



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

# JST announces 10 new SATREPS projects for FY2023: Science and Technology Research Partnership for Sustainable Development program combines international joint research with Official Development Assistance (ODA)

The Japan Science and Technology Agency (JST) announced the new projects provisionally selected<sup>1</sup> for the Fiscal Year 2023 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 outcomes<sup>2</sup>. 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 systems able to address and resolve issues. Also, SATREPS will actively correspond to the Sustainable Development Goals (SDGs)<sup>3</sup> and contribute to the international community.

For FY2023, JST called for SATREPS project proposals from researchers in Japan in its three research fields—Environment/Energy<sup>4</sup>, Bioresources, and Disaster Prevention and Mitigation—and began to accept proposals on September 6th, 2022. A total of 61 proposals were submitted by the close of applications on November 7th, 2022. 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 five projects collaborating with Asian researchers, two projects with African researchers, one project with Latin American researchers, one project with Europe researchers, and one project with Pacific researchers. Project involving the Kingdom of Tonga, the Republic of Vanuatu and the Republic of Fiji was selected for the first time, bringing the total number of countries selected for SATREPS projects to 55 (56 including projects under administration of AMED). In this call for proposals, one proposal was selected as the SATREPS Projects Promoting Focused Themes<sup>5</sup>.

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.

#### <sup>1</sup> Provisional selection:

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

#### <sup>2</sup> Utilization of research outcomes:

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

#### <sup>3</sup> 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/

#### <sup>4</sup> Environment and Energy:

From FY2023, research proposals in the Environment and Energy research field will be allocated to one of two research areas ("Research contributing to the solution to global-scale environmental issues" or "Research on the sustainable use of resources and energy with a view to achieving carbon neutrality") for screening. In principle, this allocation will be based on the proposer's wishes, but depending on the content of a proposal it may be screened in a research area different from that requested by the proposer.

#### <sup>5</sup> The SATREPS Projects Promoting Focused Themes:

In order to further promote science, technology and innovation for the achievement of the sustainable development goals (STI for SDGs), the SATREPS Projects Promoting Focused Themes has been established (The content is the same as that for projects submitted and selected under the Top-Down SATREPS category). 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 2023. The SATREPS Projects Promoting Focused Themes 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. This year (FY2023)'s call encouraged proposals with either of following themes.

1) Proposal in cooperation with African countries harnessing ICT (except for infectious disease control).

2) Proposal in cooperation with Pacific Island Countries tackling with climate change or focusing disaster prevention and mitigation.

#### Links

AMED Press Release:

https://www.amed.go.jp/en/news/release\_20230518.html

JICA Press Release:

https://www.jica.go.jp/english/news/press/2023/20230518 41.html

#### **Appendices**

Appendix 1: Provisionally Selected Projects for FY2023

Appendix 2: Results of the FY2023 Selection Process

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

Sustainable Development)

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#### **Provisionally Selected Projects for FY2023**

The following projects have been provisionally selected for FY2023. 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 Risk-based Participatory WASH Planning and Citizen-data WASH Statistics for African Peri-urban Settlements"

[Republic of Zambia]

(Associate Professor HARADA Hidenori: Center for African Area Studies, Kyoto University)

"The Project for Securing the Sustainability of Oasis Societies Associated with Water and Land Use in the Western Desert"

[Arab Republic of Egypt]

(Professor IWASAKI Erina; Faculty of Foreign Studies, Department of French Studies, Sophia University)

"The Project for Utilization Technology of Rubber Seeds for Green Products to Mitigate Global Warming and Plastic Pollution"

[Kingdom of Thailand]

(Associate Professor KANEHASHI Shinji; Graduate School of Engineering, Tokyo University of Agriculture and Technology)

#### **Environment and Energy**

"Research on the sustainable use of resources and energy with a view to achieving carbon neutrality"

"The Project for Development and Social Implementation of Greenhouse Gas Emission Reduction Technologies in Paddy Fields of West Tonle Sap Lake by Establishing a Large Paddy Area Water Management System"

[Kingdom of Cambodia]

(Project Leader IZUMI Taro; Rural Development Division, Japan International Research Center for Agricultural Sciences)

"The Project for Development of Innovative Technologies for Efficient Generation of Green/Blue Hydrogen for Realization of Carbon-neutral Society with

#### Consideration of Industrial and Environmental Characteristics in the Region"

[Republic of Uzbekistan]

(Professor SUGAI Yuichi; Faculty of Engineering, Kyushu University)

## "The Project for Development of Integrated Bio-circular Economy from Food and Energy Estate Waste Fraction to Biofuel and Bio-chemicals"

[Republic of Indonesia]

(Professor OGINO Chiaki; Department of Chemical Science and Engineering, Graduate School of Engineering, Kobe University)

#### <u>Bioresources</u>

"Research contributing to sustainable production and utilization of bioresources"

## "The Project for Development of Sustainable Seaweed Based Functional Foods for Achieving Blue Economic Goals"

[Republic of Indonesia]

(Professor ICHIKAWA Sosaku; Institute of Life and Environmental Sciences, University of Tsukuba)

## "The Project for Resilient Citrus Cultivation by Integrated Disease Management with Bioactive Compounds for Small Family Farmers in Tropical Mountainous Regions"

[Kingdom of Thailand]

(Senior Researcher INOUE Haruhiko; Institute of Agrobiological Sciences, National Agriculture and Food Research Organization)

#### **Disaster Prevention and Mitigation**

"Research on disaster prevention and mitigation towards social sustainability"

### "The Project for Compound Disaster Risk Reduction associated with Large Earthquakes and Tsunamis"

[Republic of El Salvador/United Mexican States]

(Assistant professor NAKANO Genta; Disaster Prevention Research Institute, Kyoto University)

### "The Project for Joint Research on Disaster Risk Reduction for Widespread Volcanic Hazards in Southwest Pacific Countries"

[Kingdom of Tonga/Republic of Vanuatu/Republic of Fiji]

(Associate Professor ICHIHARA Mie; Earthquake Research Institute, University of Tokyo)

#### **Results of the FY2023 Selection Process**

#### **Environment and Energy:**

- **3 projects** out of 26 proposals (after screening) for Environment and Energy "Research contributing to the solution to global-scale environmental issues"
- **3 projects** out of 14 proposals (after screening) for Environment and Energy "Research on the sustainable use of resources and energy with a view to achieving carbon neutrality"

#### **Bioresources:**

- **2 projects** out of 12 proposals for Bioresources "Research contributing to sustainable production and utilization of bioresources"

#### **Disaster Prevention and Mitigation:**

- **2 projects** out of 9 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 the sustainable use of resources and energy with a view to achieving carbon neutrality"
  - 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 174 international joint research projects in 55 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 191 projects have been conducted in 56 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.