FY2012

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

Invitation for Application of Research Proposals

This Application Guideline is prepared for researchers who belong to Japanese research institutions/universities in Japan.
The researchers in developing countries should consult their national governmental 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

October, 2011

Important Notes Regarding Application of Research Proposals for FY2012

This project is a collaborative program with Official Development Assistance (ODA) and, as such, application processes at the relevant organizations overseas can be lengthy. So, although this invitation relates to research projects that will be selected and implemented after the budget for FY2012 has been set, JST is calling for proposals to be submitted before the final budget is announced, to enable research projects to start as soon as possible in FY2012.

Please note that depending on final budget details and amounts, changes may be made to research areas, research expenses and the number of projects selected, or we may ask for additional materials to be submitted.

The latest budget-related information can be found on the following portal site. If deemed necessary, we will contact you by email after the deadline for the application of research proposals.

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

1. How to apply

Research proposals for FY2012 shall be made using the Electronic System for Research and Development (e-Rad).

Electronic System for Research and Development (e-Rad) portal site:
http://www.e-rad.go.jp/

Deadline for research proposals: 12:00 noon on Thursday December 8, 2011 (Japan time)

2. Request for technical cooperation to the government of Japan

As the Science and Technology Research Partnership for Sustainable Development (SATREPS) is a collaborative program with Official Development Assistance (ODA) technical cooperation, research institutions in developing countries must submit a request to their government agency responsible for submitting ODA technical cooperation requests to the government of Japan. Japanese research institutions shall submit a request to JST in Japan. Prior to submitting a proposal or request to the relevant agencies in each country, researchers from both Japan and the corresponding developing country must discuss and agree on a research plan. If, for a particular request from a Japanese research institution, no application is submitted from the corresponding government agency overseas, the research proposal shall be deemed as not meeting requirements, and

shall not be accepted.

The deadline for submitting cooperation requests to the Japanese government is Thursday, December 8, 2011. However, please note that the deadlines at government agencies in the developing countries will be set earlier than this date.

3. Submission of a letter of consent from your organization head* (Form 9)

A letter of consent from your organization must now be submitted through the e-Rad system along with your proposal. **If a letter of consent is not submitted, the research proposal shall be deemed as not meeting requirements, and shall not be accepted.**

* Organization head refers to the president or director of the research institution, and not to heads of departments, faculties, or centers within the institution.

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I. Project Outline

1. Objective of the research program

Based on the needs of developing countries, the Japan Science and Technology Agency (JST) cooperates with the Japan International Cooperation Agency (JICA) to promote international joint research targeting global issues*1 with the future utilization of research outcomes*2. Implemented through collaboration with Official Development Assistance (ODA), the aim of the program is to acquire new knowledge leading to resolving global issues and advancing science and technology. Such international joint research under this program also aims to enhance the research and development capabilities of developing countries, and help create systems for sustainable research activities for resolving issues.

*1 Global issues: Issues which are difficult to resolve by one particular country or region and need to be handled by the international community as a whole

*2 Utilization of research outcomes: Using research results for the benefit of society

2. General description of the research program

(1) Program status and aims

In August 2011, the Japanese Cabinet approved the Fourth Science and Technology Basic Plan, which 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. It plans to do this through international cooperation, by making positive contributions based on its experience and achievements to date, and utilizing its own unique intellectual assets and creativity. Specifically, Japan will work to resolve global issues by actively promoting international cooperation with developing countries. Japan sees it as its own responsibility within the international community to contribute to the advancement of science and technology in developing countries and to the cultivation of human resources. In order to tackle these global issues, and to support self-reliant, sustainable development in developing countries in areas such as Asia and Africa, Japan will provide assistance in terms of applying and transferring technology from Japan. In addition to this, joint research will also be carried out through collaboration between universities and research institutes in Japan and developing countries, with the aim of developing and utilizing new technologies, and gaining new knowledge. Such an approach is necessary as it enables issues to be resolved and at the same time works to improve science and technology standards and overall capabilities at universities and research institutions in developing countries.

The government's basic plan will strongly promote career development, and will train personnel to ensure 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. It is expected that through international collaborative research, Japan will also be able to develop its own human resources for dealing with globalization

JST, in cooperation with JICA, launched the Science and Technology Research Partnership for Sustainable Development (SATREPS) program to promote international joint research between Japan and developing countries targeting global issues such as those described above. In collaboration with research institutions in developing countries, it aims to acquire new knowledge that can lead to the resolution of global issues and the advancement of science and technology. Under this program, JST provides support for research expenses in Japan and elsewhere (but not in the developing country), while JICA bears the costs[*3] in the developing 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 (which operates technical cooperation to developing countries) and JST (which possesses expertise in funding research projects in Japan). It is expected that the promotion of international joint research activities under this program will enable Japanese research institutions to conduct research more effectively about fields and targets related to 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 the 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.

[*3] As JICA supports the counterpart country under the technical cooperation framework, the counterpart country is required to depend on its own efforts in the provision of research facilities and equipment, placing of counterparts, bearing of local costs, obtaining permission for field surveys from relevant organizations, and etc. Esepecially, the local costs required for a project (labour costs, rent, consumables, transportation fees, and other miscellaneous costs) should be generally covered by the counterpart country. The existing facilities, equipment and materials should be utilized as much as possible. The investment by Japan under the framework (dispatching experts, providing equipment, inviting researchers from the developing country to Japan, dispatching survey teams, and etc.) should be determined after the ex-ante evaluation conducted by JICA.

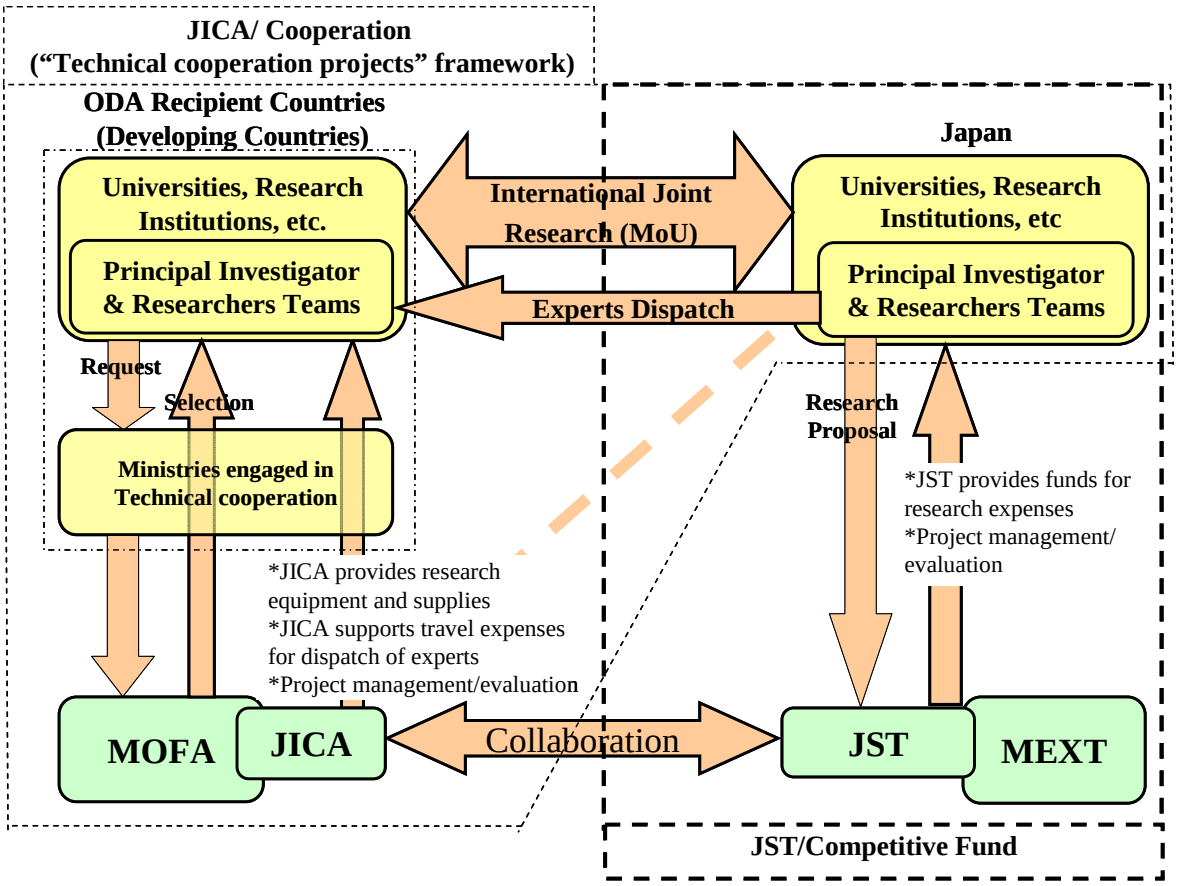

Figure 1: SATREPS Project Scheme

(2) 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 a program officer (PO) with responsibility for a single research area. JST also determines more specific research areas within the research fields.

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 of POs and external reviewers. Principal investigators (PIs) (the research team in Japan) selected in each research area engage in international joint research with research institutes in developing countries.

While JST selects proposals, the Ministry of Foreign Affairs (MOFA) in the meantime receives requests from developing countries for ODA technical cooperation for international joint research, and MOFA reviews these requests with JICA in Japan. Therefore, it is essential for the PI in Japan to coordinate with researchers in the developing 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 developing country to MOFA, via the ministry or agency in the developing country responsible for ODA technical cooperation, by the specified deadline*4.

*4 Please be aware that the deadline for requests for ODA technical cooperation to the Japanese government may vary from country to 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 linked to each other. Both applications, one to JST by Japanese PI and one for ODA technical cooperation, have to be approved, in order that the research project can be supported under the program.. MOFA shall notify the counterpart country of this decision.

c) Preparations for implementing selected projects

To implement the international joint research, a Record of Discussions (R/D) must be signed by the developing 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) .

After research projects are conditionally approved, JST firstly concludes a Provisional Research Expenses Contract with the research institution to which the PI in Japan belongs. This enables the Japanese researchers to make research funds available 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 shall send an investigation team, comprising of the PI in Japan and other members, to the counterpart country. It shall carry out a detailed investigation into the planning of the research project and summarize the results of discussions in a Minutes of Meeting (M/M) document. The M/M shall be signed by JICA and the counterpart 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 counterpart 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 March, 2013). Even if a research project has been selected, it may not be possible for the research to be implemented if the R/D is not likely to be signed in the near future, or for other reasons[*5] such as deteriorating public security. Preparations for implementing the project may also be halted part way through. 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.

[*5] Such reasons may include storms, heavy rains, flooding, high tides, earthquakes, landslides, rock falls, fires, war, civil war, riots, coups d'état, terrorism, invasions, enemy activity, uprisings, strikes, decisions made by the government of the developing country, other natural or human-induced events, improper use of research funds, and improper research activities.

d) Implementation of the international joint research

The Japanese PI will function both as the leader of the international joint research project selected under SATREPS and as the leader of the ODA technical cooperation undertaken as part of the international joint research.

JST will provide fund in the form of Commitment Research Expenses for necessary research costs incurred in Japan and other countries outside the counterpart nation. The Japanese PI will be obliged to undertake responsibilities as a leader of the research project, producing documents including research plans and progress reports, and cooperating with evaluation activities and so on as required by JST.

JICA will support project implementation in the developing countries, such as dispatch of Japanese experts (researchers), provision of equipment and training of counterpart personnel (visiting counterpart researchers), and other supports related to the project in the developing countries. In principle, such supports incurred within the counterpart can be disbursed as project expenses only in cases where a researcher from Japan (including administrative staff[*6]) is posted to the counterpart institutes as a "JICA expert" [*7]. A posting of researchers from Japan as a JICA expert will be accorded the same treatment in terms of tax immunity etc. as applied to regular

ODA technical cooperation.

JICA and the research institute to which the PI belongs shall conclude an Agreement Technical Cooperation with JICA under SATREPS[*8] (hereinafter, the Agreement) when the R/D 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 contract containing an estimate of these expenses and details of accounting procedures, for confirmation by either party.

The PI shall act in accordance with the Agreement and contract mentioned above, and shall be responsible for coordinating the running and management of the project as a whole. Duties shall include the creation and evaluation of work plans and reports for the ODA technical cooperation project, coordinating and managing investment in Japan, and coordinating the research team in Japan. Although it is not essential for the PI to be permanently stationed in the couterpart country for the period of the joint research, it is desirable that at least one member of the Japanese research team should be stationed there as permanently as possible.

[*6] In the same way that it stations administrative staff in developing countries to offer support to experts, manage local operating costs, and provide support in procuring materials for overseas JICA offices for regular ODA technical cooperation projects, JICA shall also position administrative staff in the same way for the SATREPS program.

[*7] The JICA experts (called 'overseas researchers' under the SATREPS program) being stationed in the counterpart country do not necessarily have to be PIs. Other members of the Japanese research team necessary for the joint development are eligible. However, as a rule, postgraduate and other students are not eligible to be stationed as JICA experts.
Please note that even if the PI remains in Japan while other research team members are stationed in the counterpart country, the PI is still the team leader for the project and shall be responsible for the activities carried out in the developing country for the JICA technical cooperation project.

[*8] The Agreement is a comprehensive report stipulating the rights and obligations of JICA and the research institution to which the PI belongs.

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

From FY 2010, MEXT establishes the "Global-Issue Section" within Japanese government scholarship program (University Recommendation) for SATREPS projects. The aim of "Global-Issue Section" is to develop youth researcher as the future key player in relevant research in his/her own country by taking a doctorate at Japanese institution. Invitation for Japanese government scholarship program is implemented by MEXT, and scholarship is budgeted separately from SATREPS; however, a doctoral degree needs to be received within a term of SATREPS project. 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.

Japanese Government (MEXT) Scholarship Program website
http://www.mext.go.jp/a_menu/koutou/ryugaku/06032818.htm

(4) Inviting foreign researchers to Japan

There is also a system for inviting researchers from the developing country to Japan using 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 on a doctoral or master's course. 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 they can be invited to Japan under this system only during the period for joint research specified in the R/D.

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 sustainable international joint research with Japan.

II. Guidance for Application and Selection

1. Research areas

Proposals for FY2012 are invited in the following 4 research fields and 5 research areas.

Research fields (number of research areas)	Cooperation request from developing country	No. of proposals to be selected	Research period	Research budget from JST
Environment and Energy (2 research areas)	Compulsory	About 15 in total	3 to 5 years	Approx. ¥38 M/year (including indirect costs) (Approx. ¥190 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 number of proposals to be selected and the research budget from JST are tentative.

2. Countries covered by the program

See Appendix 1 for countries to be covered by this program. The focus is on Asian and African countries.

With regards to international joint research among Japan and multiple countries, the whole process, from submission of the ODA technical cooperation request to sign and exchange of R/D, must be completed with all of the multiple countries involved. Such process takes considerable amount of time and may not be completed at the same timing. If PI in Japan would like to propose such multi research partnership, it is required to set one of the developing countries as a leading counterpart. In such case, research partnership may initiate as a bilateral partnership and add other counterpart countries one by one. Please be notified that such multi research partnership project ends at the same date regardless of the date to sign R/D between JICA and counterpart country. Budget for such multi research partnership may be reduced depending on the number of the countries that sign R/D with JICA.

3. Schedule for application and selection

The application 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 website

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

Applications start date	Tuesday October 11, 2011
Applications deadline	12:00 noon on Thursday December 8, 2011 (applications received after the deadline will not be accepted)
Document screening	End of December 2011 to end of March 2012
Notification of document screening results	March 2012
Interviewing for selection	April 2012
Decision and notification	Conditional approval and notification*9
	Mid May 2012
Start of research	After June 2012, following signing of the R/D*9

*9 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 governments of developing countries. 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 projects in Japan will be announced to the public at the appropriate time.

JICA conducts an ex-ante evaluation in order to coordinate the international joint research in the counterpart country. PIs of the selected research projects and the institutions with which they are affiliated may be requested by JICA to cooperate for the ex-ante evaluation. Depending on the counterpart(s), however, it may take some time before the R/D is signed. In such cases, a part of JST Commitment Research Expenses can be made available even before the R/D is signed in order to enable swift implementation of the international joint research after the R/D signing. The Expenses would be limited to research costs incurred in Japan for the purposes of preparation for the international joint research.

Ultimately the R/D will be signed between the counterpart and JICA, and the period specified in this R/D shall be the period in which the international joint research is conducted.

4. How to apply

Research proposals for FY2012 shall be made using the Electronic System for Research and Development (e-Rad). e-Rad is a cross-ministerial online system for processes regarding to R&D management (invitation for application→screening→selection→management of adopted subjects→results report, etc.).

Electronic System for Research and Development (e-Rad) portal site

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

In recent times there have been some cases where applicants have accessed e-Rad at the last minutes and have not been able to complete their application. Applications received after the deadline will not be accepted, so it is strongly recommended that applications be completed by the day before the deadline.

In case the application of proposal through e-Rad is troublesome due to the difficulties on registration for e-Rad system and etc., please contact JST's inquiry counter noted at the end of this guideline.

When research applications are made, the PI and all other planned members of the research team (including researchers in the counterpart country) are asked to register on Friends of SATREPS, the program's social networking service (SNS) site for registered members only. Members are requested to then build communities for the proposed research projects.

Friends of SATREPS members-only social networking site

https://fos.jst.go.jp/

When creating communities, go to Community Category and select "F: FY2012 SATREPS Application". The access limitation for topics can be set as you see fit (e.g. if you wish to advertize the proposal externally, "Accessible to all members" should be selected, whereas if you do not wish to disclose the details of the proposal externally, "Accessible to only community members" should be selected).

SATREPS also has a Facebook page.

5. Research fields and areas to be invited

Proposals are invited in the following research fields and areas. From this year, research proposals that cover the multiple research fields or areas shall be accepted as the 'Interdisciplinary Field'

Each PI applicant can file only one research proposal for this program across all the research areas outlined below.

List of research fields and areas to be invited

Research Fields	Research Areas
Environment and	1. Research contributing to the resolution of global-scale

Energy	environmental issues
	2. Research on energy systems for a low-carbon society
Bioresources	3. Research for sustainable production and utilization of bioresources
Natural Disaster Prevention	4. Research on natural disaster prevention based on the needs of developing countries
Infectious Disease Control	5. Research on infectious disease control based on the needs of developing countries

To ensure that research proposals are appropriate for SATREPS, please read carefully the research field descriptions below. Research proposals that cover just a part of other research projects, and proposals that involve much of the research work being externally contracted shall not be accepted.

(1) **Environment and Energy**

Target for selection is the research projects in which there is a high degree of demand for implementation in developing countries and capacity building of researchers in those countries. Projects also ought to envisage their outcomes being applied to the benefit of society including those in counterpart developing country and 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. “Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report” 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 deal with and alleviate 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 alleviate 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 current alleviation measures will be insufficient in tackling climate change. It is necessary to implement a combination of countermeasures and climate change alleviation plans in order to reduce climate change and the risks associated with it.

Based on these considerations, research proposals for FY2012 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 adapting to climate change
- Research on alleviating climate change
- 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
- 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 Area 2: Research on energy systems for a low carbon society

At the G8 L'Aquila Summit in July 2009, G8 nations recognized that they need to keep the average global temperatures from rising more than 2 degrees, and to achieve that, they need 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 cutting their 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 creating a low-carbon society.

The promotion of measures to cut global greenhouse gas emissions requires not only the involvement of advanced nations, but also that of developing countries. Energy systems that contribute to the creation of a low-carbon society lead also to a reduction in the use of fossil fuels, so it is extremely beneficial for the countries concerned, as well as the whole world, to promote their development and to disseminate the results of such development.

Based on these considerations, research proposals for FY2012 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 natural energy and new energies, including utilizing biomass energy
- Research on basic technologies relating to the advanced utilization of energy, energy-saving, breaking down/storing carbon dioxide, systemization, and simulation, etc.
- Research contributing to the optimization and streamlining of energy systems related to industries, transportation, and public welfare, etc. in the developing country

(2) **Bioresources**

Research Area 3: Research for sustainable production and utilization of bioresources

Since ancient times, human beings have utilized many diverse forms of bioresource for food, medicine, fodder, cloth, and energy. Establishing foundations for sustainable agricultural production is important and this has been pointed out at conferences such as the G8 Summit in Deauville. With an increasing world population and changes occurring in climate, agricultural systems need to be capable of dealing with issues such as desertification, salt accumulation in agricultural land, and the spread of diseases and pests, all of which threaten the sustainable production of bioresources. 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. This is a step towards establishing environments for the utilization of diversifying bioresources. 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. It also indicates specific policies with which countries ratifying the Convention on Biological Diversity should comply.

So that we can continue to benefit from what bioresources bring us, more research and development into the production, utilization, and management of bioresources is called for and it is hoped that the results of such research will enable us to put something back into society.

Applications are accepted for research projects covering fields in developing countries for which research is particularly necessary and for which skills development of researchers is required. Project proposals shall cover issues common to both the counterpart and Japan so that, through collaboration, further advancements can be hoped for in the sustainable production and utilization of bioresources.

The envisaged outcome of proposed research projects must be to give something back to 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. The list is for reference and is not exhaustive.

- Research contributing to the sustainable production of bioresources (including 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.)

However, research topics focusing on the following issues are excluded:

- Research contributing to the conservation and adaption 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 mainly aim to resolve environment and energy issues

(Environment and Energy, Research Area 1 and 2)

(3) Natural Disaster Prevention

Research Area 4: Research on natural disaster prevention based on 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 learnt 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 fields in developing countries for which research is particularly necessary and for which skills development of researchers is required. Project proposals shall cover issues common to both the counterpart 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, and volcanic eruptions, 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 be to give something back to 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. The list is for reference and is not exhaustive.

- Research related to the clarification of natural disaster mechanisms through measurement of natural phenomena associated with earthquakes, tsunami, and volcanic eruptions, etc.
- Research and development for the collection, processing, effective provision and utilization of natural disaster related information
- Research and development relating to technology for measures to minimize damage caused by natural disasters such as earthquakes, tsunami, and floods, etc.
- Research and development relating to technology for measures to minimize damage caused by large-scale natural disasters in large cities

(4) **Infectious Diseases Control**

Research Area 5: Research on infectious disease control based on the needs of developing countries

HIV/AIDS, malaria, dengu fever, tuberculosis, highly-pathologenic 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. By contributing to efforts to address infectious disease issues in developing countries, we can, in turn, play a part in protecting the health of individuals from Japan who reside in or travel to those countries, and in curbing the entry of infectious diseases into Japan. As a result, such efforts will improve worldwide hygiene. For these reasons, Japan needs to work in cooperation with developing countries on research to address infectious disease control on a global scale.

In light of these conditions, applications in FY2012 are invited for projects involving research on prevention, diagnosis and treatment, etc. of infectious diseases, implemented through joint research with research institutes in the developing country and thereby contributing to the enhancement of public health, science and technology in the developing country and Japan. Applications must involve projects in which, founded on the conditions of and needs relating to infectious disease control in developing countries, result in the improvement of sanitary conditions and building capacities of researchers in those countries.

Proposed research projects must envisage outcomes of joint research being returned to society towards the resolution of global issues including those in the developing country. Projects that consist merely with the transfer of Japanese technology without entailing any joint research, and simple operations that do not make any contribution to the advancement of science and technology will not be eligible.

Furthermore, research proposals containing drug development and development of new treatment methods, clinical trials or medical activities will not be considered joint research. For more information, please refer to the JICA Policy.

On the basis of these considerations, several examples are given below of the types of research projects that will be eligible for FY2012 applications. Themes listed below are examples and there is a wider range of subjects of research eligible for application.

- Research and development on Zoonosis such as avian influenza, swine influenza and others
- Research and development for technology related to diagnostics, vaccines and therapeutics for the detection and control of emerging and re-emerging infectious disease including HIV/AIDS, malaria, Dengue fever and tuberculosis

Examples described above shall not be understood to encourage the submission of proposals covering all aspects of diagnostics, vaccines and therapeutics. Rather, it is highly recommended to target the subject of proposals based on research results obtained so far, supported by existing cooperative activities and thereby expected to proceed with the smooth operation of joint activities.

As for proposals relating to the “Japan Initiative for Global Research Network on Infectious Diseases” by

MEXT in FY2010, submit proposals based on the needs of developing countries, including future plans for utilizing research outcomes in society, with the aim of improving research capabilities and enhancing the public health of developing countries, rather than proposals which are merely an extension of research activities, that is, identical activities from aspects of objectives, target diseases, approaches and PIs of research at centers. Also, we expect proposals that include joint research at regional centers of neighboring countries.

(5) **Proposals that cover the multiple research fields or areas**

In the past, applicants were not allowed to apply under multiple areas for proposals extending over more than one field of research or which did not fit clearly into a specific one; however, starting this year, the application (form 1) allows the selection of more than one field. Such applications will be considered as the 'Interdisciplinary Field' proposals.

(6) **Joint research proposals related to restoration and revival after the Great East Japan Earthquake**

After East Japan was hit by the great earthquake, the national government formulated the “Basic Policy on Restoration after the Great East Japan Earthquake” (July 2011 The Reconstruction Headquarters in response to the Great East Japan Earthquake), which states that Japan will move on with the restoration of East Japan not through introspective measures but by strengthening and working together with the international community, accepting vital aid from abroad and aiming to share the measures taken with the world. The “Overall Picture of Policy Promotion” (August 15, 2011, Cabinet Decision) also outlines the measures for reconstruction after the earthquake and the restoration of Japan. The results of joint research in the environmental and energy fields and sharing wisdom and learning gained through the disaster and restoration of Japan will present possibilities for utilization not only for developing countries but also in the restoration of Japan. We look forward to receiving applications for joint research proposals that address these goals. You are asked to state in your application how your proposal is related, such as how it might apply to reconstruction after earthquake.

6. Review Criteria and Notes for the Selection Process

(1) Review criteria

- The proposal must be congruent with the objective of this program and its research fields and areas
- The proposal must be based on the needs of developing countries, and correspond to the ODA policy of the developing countries
- The proposal must involve research and development that will be evaluated highly in the international community and that will lead to the advancement of science and technology
- The proposed project must envisage future utilization of research outcomes in society (This does not have to be achieved within the research period; however, the idea to return the estimated outcomes in the research plan to society should be clearly-defined)
- There must be a concrete plan for joint research with developing countries, clear designation of the chief researcher in the counterpart country and research institute to undertake research activities
- The institution(s) where PI (and research collaborators in Japan) are affiliated must possess

infrastructure for international research activities necessary to undertake the proposed joint research as well as intention to enforce sufficient support and cooperation

- ♦ There must be a suitable research expense plan that takes into account research cost performance in the promotion of joint research with the counterpart country
- ♦ Development of science and technology in Japan, encouragement of young researchers in Japan, effectiveness for developing countries and the world are anticipated
- ♦ The PI must possess strong resolve and enthusiasm for promoting joint international research as the leader of a research team as well as exhibit strong and trustworthy leadership under JICA technical cooperation. The PI must be able to participate in the joint international research at the relevant affiliate institution during the research period.
- ♦ There must be a good prospect of the request for cooperation from the counterpart being selected under JICA technical cooperation.

(2) Notes for review

- ♦ The proposal will be favorably evaluated if the plan is specific, maintains a high standard of scientific and technological knowledge, and the process is well-defined in its timing for utilizing the research outcomes in society. Consideration is also given for a long span and wide point of view (EX: biological diversity)
- ♦ For the projects involving African nations, consideration will be given on whether the project plan enhances human resources in the region, whether it is based on local investigation and data analysis, and whether it is designed to develop and apply the appropriate technology or technology directly in coping with problems.
- ♦ Considering the importance of developing young researchers, applications proposing 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 (to be noted in Form 3) are welcomed. Proposals structured along these standards will be looked upon more favorably than those that do not.
- ♦ Utilization of research institutions and universities that have previously been developed by Japan's ODA and outstanding research sites in relevant regions are expected as a strategy to make the utmost use of the features of developing nations.
- ♦ As this program is conducted in coordination with ODA, organized activities with relevant administrative bodies is anticipated in consideration of the development strategies of the developing countries.
- ♦ The proposal will be reviewed in terms of contribution and impact to diplomacy and science and technology strategic policies in order to maintain a balance within the developing countries and regions (i.e. in order to avoid excessive concentration).
- ♦ The proposal similar to the projects selected from FY2008 to FY2011 will be reviewed based on the scientific merit such as whether essential scientific differences exist from 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.

- ♦ In principle, research is conducted jointly with Japan and one other country; however, in view of the program dealing with issues on a global scale, proposals that can produce an impact on neighboring countries are welcomed. Research projects extending over several countries with an expected synergetic effect will be looked upon more favorably.

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.

Please note that a review will NOT be conducted for proposals submitted to JST when the approval form from the affiliate institution is not submitted or the request from the counterpart country for an ODA project has not been made.

(2) Exclusion of stakeholders

In accordance with the JST rules, stakeholders of the applicants will not participate in the peer review to avoid biased screening.

(3) Number of grants to be awarded

A total of around 15 grants will be awarded from among all research areas. The number of grants awarded may be reduced depending on financial circumstances.
(The number will vary according to the budget of the program as well as the content and proposed budget in the application.)

(4) Cooperation with MOFA, MEXT and JICA in the selection process

JST will cooperate with the following agencies in the selection process by receiving information from MOFA and JICA via MEXT in an ODA request. Please be forewarned that JST will provide submitted documents and the results of documents and interview screenings to MOFA, MEXT and JICA.

(5) Use of information such as research proposal applications provided to JICA

Please be forewarned that information provided in the application will be used for limited purposes for JST screening, or as statistical data for MOFA, MEXT, JICA and JST the following fiscal year. Information contained in the submitted documents will not be used for any purposes other than those described above and those given in “V. Notes for Application” without advance permission from the applicant.

8. Applicant Requirements

Applicants who would like to be PIs need to be affiliated with Japanese research institutions or universities and they must submit the proposals.

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. In such cases, applicant requirements in d) below will apply. Applications that include the participation of research institutions in countries other than the counterpart country or researchers affiliated with such institutions, or joint research projects with research institutions in a third country will not be accepted.

a) PI affiliated with Japanese research institutions or universities must be able to engage in international joint research, fulfilling duties both as PI under the international joint research and as the leader of the research team under JICA technical cooperation. In addition, **PI must be able to arrange their schedule to prioritize attendance at meetings with JICA (three to five times) and to visit the counterpart developing country in a part of JICA's ex-ante evaluation (10 to 14 days during the period between July and September 2012).**

b) PI must be affiliated with a Japanese research institution[*10] and be able to conduct research at that institution. The director of the affiliate institution must guarantee the position of the PI during the research period.
(Note) PI scheduled to retire from the position during the research period are required to submit form 9 from the institution director with a guarantee of status in the institute.
The director of the affiliate institution is defined as the president or director, and not the heads of lower organizations such as deans, department heads or center chiefs.

c) PI must be a researcher who is able to assume responsibility for the entire international joint research for the full duration of its implementation.
(PI will be required to engage in international joint research as the leader of a research team under JICA technical cooperation to oversee operations in Japan (dispatching specialists, providing equipment and tools, inviting researchers from developing countries) including adjustments to research plan, reporting to JICA, submitting to JICA's project appraisal, and requiring travel to the counterpart country. As a rule, unilateral termination of the research activity at the PI's wishes midway through the implementation period will not be allowed.)

d) PI must, based on his/her own research concept, 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.

[*10] "Japanese research institutions" refers to universities, national and public research institutions, and public-service corporations that conduct research activities related to public affairs and satisfy predetermined requirements.

Individuals who satisfy the following conditions are also eligible to apply as PI.

- A researcher who is not currently affiliated with a particular research institution, but who will be affiliated with a domestic research institution if selected PI (including provisional selection), and is able to conduct research there.
- A Japanese researcher currently residing overseas who will be affiliated with a domestic research institution if selected PI (including provisional selection) and able to conduct research there.

As noted above, the affiliated institution where the PI intends to conduct research must meet the conditions specified herein.

9. Responsibilities of Principal Investigators (PIs)

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

In addition to the responsibilities below, PI who is affiliated with Japanese research institutions or universities shall assume duties as the leader of a research team for ODA technical cooperation.

(1) Leading and managing the research

a) PIs shall be responsible for the entire research team, and oversee proposals for research plans and matters relevant to its implementation (dispatching specialists, providing equipment and tools, inviting researchers from developing countries). As a rule, termination of research midterm for the PIs' reasons is unacceptable.

b) PI shall submit the required research reports and other materials to JST (including Program Officer: PO) and JICA and submit to a research evaluation. The PI shall report on the progress of research whenever requested by the JST and JICA.

c) PI shall work to communicate with his/her administrative offices and related offices of affiliation.

(2) Managing research expenses

In cooperation with the administrative offices of his/her affiliation, PI shall appropriately manage research expenses (planning and monitoring of spending, ensuring appropriate administration of research expenses, etc.). In cases where the research team is organized in Japan, research expenses for the entire team must be managed appropriately. PI and the main researcher shall give consideration in regard to research and working conditions of researchers and other members who are employed using JST research expenses. Also, PI shall submit to accounting investigations by JST and audit by the government, etc.

(3) Treatment of research achievements

a) This fund is supported by the Government of Japan. Therefore, PI are encouraged to actively publicize research achievements both domestically and internationally while taking into consideration the acquisition of intellectual property rights[*11].

b) If any result achieved through the research project is to be publicized in a paper or other form, please indicate that the achievement has been made with support of the JST/JICA Science and Technology Research Partnership for Sustainable Development (SATREPS).

c) Taking into account that this is an international joint research initiative, please take positive steps to

acquire intellectual property rights to the extent that the counterpart is not disadvantaged. In principle, applications for intellectual property rights shall be conducted by the institution which PI or main research collaborator is affiliated with on the basis of the Commitment Research Agreement.

d) Each PI shall comply with the research agreement between JST and research institutions, other JST rules and regulations, the memorandum agreement with JICA, and the R/D concluded between the counterpart research institution and JICA.

e) PI shall participate in workshops and symposia sponsored by JST in and outside Japan with researchers in the research team and present the research achievements.

*11 Please be advised that it will be necessary to observe special conditions for handling intellectual property rights in accordance with the memorandum of agreement concluded between research institutions, agreements with JICA, and the R/D concluded between the counterpart institution and JICA.

(4)"Positive Communication about Science and Technology"

"Promotion of Positive Communication about Science and Technology (Basic Policy)" (June 19, 2010) positions "Positive Communication about Science and Technology" as "two-way communication that explains content and the results of research activities to society and citizens in an easy-to-understand manner to foster hope for the future." For those who receive public research funding of over 30 million yen per year for a research project, a proactive approach to "Promotion of Positive Communication about Science and Technology" is sought.

"Promotion of Positive Communication about Science and Technology" (Basic Policy)

http://www8.cao.go.jp/cstp/output/20100619taiwa.pdf

(5) 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.

(6) JST will provide necessary information such as the titles of research projects, team members and the amount of research expenses to the Electronic system for Research and Development (e-Rad), and the Government Research and Development Database. JST might also request that PI or other members provide other information.

(7) PI shall submit to the evaluation and accounting inquiry by JST as well as the accounting audit by the Japanese government.

(8) PI shall also provide information and submit to interviews on the occasion of the follow-up evaluation after a fixed period from the research completion.

10. Requirements and Responsibilities of Research Institutions

The requirements and responsibilities of Japanese research institutions (institutions to which the PI and main research collaborators of selected research projects are affiliated) are as described below.

Based on considerations written below, **a consent letter from the director of the institute the PI is affiliated (Form 9) must be submitted.**

In order for PI to assume responsibility as the leader, in addition to the matters described below, research institutions shall be charged with responsibility as institutions to which ODA technical cooperation experts are affiliated.

(1) 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.

As a rule, only the research institution which PI of the proposal is affiliated with will exchange a memorandum with JICA; however, other research institutions involved in the research project will similarly be required to provide support for activities in accordance with the R/D. If the R/D between JICA and the counterpart institution cannot be signed, or when the research institution which the PI is affiliated with is not able to agree with the conditions set forth by JICA, the research project will not be accepted into the program.

a) Research institutions are required to engage in appropriate accounting (including required reporting to JICA) based on R/D and Expense Guidelines set up by JICA. The research institution to which the PI is affiliated with will be required to submit to audits by the National Government, etc.

b) Advance payment for project contracts with research institutions designated by JICA, such as for-profit organizations (private enterprises, etc.) and specific nonprofit organization will require submission of an advance payment guarantee from financial institutions (Not required for national universities, public universities or public entities).

(2) All research expenses will be administered by the research institutions as contract research expenses in accordance with the Contract Research Agreement. Any research institution with which a Contract Research Agreement cannot be concluded will not be able to carry out the research. Please cooperate with JST in facilitating the conclusion of the Contract Research Agreement for the effective promotion of the research.

a) Research institutions must prepare a management / audit organization for research expenses based on the “Guidelines on management and audit of public research expenses at research institutions (Practical Standard)” (Feb. 15, 2007, Decision by MEXT). Research institutions shall also set up a system for managing and auditing research expenses and report to the details to MEXT, and submit to an on-site investigation. See the website below for the “Guidelines on management and audit of public research expenses at research institutions (Practical Standard)”

http://www.mext.go.jp/b_menu/shingi/chousa/gijyutu/008/houkoku/07020815.htm

b) Please carry out a proper accounting process according to the Contract Research Agreement and the instruction manual for administration of the Contract Research Agreement provided by JST, while

considering flexible and efficient use of the research funds. PI shall submit required reports to JST and submit to accounting investigations by JST and other government audits, etc.

c) Please make necessary reports to JST 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 Law (Japanese version of the Bayh-Dole Act).

d) JST will examine the propriety and methods of commission in advance of signing a research contract with profit organizations (private enterprises and institutions specified by JST). JST may ask that you follow a specific commission method, as a result of the examination. In the event the financial status of the institution is seriously unstable, JST may determine that the research institution is not suited to conduct the research the application was made for. In such a case, you will be asked to reorganize your research team.

(3) Research institutions which PI are affiliated with must sign the Memorandum of Understanding (MOU) with the research institution in the counterpart country or the international research collaboration other than the R/D. The MOU should include the treatment of intellectual property rights, handling of confidential information, publication of research results, warranty and indemnification, and access and removal of the bio-resources in developing countries. 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 counterpart 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.

(4) Research institutions entering a contract Research Agreement with JST wishing to include researcher(s) not affiliated with the research institution must enter into a contract of rights and obligations with JST by exchanging appropriate documents between the two parties as a measure to back 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) is three to five years.

Following conditional selection, the research period shall be finalized by R/D between the counterpart institution and JICA, and the period specified in the R/D shall be the period during which the international joint research is conducted. Within the limits of the budget for JST Commitment 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 Commitment 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, depending on the counterpart country, it may take some time before the R/D is signed. In such cases, JST Commitment Research Expenses will be available to Japanese

research institutions where PI is affiliated with before the signing of R/D to ensure swift implementation of the international joint research project after the R/D signing. Applications would be limited to research expenses incurred within Japan for the purpose of preparation for the international joint research activities.

12. Research Expenses (JST Commitment Research Expenses)

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

Please note points (1) ~ (5) in regards to research expenses administered by JST below. For information on **costs covered by JICA**, please refer to the ODA summary on technical cooperation.

(1) **The overall Research Expenses awarded by JST** per one project shall be **approximately JYE 38 million per year (including indirect costs and overhead) (approximate total of JYE 190 million for a five year project)**. The amount is a rough indication and proposals requiring research funds beyond the amount noted above are also eligible to apply. Please be forewarned that changes and adjustments may be required according to the status of the budget.

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.

(2) JST will issue the full amount of research funds granted to the research institution which PI and main research collaborators are affiliated with. The funds should be managed by the institution.

(3) The Research Expenses (direct cost) shall be used for the following purposes.

a. Cost of goods and supplies	To purchase the research facility, equipment, consumables and data
b. Travel expenses	Travel expenses incurred by the PI and research participants (research team members), travel expenses for inviting individuals who are essential in carrying out the selected research project, etc.
c. Labor and rewards	Labor costs: In principle, researchers, engineers, research assistants, etc., who are newly employed on an annual salary basis to engage in the selected research project as full-time staff Reward: Engineers and assistants employed for a certain period to perform specific tasks such as data processing. Guest lecture fees and other rewards.
d. Other	Other direct costs incurred in carrying out the joint research. Examples of such cost are listed below: Costs for presenting the research results (Research paper submission, printing,

etc.), equipment leases, transportation fees, etc.

(4) Up to 30% of the direct cost can be appropriated as indirect research expenses.
Japanese research institutions appropriating indirect costs need to keep documents to prove the disbursement from indirect costs for five years after the conclusion of the relevant Commissioned Research Contract.

(5) When JST enters a multi-year research contract with nonprofit organizations such as universities, JST holds the right to carry over the research funds not used in the relevant year due to the progress of the research plan. Details of the execution of JST contract research funding can be found in the FY2011 International Collaborative Research Program: Science and Technology Research Partnership for Sustainable Development in the website below (only in Japanese):

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

13. Expenses covered by JST and JICA

As a rule, research expenses will be categorized into those administered by JST as Commitment Research Expenses and those payable by JICA as project costs, as described below:

a) Research expenses incurred in Japan and other locations outside the counterpart country will be supported by JST as Commitment Research Expenses.

b) Costs incurred within the counterpart country (research activity costs, research equipment and supplies procured) are shouldered by JICA. (Travel costs for counterpart 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)[*12] Activities relating to the international joint research undertaken by researchers from Japan within the counterpart 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.

[*12] In some exceptional cases, it may be possible for costs relating to official trips to the counterpart country to be covered by JST research expenses (For example, researchers of the counterpart 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.

Salaries (**Fixed monthly salaries are paid directly to researchers affiliated with institutions but not paid during the dispatch period), overhead costs and others to the Japanese research institutions** for experts dispatched to the developing countries are not supported by JICA.

It is recommended that administrative staff called project coordinator be recruited and selected through

JICA to be posted at the counterpart institution for the awarded project.

Table 2 Categories of expenses supported by JST and by JICA

Expenses	JST	JICA
A) Research expenses incurred in Japan	●	
A）Research expenses incurred outside of developing countries (Travel expenses to third countries, on-site expenses, etc.)	● (Note 1)	
B） Research expenses incurred in developing countries (Research activity costs, on-site equipment procurement, etc.)	▲ (Note 2)	● (Note 3)
B ） Travel expenses to invite researchers from developing countries		●
C）Travel expenses between Japan and developing countries for Japanese researchers		●

（Note 1） Joint projects with research institutions in the third country are not applicable.

(Note 2) In principle, financial support from JST is limited to research expenses that are not covered by JICA. (Please consult with JST/JICA about costs incurred for the employment of local post-doctoral and technical staff. There are cases in which such expenses can be met.)

(Note 3) Research expenses incurred in the counterpart country include research supplies, consumables and other required tools, which Japanese researchers need in implementing the international joint research at the counterpart institute. **Please be forewarned that JICA supports research activities in the counterpart developing country in a form of in-kind aid, meaning that personnel, office rentals, consumables, allowance for meeting attendance and domestic travel costs incurred at the counterpart institutions must be supported by the counterpart country.**

14. Filling Out Research Proposal Application Forms

The PI should prepare and submit research proposal forms 0 to 9 in close consultation with the counterpart institution. Follow the instructions noted in attached form 2 Application Guide when filling out all of the necessary research proposal documents.

※ **Please download the Research Proposal Application Forms from e-Rad.**

※ When submitting applications via e-Rad, you will be asked to enter some of the information noted in the Research Proposal Forms. Ensure that there is no variance in the information in the e-Rad and application forms.

※ Submit form 9 with the institution director's official seal affixed (using PDF format, etc.) together with forms 0 to 8, installed as one file and uploaded to e-Rad.

Table 3 List of Research Proposal Document Formats

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	Research Project Keywords
Form 7	Grants received through other programs
Form 8	Contact Information for PI and Affiliated Institution
Form 9	Written Approval from Institution Director

IV. References

1. Overview of the 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 scheme, JICA provides technology to support developing countries by capacity building, institutional development and capacity development so that they may develop the comprehensive and intrinsic capacity to independently deal with developmental issues.

Technical cooperation projects, which are one form of technical cooperation, are defined as “Projects to be executed and managed integrally based on pre-agreed cooperation plans with the objective of achieving a certain level of results within a specific period. Results to be achieved within the project period, and the activities and investments input to achieve the results must be clear and logical.” High achievement is expected to be achieved by dispatching experts, receiving trainees, providing equipment and financial assistance in a flexible manner to comprehensively and schematically execute and operate throughout the series of processes from planning, execution to evaluation of the project plan.

The Science and Technology Research Partnership for Sustainable Development is a joint project with research institutions in Japan and developing countries implemented within the framework of ODA Technical Cooperation Projects, and systematic projects in cooperation between research institutions in Japan and developing countries is expected.

2. JICA headquarters in Japan and JICA offices in the developing countries

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

- JICA Headquarters
URL; http://www.jica.go.jp/english/contact/

- JICA overseas Offices in developing countries
URL; http://www.jica.go.jp/english/contact/overseas/

APPENDIX 1

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

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

No.	Region	Name of Country
84	Latin America	Argentine Republic
85		Antigua and Barbuda
86		Oriental Republic of Uruguay
87		Republic of Ecuador
88		Republic of El Salvador
89		Republic of Guyana
90		Republic of Cuba
91		Republic of Guatemala
92		Grenada
93		Republic of Costa Rica
94		Republic of Colombia
95		Jamaica
96		Republic of Suriname
97		Saint Christopher and Nevis
98		Saint Vincent and the Grenadines
99		Saint Lucia
100		Republic of Chile
101		Commonwealth of Dominica
102		Dominican Republic
103		Republic of Trinidad and Tobago
104		Republic of Nicaragua
105		Republic of Haiti
106		Republic of Panama
107		Republic of Paraguay
108		Barbados
109		Federative Republic of Brazil
110		Bolivarian Republic of Venezuela
111		Belize
112		Republic of Peru
113		Republic of Bolivia
114		Republic of Honduras
115		United Mexican States
116	Europe	Republic of Albania
117		Ukraine
118		Republic of Kosovo
119		Republic of Serbia
120		Bosnia and Herzegovina
121		Former Yugoslav Republic of Macedonia
122		Republic of Moldova
123		Montenegro
124	Pacific	Republic of Kiribati
125		Cook Islands
126		Independent State of Samoa
127		Solomon Islands
128		Tuvalu
129		Kingdom of Tonga
130		Republic of Nauru
131		Niue
132		Republic of Vanuatu
133		Independent State of Papua New Guinea
134		Republic of Palau
135		Republic of the Fiji Islands
136		Republic of the Marshall Islands
137		Federated States of Micronesia

* Targeted countries listed above are subject to change depending on the state of affairs.

【Inquiries】

Please inquire via e-mail, except in urgent cases.

Updated information will be posted on the website for the Application of Research Proposal.

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

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※Except for public holidays