

Long Term Africa-Japan Research and Innovation Partnership

# Africa-Japan Collaborative Research ("AJ-CORE")

on

**Environmental Science** 

### Framework for 2<sup>nd</sup> Call for Proposals

Opening Date: 29 July 2021

**Closing Date: 15 October 2021** 









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### 1. Introduction

AJ-CORE is a partnership between the National Research Foundation (NRF) of South Africa and the Japan Science and Technology Agency (JST) which aims to support joint research and innovation projects in designated fields of science between researchers from Japan, South Africa and the 15 African countries whose ministries and granting councils are a participating member in the Science Granting Councils Initiative (SGCI). See Annex I for a list of eligible African countries within SGCI.

The AJ-CORE call for proposals operates on a co-funding model financed by the NRF, JST, and some of the SGCI African countries. This call for proposals invites consortia composed of at least three research organisations (and/or private and public practitioners) from three different countries (i.e. South Africa, Japan and an SGCI African country) to submit project proposals for research and innovation on designated fields of science in the countries concerned. The proposal development and execution should be driven by local demand and include an approach that contributes to enhancing impact.

### 1.1 Objectives of the AJ-CORE

With just less than 10 years left for the world to realise the 2030 Agenda for Sustainable Development Goals (SDGs), the role of science and technology has become increasingly important. The rapid population growth and increasing access to education has created a pool of highly skilled human resources and accelerated economic growth in Africa but it has also brought other societal problems. A partnership between Africa and Japan has a great potential to contribute to the kind of sustainable global society we are all currently aiming for.

AJ-CORE therefore, serves as a national and regional research platform designed to provide the knowledge needed to support transformations towards sustainability. AJ-CORE seeks to:

- build and connect knowledge to increase the impact of research;
- explore new development paths;
- enhance human capacity development in Science, Technology and Innovation;
- find new ways to accelerate transitions to sustainable development; and
- contribute to SDGs.

AJ-CORE aims to bring together partners in society to co-develop the knowledge needed to support decision-makers and societal change at all scales and in diverse contexts, by focusing on the research area contributing to resolving common problems in Africa.

### 1.2 Focusing Research Area on the second AJ-CORE call

Environmental science is a global, regional and national challenge that cannot be solved by one country alone. It requires multi-country partnerships, multi- and interdisciplinary research (e.g. climate change,



agriculture, living environment, infectious diseases, etc.) with a range of diverse participants in a single project (while emphasising cooperation led by researchers, it is expected that the private sector and NGOs would be involved in the funded projects – at their own cost of participation). Therefore, in our second call we designate environmental science as the focusing area. The call seeks technological solutions to the environmental factors affecting quality of life in Africa – climate change, water quality, atmosphere, geological environments, ecosystems – and ultimately contribute to building African STI capacity and sustainability.

Through supporting research and innovation projects in environmental science, the partnership aims to contribute to SDGs 2, 3, 6, 7, 11, 12, 13, 14 and 15.



Applications should pursue a holistic (system) approach to finding integrated solutions that can be implemented in the relevant context and should address the following aspects:

- solving of complex economic, ecological and social challenges to improve lives in a sustainable way using comprehensive system-oriented approaches;
- expected impact of research and likelihood of uptake contributes to solutions and evidence for policy change to significantly improve economies, wellbeing and resilience;
- research and innovation projects with potential impact at national or regional scales; and



- contribution to achieving the Sustainable Development Goals (SDGs).

### Possible projects may, for example, include the following topics:

- Development of climate change resilient and sustainable rice production in Africa (SDG #2)
- Improving sustainable water and sanitation systems in Africa (SDG #6)
- Production of Biofuels Using Biomass (SDG #7)
- Development of innovative sustainable land management method to prevent desertification (SDG #15)

#### 1.3 Countries participating in the AJ-CORE

For a consortium to be eligible it should consist of researchers from at least (1) one South African institution, (2) one Japanese institution and (3) one institution in an SGCI African country. Please note that a proposal submitted by only South African and Japanese researchers will be considered ineligible.

### **African countries participating in the SGCI**:

Botswana, Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Namibia, Rwanda, Senegal, Tanzania, Uganda, Zambia, and Zimbabwe. *See <u>Annex I for information on SGCI</u>*.

- Both South African and Japanese researchers in the proposal must clearly indicate the benefit of co-opting a 3<sup>rd</sup> African partner and the research activities that will be carried out in the 3<sup>rd</sup> African partner country.
- The researchers should also indicate the type of contribution (in kind / otherwise) to be made by the 3<sup>rd</sup> African partner country.

#### 1.4 Governance of the AJ-CORE

Both the NRF and JST take responsibility for the administration and overall management of the call (from the call publication phase to awards).

A proposal should be submitted by a South African Principal Investigator (PI) to the NRF through the NRF Online Submission System at (<a href="https://nrfsubmission.nrf.ac.za/">https://nrfsubmission.nrf.ac.za/</a>) before the stipulated deadline.

The same proposal should also be submitted by the Japanese PI to JST through the National Online Submission System at (<a href="https://www.e-rad.go.jp/">https://www.e-rad.go.jp/</a>) before the stipulated deadline.

Two identical copies of a proposal must be submitted to both the NRF and the JST.



Detailed information on project proposal and submission guidelines can be found in the sections below. Please note:

- Proposals received by the NRF and not submitted to JST (and vice versa) will automatically be considered ineligible.
- Submitted proposals to both the NRF and JST without a 3rd African partner country will be considered ineligible.

An Independent International Review Panel (IRP) consisting of experts from South Africa, Japan and some of the SGCI African countries will assess the proposals and provide advice on ranking to the NRF and JST. The NRF and JST will ensure that all parties involved in the evaluation and selection procedure and its administration, sign confidentiality and conflict of interest forms.

### 1.5 Budget information

The total budget for this call amounts to 1, 400, 000 **USD** (*all funding organisations combined*). With the available total budget, the partners aim to fund a maximum of around four large projects for not more than 36 months (3-fiscal years). Projects can apply for not more than:

Country	Funding organ	nisation	Total funds available for the call	Maximum funding per project	Total number of projects to be funded
Botswana	Department of Research, Science and Technology (DRST)		P3, 000 000	P1, 000 000	Three
Japan	Japan Science and Technology Agency (JST)	Japan Science and Technology Agency	72,000,000 JPY	18,000,000 JPY	Four
South Africa	National Research Foundation (NRF)	National Research Foundation	R7.2 mil	R1.8 mil	Four

The above-mentioned funding organisations will each support researchers from their respective countries in a joint project. The contributions of the other consortium partners from other SGCI countries whether in monetary value or in kind must be captured in the proposal. See <u>section 3.2</u> for guidelines on budget allocation against eligible research activities. Further to this, researchers should



consult <u>Annex IV</u>: Individual National Eligibility and Funding Regulations for detailed information on the budget.

### 2. Cross-cutting issues for all proposals

### 2.1 Increasing impact

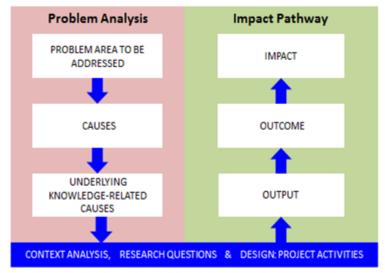
As development of research and innovation in higher education, private, governmental and civil society sectors is basically a continuous and iterative process, a clear strategy for research uptake needs to be provided. Research uptake is part of the project formulation and execution from the very beginning and includes stakeholder engagement, capacity development and communication. It also aims at influencing an enabling environment.

- **Stakeholder engagement**: stakeholders need to be involved from the research proposal stage onwards. This includes an initial mapping of relevant stakeholders.
- Capacity development and training: activities directed at improving the capabilities of individuals, networks and institutes to learn and innovate, based on sustainable partnerships and the ability to both generate and build on knowledge.
- Communication: a communication strategy, including specification of target groups, messages
  to communicate, means of communication etc. is part of the proposal. The aim is to make
  knowledge and research results available and accessible to stakeholders.

In order to focus and connect the knowledge sharing and research uptake activities, applicants are requested to design a Theory of Change with a related Impact Pathway which mentions well-specified outputs and outcomes. The Theory of Change describes the relationship, logical flow and/or causalities between planned activities, expected results (output), desired changes (outcome) and main objective (contribution to impact). A context analysis that includes the assumptions underlying the Research Impact Pathway should be part of the Theory of Change (see figure below).



### Theory of Change



Theory of Change and the Impact Pathway

It is therefore important that in the proposal the project activities for increasing impact are well integrated and relate to the aim and objectives of the project. Applicants are therefore advised to include sufficient social science expertise in the research team to address impact.

The research conducted in this Call for Proposals should have relevance and potential for impact beyond the academic world, such as in societal, technical, economical or cultural realms. This is why, in addition to having a societal or industry partner within the consortium, consortia should consider how relevant stakeholders can be involved in, or benefit from, the design and realisation of the proposed research project.

To further enhance the potential for impact of the proposed research, the application should state how approaches for achieving impact are integrated in the research design and conducted by the consortium in engagement with end-users, such as practitioners, policymakers, and industry.

Developing a vision on desired change in collaboration between partners and stakeholders is pivotal for developing realistic and feasible strategies to enhance the potential for impact. To this end an integrated approach is required, which consists of the following elements: **co-creation, theory of change and impact pathway,** and **impact strategy.** 

<u>Co-creation</u>: A form of cooperation in research where different parties (researchers and stakeholders) in the knowledge process (demand and supply) interact and engage in joint learning to define problems, formulate possible solutions, design the research, conduct the research, assess the results and to translate these into new practices and products.



A <u>Theory of Change</u> describes how the research process can contribute to impact, taking into account the context, actors involved and describing the sequence of logically-linked cause-effect relations. Developing a Theory of Change in a joint effort with research partners as well as stakeholders, allows for making explicit which (and whose) problem is being tackled, and how the desired change is perceived to happen through research efforts. Projections on expected change will be based on a myriad of assumptions; documenting these assumptions allows for reflection on whether and how expected pathways to impact remain adequate or need adjustment.

The <u>Impact Pathway</u>, which is part of the Theory of Change, is the visualisation of the change process following from research execution as described in the Theory of Change. It makes explicit how the research activities will lead to results (output) and how these will contribute to desired changes in behaviour of partners and stakeholders that are considered essential to achieving the desired impact.

An <u>Impact Strategy</u> is the plan of the consortium that spells out how the activities contribute to outcomes. Outputs do not automatically lead to outcomes, thus strategies are needed for the research consortium to plan and monitor how their efforts will enhance the potential for outcomes.

### How to translate this approach in a research proposal?

- Co-creation: Specify how the different skills and expertise are complementary and how this is integrated in approaches. Co-creation within the consortium and with stakeholders is central to the development of the research proposal through to the execution of the research. Describe how co-creation within the consortium and with stakeholders is organised and monitored.
- The Theory of Change describes how the research process is expected to contribute to Environmental Science. Describe clearly the contribution of the proposed research from problem definition and the identification of knowledge gaps, through to the research design and how this is expected to contribute to change, including accompanying assumptions. The Theory of Change takes into account the context and the key groups of actors required to achieve the desired change. The Theory of Change is the vision narrative that is the background to the Research Impact Pathway.
- Explicate in the Impact Pathway the expected change process that the proposed project contributes to through the realisation of output and outcomes, and the desired contribution to impact (see <u>Box 1</u> below). Describe the sequence of expected logical cause-effect relations, including underlying assumptions. By formulating and revising the Impact Pathways in a collaborative effort between research partners, and stakeholders, it serves both as thought process (joint reflection) as well as method (tool) for formulating activities and strategies and monitoring and progress.



- To further increase the potential for impact of the proposed research, the proposal should state how productive interactions around knowledge from the consortium to end users, such as government ministries, societal stakeholders and companies, will be facilitated. To this end, a clear impact strategy (including stakeholder engagement, capacity development, and communication, also with the aim to influence the enabling environment) needs to be provided. This impact strategy should contain descriptions of the actual knowledge transfer activities undertaken to encourage innovation and boost impact from inception through to the end stages of the proposed research.
- Indicators, at output and outcome levels, facilitate monitoring progress and accordingly adjusting the research approach, where the assumptions proved insufficient or incorrect. Indicators should be formulated in SMART ways and be ambitious, yet realistic.
- A Theory of Change is not fixed, but rather reflected on continuously throughout the research process. For this reason, it is also used as part of the monitoring, evaluation and learning trajectory.

#### **Definition of Output, outcome and impact**

**Output**: the most immediate results of the research project. Research outputs by consortium members can be reckoned as falling under the direct span of control of the project. Research outcomes relate to the uptake of these outputs by external stakeholders and the effects thereof.

**Outcome**: The external use, adoption or influence of a project's outputs by next and final users that results in adopter-level changes needed to achieve the intended impact. Indicate the (economic, social, environmental) changes that are expected at the level of the adopters.

Impact: changes in economic, environmental and social conditions that the project is working toward.

See <u>Annex</u> II for the format/ template to be used when completing the Impact Pathway with indicators at output and outcome level. A completed template should be attached as an Annex to the joint proposal.

### 2.2 Knowledge sharing and research uptake activities

To increase research impact the funded research projects shall contribute to the development of a comprehensive set of recommendations. Being embedded in a large Africa-Japan network, the research should involve target group and key players, including local players from the private (both for-profit and not-for-profit) and policy sector. Involving, where possible, entrepreneurs, policy and NGOs already during the research provides a voice to demand and facilitates scaling-up.

A certain percentage of the budget should be allocated for use for the knowledge sharing and research uptake components. Project consortia should organise activities as well as produce adequate tools such as radio programmes, videos, training modules, policy briefs, demonstrating the results of the research and elaborating on the potential for adaptation and options for up-scaling.



Funding organisations in this programme envisage to present the knowledge sharing and research uptake tools and videos with success-stories from the funded projects at other national, regional and global platforms.

#### 2.3 Integrated research approach

The challenges to be addressed through this Call are interrelated and multi-scalar, and to reach impact requires a holistic approach that spans the entire research and innovation chain. The consortia should therefore cut across different scientific disciplinary boundaries (interdisciplinary) and integrate scientific and practitioners' knowledge in joint research (transdisciplinary). It is therefore expected that proposed research projects will be characterised by integrated perspectives. The projects should evolve in a process of co-creation with different partners: researchers from partnering countries and societal partners should be actively involved throughout the entire project, in (advising on) defining and conducting the research as well as in communicating the progress and results, in order to jointly produce a mutually valued outcome. Added value may be achieved by integrating and synthesising various sources of knowledge to create new knowledge and by creating sustainability through the development of long-term knowledge relations.

The proposed research projects should furthermore be characterised by equal partnership and sustainable collaboration between the South African, Japanese and 3<sup>rd</sup> African partner. This includes inter-institutional cooperation, a balanced contribution to the proposed research, and frequent exchange between the partners, including a focus on capacity building.

Projects are also expected to collaborate with the other project(s) awarded in this Call so as to enhance the impact of the Call aim as a whole. As a part of this, projects will be expected to attend joint kick-off and final workshops. Projects should therefore budget for this accordingly.

### 3. Eligibility criteria and funding regulations

### 3.1 Who can apply?

The submission of an AJ-CORE proposal is only possible by consortia of at least three partner **Principal Investigators (PI)** from three different countries. At least two African institutions (from two different African countries – one South Africa the other from any of the SGCI African countries) and one Japanese institution must be part of the consortium. Next to these three required project partners, additional consortium partners from other public and/or semi-public sectors and/or industry are allowed as **Associated Partners (AP)**. Associated Partners cannot request financing from the NRF and JST, but could be funded by other Funding Agencies, either national, regional or international, including Development Banks such as the World Bank.



### South African-based principal investigator

For South African applicants, the NRF eligibility criteria apply as follows:

- Only working researchers / scientists residing in South Africa and affiliated with a recognised South African public higher education or research institution such as a university, university of technology, science council or other research institution as declared by the Department of Science and Innovation (DSI) and the Department of Higher Education and Training (DHET) are eligible to apply.
- South African applicants and the HDI based co-PIs must be in possession of a PhD.
- Private higher education institutions are not eligible to apply under this programme.
- The SMEs, private companies / industries, and NGOs cannot serve as a principal investigator but can form part of the research consortium.
- South African applicants will have to submit an application to the NRF through the NRF Online Submission System at <a href="https://nrfsubmission.nrf.ac.za/">https://nrfsubmission.nrf.ac.za/</a> and attach the Joint Application Form (JAF).
- Please consult <u>Annex IV</u>: <u>Individual National Eligibility and Funding Regulations</u> for further details on the NRF eligibility criteria.

### Japanese-based principal investigator

For Japanese applicants, the JST eligibility criteria apply as follows:

- Any independent researcher personally affiliated with (and actively conducting research at) a domestic Japanese research institution, regardless of nationality, is eligible to apply.
- 'Domestic Japanese research institution' refers to universities, independent administrative institutions, national/public testing and Research Institutions, specially authorized corporations, public-service corporations and enterprises, etc. that satisfy requirements predetermined by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT). Please refer to the MEXT homepage for more information:
  - http://www.mext.go.jp/a menu/kansa/houkoku/1301688.htm
- The Japanese applicants must also complete a research ethics training program conducted by the research institute with which the PI is affiliated, and then declare the completion of the program to JST. If it would be very difficult for the Japanese PI to undertake a program provided by his or her own affiliated institute, they should contact JST. Please note that unless applicants complete a research ethics program, his / her application will be deemed ineligible. For more details, please refer to call announcement page linked from the JST homepage.
- Japanese applicants will have to register their applications on the Cross-Ministerial R&D Management System (e-Rad: https://www.e-rad.go.jp/index.html).
- See Annex IV: Individual National Eligibility and Funding Regulations for further details.

### 3<sup>rd</sup> Partner principal investigator from any of the SGCI African countries



A 3<sup>rd</sup> partner principal investigator from any of the SGCI African countries should:

- Be a researcher from any of the public higher education and research institutions in their home country, who has an employment contract for at least the duration of the application procedure and the duration of the research grant.
- Have at least a PhD or an equivalent qualification.
- DRST (Botswana) as the SGCI member country contributing financial support for their researchers within this partnership has indicated eligibility criteria in their national regulations document. See <u>Annex IV: Individual National Eligibility and Funding Regulations</u>.

Together, the consortium members should (1) formulate relevant research questions and approaches; (2) formulate and submit the proposal through the principal investigators; (3) conduct the project activities; (4) coordinate knowledge sharing and support the application, dissemination and communication of the project results to a broader group of possible knowledge users that are not a member of the consortium; and (5) take responsibility for the adequate and timely reporting conditions.

Proposals must address the thematic area supported within the framework of this call. Each PI and consortium can only submit one proposal. Consortia submitting proposals are obliged to report submission of the same or similar proposals to other funding schemes, as well as funds awarded as a result of such submission. The NRF and JST retains the right to reconsider the granting of funds should the concerned project consortium fail to report double submissions or the funds awarded as a result of such submissions.

This Call aims at knowledge chain-wide collaboration, to enhance demand articulation, ownership, and the effective uptake of results. For this reason, all consortium partners, as well as relevant stakeholders, are expected to be engaged in all phases of the project execution, from its inception to sharing the (emerging) results. Evidence of such active engagement will be an important element in the assessment of project proposals and may be demonstrated through references to involvement in project preparation, active involvement as a project partner and links between the proposed research project and ongoing projects of NGOs, private enterprises, and/or policy implementation.

### 3.2 What can I apply for? (Eligible activities)

The funding of an individual proposal will depend on the nature and duration of the proposed activities and must be justified in terms of the resources needed to achieve the objectives of the project. The funding requested should therefore be realistically adjusted to the actual needs of the proposal, taking into account the maximum limit as indicated in <u>section 1.5</u> above and any other external funds.

Eligible costs depend on the *National Funding Regulations* of each funder. The following general categories may apply:



- Research-related costs
- Mobility costs (travel and subsistence expenses)
- Short-term research placements for postgraduate students
- Costs related to organisation and attendance of seminars and workshops within the project
- Costs for attending the kick-off and final workshops of all funded projects
- Acquisition of material and small-scale research equipment
- Capacity building costs (training, module presentations, etc.)
- Postgraduate scholarships / bursaries
- Knowledge sharing and dissemination

Other relevant costs may be funded according to the individual national funding regulations, while some of the items listed above may not be eligible for funding. For this reason, it is imperative that applicants take notice of the rules of the national funding organisations concerning the costs they are able to fund prior to proposal preparation. The national contact should be consulted well before the submission deadline. See *Annex IV: Individual National Eligibility and Funding Regulations*.

#### **3.3 Obligations of Funded Projects**

Consortium members are guided by the general requirements of this Call. During the granting process, a specification of requirements will be included by the funder in the grant letter for the consortium partners. The PIs are responsible for ensuring the consortium meets all the general obligations.

#### 3.3.1 Letter of Intent

For research partnerships to be effective, they have to be fair. A Letter of Intent (LOI) is obligatory and should be signed by all consortium partners prior to submit the joint proposal. This LOI is to confirm that a researcher understands his or her responsibilities in the consortium.

### 3.3.2 Published information on granted projects

A list of the funded projects will be published after granting and updated during the execution of the projects. Therefore applicants should be aware that the following information from the proposals will be published by the NRF and JST:

- Project title and project acronym;
- Duration of the project;
- Total funding of the project;
- Name of the project PIs (including contact information i.e. email and telephone number);
- Country, organisation and name of each partner;
- A short publishable summary of the project.



This information will be updated with an annual progress summary, activities and output. Projects are expected to provide this information in their reporting.

### 4. Application Procedure

Only submissions through the official NRF Online Submission System {https://nrfsubmission.nrf.ac.za/} and the Japanese National Online Submission System {https://www.e-rad.go.jp/} will be accepted.

Batswana researchers do not have to submit their proposals through to their funding organisations (i.e. DRST). The NRF and JST will ensure that the funding organisation has access to all submitted proposals.

Proposals sent by mail, e-mail, telex, or facsimile will be rejected without further notice.

All proposals must be submitted by the Principal Investigators before the deadline of <u>Friday</u>, <u>15 October</u> <u>2021</u>. Once finally submitted, changes to the proposal will no longer be possible. Delayed proposals and/or proposals submitted outside this deadline will be considered non-eligible.

After submission by institutions, proposals will first be screened by the NRF and JST for the following general eligibility criteria. Each proposal must:

- be complete according to the rules and in line with the required proposal structure described in the guidelines;
- conform to the scope and the thematic focus of the call;
- be submitted by at least 3 applicants (2 African (South African + other) and 1 Japanese) from 3 different countries;
- South African applications from historically advantaged institutions must have a co-applicant from a historically disadvantaged institution;
- comply with the maximum allowed duration of three fiscal years (36 months);
- comply with the funding requirements, including those of the funders;
- comply with the terms of the submission procedure;
- be submitted in English;
- be submitted electronically using the NRF and the Japanese National Online Submission Systems; and
- meet the submission deadline.

### **4.1 Structure of the Proposal** (see <u>Annex III</u> for details on this)

Applicants are required to follow the structure as outlined in the NRF and JST Online Submission Systems. Only applications submitted with the correct template and in the correct format will be allowed into the procedure. The online submission systems will require more/less information on:



### Part.1 General Information

- 1. Title of the collaboration project
- 2. Acronym of the collaboration project
- 3. Contribution to SDGs
- 4. Keywords
- 5. Publishable summary of research project
- 6. Budget overview for whole duration (3 fiscal years)
- Part.2 Project team members
- Part.3 Project description
- Part.4 Impact Pathway with indicators at output and outcome level
- Part.5 Budget plans
- Part.6 CVs

Refer to **Annex III** for the required attachments.

### 5. Evaluation and selection procedure

The fundamental principles governing the evaluation of project proposals are:

- **Transparency.** The process for reaching funding decisions will be clearly described and available to any interested party.
- **Equality of treatment.** All proposals shall be treated alike, irrespective of where they originate from or the identity of the proposers.
- **Ethical considerations.** Any proposal that contravenes fundamental ethical principles of a funding organisation may be excluded from being evaluated and selected at any time.

The evaluation and selection procedure will be monitored by independent observers invited by the NRF and JST.

#### 5.1 Evaluation process

A proposal that has been deemed eligible by both the NRF and the JST will be submitted for review. Both the NRF and the JST shall submit, in parallel, eligible proposals to their national experts who will



assess the proposals remotely and submit reviewers' reports. These reviewed proposals and their accompanying reviewers' reports will be submitted to an Independent International Joint Review Panel for final recommendation.

### **5.2** Criteria for evaluating proposals

The Independent International Joint Review Panel will assess all eligible proposals based on the following criteria:

### I. Excellence of the project:

- Strong potential to generate new knowledge, insights and/or innovations and sufficient complementarity to other research programmes.
- Adequacy of the research approach including the robustness of the conceptual framework and experimental set-up and the coherence of the hypotheses, research questions and methods.
- Clear alignment of the proposed research scope with the thematic focus of the Call.
- Disciplinary and/or interdisciplinary value add.

### **II.** Expected Impact of the project:

- Clear rooting of the proposal in the demands of partners and/or stakeholders, including appropriate integration of gender and youth.
- Quality and feasibility of the research impact pathway with indicators.
- Adequate potential for uptake/application of results including quality of the knowledge sharing approach with appropriate stakeholder engagement, HCD and communication strategy.

### III. Quality and efficiency of the implementation:

- Complementarity, range and level of integration of the consortium and research team, appropriate for implementing the proposed research project.
- Adequacy and feasibility of the research methodology/approach and activities, in relation to research questions and objectives as well as the related work plan.
- Adequacy, feasibility and coherence of the various activities to enhance impact, in particular by influencing national and/or regional policies.



### **5.3 Timetable**

Dates	Activities
29 July 2021	Launch of the AJ-CORE 2 <sup>nd</sup> Call for Proposals.
15 October 2021	Deadline for submission of applications to NRF and JST.
February 2022	Independent International Joint Review Panel Meeting for final recommendation.
March 2022	All approved projects should be awarded by end March 2022
April 2022	Start of Joint Projects (start of the fiscal year)
End September 2022	Kick-off workshop with all the funded projects. This workshop will be hosted jointly with the mid-term review workshop of the AJ-CORE projects that were funded with the 1st Call. The meeting will be hosted by DRST (Botswana) — to be confirmed. Projects consortia are also encouraged to make use of this opportunity to also have their own individual projects meetings.
October 2023	Deadline for consortia to submit mid-term progress reports
February 2025	Final workshop with all the funded projects (host and venue to be confirmed)
31 March 2025	Deadline for consortia to submit final project reports

Funding organisations reserve the right to change the above-mentioned dates (and location) at any stage

### 6. NRF and JST Contact Details for Queries

Consortium partners of proposals selected for funding will have to follow national/institutional procedures after a positive funding decision by NRF and JST. It is also advisable to contact your funding body as soon as possible in case your proposal is granted, to discuss the national requirements that have to be met before the start of the project.



### For specific content-related questions please contact:

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Nombuso.madonda@nrf.ac.za	jointza@jst.go.jp

### Technical questions about the online submission systems contact:

For technical questions on the NRF Online Submission System {https://nrfsubmission.nrf.ac.za/} please contact Mr Jan Phalane on tel. +27 12 481 4157 or email. <a href="mailto:Jan.phalane@nrf.ac.za">Jan.phalane@nrf.ac.za</a> OR the NRF Support Desk on email: <a href="mailto:supportdesk@nrf.ac.za">supportdesk@nrf.ac.za</a> and tel. +27 12 481 4202.

For technical questions on the National Online Submission System {https://www.e-rad.go.jp/} please contact Help desk 0570-066-877 (Available 9:00am-6:00pm). If you cannot Navi Dial, you can reach us on the direct line below: 03-6631-0622 (direct line).

### **Call Annexes:**

- Annex I: Information on the Science Granting Councils Initiative (SGCI)
- Annex II: Format for Impact Pathway with indicators at output and outcome level
- Annex III Structure of the proposal (details)
- Annex IV: Individual National Eligibility and Funding Regulations
- Annex V: Information on 3<sup>rd</sup>/4<sup>th</sup> Partner Principal Investigator



#### Annex I

### Information on the Science Granting Councils Initiative (SGCI)

The Science Granting Councils Initiative (SGCI) is a multi-funder initiative that aims to strengthen the capacities of 15 science granting councils in Sub-Saharan Africa in order to support research and evidence-based policies that will contribute to economic and social development. Launched in April 2015, the Initiative contributes to strengthening the ability of science granting councils to:

- manage research;
- design and monitor research programmes based on the use of robust science, technology and innovation indicators;
- support knowledge exchange with the private sector; and
- strengthen partnerships between Science Granting Councils and other science system actors

The Initiative is being implemented mainly through on-site coaching and mentoring, and a few regional training workshops by a number of specialist organisations. This Initiative was designed on the premise that more effective Councils will strengthen national science systems and lead to nationally led research that contributes to development in participating countries.

The Initiative is currently supported and funded by the United Kingdom's Department for International Development (DFID), the Canadian International Development Research Centre (IDRC), the Swedish International Development Cooperation Agency (Sida), and the South African Department of Science and Technology and the National Research Foundation. There are 15 African countries participating in the Initiative representing East, West and Southern African regions as follows:

SGCI Participating Countries in East Africa	SGCI Participating Countries in Southern Africa	SGCI Participating Countries in West Africa	
1. Ethiopia	6. Botswana	12. Burkina Faso	
2. Kenya	7. Malawi	13. Côte d'Ivoire	
3. Rwanda	8. Mozambique	14. Ghana	
4. Tanzania	9. Namibia	15. Senegal	
5. Uganda	10. Zambia		
	11. Zimbabwe		

For more detailed information on the SGCI please visit the website: <a href="https://sgciafrica.org/en-za/home">https://sgciafrica.org/en-za/home</a>.

Annex II

Format for Impact Pathway with indicators at output and outcome level (max. 2 page)

Dogovek	Indicators	1	Descende outes :	Indicators	] г	luene et
Research	Indicators		Research outcomes	Indicators		Impact
outputs						
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Annex III
Structure of the proposal (details)

			Consortium members								
			Required						Optional		
				F	Pls(s)			PI(s)		Associ-	
		South African based PI	South African based co-PI	Japanese based PI	Japanese based co-PI	3 <sup>rd</sup> African country PI	3 <sup>rd</sup> African country co-PI	4 <sup>th</sup> (>) African country PI	4 <sup>th</sup> (>) African country Co-PI	ated Partners	
	Part.1 General information										
	Part.2 Project team members		Part.1 -4:								
	Part.3 Project description			<b>Req</b> as co	nsortium (prepare	d by all consorti	ium members)				
	Part.4 Impact Pathway with										
Joint	indicators at output and out-										
Pro-	come level										
posal	Part.5 Budgets plan	Req as South African team		<b>Req</b> as Japanese team <b>Req</b> as 3 <sup>rd</sup> African co		ican country team	<b>Req</b> as 4 <sup>th</sup> Afric	can country team	N/A		
form	Part.6 CVs	Req	Opt	Req	Opt	Req	Opt	Req	Opt	Opt	
	Annex.1 Letter of Intent		Req as consortium (signed by all Principal Investigators in the co					nsortium.)			
	Annex.2 Institutional endorsement Letter	N/A	N/A	N/A	N/A	Req	Req	Req	Req	Req	
	Annex.3 Information on Botswanan Principal Investigator	N/A	N/A	N/A	N/A	Req (Botswana only)	N/A	N/A	N/A	N/A	

# Annex IV Individual National Eligibility and Funding Regulations

#### **SOUTH AFRICA**

National Research Foundation (NRF)

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Only working researchers/scientists residing in South Africa and affiliated with a recognised South African public higher education or research institution such as a university, university of technology or science council are eligible to apply. Researchers based at private higher education institutions are not eligible to apply under this programme. Researchers from SMEs, private companies/industries, and NGOs cannot serve as a PI but can form part of the research consortium. NGO and/or industry/ SME participants are expected to meet their own participation costs in the joint project.

It is "mandatory" for South African PIs based at historically advantaged institutions (and science councils) to include, as part of the consortium, a research partner from a historically disadvantaged institution. Proposals submitted by an applicant based at a historically advantaged institution without a research partner from a historically disadvantaged institution will be ineligible (and will not be submitted for review). The research collaborator from the historically disadvantaged institution in this case will serve as a co-applicant in the proposal. Applicants based at historically disadvantaged institutions including those based at the two new universities, i.e. the Sol Plaatje University (SPU) and the University of Mpumalanga (UMP), can act as PIs and submit proposals without the involvement of and/or partnering with researchers based at historically advantaged institutions if they so wish. Please note that only the following eight universities are currently recognised as historically disadvantaged in line with the Department of Higher Education and Training November 2019 Ministerial Statement on university funding: University of Limpopo (UL), University of Fort Hare (UFH), University of Venda (Univen), Walter Sisulu University (WSU), University of the Western Cape (UWC), University of Zululand (UniZulu), Mangosuthu University of Technology (MUT), and Sefako Makgatho Health Sciences University (SMU).

In terms of human capital development, PIs are encouraged to ensure the involvement of young scientists (i.e. doctoral and postdoctoral students) and pay attention to gender equality (a balanced involvement of female and male researchers) and previously disadvantaged individuals.

# What type of activities are eligible for funding?

NRF funds can be used to cover the following costs:

**Research-related costs** - activities to be supported may include expenses relating to field work such as conducting interviews, surveys, laboratory experiments, research-related trips, small equipment (consumables), etc. Airfare, accommodation, ground transport and subsistence should be calculated using rates as stipulated in institutional travel policies.

**Postdoctoral research support** – funds within this programme make provision for one postdoc position equivalent to the NRF Freestanding postdoctoral fellowships. Therefore, Pls are expected to supervise and mentor a postdoctoral researcher who should be allowed to conduct research, either on a pre-specified aspect of the joint project or on their own designed topic within the joint project and should be supported to publish the work. The responsibilities of this position may also include assisting the PI with the management and administration of the joint project. The postdoctoral fellows should be prepared to become principal investigators so they also take on senior responsibilities like mentoring, grant writing, and teaching.

Reciprocal research visits/ mini sabbaticals by young researchers - the placements should enable the postgraduate students within the project to learn valuable new skills or techniques; access facilities or resources not readily available at home; build relationships with potential new collaborators; and advance complementary collaborative research. The duration of each placement is expected to be 3-6 months with flexibility to split the placement into several shorter visits. Longer placements may be undertaken where this would add value and these should be justified within the application. Placements must enhance, not replace, the standard training and study support that the postgraduate students receive. These placements must be managed to fit within the original funded period of the studentship. Additional funding will not be made available through this Call to support studentship extensions for those undertaking international placements. Applicants should include information about how these reciprocal research visits will be managed. Funds within this programme can only be used for these reciprocal research visits/ mini sabbaticals and not for scholarship/ bursary/ students fees. The honours are on the PIs (and doctoral students) to secure funding for educational expenses of participating students. Doctoral students are hereby advised to apply for scholarship through the NRF call for Student Support which opens the beginning of April each year.

**Knowledge sharing costs (science engagement)** - in support of project-related activities, such as joint workshops, seminars, conferences, symposia, lecturer presentations, meetings, local and regional dissemination of results to relevant stakeholders.

**AJ-CORE workshops:** It's mandatory for researchers to make budgetary provisions (travel and accommodation) to participate at workshops organised by AJ-CORE funders as part of the reporting requirements (i.e. kick-off and final workshops).

NRF funds can only be used to support research activities executed by the South African members of the consortium. The following will <u>NOT</u> be funded from the NRF grant allocation: salaries including temporary staff fees, consultant's fees, project management fees, and large equipment (costing more than R200 000). Educational expenses (scholarships/ bursaries/ student fees/ educational expenses, etc.) cannot be covered from the research costs. Doctoral students in need of financial support are advised to apply for scholarship through the NRF call for student support which opens the beginning of April each year.

### Funding limits for eligible activities

The total amount requested from the NRF should not exceed R1.8 mil per project. Funding will be made available for a maximum of 3 years, to be paid in annual instalments and exclusively for research activities commencing in 2022. The funds per project have to be utilised as follows:

- R1.400 mil per project for research activities, mobility costs of the research team, doctoral research placements, small equipment, knowledge sharing costs, etc.
- R430 000 for 1 postdoctoral position at R215 000 per annum for 2-years (R155 000 non-taxable stipend, R45 000 contribution towards research costs, and R15 000 compulsory institutional contribution).

### Additional requirements

#### **Science Engagement**

The NRF supports science engagement through its coordination and implementation of the Department of Science and Innovation's Science Engagement Strategy. The strategy embraces a broad understanding of science, encompassing systematic knowledge spanning natural and physical sciences, engineering sciences, medical sciences, agricultural sciences, mathematics, social sciences and humanities, technology, all aspects of the innovation chain and indigenous knowledge. Within this context, science engagement refers to activities, events, or interactions characterised by mutual learning and dialogue among people of varied backgrounds, scientific expertise and life experiences, who articulate and discuss their perspectives, ideas, knowledge and values. Science engagement is an overarching term for all aspects of public engagement with science, science awareness, science education, science communication and science outreach, which aim to develop and benefit individuals and society. Researchers funded through the NRF programmes are required to contribute to science engagement and report the related outputs in their project's Annual Progress Report.

#### Intellectual property

The researchers of each country, particularly the leaders, must take adequate steps to ensure protection and sharing of the intellectual property that could result from the joint projects.

#### **Ethical Clearance**

It is the responsibility of the grant holder, in conjunction with the institution, to ensure that all research activities carried out in or outside South Africa comply with the laws and regulations of South Africa and/or the foreign country in which the research activities are conducted. These include all human and animal subjects, copyright and intellectual property protection, and other regulations or laws, as appropriate. A research ethics committee must review and approve the ethical and academic rigor of all research prior to the commencement of the research and acceptance of the grant. The awarded amount will not be released for payment if a copy of the required ethical clearance certificate, as indicated in the application, is not attached to the Conditions of Grant. Please also refer to the "Statement on Ethical Research and Scholarly Publishing Practices" on the NRF website at <a href="https://www.nrf.ac.za/media-room/news/statement-ethical-research-and-scholarly-publishing-practices">https://www.nrf.ac.za/media-room/news/statement-ethical-research-and-scholarly-publishing-practices</a>.

### Long Term Africa-Japan Research and Innovation Partnership on Environmental Science AJ-CORE Call for Proposals 2021

Contact details for fur-	Name	Nombuso Madonda
ther information	Position	Professional Officer: Overseas Collaborative Grants
	Phone	+27 12 481 4285
	Email	Nombuso.madonda@nrf.ac.za
	Website/link	https://www.nrf.ac.za/funding/framework-documents/funding-
		<u>framework-documents</u>
	Full address	Meiring Naude Road, Brummeria, Pretoria, South Africa

# JAPAN Japan Science and Technology Agency (JST)

Who can apply?	Any independent researcher personally affiliated with (and actively conducting research
	at) a domestic Japanese research institution, regardless of nationality, is eligible to ap-
	ply.
	'Domestic Japanese research institution' refers to universities, independent administra-
	tive institutions, national/public testing and Research Institutions, specially authorized
	corporations, public-service corporations and enterprises, etc. that satisfy requirements
	predetermined by the Japanese Ministry of Education, Culture, Sports, Science and
	Technology (MEXT). Please refer to the MEXT homepage for more information:
	https://www.mext.go.jp/a_menu/kansa/houkoku/1301688.htm
	Refer to Section 3.1 of this document for eligibility criteria of Japanese applicants.
What type of activities	JST funds can be used to cover the following direct and indirect costs:
are eligible for fund-	
ing?	Eligible direct costs:
	In principle, eligible direct costs are those costs directly necessary for accomplishing the
	research, indicated below. Please refer to the guidance documents available at the fol-
	lowing link for further details of eligible direct costs (available in Japanese only).
	https://www.jst.go.jp/contract/index2.html
	(a-1) Facilities, Equipment and Consumables: costs of research equipment, spare
	parts, prototypes, software (in-line products) and purchase of books, reagents, materi-
	als and consumables.
	(a-2) Travel Expenses: costs and associated living expenses of the project members
	registered in the project plan, and costs of inviting external experts.
	(a-3) Personnel costs: costs of the researchers, temporary staff, post-docs, etc., who
	are hired for the research and other costs such as honoraria for invited lecturers.
	(a-4) Others: costs for the organisation of small scientific events in Japan including
	rental costs for the venue, food & beverage (excluding alcohol) costs and other costs
	which are deemed to be necessary for organizing the event. Expenses for creating soft-
	ware, renting or leasing equipment, transporting equipment, etc.
	Eligible indirect costs:
	Please refer to the following link for the provisions regarding indirect costs:
	https://www8.cao.go.jp/cstp/compefund/shishin2.pdf (available in Japanese only)

### Long Term Africa-Japan Research and Innovation Partnership on Environmental Science AJ-CORE Call for Proposals 2021

Funding limits for eli-	JST will support 18 million yen per project in total (6 million yen per project annum).			
gible activities	Please be noted that 18 million yen includes overhead cost (30% of direct cost). The			
	budget for a project	may differ each year, depending on the content of activities. The		
	amounts will be adju	sted each year due to the budgetary limitations for this program.		
Additional require-				
ments	n/a			
Contact details for fur-	Name SHIRAISHI Junko / DOI Shinichi			
ther information	Position Chief / Senior Program Coordinator			
	Phone +81 3 5214 7375			
	Email	jointza@jst.go.jp		
	Website/link	https://www.jst.go.jp/inter/english/program_e/an-		
	nounce e/announce aj-core 2nd.html			
	https://www.jst.go.jp/inter/program/announce/announce_aj-			
	core 2nd.html			
	Full address	7, Gobancho, Chiyoda-ku, Tokyo 102-0076 Japan		

### **BOTSWANA**

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

Who can apply?	1. Researchers and scientists residing in Botswana and affiliated with a recognised pub-
	lic higher education or research institution such as a university, college of education,
	research and technology are eligible to apply.
	2. Researchers based at private higher education institutions, NGOs, SMEs, private com-
	panies/industries, cannot serve as a PI but can form part of the research consortium.
	3. NGOs and/or industry/ SME participants are expected to meet their own participation
	costs in the joint project.
	4. Pls are encouraged to ensure the involvement of young scientists (i.e. doctoral and
	postdoctoral students) and pay attention to gender equality (a balanced involvement of
	female and male researchers)
What type of activities	Research-related costs: Activities to be supported may include expenses relating to
are eligible for fund-	field work such as conducting interviews / surveys / laboratory experiments, research-
ing?	related trips, small equipment (consumables), etc.
	<b>Exchange programmes:</b> To support short-term mobility or travel expenses (i.e.
	transport and accommodation costs) of the research team between the partnering
	countries.
	Doctoral research placements: The placements should enable the postgraduate stu-
	dents within the project to learn valuable new skills or techniques; access facilities or
	resources not readily available at home; build relationships with potential new collabo-
	rators; and advance complementary collaborative research.
	Knowledge sharing costs: In support of activities organised by the partners, such as joint
	workshops, seminars, conferences, symposia, lecture presentations, capacity building
	sessions, meetings, local/regional dissemination of results aimed at involving stakehold-
	ers, and/or end-users from outside the consortium.

### Long Term Africa-Japan Research and Innovation Partnership on Environmental Science AJ-CORE Call for Proposals 2021

	AJ-CORE workshops: Budget to participate at workshops organised by AJ-CORE funders				
	as part of the reporting requirements (i.e. kick-off and final workshops).				
	Funds from DRST will only be used to support researchers from Botswana. The following				
	will <b>NOT</b> be funded from the allocation: (1) salaries for researchers, consultant's fees				
	and project management fees, and (2) large equipment (costing more than P50 000.00).				
Funding limits for eli-	DRST will support a maximum of three (3) projects at P1, 000,000.00 per project. The				
gible activities	funds will be available for three (3) years. Please note that the funds include overhead				
	cost (30% of direct cost). The budget for a project may differ each year, depending on				
	the content of activities.				
Additional require-	n/a				
ments					
Contact details for fur-	Name	Abraham Mathodi			
ther information	Position	Chief Research Science and Technology			
	Phone	+267 3613125			
	Email	amathodi@gov.bw			
	Website/link	https://www.facebook.com/DRSTmote/			
	Full address	Private Bag BR 279, Gaborone, Botswana			

# Annex V Information on Botswanan Principal Investigator

PERSONAL DETAILS						
Title						
Academic title						
Family Name						
First Name						
Name of Institution						
Type of Entity						
Department						
Position						
Institution Address						
City						
Country	Botswana					
Phone						
Email						
Which funding body are you applying to?	DRST					
BUDGET (indicate currency in Pula)						
FINANCIAL YEAR		2022		2023	2024	
Research costs						
Travel and meeting costs						
AJ-CORE kick-off and final workshops						

FINANCIAL YEAR	2022	2023	2024
Research costs			
Travel and meeting costs			
AJ-CORE kick-off and final workshops			
Knowledge Sharing and Research Uptake costs			
Student support costs			
Employment costs			
Overheads			
Other costs (specify)			
Total budget requested			

I hereby confirm that as the $3^{\text{rd}}$ OR $4^{\text{th}}$ Partner Principal Investigator I meet the funding body.	ng requirements of my nationa
SignatureDate	