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Japan Science and Technology Agency (JST)
5-3, Yonbancho, Chiyoda-ku, Tokyo

JST announces 10 new SATREPS projects for FY2021:

Science and Technology Research Partnership for Sustainable Development program combines international joint research with Official Development Assistance (ODA)

Japan Science and Technology Agency (JST) announced the new projects provisionally selected¹ for the Fiscal Year 2021 Science and Technology Research Partnership for Sustainable Development (SATREPS) program (Appendix 1).

SATREPS is a science and technology diplomacy initiative that promotes international joint research using advanced science and technology from Japan in combination with Official Development Assistance (ODA). The program is a collaboration between JST, the Japan International Cooperation Agency (JICA) and the Japan Agency for Medical Research and Development (AMED) supported by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Ministry of Foreign Affairs (MOFA).

Based on the needs of developing countries, JST and JICA cooperate to promote international joint research targeting global issues with an objective of utilization of research outcomes². Implemented through collaboration with ODA, the aim of the program is to acquire new knowledge and technology that lead to the resolution of global issues and the advancement of science and technology, and through this process, to create innovations. International joint research under this program also aims to enhance the research and development capabilities of developing countries, and helps create sustainable research systems able to address and resolve issues. Also, SATREPS will actively correspond to the Sustainable Development Goals (SDGs)³ and contribute to the international community.

For FY2021, JST called for SATREPS project proposals from researchers in Japan in its 3 research fields—Environment/Energy, Bioresources, and Disaster Prevention and Mitigation—and began to accept proposals on September 8th, 2020. A total of 70 proposals were submitted by the close of applications on November 9th, 2020. The screening committee, composed of external experts, then reviewed the proposal documents and conducted interviews, including review from an ODA perspective, and provisionally selected 10 new projects, comprising 6 projects collaborating with Asian researchers, 1 project with African researchers, 2 projects with South American researchers, and 1 project with European researchers. Project involving the Republic of Tajikistan was selected for the first time, bringing the total number of countries selected for SATREPS projects to 52 (53 including projects under administration of AMED). Of the 10 proposals accepted, 2 proposal was selected as a Top-Down SATREPS⁴ project.

Support for these projects will commence as soon as the contracts are in place and preparations are complete.

SATREPS projects in the field of Infectious Diseases Control were transferred to AMED on April 1st, 2015, and are now conducted in collaboration between AMED and JICA.

¹ Provisional selection:

Before formally starting a project, an international agreement needs to be concluded between MOFA and the government of the developing country regarding implementation of the project, followed by an agreement on the details of technical cooperation between JICA and the relevant institution in the

developing country. However, the project may be unable to start in case that both sides do not reach agreement due to the reasons such as changes to the project name or the research details, shortening the research period or changes in the situation in the counterpart country. For this reason, the selection of these projects at this stage is considered to be provisional selection.

² Utilization of research outcomes:

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

³ The Sustainable Development Goals (SDGs):

At the United Nations Sustainable Development Summit held in September 2015, the outcome document “Transforming our world: the 2030 Agenda for Sustainable Development” with “the Sustainable Development Goals” as a core component was adopted as a new and more comprehensive world action agenda for people, planet and prosperity.

<https://www.un.org/sustainabledevelopment/>

⁴ Top-Down SATREPS:

In order to further promote science, technology and innovation for the achievement of the sustainable development goals (STI for SDGs), a Top-Down SATREPS category has been established. For the new category, eligible regions and research subjects that are important for Japanese diplomatic policy are set out in advance. JST continued inviting and selecting proposals in this category for 2021. Top-Down SATREPS projects are premised on the government of the partner country being specifically aware of the issue involved and on the project forming part of that country's road map or development plan related to STI for SDGs, in the expectation that this will enable smoother progress in both research and implementation. In advance of the Seventh Tokyo International Conference on African Development (TICAD7) held in August 2019 in Yokohama, the Advisory Board for the Promotion of Science and Technology Diplomacy (chair: KISHI Teruo, Science and Technology Advisor to the Minister for Foreign Affairs) formulated recommendations titled “Achieving an innovation ecosystem together with Africa.” Based on these recommendations, in this year's Top-Down SATREPS program research, proposals expected to contribute to resolving social issues by the proactive utilization of ICT in R&D or implementation in Africa were encouraged.

Links

AMED Press Release:

https://www.amed.go.jp/en/news/release_20210520.html

JICA Press Release:

https://www.jica.go.jp/english/news/press/2021/20210520_41_en.html

Appendices

Appendix 1: Provisionally Selected Projects for FY2021

Appendix 2: Results of the FY2021 Selection Process

Reference: Overview of SATREPS (Science and Technology Research Partnership for sustainable Development)

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Appendix 1

Provisionally Selected Projects for FY2021

The following projects have been provisionally selected for FY2021. Within each field, projects are listed in alphabetical order of the project title. Project titles are based on the titles submitted by the researchers in the counterpart countries and may be modified as a result of further discussion between JICA and the counterpart country.

*[]: counterpart country

*(): Principal Investigator in Japan; affiliation

Environment and Energy

“Research contributing to the solution to global-scale environmental issues”

“The Project for Establishment of Risk Management Platform for Air Pollution”

[Kingdom of Cambodia]

(Professor FURUUCHI Masami; Faculty of Geosciences and Civil Engineering, Institute of Science and Engineering, Kanazawa University)

“The Project for Innovation of Science and Technology on Natural Rubber for Global Carbon Process”

[Socialist Republic of Viet Nam]

(Professor YAMAGUCHI Takashi; Graduate School of Engineering, Nagaoka University of Technology)

“The Project for Strengthening Tropical Forest Resilience Based on Management and Utilization of Genetic Resources Capable of Climate Change Adaptation”

[Republic of Indonesia]

(Senior Researcher TANI Naoki; Forestry Division, Japan International Research Center for Agricultural Sciences (JIRCAS))

Environment and Energy

“Research on realization of low carbon society and efficient use of energy”

“The Project for Construction of a Decarbonized Heat Energy Supply System using Groundwater Resources”

[Republic of Tajikistan]

(Lecturer INAGAKI Fumiaki; Graduate School of International Resource Sciences, Akita University)

“The Project for Development of New Ammonia Synthesis System using Renewable Energy and Hydrogen”

[Republic of South Africa]

(Professor AIKA Ken -ichi; National Institute of Technology (KOSEN), Numazu College)

Bioresources

“Research contributing to sustainable production and utilization of bioresources”

“The Project for Creation of a Local Value Chain by Optimizing Cattle Microbial Flora and

Grassland Management on Digital Infrastructure”

[Republic of Colombia]

(Professor OHKURA Satoshi; Graduate School of Bioagricultural Sciences, Nagoya University)

“The Project for Establishment of Nitrogen-efficient Wheat Production Systems in Indo-Gangetic Plains by the Deployment of BNI-technology”

[India]

(Specially Assigned Investigator TOBITA Satoshi; Japan International Research Center for Agricultural Sciences (JIRCAS))

“The Project for Production of Safe and Nutritious Rice through Breeding and Water Management”

[People's Republic of Bangladesh]

(Associate Professor KAMIYA Takehiro; Graduate School of Agricultural and Life Sciences, The University of Tokyo)

Disaster Prevention and Mitigation

“Research on disaster prevention and mitigation towards social sustainability”

“The Project for Building Sustainable System for Resilience and Innovation in Coastal Community”

[Republic of Indonesia]

(Professor MORI Nobuhito; Disaster Prevention Research Institute, Kyoto University)

“The Project for Numerical Weather Prediction and Warning Communication System for Densely Populated and Vulnerable Cities”

[Argentine Republic]

(Chief Scientist MIYOSHI Takemasa; Cluster for Pioneering Research, RIKEN)

Results of the FY2021 Selection Process

Environment and Energy:

- **3 projects** out of 26 proposals for Environment and Energy “Research contributing to the solution to global-scale environmental issues”
- **2 projects** out of 9 proposals for Environment and Energy “Research on realization of low carbon society and efficient use of energy”

Bioresources:

- **3 projects** out of 19 proposals for Bioresources “Research contributing to sustainable production and utilization of bioresources”

Disaster Prevention and Mitigation:

- **2 projects** out of 16 proposals for Disaster Prevention and Mitigation “Research on disaster prevention and mitigation towards social sustainability”

Overview of SATREPS (Science and Technology Research Partnership for Sustainable Development)

1. Objectives of the program

The Science and Technology Research Partnership for Sustainable Development (SATREPS) program is a collaboration between two Japanese government agencies: the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). Based on the needs of developing countries, JST and JICA cooperate to promote international joint research targeting global issues*¹ with an objective of utilization of research outcomes*². Implemented through collaboration with Official Development Assistance (ODA), the aim of the program is to acquire new knowledge and technology that lead to the resolution of global issues and the advancement of science and technology, and through this process, to create innovations. International joint research under this program also aims to enhance the research and development capabilities of developing countries, and helps to create sustainable research systems able to address and resolve issues.

***1 Global issues:**

Issues that are difficult to be resolved by a single country or region acting on its own and that need to be handled by the international community as a whole.

***2 Utilization of research outcomes:**

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

2. Outline of the program

(1) Research Areas and Fields

-Environment and Energy

“Research contributing to the solution to global-scale environmental issues”

-Environment and Energy

“Research on realization of low carbon society and efficient use of energy”

- Bioresources

“Research contributing to sustainable production and utilization of bioresources”

-Disaster Prevention and Mitigation

“Research on disaster prevention and mitigation towards social sustainability”

(2) Research Period

3-5 years

(3) Expenses Covered

- Research expenses (JST budget)

Approximately 35 million yen per year per project (including indirect expenses)

(Total research expenses covered during a five-year project: maximum of 175 million yen)

- ODA (JICA budget)

(Travel expenses between Japan and developing countries, travel expenses to invite researchers from developing countries, equipment procurement, on-site research activity costs, etc.)

Approximately 60 million yen per year per project

(Total ODA provided during a five-year project: maximum of 300 million yen)

3. Countries and projects to date

A total of 155 international joint research projects in 52 countries (*1) have been conducted as SATREPS projects in Environment and Energy, Bioresources, Disaster Prevention and Mitigation, and Infectious Disease Control (*2) since the project commencement in FY2008.

*1 The numbers of countries and projects do not include research projects in the field of Infectious Disease Control that were selected by the Japan Agency for Medical Research and Development (AMED) for FY2015 and thereafter. Including projects in the field of Infectious Disease Control that were selected by AMED for FY2015 and thereafter, a total of 168 projects have been conducted in 53 countries.

*2 SATREPS projects in the field of Infectious Diseases Control were transferred to AMED when it was established on April 1st, 2015. Projects that had terminated before that date were not transferred.