Request for Proposal (RFP)
On
'Accelerating Catalyzing Solutions for Climate Change's Impact on Health in India'

Under Grand Challenges India (GCI),

Biotechnology Industry Research Assistance Council (BIRAC)
(A Government of India Enterprise)

Jointly Supported by
Department of Biotechnology (DBT),
Ministry of Science and Technology, Government of India
&
Bill & Melinda Gates Foundation (BMGF)

Call Opens	Submission Closes
3rd December 2023	31st January 2024, 1600 hrs IST

I. Grand Challenges India

The Department of Biotechnology (DBT), Government of India, and the Bill & Melinda Gates Foundation (BMGF) signed a Memorandum of Understanding (MoU) in 2012, where both parties agreed to collaborate on scientific and technological research to alleviate some of the world's most critical global health and development issues, for the benefit of the people of India and other developing countries. Grand Challenges India (GCI), a Program Management Unit of this joint-partnership housed at Biotechnology Industry Research Assistance Council (BIRAC), New Delhi, seeks to identify opportunities to support studies focused on early-stage research and product development to tackle health and developmental issues with special emphasis on innovative, impactful research in existing strategies or creating completely new opportunities and pathways to the outcomes, sought on the broader global health and developmental challenges.

GCI specifically, focuses on encouraging research and exploring translational avenues across a range of health and developmental priorities ranging from infectious diseases, drug discovery, vaccines, devices & diagnostics, therapeutics, maternal & child health, nutrition research to agriculture, WaSH among others.

Grand Challenges initiatives follow these core principles:

i) Strategic and well-articulated grand challenges serve both to focus research efforts and capture the imagination and engage the world's best researchers.

ii) Projects are selected based on national and societal need and transparent calls for proposals seeking the best ideas.

iii) Funders, investigators and other stakeholders actively collaborate to accelerate progress and integrate advances to ensure these advanced technologies reach to developing countries masses

iv) Projects are selected not only for scientific excellence, but also to achieve the desired impact, and these are milestone-driven and actively managed to that end.

v) Projects and investigators will have to follow global access commitments to ensure the fruits of their research are available to those most in need.

GCI announces a call for proposals on '**Accelerating Catalyzing Solutions for Climate Change's Impact on Health in India'** a program directed at addressing the challenges on the human health and healthcare system in the context of climate change and its variabilities.

This call is a part of a global call on *'Accelerating Catalyzing Solutions for Climate Change's Impact on Health, Agriculture and Gender'*. The Grand Challenges family of initiatives seeks to source and seed innovations and accelerate the development of transformational solutions. To this end, Grand Challenges (GC) partners including GC Africa (pan-African), GC Brazil (Ministry of Health of Brazil), GC Ethiopia (Armauer Hansen Research Institute), GC India (Department of Biotechnology- Biotechnology Industry Research Assistance Council BIRAC), and GC Rwanda (National Council for Science and Technology), along with the Bill & Melinda Gates Foundation and the Pasteur Network, and supported by Wellcome, Foundation S-The Sanofi Collective, and Rockefeller Foundation are launching this call to identify and support

promising innovations. Each country partner will be running the call in their respective countries.

This Request for Proposals (RFP) is specific to Indian researchers only. Collaborations are strongly encouraged where opportunity exists within the scope of study to build on established collaborations.

II. Program Overview

Background

Climate change and its variability is an important issue impacting all lifeforms, and its severe consequences on health have become clearer in recent years. This health challenge of 21st century is lurking to undermine the accomplishments made globally in improving healthcare, if it is not addressed appropriately and immediately. It is imperative to undertake mitigation and adaptation actions to raise awareness about climate sensitive health concerns and to channel results into actionable solutions.

Climate change events such as rising heat, extreme weather events, changes in precipitation patterns and shifts in duration drive various health related concerns such as climate related undernutrition, surges of vector borne diseases, foodborne and water-borne diseases and increased potential for the emergence of novel diseases. Extreme heat increases the incidences of stillbirth, the rampant spread of vector-borne diseases and worsens maternal and neonatal outcomes. These concerns are damaging to already burdened health care systems especially, primary and community health structures and compromises the accessibility, availability and uptake of essential health services for the most vulnerable populations.

India has a diverse geographical landscape which is vulnerable to climate change. In 2018, a 'National Action Plan on Climate Change and Human Health (NAP CCHH)' was drafted to strengthen healthcare services against adverse impact of climate change. Research on the health impacts of climate change has been advocated but little progress has been made towards actionable solutions. There is an urgent need to prioritize this challenge, and invest in creative solutions to build effective strategies at institutional and organizational scale to prepare a resilient health system.

Recognising this challenge, Grand Challenges India (GCI) under the ambit of DBT-Biotechnology Industry Research Assistance Council (BIRAC) and Bill and Melinda Gates Foundation (BMGF) are launching a program on '**Accelerating Catalyzing Solutions for Climate Change's Impact on Health in India'.** This program is directed at addressing the challenges posed on the human health and healthcare system in context to climate change and its variability.

About Program

Climate change adds pressure on already burdened healthcare, and immediate actions are required to mitigate the impacts of climate change and variability on health and healthcare

system. It is essential that we strengthen and equip healthcare with required tools, scientific and technological solutions, responsive measures and improved practices. Building adaptive capacities to absorb the vulnerabilities is one of the top priorities. The overall purpose of this program is to increase the research and specialized capacities concerning human health. A multisectoral response is essential to address this problem, and this RFP aim to catalyse the research and innovative solutions that are scalable and capable of addressing the unparalleled challenges posed by climate change on health.

The Challenge

The program aims to catalyse research efforts and support innovative solutions to adapt, mitigate or reverse the combined, deleterious effects of climate change on human health. The objective of the call is to support innovative proposals built on meticulously thought rationale and study-plan to undertake quality research and innovation in the context of climate change.

We are especially interested in i) locally led, system-level research and ideas that are scalable and sustainable and ii) cross-cutting solutions at the intersection of multiple scientific and engineering disciplines, combining their complementary and synergistic research strengths. The scope of the program has been kept broader to encourage research activities on developing resilient intervention strategies and innovative solutions. We encourage researchers to develop proposals on inter-linked health concerns with an aim to gain impactful results.

III. Scope of Call

Grand Challenges India is soliciting research proposals on systemic and compounding impacts of Climate Change on Health on following areas:

i. Infectious diseases and emerging pathogens of concern

a) *Early warning and disease surveillance*: We seek proposals that aim to build resilient systems to mitigate health impact of climate change. Solutions may include: accurate surveillance systems for early detection of vector-borne (including arboviral diseases), waterborne, and fungal diseases; prediction models and forecasting systems for vectors and diseases introduced to new localities; integration of available local data and databases into early warning systems to mitigate risks, climate-related diseases and other infectious pathogens of concern in context to climate change.

b) *Climate-health linkages*: Proposals investigating the inter-relationship or linkage studies on epidemiology of climate sensitive diseases with climate data, relationship studies between climate change and vector-borne diseases, vector populations, disease transmission dynamics (respiratory viruses and arbovirus such as dengue, malaria, and chikungunya etc.), and their spread (climate sensitive vector biology) are sought. We encourage the proposals that uses already available data to undertake these studies.

We encourage ideas that address the increased risks related to maternal, newborn, and child health. Proposals on rapid and scalable solutions for containing the new emerging pathogens and climate sensitive concerns are encouraged.

ii. Climate sensitive health concerns

Proposals that strengthen research capacity to generate evidence and plug data gaps for climate-related events such as heat, flood, pollution etc are sought. Solutions related to prediction and forecasting systems and climate and health data linkage studies are encouraged.

iii. Smart Healthcare

Proposals on strengthening the resilience and adaptability of health care services and capacity enhancement to climate related changes that contribute in developing smart healthcare are sought. We are interested in technological innovations that can help in better response to new ailments and challenges brought about by climate-related events.

Proposals must provide a strong rationale for the work proposed, demonstrating a clear understanding of the problem in national context and needs, and present a defined hypothesis and plan for undertaking the proposed work. Proposals studying the economic impact assessments will be considered. Please note that while key research questions vary for each gap, we invite research interests from the researchers working in this area as per above scope, but not limited to these only.

We are looking for proposals that

- Provide a strong rationale for the work proposed, demonstrating a clear understanding of India's context and needs, and present a defined hypothesis and associated plan for how the idea would be tested or validated.
- Proposal that has clearly defined plan with details of proposed activities, specific milestones & timelines, and the budget estimates.
- Articulate how the project will lead to impact in the near-term and how those benefits will be sustained past the lifetime of the project.
- Proposals will be considered on innovations that are formulated locally or adapted to local contexts.
- Articulate the scalability of the solution beyond a small local region or population. Strong consideration will be given to approaches that can scale to multiple geographic areas, zones, demographics, etc.
- Promote inter-sectoral co-ordination and collaboration. Demonstrate engagement with local communities, local and/or regional decision-makers and adopters of relevant innovations or policies.
- We particularly encourage applications from women-led organizations and applications involving projects led by women.

We will not consider funding for proposals that:

- Do not demonstrate that the majority of the work proposed will be undertaken by investigators and/ or local stakeholders living in India.
- Do not plan for or demonstrate a pathway to sustainable impact and scalability.

- Are not linked to or have no plan to engage relevant key stakeholders and decision makers from the affected communities.
- Do not demonstrate actionability and scalability to support impacted communities in India to adapt and be resilient to the effects of climate change on health.

IV. Program Structure

Eligibility Criteria

This RFP is India-led; the programme is open to Indian nationals having good scientific record and working within the country in established academics, research institutions, medical research institutions, Indian companies, not-for-profit organizations, trusts, foundations. Global partners may be included, but proposals must demonstrate at least 80% of the funding is going to Indian investigator within the geography of interest i.e., India.

- The proposal should have a clearly defined plan with details of proposed activities, specific milestones and timelines, a robust collaboration of partners and plan detailing the role and responsibilities of each partner, and the budget estimates.
- Research proposal must be budgeted clearly indicating the budget components to carry out each proposed activity on a milestone basis. Funding will be awarded for 3 years, subject to the applicant complying with agreed milestones. Funds will be released on achievement of each milestone.
- Research proposals will be supported financially at recognised academic institutions, universities, national laboratories, organisations and other recognized R&D institutions or organisation having all the necessary facilities to carry out the proposed research.

Note: Please read the following carefully to understand the category you will be applying under and the documentation that may be requested should your proposal be selected for further financial due diligence. This call is open to:

i) In case of the applicant being an Indian academic scientist, researchers and Ph.D students (citizen of India) who must be willing to incubate at a recognized incubator submit a letter of intent for same.

ii) Indian institution/ universities/ public research organization: Academic institutions established in India and having NAAC/ UGC/ AICTE or any equivalent recognition certificate or any other Public/Government supported organization; Non-profit organizations/ Government entities/ Institutes/ R&D Organizations will include Academic Research Institutes, Universities, Research Foundation, Medical Colleges and Institutes – both public and private who are valid legal entities such as Trust, Society or established under central or state statute.

iii) An Indian Company is defined as one which is registered under the Indian Companies Act, 2013 and minimum 51% of the shares of the Company should be held by Indian Citizens holding Indian passport [Indian Citizens do not include Person of Indian Origin (PIO) and Overseas Citizenship of India (OCI) holders].

iv) Limited Liability Partnership (LLP) incorporated under the Limited Liability Partnership Act, 2008 having a minimum half of the persons who subscribed their names to the LLP document as its Partners should be Indian citizens [Indian Citizens do not include Person of Indian Origin (PIO) and Overseas Citizenship of India (OCI) holders].

v) Society/ Trust/ NGO/ Foundation/ Association established in India under the relevant Indian Law having at least half of the stakeholders (partners/ trustees/ members/ associates etc.) as Indians.

Experts of the relevant discipline should be a part of the proposal such as healthcare professionals/clinicians, public health experts, scientists/researchers, statistician, data analytics experts, m-health specialists, management/logistics experts, M&E experts among others. Please note that the evaluation of eligibility shall be based on the status of documents as on the closing date of the call.

Project duration and Funding

The projects will be supported for a period of 36 months (3 years) (starting from signing of agreement) subject to expert evaluation and milestone achievements. The funding level is up to INR 80 Lakh (USD $100,000.00) for each grant that will be provided to the organisation. The geography of interest is India, this means that the effort needs to be led by investigators in India (Indian national). Application budgets should be commensurate with the scope of work proposed.

Allowable Costs

The allowable cost will include following:

- **Non-Recurring Budget:**

  Equipment and accessories (upto 20% of proposed cost) list of equipment's, if required and justification in relevance to the project activities (Quotations supporting proposed equipment and accessories);

- **Recurring Budget** (commensurate with project activities):

  Manpower (upto 30% of proposed cost); Consumables (upto 20% of proposed cost); Travel; Research Contingency (On case-to-case basis); Outsourcing (In case any activity to be outsourced); Training cost if any; Overhead of each primary & other Cost recipients(s) (upto 10% of the recurring cost);

  *Note: Justifications to be provided for roles of each manpower involved, consumables proposed, travel, training and research contingency. Budget heads without cap will be considered on case-to-case basis and based on call specifics by Technical Advisory Group (TAG). The budget details should be provided separately for each involved collaborator/partner/Co-investigator.

Collaboration

GCI encourages collaborations based on the belief that synergies between experts across diverse disciplines are important for the challenges that we seek to address under this program. Should you wish to apply as a collaboration, please ensure that all investigators involved should be willing to collaborate and share experimental methods, data, and resources amongst each other and other members of the program consortium thus augmenting the abilities to compare and validate local research findings and/or develop interventions/solutions that can have impact Global collaborators may be included, but at least 80% of the funding must go to an organization within India.

Application Timeline and Key dates (proposed)

Call Opens	3rd December 2023
Closure of Submission	31st January 2024
Triage and Review	February- March, 2024
Shortlist and selection	Last week of April, 2024
Award announcement	May, 2024

V. Application Process and Instructions

i) Application Guidelines and Process

The proposals should be submitted online using online proposal submission portal on the BIRAC's website https://www.birac.nic.in under subject-line 'Climate change and Health'. Prior to initiating the process of application submission, applicant should prepare the following:

- A research proposal clearly defining the scope of work, problem statement, rationale, summary of proposal, goals and objectives, details of activities, methodology and implementation plan and timelines, deliverables and expected outcome;
- A description of how the proposed work will help in advancing knowledge in the field and possible translational value;
- Two-page Curriculum vitae of the PI, Co-PI(s)/partners highlighting academic and professional qualifications, total number of indexed publications, *h*-index (total and previous 5 years), fellow of academies, up to 20 important publication, patents, and achievements, link to web-research profile;
- Description of feasibility and available infrastructure and facilities to undertake proposed work;
- Details of Investigators/partners/collaborators and their clearly defined roles and duties, expertise and availability of host institutional expertise in relevant field;

The process of submitting the proposal online is detailed below:

- Go to BIRAC's website https://www.birac.nic.in
- Click on the 'Call for Proposal' and then 'Current Calls' tab in order to view the call detailed description.
- Click on the active call under subject-line 'Cachexia Tuberculosis' to submit your proposal on 'Fundamental and innovative research in Cachexia Tuberculosis to address the needs and gaps in India'.
- If you are already a registered user, then kindly enter your login credential at the below link in order to submit proposal: https://birac.nic.in/login.php
- If you are a new user then you need to register by clicking on tab 'CLICK HERE TO REGISTER'
- Once you register, you will receive an auto-generated link on the registered email id entered at the time of registration.
- Once logged in, proceed to proposal submission.
- Write to Senior Program Manager at pmubmgf3.birac@nic.in regarding the queries about the application and submission of completed proposal.

Important Instructions

- Applicants are advised to fill-up and submit their applications early without waiting for the last date in order to avoid any last-minute contingencies. The online system will cease accepting applications automatically after 1600 hrs of the last date of submission.
- Applicants are advised to provide sufficient details in their applications to allow for an informed and fair evaluation/review.
- Applicants are advised to provide comprehensive information and other supporting materials can be provided as supplementary uploads.
- Requests for changes in the proposal once submitted will not be entertained.
- Applicants should read the guidelines for clear instruction and other details for comprehensive preparation of the proposal.
- Please read through the proposal in its entirety and ensure that your technical details, budget, and organization details are in compliance with the eligibility criteria provided.
- The proposed budget shall be made INCLUSIVE of all applicable taxes and shall be considered accordingly.
- Proposals that do not meet the eligibility criteria and/or do not fall under the scope of call will not be reviewed, regardless of other parameters.
- Applicants shall warranty that the statements and particulars contained in the full proposal and supporting documents are correct. They have to warrant that they are under no contractual restrictions or legal disqualifications or any other obligations which would prohibit them from undertaking the present Project, entering into any Agreement in this regard etc.
- We will not be able to provide individual feedback to applicants those who are not shortlisted under the call.
- Any change of Co-PI/partner or institution will have to be approved by GCI-BIRAC/DBT.

- The funding support shall be duly acknowledged when publishing/showcasing/ presenting project particulars or outcomes in the manner as prescribed by BIRAC.

ii. Selection Process

Grand Challenges India (GCI) along with stakeholders' team will screen the proposals for eligibility. If the application is found to be incomplete or not complying with the provisions described in the RFP, the application will be considered ineligible. After an initial triage, a subject expert review panel/ Technical Advisory Committee (TAC) established under the GCI partnership will evaluate the submitted eligible proposals.

Proposal will be evaluated based on evaluation criteria that will assess the novelty of proposed hypothesis, approach and methodology (realistic and clearly presented research plan, objective and methodology and proposed timelines), milestones, feasibility of proposal components, organizational and investigator capabilities, collaborations and clearly defined collaborative arrangements, cost relevance to proposed work and value of research outcome.

a. Post proposal review and legal eligibility check, the shortlisted applicants will be invited to present their proposals in detail to TAC.
b. Pending financial and technical due diligence, the final awardees will be selected by the TAC.
c. Once due diligence is successfully completed, award certificates will be awarded to the selected GCI applicants.
d. PMU- BIRAC will then enter into separate funding agreements with successful GCI grant recipient(s) to govern the project terms and conditions and fund disbursement modalities.

iii. Evaluation and Decision-Making Criteria

Proposal Merit
- Does the proposal's approach align with the objective of RFP? Are the objectives, activities and milestones well defined?
- Does the proposal demonstrate usefulness of preliminary work for the proposed scope of work?
- Have the investigators provided an adequate description of the existing facility to understand their present capabilities?

Applicant
- Are the investigators or partners competent to ensure the effective conduct of the proposed work?
- Do the investigators possess relevant capabilities and appropriate experience for the same?
- Do the investigators have any prior experience in the field?

Implementation
- Has the implementation methodology and work plan adequately detailed and realistic?

- Have the investigators provided clear metrics for monitoring project progress, including milestones and outputs expected timelines, budget?
- Has the applicant anticipated difficulties/risks that may be encountered? Have mitigation plans been considered in case of failure?

Budget Estimates
- Is the proposed budget reasonable in light of the defined scope of work? Have reliable references been provided for justification?
- Is the resource allocation across various stages, sufficient and appropriate?

iv. Requisites for Funding

Successful proponents shall enter into necessary funding agreements. The fund disbursement will be subject to completion of required formalities by way of Grant-in-aid assistance and associated documentation. The fund recipient shall be accountable for fund utilization as per the sanction.

Fund Disbursement
The disbursement of funds for the research project will be carried out upon successful achievement of milestones. Disbursement will be done in instalments as follows:

Signing of agreement	30%
1st technical milestone	20%
2nd technical milestone	20%
3rd technical milestone	20%
Submission of final report	10%

Process of Sanction of Funding
- Site visits for Technical Due Diligence may be conducted (Physical/Virtual) however certified infrastructure pictures and details to be provided by the applicant to BIRAC as and when required.
- Financial Due Diligence (FDD) may be done on case-specific requirements as per BIRAC norms.
- After the final recommendation of the relevant applicable committee, application will be proceeded further for financial concurrence, legal concurrence and issuance of Agreement as per GCI/BIRAC/DBT norms.
- After successful execution of the above documents and fulfilment of other formalities, fund disbursement will be initiated by GCI/BIRAC/DBT.

Post Approval Review and Monitoring
The projects will be monitored and mentored regularly by a Project Review and Monitoring Committee (PRMC) constituted by GCI/BIRAC/DBT. On Successful completion of each Milestone, the investigator will be required to submit a detailed Milestone Completion Report (MCR) as per the prescribed format.

Contact Information

Further information can be obtained at BIRAC website. www.birac.nic.in

Write to us with the subject line 'GCI - Cachexia TB' at:
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Contact us

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संपर्क करें

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