient & appropriate research plan.

It is vital for the PI 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—Competent PI.

## (2) Considerations for the selection process

The proposal (project) will be favorably 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.

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 collaboration<sup>9</sup>) to work with the outcomes are particularly welcomed. When making an application for a industry-academia-government collaboration project, the principal research 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 research institution is a private sector business, also fill in and submit Form 9.)

As the program collaborates with ODA, the projects should be aligned with Japan's ODA policy for the specific country, and with the development policy of the ODA recipient country.

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 expanding internationally, or with NPOs, and other grassroots activities.

From the perspectives of diplomatic policy and science and technology policy, there is a need to maintain a balance among recipient countries and regions in order to assure balanced allocation of resources such as research funding, etc. Consequently, reviews of the proposal will take into account diplomatic and science & technology policies.

Utilization of research institutions and universities that have previously been developed by Japan's ODA and outstanding research sites in relevant regions is encouraged as a strategy for research to make the utmost use of the features of ODA recipient countries.

In view of the nature of the program in dealing with issues on a global scale, proposals for conducting international joint research involving Japan and more than one other country are welcomed. Research projects extending over several countries need to ensure that the ODA applications from each country are submitted by the deadline. If all the documents are not submitted, the 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.

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<sup>9</sup> For the purposes of this program, entities participating as an "industry" player have businesses incorporated in Japan.

Proposals similar to the projects selected from FY2008 to FY2013 will be reviewed based on scientific merit, such as whether essential scientific differences exist in terms of aspects of the research objective, target, approach, region of implementation, etc. or whether greater outcomes can be expected under competitive implementation with existing similar projects.

For projects involving African nations, consideration will be given to whether the project plan enhances human resources in the region, whether it is based on local surveys and data analysis, and whether it is designed to develop and apply 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 PI is a young researcher under 45 years old or on which more than half of the research team in Japan (scheduled to engage in the research during the research period) are researchers under 35 years old. Proposals structured to meet these criteria may be evaluated more favorably.

It is also important for the institution where the PI is 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 research institution need to meet certain conditions to be eligible for selection.

## **7. Selection process**

### **(1) Two-step selection process**

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

### **(2) Exclusion of stakeholders**

In accordance with JST regulations, stakeholders of the applicants, etc. will not participate in selection.

### **(3) Cooperation with MOFA, MEXT, and JICA in the selection process**

At the selection stage, JST/MEXT will receive information from MOFA/JICA concerning progress of applications for technical cooperation projects and concerning the ODA screening process. Please be forewarned that JST will provide submitted documents and the results of documents and interview screenings to MOFA, MEXT, and JICA.

## **8. Applicant requirements**

The PI must be affiliated with a Japanese research institution<sup>10</sup>, be able to fulfill the duties as PI for the international joint research project, and be able to engage in the international joint research from start to finish. The application should be written by the PI in person.

## **9. Responsibilities of principal investigators (PIs) after selection (conditional selection)**

The following responsibilities will take effect for the PI upon conditional selection.

### **(1) Leading and managing the research**

- PI must assume responsibility for the entire international joint research for the full duration of its implementation. PI, based on his/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.

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<sup>10</sup> "Japanese research institutions" refers to universities, independent administrative institutions, public-sector research and development institutes, specially authorized corporations, public-service corporations, or private-sector corporations, etc.

- The PI 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 dispatching specialists, providing equipment and tools, inviting researchers from partner countries), reporting regularly to JST/JICA, submitting to JST/JICA's joint project appraisal, and traveling regularly to the partner country. As a rule, unilateral termination of the research activity at the PI's wishes midway through the implementation period will not be allowed.

- After receiving conditional approval, PI must be able to attend meetings in Japan with JICA/JST (three to five times) and to visit the prospective ODA recipient country in a part of JICA's ex-ante evaluation (approx. 10 to 14 days during the period between July and October 2014).

- PI shall be responsible for research, for planning and implementation of Japan's inputs to the work in the partner country (dispatch of experts, provision of equipment, inviting researchers from partner countries), and in the case of a research team being formed in Japan, for that research team. In planning and implementing the dispatch of human resources, PI shall take particular care to ensure full communication with the counterpart country, and to secure roles for young researchers. PI shall also attend meetings of the Joint Coordinating Committee held in the developing country to report on progress of the research and discuss operation and management.

- PI shall submit reports and other materials required by JST/JICA and submit to project appraisal by JST/JICA. The PI shall also report on the progress of research whenever requested by the JST/JICA.

- PI shall be responsible for consensus-building, communication and coordination with administrative offices and other entities within the research institution.

- This fund is supported by the Government of Japan. Therefore, PIs 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, PIs 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 PI participates in workshops or symposia organized by JST/JICA, he/she is expected to make a presentation of research outcomes.

## (2) "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>

The PI and all other planned members of the research team in both countries are asked to sign up for "Friends of SATREPS", the program's social networking service (SNS) site. Registered members are requested to then build communities for research projects that are selected. Also consider using "Friends of SATREPS" to explain your proposed research project when preparing a research proposal.

Friends of SATREPS: members-only social networking site  
<https://fos.jst.go.jp/english>

SATREPS also has a Facebook fan page and Twitter account.

<http://www.facebook.com/Friends.of.SATREPS>

<https://twitter.com/SATREPS>

(3) Compliance with research agreement etc.

Each PI shall comply with the research agreement between JST and research institutions, other JST rules and regulations, the memorandum agreement with JICA, the R/D concluded between JICA and counterpart research institutions, and MOU related to the joint research concluded between research institutions.

(4) Submission of documentation confirming compliance

After a project proposal has been selected, the PI 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 Guidelines

b. The research funding provided by JST is paid for from national taxes. The PI 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 illicit acts (fabrication, falsification, or plagiarism of research reports, etc.) by researchers and others participating in the project, PI shall promise JST to publicize the obligation to study the research ethics course (online learning materials) uploaded to the research and development database.

(5) Obligation to study research ethics learning course

In order to prevent illicit acts (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 (online learning materials). If this obligation is disregarded, 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 first approved in FY 2013 onwards.

## 10. Requirements and responsibilities of research institutions

The requirements and responsibilities of Japanese research institutions (institutions to which the PI and main research collaborators in research projects that have been selected or conditionally 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 PI 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 managers at a lower level in the organization, such as general managers, directors of divisions or centers, or heads of departments).

(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. 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 Operating Contract and the Operating 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 (EX: Procedures to request payment of funds that have been awarded to the institution the PI is affiliated with) in accordance with the R/D and memorandum agreement with JICA. In principle, only the research institution which PI of the proposal is affiliated with 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. Concerning the agreement with JICA, accounting operations must be handled appropriately in accordance with the Operating Contract and the Operating 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 under the Contract Research Agreement 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 research institution that the PI is affiliated with 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 and transfer of the bio-resources in the partner country. A draft of the MOU should have details of essential items etc. approved 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 research institution PI is affiliated with.

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

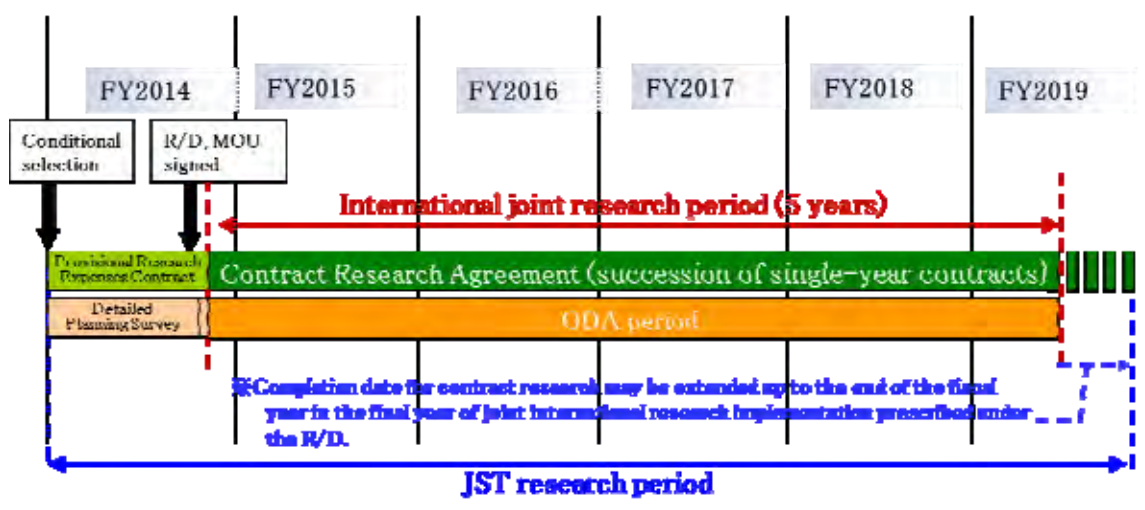


Figure 3 Extent of Research Period (5-year project)

## 12. Research expenses (JST contract research expenses and ODA project costs)

In this program, JST will provide financial support to the Japanese research institution for the project activities in Japan and JICA will provide financial support to the research institution in the ODA recipient countries within the framework of technical cooperation projects.

(1) The overall Contract Research Expenses awarded by JST per project shall be approximately JPY 36 million per year (approximate total of JPY 180 million for a five year project), including indirect costs and overhead.

The amount is a rough indication, and assumes the approval of the FY2014 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 PI 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>

(2) For each project, the guideline for maximum ODA project expenses is envisaged to be about 60 million yen per year, or in the range 180 million yen for a 3-year international joint research project to 300 million yen for a 5-year project. The actual amount of expenses differs according to the type of research and costs incurred. Moreover, the actual budget for ODA project costs is decided according to the activities to be conducted. These are fixed after the detailed investigation into the planning of the research project which does not occur until after conditional selection of the project.

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.

Details of expenses that can be met are given in section IV "Overview of ODA Technical Cooperation).

## 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 costs, 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 (research activity costs, research equipment and supplies procured) are shouldered by JICA. (Travel costs for developing country researchers visiting Japan 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 born by JICA (Travel expenses to and from the country, relocation fees and other allowances for long-term dispatch for a period over one year).<sup>11</sup> Activities

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<sup>11</sup> 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

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,

Table 2. Categories of expenses covered by JST and JICA

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: Research expenses incurred in partner countries (Research activity costs, on-site equipment procurement, etc.)	Exceptionally (Note 2)	YES (Note 3)
B: Travel expenses to invite researchers to Japan from partner countries		YES
C: Travel expenses between Japan and partner countries for Japanese researchers		YES

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 research expenses that are not covered by JICA.

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 equipment provided, domestic transportation fees for local researchers, conference attendance allowances, and other miscellaneous costs) should in principle be covered by its own country.

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.

## IV. Overview of ODA Technical Cooperation

### 2. ODA technical cooperation

The objective of JICA operations is to contribute to the promotion of international cooperation and sound economic development of Japan and countries throughout the world through financial and social development and restoration of developing nations and regions and the economic stability of such countries. JICA provides technical cooperation (accepting trainees, dispatching experts, providing equipment, etc.), ODA loan assistance, grant aid, promotion and encouragement of cooperation among citizens (dispatching Japan Overseas Cooperation Volunteers, etc.), and emergency disaster relief assistance.

In technical cooperation schemes, JICA provides means to support developing countries by capacity building and institutional development so that the country may evolve a comprehensive and intrinsic capacity to independently deal with developmental issues.

Technical cooperation projects are the principal form of technical cooperation, and are implemented as an optimized combination of dispatching experts, receiving trainees, providing equipment, and other elements. They achieve strong and reliable outcomes as a result of systematic and integrated operation and execution in collaboration with the appropriate government agencies and institutions in developing countries, who are

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in advance.

involved throughout the series of processes from planning and execution to eventual evaluation of the project.

The Science and Technology Research Partnership for Sustainable Development program is a program for joint projects between research institutions in Japan and developing countries that are implemented within the framework of ODA Technical Cooperation Projects. Consequently, SATREPS projects systematically conduct research as partnerships between research institutions in Japan and developing countries.

## 9. Inquiries about ODA technical cooperation

For detailed information about ODA technical cooperation, please contact the JICA headquarters in Tokyo, Japan or one of the JICA overseas offices in developing countries.

Japan International Cooperation Agency (JICA)

(1) JICA Headquarters

<http://www.jica.go.jp/english/about/organization/headquarters/index.html>

(2) JICA offices

- JICA domestic offices

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

- JICA overseas offices

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

The best time to discuss your research proposal with JICA is when you have talked it over with your research partner and have a reasonable picture of the grand design. Please note that JICA overseas offices do not handle questions about the content of this Application Guideline.

(3) Websites for reference concerning Japan's ODA and technical cooperation

Ministry of Foreign Affairs ODA site

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

ODA policies and information by region

Please refer to this site to confirm that your research topic is in line with Japan's ODA policy for your particular country or region.

[http://www.mofa.go.jp/policy/oda/page\\_000007.html](http://www.mofa.go.jp/policy/oda/page_000007.html)

JICA Technical Cooperation Projects (Website for technical cooperation projects, the most common form of ODA)

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

JICA Science and Technology Cooperation on Global Issues (SATREPS and other programs)

[http://www.jica.go.jp/english/our\\_work/science/index.html](http://www.jica.go.jp/english/our_work/science/index.html)

JICA Library Search

Search on a project name to find published SATREPS reports in PDF format.

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



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>

Japan Science and Technology Agency (JST)  
Research Partnership for Sustainable Development Division  
Tokyo Headquarters, 8th Floor, K's Gobancho  
7, Gobancho, Chiyoda-ku, Tokyo, 102-0076 Japan

E-mail: [global@jst.go.jp](mailto:global@jst.go.jp) (Address for inquiries regarding research proposal applications)  
**Tel: +81-3-5214-8085 (Mon.-Fri. 10:00-12:00/13:00-17:00, except public holidays)**