National Research Foundation

CNPq
Conselho Nacional de Desenvolvimento Científico e Tecnológico

The Office of President
Vice-Presidency for Science and Technology
Iran National Science Foundation

STDF
هيئة تمويل العلوم والتكنولوجيا والإبتكار

中华人民共和国科学技术部
Ministry of Science and Technology of the People´s Republic of China

Department of Science & Technology
Ministry of Science & Technology
Government of India
सत्यमेव जयते

NSFC

BRICS STI Framework Programme
7th coordinated call for BRICS multilateral projects 2026

Ca J 16, 2026. 15:00 UTC+3 (M c)

I. General Description

I-1. J i F di g f M l ila e al l a i C e a i

The BRICS STI F a e k P g a e ai e e ea ch, de el e a d i a i i he ai a ea f c e a i a g he i i i i he c ia hich c i f a e f a lea h ee BRICS c ie .

A e f he BRICS STI F a e k P g a e ecial ac i e ea ch f di g ga i a i f he BRICS c ie ha e ag eed j i l la ch e call f e ea ch jec : **BRICS STI Framework Programme 7th coordinated call for BRICS multilateral projects 2026**.

The f ll i g BRICS STI F a e k P g a e Me be O ga i a i a e a ici a i g i he call a a i al f di g ga i a i :

B a il:
Na i al C cil f Scie ific a d Tech l gical De el e (CNP).
Chi a:
Na i al Na al Scie ce F da i f Chi a (NSFC)
Mi i f Scie ce a d Tech l g (MOST)
Eg :
Scie ce, Tech l g & I a i F di g A h i (STDF)

India:
Department of Science and Technology (DST)
Iran:
Iran National Science Foundation (INSF)
Russia:
Ministry of Science and Higher Education (MSHE)
South Africa:
National Research Foundation (NRF)

I-2. Aim of the Joint Call

Collaborative multilateral research and development projects in the following thematic areas can be submitted in response to the call:

1. **Water Resources**

Applicants are expected to focus on advancing scientific knowledge, innovative methodologies, and practical solutions for the sustainable management of water resources. BRICS projects consortia are expected to carry out interdisciplinary research aimed at improving the sustainability, resilience, and equity of water systems. Invited projects are expected to combine scientific excellence with practical relevance, addressing water challenges across natural, built, and socio-technical systems. The following subtopics should be addressed:

1.1. Monitoring and Data for Water Systems

This subtopic focuses on advancing affordable, scalable, and innovative monitoring approaches to improve understanding and management of water resources. Research may explore the design and deployment of low-cost sensor networks, novel sensing materials, and digital platforms for real-time monitoring of surface water bodies, groundwater, and wastewater disposal systems.

Emphasis is placed on cost-effective and robust sensor technologies, data integration frameworks, and open or participatory monitoring approaches that enhance spatial and temporal coverage, support early warning, and enable data-driven decision-making in resource-constrained settings.

1.2. Water Treatment, Reuse, and Resource Circularity

This thematic area addresses innovative, accessible, and sustainable solutions for improving water and wastewater treatment performance while enhancing water use efficiency, safe reuse, and resource recovery across domestic, agricultural, and industrial

contexts. Research may explore technologies and system designs that support circular water management, including decentralized and community-based treatment systems, innovative water harvesting and storage solutions, and practices that reduce water losses and improve overall water productivity.

Priorities include the development of rapid, low-cost microbial and chemical testing methods suitable for citizen science initiatives and resource-constrained settings, as well as the integration of biomimicry-inspired and nature-based principles into treatment and reuse systems. Interdisciplinary approaches that integrate technical innovation with behavioral, institutional, and environmental considerations are expected, with an emphasis on scalable solutions that support sustainable, equitable, and circular water systems. Additionally, novel treatment and resource recovery strategies for challenging water streams, including acid mine water may be explored.

1.3. Resilience to Water Hazards and Extreme Events through Data-Driven Approaches

This interdisciplinary subtopic focuses on new approaches and system designs to anticipate, manage, and reduce risks associated with water-related hazards and extreme events, such as floods, droughts, and water quality crises. Research should integrate data analytics, artificial intelligence, and machine learning with hydrology, engineering, environmental science, and social systems.

Projects may address predictive modeling, early-warning systems, decision-support tools, and adaptive infrastructure design, with attention to uncertainty, scalability, and real-world implementation in diverse socio-environmental contexts.

2. High Performance Computing and Artificial Intelligence

This thematic area supports interdisciplinary research that advances the foundations, infrastructure, and applications of high performance computing (HPC), artificial intelligence (AI), and emerging computational paradigms. Projects are expected to combine methodological innovation with real-world impact, strengthening computational capacity while addressing complex societal and environmental challenges. The following subtopics should be addressed:

2.1. High Performance Computing and AI Infrastructure Co-Design

This subtopic focuses on co-design approaches that jointly optimize hardware, software, algorithms, and workflows for next-generation AI and HPC infrastructures. Research may address methods and tools for improving computational efficiency, scalability, energy performance, and reliability across heterogeneous architectures, including accelerators and specialized AI hardware.

Interdisciplinary projects that bridge computer science, applied mathematics, engineering,

and domain sciences are encouraged, particularly those that enable efficient training and deployment of large-scale AI models and support data-intensive scientific applications.

2.2. Artificial Intelligence and Large Language Models

Projects addressing this subtopic should focus on fundamental and methodological foundations of AI, including learning theory, model architectures, optimization, robustness, interpretability, and ethical considerations. Particular attention may be given to the development, evaluation, and adaptation of large language models (LLMs) and other foundation models.

Interdisciplinary research linking AI fundamentals with applications in healthcare, education, energy, water, and urban systems is encouraged, especially where advances in basic AI methods enable more reliable, transparent, and socially beneficial AI systems.

2.3. Quantum Computing, Sensing, and Secure Information Technologies

This subtopic focuses on advancing quantum technologies through collaborative research in quantum computing, simulation, and algorithm development. Projects may explore hybrid quantum classical workflows, benchmarking, and application-driven quantum algorithms.

Priority areas also include quantum sensing and imaging, quantum-enhanced measurement techniques, post-quantum cryptography, and quantum-safe communication. Interdisciplinary projects connecting quantum technologies with applications in healthcare, security, energy, and environmental monitoring are particularly encouraged.

3. Energy

This thematic area supports interdisciplinary research aimed at advancing clean, resilient, and integrated energy systems across scales, from buildings and local communities to national and transnational energy networks. Projects are expected to combine technological innovation with system-level analysis, digital tools, and policy-relevant insights to accelerate the energy transition while ensuring affordability, reliability, and sustainability within the following subtopics:

3.1. Solar Energy Technologies and Applications

This subtopic focuses on advancing solar energy technologies and integrated applications across thermal, electrical, and hybrid systems. Research may address high- and low-temperature solar thermal technologies, solar air-conditioning and cooling systems, solar greenhouse concepts, and solar desalination technologies for water energy nexus applications.

Joint and interdisciplinary research may also explore high-efficiency solar cells, solar-driven hydrogen production, hydrogen storage, and system integration for buildings, industry, and

remote or resource-constrained settings. Emphasis is placed on scalable, affordable, and climate-resilient solar solutions with clear pathways to deployment.

3.2. Integrated Smart and Renewable Energy Systems for Resilient Power Networks

This subtopic addresses research on the planning, design, control, and operation of integrated energy systems with high penetration of renewable energy, spanning interconnected grids, microgrids, and hybrid renewable energy systems at local, regional, and cross-border scales, including studies on isolated systems. Research may explore system architectures, infrastructure requirements, that enable secure, flexible, and low-carbon power systems.

Projects are encouraged to integrate renewable resource assessment, forecasting, and optimal siting with grid support strategies, energy storage, and demand-side management. Particular emphasis is placed on smart grid technologies, digitalization, and AI-based forecasting, optimization, and control tools that enhance system reliability, resilience, and flexibility under variable generation and extreme operating conditions.

3.3. Low-Carbon Energy Pathways, Sector Coupling, and Energy Efficiency

This topic supports interdisciplinary research on deep decarbonization pathways across energy supply and end-use sectors. Priority areas include hydrogen production, storage, and utilization, carbon capture, utilization, and storage (CCUS), and the repurposing of fossil-fuel infrastructure for renewable and low-carbon applications.

Research may also address offshore wind, biomass-to-energy (including waste-to-energy and biofuels), energy-efficient retrofitting, low-carbon building materials, and affordable energy solutions for buildings, industry, and transport.

4. Health, Biotechnology and Biomedicine

This thematic area supports interdisciplinary research aimed at advancing human health, biomedical innovation, and resilient healthcare systems through the integration of biotechnology, digital technologies, and data-driven approaches. Projects are expected to combine fundamental research with translational pathways, strengthening prevention, diagnosis, and treatment while improving accessibility and preparedness for emerging health challenges. The following subtopics may be explored:

4.1. Advanced Biotechnology, Genomics, and AI-Assisted Discovery

This topic focuses on cutting-edge research in genomics, bioinformatics, biosensors, 3D bioprinting, and molecular biotechnology, supported by AI-assisted drug discovery and molecular diagnostics. Research may address vaccine technologies, antimicrobial resistance, and platforms for rapid response to emerging infectious diseases.

Interdisciplinary projects linking computational biology, AI, and experimental life sciences are encouraged, particularly those that accelerate pandemic preparedness, precision therapeutics, and scalable diagnostic solutions.

4.2. Personalized Medicine, Diagnostics, and Cell-Based Therapies

This subtopic supports research on personalized and precision medicine approaches, including applications in cancer research, mental health diagnostics, and cell-based and regenerative therapies. Projects may integrate AI-driven tools into diagnostic pipelines, treatment planning, and outcome prediction to enhance accuracy and accessibility.

4.3. Digital Health, Telemedicine, and AI-Enabled Healthcare Systems

This subtopic addresses the development and deployment of telemedicine, digital health platforms, and mobile health solutions, with particular attention to underserved and remote regions. Research may explore AI-driven clinical decision support systems, epidemiological modeling, and digital tools for disease surveillance and health system planning.

Priorities include multilingual health applications, mobile health units, and interoperable digital platforms that strengthen health system resilience, improve service delivery, and support public health decision-making.

5. Food

This thematic area supports interdisciplinary research aimed at strengthening food security, sustainability, and resilience across agricultural and food systems. Projects are expected to integrate advances in biotechnology, digital technologies, and systems analysis to address climate stressors, resource efficiency, nutrition, and regional food supply chains. The following subtopics should be addressed:

5.1. Climate-Resilient Crops and Advanced Plant Biotechnology

Interdisciplinary research linking plant genetics, agronomy, climate science, and socio-economic analysis is encouraged, particularly projects that enhance yield stability, nutritional value, and resilience under changing environmental conditions. Research may focus on study and development of molecular farming, genome editing and advanced breeding techniques.

5.2. Digital and Precision Agriculture for Sustainable Production

This subtopic addresses the application of digital technologies including drones, sensors, satellite monitoring, and decision-support systems to optimize agricultural inputs and improve productivity while reducing environmental impacts. Research may focus on integrated platforms that combine climate, soil, and crop data to support real-time decision-

making.
Projects that bridge data science, AI, agronomy, and farm-level practices are encouraged, particularly those that improve scalability, accessibility, and adoption across diverse agricultural contexts.

5.3. Sustainable Fisheries, Aquaculture, and Food Quality Monitoring

This subtopic focuses on advancing sustainable fisheries and aquaculture systems through biotechnologies, environmental monitoring, and integrated data systems. Research may address stock assessment, water quality management, disease monitoring, and traceability across aquatic food systems.
Projects that combine marine and freshwater sciences, biotechnology, digital monitoring, and food safety frameworks are encouraged, with emphasis on long-term sustainability, ecosystem health, and nutritional outcomes.

6. Materials Science

This thematic area supports interdisciplinary research aimed at advancing novel materials, processing technologies, and functional systems that address challenges in energy, environment, health, and infrastructure. Projects are expected to integrate materials design, characterization, and manufacturing with sustainability, scalability, and application-driven performance, applying within the following subtopics:

6.1. Advanced Functional and Smart Materials

This subtopic focuses on the design, synthesis, and application of advanced functional materials, including magnetic, ferroelectric, smart, and rare materials. Research may explore tunable properties, multifunctionality, and responsiveness to external stimuli for applications in sensing, actuation, electronics, and adaptive systems.
Interdisciplinary projects that bridge condensed matter physics, materials chemistry, and device engineering are encouraged, particularly those targeting scalable fabrication and real-world deployment.

6.2. Materials for Energy Conversion, Storage, and Sustainability

This subtopic addresses materials innovation for energy conversion and storage, including advanced batteries, superconductors, energy storage materials, renewable plastics, and critical minerals. Research may explore novel chemistries, architectures, and interfaces that improve efficiency, durability, and environmental performance.
Projects integrating materials science with energy systems, lifecycle assessment, and circular economy principles are encouraged, as are studies supporting applications in renewable energy technologies and low-carbon systems.

6.3. Advanced Functional Materials: Nanomaterials, Biomaterials, and Resilient Systems

Subtopic research should focuses on the design, scalable manufacturing, and integration of advanced functional materials, including nanomaterials, two-dimensional materials, biomaterials, and composite systems. Emphasis is placed on translating material innovations into robust, high-performance, and sustainable solutions across a range of applications, including electronics, sensors, energy storage, biomedical devices, infrastructure, and environmental technologies.

Research may address green and scalable synthesis routes, advanced characterization techniques, and integration into functional devices and systems. Priority is given to interdisciplinary projects that combine materials science, engineering, biology, and environmental science to develop resilient and self-healing material systems, nanomedicine platforms, biomedical implants and coatings, and lightweight or durable components with reduced maintenance requirements.

I-3. Invitation for Proposals and Prospective Applicants

The BRICS STI Framework Programme Member Organizations shall invite applicants from their countries to identify potential partners in at least two other BRICS countries and to jointly prepare proposals for collaborative R&D projects in the 6 thematic areas of the call, each represented by three subtopics. A total of minimum three BRICS countries should be represented by researchers involved in the project's implementation.

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Please note that the thematic areas and type of supported research vary depending on the particular participating funding organization. More details can be found in respecting National Annex document (available on http://brics-sti.org/index.php?p=new/42) or from national contact points. However, the general information on thematic areas supported by each of the participating funding organization is presented below:

		Brazil	China		Egypt	India	Iran	Russia	South Africa
	Thematic areas	CNPq	NSFC	MOST	STDF	DST	INSF	MSHE	NRF
1.	**Water Resources**								
1.1	**Monitoring and Data for Water Systems**								
1.2	**Water Treatment, Reuse, and Resource Circularity**								
1.3	**Resilience to Water Hazards and Extreme Events through Data-Driven Approaches**								

	Thematic areas	Brazil CNPq	China NSFC	China MOST	Egypt STDF	India DST	Iran INSF	Russia MSHE	South Africa CNPq
2.	**High Performance Computing and Artificial Intelligence**								
2.1	**High Performance Computing and AI Infrastructure Co-Design**								
2.2	**Artificial Intelligence and Large Language Models**								
2.3	**Quantum Computing, Sensing, and Secure Information Technologies**								
3.	**Energy**								
3.1	**Solar Energy Technologies and Applications**								
3.2	**Integrated Smart and Renewable Energy Systems for Resilient Power Networks**								
3.3	**Low-Carbon Energy Pathways, Sector Coupling, and Energy Efficiency**								
4.	**Health, Biotechnology and Biomedicine**								
4.1	**Advanced Biotechnology, Genomics, and AI-Assisted Discovery**								
4.2	**Personalized Medicine, Diagnostics, and Cell-Based Therapies**								
4.3	**Digital Health, Telemedicine, and AI-Enabled Healthcare Systems**								
5.	**Food**								
5.1	**Climate-Resilient Crops and Advanced Plant Biotechnology**								
5.2	**Digital and Precision Agriculture for Sustainable Production**								
5.3	**Sustainable Fisheries, Aquaculture, and Food Quality Monitoring**								
6.	**Materials Science**								
6.1	**Advanced Functional and Smart Materials**								
6.2	**Materials for Energy Conversion, Storage, and Sustainability**								
6.3	**Advanced Functional Materials: Nanomaterials, Biomaterials, and Resilient Systems**								

All applicants must fulfil their respective national eligibility rules for research grant applications (please refer to the National Annex document and consult with respective national research funding organization participating in the call).

I-4. Financial Support

The participating funding organizations plan to support collaborative activities including exchange of researchers from the participating counterpart countries. Conditions of support

common rule that each participating funding organization funds its national researchers or institutions.

The duration of a collaborative research project will be 3 years, with expected start date of projects in the beginning of 2027.

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Please note that type of supported activities vary depending on the particular participating funding organization. More details can be found in respecting National Annex document (available on http://brics-sti.org/index.php?p=new/42) or from national contact points.

II. Application

Each project consortium must include partners from at least three BRICS countries applying for funding (please also refer to national annexes for additional requirements), with one partner designated as the Project Coordinator. Additional partners may also participate in the project consortium either by applying for funding through their own national funding organization or by joining on a self-funded basis (without requesting financial support).

A **Joint Application Form (JAF)** (link for download: http://brics-sti.org/files/J.....docx) shall first be submitted by the Project Coordinator to the BRICS STI Framework Programme Secretariat through the online **BRICS STI Framework Programme Application Management System (BRICS AMS)** at http://ams.rfbr.ru/BRICS. JAF must be completed in English.

In addition to the JAF, each national team of a project **shall submit an additional national component** (i.e. national proposal) to the relevant national participating funding organization following all required procedures of each particular participating funding organization.

The Joint Application Form (JAF) includes information on:

1) Title and acronym of cooperative innovation project;
2) Thematic area (subtopic);
3) Abstract;
4) Project team;
5) Budget requested.

The national component to be submitted shall vary in form, terms and information provided depending on the particular participating funding organization. More details can be found in the National Annex document (can be downloaded from http://brics-sti.org/index.php?p=new/42 page) and on the websites of participating BRICS STI Framework Programme Member Organizations.

The project which does not submit in due date a fully completed Joint Application Form to the BRICS STI Framework Programme Secretariat through BRICS Application Management System (ams.rfbr.ru) or national components to all respecting national funding organizations will automatically be considered as ineligible.

II-1. Preparation of Application Forms

Applicants should agree on the aims, strategy and management, the title of the project, and agree on the project coordinator. Based on these arrangements the applicants should complete the Joint Application Form (JAF) and national components.

II-2. Submission of Application Forms by Applicants

Applicants must submit the Joint Application Form (JAF) to the BRICS STI FP Secretariat via the online application submission tool until **15:00 UTC+3 (Moscow Time) on 16th of June 2026**.

To submit the JAF an online-submission form must be completed via the BRICS STI Framework Programme Application Management System (BRICS AMS) at http://ams.rfbr.ru/BRICS. The project coordinator should register in BRICS AMS, log in and create a proposal for the 7th BRICS STI Framework Programme Call 2026. The Project Coordinator must fill in all the required fields and submit application. The online submission form fields are identical to the information provided in JAF template, however the completed JAF (in *PDF or *DOC(X) format) as file attachment to the online form is requested to be

If any additional to the minimum eligible number of required participants partner is joining

corresponding proposal box item.

Applications submitted to the BRICS STI FP Secretariat by any method other than through online submission form at http://ams.rfbr.ru/BRICS, such as e-mail, will be rejected.

An additional national component should be submitted to the respective national funding organization according to its own rules and procedures. Please note that submission deadline for national component vary from the deadline for JAF submission to the BRICS STI FP Secretariat.

II-3. Receipt of Application Forms by Call Secretariat

Following the online submission of an application, the respecting confirmation message with proposal registration number will be shown i
page in BRICS AMS the project thereafter will be shown with assigned registration number BRICS2026-XXX (where XXX stands for unique number) No additional letter of confirmation will be provided to the applicant. **An assigned registration number serves as proof of application registration.**

II-4. Retraction of submitted application

At any time after online submission of an application before the due date, an applicant can retract the

-submission of the application is only possible until the call deadline (15:00 UTC+3 (Moscow Time) on 16th of June 2026). Re-submitted application will be assigned with new number, which will differ from earlier submission.

III. Evaluation of Project Proposals

III-1. Evaluation Procedure

Each participating funding organization evaluates all proposals where applicants from its own country request funding from their respective funding organization. Based on the results of the evaluation, a joint decision by the participating national funding organizations will be made regarding the selected proposals to be co-funded.

III-2. Evaluation Criteria

The following general evaluation criteria will be considered (please also refer to national call announcements information on national component):

- Scientific quality and innovation of the joint research plan
- Sound project management, methodological approach, feasibility and appropriateness of the joint research plan
- Added value to be expected from the research collaboration, balanced cooperation
- Balanced cooperation
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IV-3. Final Report

IV-3.1 Final Report to the BRICS STI Framework Programme

After completion of the period of joint project, the Project coordinator shall complete and submit within three months an integrated final report to the BRICS STI Framework Programme Secretariat on the results of the joint project. The report will be reviewed by the BRICS STI Funding Working Group.

IV-3.2 Final Report to each participating funding organization

All project participants

BRICS STI Framework Programme Secretariat

http://brics-sti.org/

Contact person:
Mr. Yaroslav Sorokotyaga
Russian Centre for Science Information
E-mail: brics@rcsi.science

V. National Contact Points

Applicants should contact the following national contact points for information on each

Brazil:

National Council for Scientific and Technological Development (CNPq)

CNPq
Conselho Nacional de Desenvolvimento Científico e Tecnológico

Mr. Luiz Felipe Leal
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cnpq.lfleal@gmail.com

Mr. Lelio Fellows Filho
Email: leliof@cnpq.br

Phone: +55 61 3211-4505

China:

Na a Na a Sc c F da C a (NSFC)

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M Sc c a d T c (MOST)

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Iran:

Iran National Science Foundation (INSF)

The Office of President
Vice-Presidency for Science and Technology
Iran National Science Foundation

International Collaboration Division
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Russia:

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