



JST Press Release #1560

April 28, 2022

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

JST is to fund four research projects for the AJ-CORE (Africa-Japan Collaborative Research) 2nd call in the field of “Environmental Science”

The Japan Science and Technology Agency (JST) decided to start new international projects within the framework of the AJ-CORE *1 (Appendix 1).

The second joint call for proposals in “Environmental Science” was held by JST of Japan, National Research Foundation (NRF) of South Africa, and organizations from member countries of the Science Granting Councils Initiative (SGCI) (Appendix 2).

A total of 12 proposals were submitted in response to the joint call. Based on joint panel review and an expert evaluation conducted in each country (Appendix 3), JST and the other participating funding agencies jointly decided to adopt four projects.

The research period is scheduled to be three years.

*1) AJ-CORE (Africa-Japan Collaborative Research)

AJ-CORE aims to resolve issues important to both Africa and the world, including the SDGs. It is designed to support international collaborative research conducted by researchers from Japan, South Africa, and at least one African country participating in Africa’s Science Granting Councils Initiative (SGCI).

URL : https://www.jst.go.jp/inter/english/program_e/multilateral_e/aj-core.html

Appendix 1: Abstracts of the new projects

Appendix 2: The participating countries and organizations which joined the call

Appendix 3: Experts for evaluation (JST)

Annex: Abstract of the joint call for proposals

Contact

SATO Masaki,

Department of International Affairs, JST

K's Gobancho, 7 Gobancho, Chiyoda-ku, Tokyo 102-0076

Tel: +81-3-5214-7375

E-mail: [jointza\[at\]jst.go.jp](mailto:jointza[at]jst.go.jp)

Appendix 1: Abstracts of the new projects

Project Title	Principal Investigators	Position and Institution	Abstract of Research Project
Application of eDNA metabarcoding for assessment and prediction of faunal Biodiversity of African Mangrove Ecosystem	KAJITA Tadashi (Japan)	Professor, Tropical Biosphere Research Center, University of the Ryukyus	The ultimate goal of this research project is developing an effective and standardized, multi-taxa bioassessment tool for African mangrove ecosystem by using environmental DNA. This approach will serve as a new indicator for evaluating faunal species biodiversity in African mangrove ecosystems. Incorporating with Species Distribution Model analyses, the study will provide prediction of species distribution under different climate change scenarios.
	Nasreen Peer (South Africa)	Lecturer, Department of Botany and Zoology, Stellenbosch University	
	Jean Fall (Senegal)	Associate Professor, University Institute of Fisheries and Aquaculture, Cheikh Anta Diop University	

Project Title	Principal Investigators	Position and Institution	Abstract of Research Project
Sustainable well-being through rapid detection, remediation and stakeholder awareness of contaminants in environments impacted by mining activities	Izabela Rzeznicka (Japan)	Professor, College of Engineering, Shibaura Institute of Technology	The aim of the project is to provide pollutants-free water and food to communities impacted by metal mining activities in Botswana. For this, our integrative research activities will focus on the development of low-cost ceramic biochar-nanoparticle impregnated composite filters for water purification from heavy metals (HMs) and microorganisms, smartphone-based device for quick detection of HMs in drinking water, and strategy to reduce HMs and microplastics in the soil and water around mining sites.
	Nhamo Chaukura (South Africa)	Associate Professor, Sol Plaatje University	
	Venecio U. Ultra (Botswana)	Associate Professor, Botswana International University of Science and Technology (BIUST)	

Project Title	Principal Investigators	Position and Institution	Abstract of Research Project
Environmentally sound Water management for Sustainable Agricultural Practices in South Africa and Botswana: an international collaboration between Africa and Japan	NARITA Daiju (Japan)	Professor, Graduate School of Arts and Sciences, The University of Tokyo	This study examines the issues of agricultural water resources and water pollution in the Limpopo region, a border area between South Africa and Botswana. Through collaboration between academics, policymakers, and NGOs from South Africa, Botswana, and Japan, it aims to provide long-term and sustainable solutions that combine enhanced agricultural productivity with environmental sustainability to reduce natural resources degradation.
	Djiby Thiam (South Africa)	Associate Professor, University of Cape Town	
	Wame L. Hambira (Botswana)	Senior Researcher, Okavango Research Institute, University of Botswana	

Project Title	Principal Investigators	Position and Institution	Abstract of Research Project
Co-creation of a Community-based Water, Sanitation and Hygiene model with children and youth	YAMAUCHI Taro (Japan)	Professor/Director, Faculty of Health Sciences, Hokkaido University	The study will assess Water, Sanitation and Hygiene (WASH) in the peri-urban of South Africa, Zambia, and Botswana. Through transdisciplinary Participatory Action Research involving children, youth and diverse local actors, the team will co-create and implement a comprehensive problem-solving approach that considers the socio-cultural context in the region, thereby creating a sustainable WASH model that is rooted in the community.
	Catherine Sutherland (South Africa)	Professor, University of KwaZulu-Natal, WASH R&D Centre	
	Wellington Masamba (Botswana)	Professor, Botswana International University of Science and Technology	
	Charles Michelo (Zambia)	Professor, Harvest Research Institute, Harvest University	

Appendix 2: The participating countries and organizations which joined the call

Participating countries are Japan, South Africa and Science Granting Councils Initiative (SGCI) African countries (Botswana, Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Namibia, Rwanda, Senegal, Tanzania, Uganda, Zambia and Zimbabwe).

Organizations from Japan, South Africa, and Botswana have declared their funding for the call.

Country	Funding Agency
Japan	Japan Science and Technology Agency (JST)
South Africa	National Research Foundation (NRF)
Botswana	Department of Research, Science and Technology (DRST)

National Research Foundation (NRF), South Africa

URL: <https://www.nrf.ac.za/>

Department of Research, Science and Technology (DRST), Botswana

URL: <https://www.facebook.com/DRSTmote/>

Appendix 3: Experts for evaluation (JST)

Member Name	Position and Institution	Note
UMETSU Chieko	Professor, Graduate School of Agriculture, Kyoto University	Program Officer
ASANO Hiroshi	Professor, Gifu Renewable Energy System Research Center, Institute for Advanced Study, Gifu University	Advisor
ARAKI Shigeru	Professor Emeritus, Kyoto University	Advisor
ITO Kasumi	Associate Professor, International Center for Research and Education in Agriculture, Nagoya University	Advisor
ONO Haruka	Lecturer, Department of Architecture and Civil Engineering, Toyohashi University of Technology	Advisor
KOHARA Satoshi	CEO, Ecotribute, Inc.	Advisor
SATO Chizuko	Research Fellow, African Studies Group, Area Studies Center, Institute of Developing Economies, JETRO	Advisor
TAKADA Hideshige	Professor, Division of Environmental Science on Biosphere, Tokyo University of Agriculture and Technology Institute of Agriculture	Advisor
TAKEYAMA Haruko	Professor, Faculty of Science and Engineering, Waseda University	Advisor
TSUBAKI Susumu	CEO, AAIC Holdings, Pte. Ltd.	Advisor
TOKORO Chiharu	Professor, Faculty of Science and Engineering /Graduate School of Engineering, Waseda University/The University of Tokyo	Advisor

NAKAYA Tomoki	Professor, Graduate School of Environmental Studies, Tohoku University	Advisor
NISHIO Masahiro	Innovation Coordinator, Research Promotion Division of Zero Emission, National Institute of Advanced Industrial Science and Technology (AIST)	Advisor
HARUTA Shinsuke	Professor, Graduate School of Agriculture, Ehime University	Advisor
HIROSE Fumihiko	Professor, Graduate School of Science and Engineering, Yamagata University	Advisor
FUNAMIZU Naoyuki	Vice President, Muroran Institute of Technology	Advisor
MATSUMURA Yukihiro	Professor, Graduate School of Advanced Science and Engineering, Hiroshima University	Advisor
MOJI Kazuhiko	Professor, Graduate School of Tropical Medicine and Global Health, Nagasaki University	Advisor

Annex: Abstract of the joint call for proposals

(1) Application requirements:

A multilateral research project composed by three (or more) countries: Japan, South Africa, and at least one African country.

(2) Applicant eligibility (Japan side):

Any independent researcher personally affiliated with (and actively conducting research at) a domestic Japanese research institution, regardless of nationality, is eligible to apply.

(3) Research period:

The scheduled research period is 3 years from April 2022.

(4) Amount of funding (JST):

Up to 18 million yen from JST to the researchers (Japan-based team) per project, inclusive of overhead costs (30 percent of direct costs).

(5) Evaluation methods:

Based on evaluation outcomes by experts from each country which declared their funding for the call, including Japan, and discussion by JST and other participating funding agencies.

(6) Evaluation criteria (JST):

The following were among the general criteria considered in the evaluation process:

- 1) Conformity with the designated research fields
- 2) Expected research/development result
- 3) Collaborative interaction and complementarity of project partners
- 4) Expected exploitation and dissemination of results
- 5) Potential of research collaboration continuation
- 6) Feasibility of work plan (schedule, participants, funds, facilities, framework for cooperation, budget allocation)