

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
Technology Mission Division (EWO)

Call Inviting Proposals

Integrated Technology Interventions for Sustainable Environment

1. Preamble

Several parts of the country are facing severe environmental challenges. These challenges can be effectively addressed by indigenous research led technological solutions, provided these technologies are packaged innovatively to deliver sustainable solutions. Implementation of such successful technological solutions at appropriate scale would have direct impact on the quality and economic life of the citizens. Science, technology and innovation strategies are integral parts of sustainable development policy. Proposals on environmental technology interventions for sustainable development need to address applied research and innovation, supported by stakeholders and transfer of technology for the societal benefits. As a society, it is required to identify environmental challenges (eg. energy, water, air etc) and develop solutions through science and engineering and implement through governance, the technological, economic and social measures that will set a course towards the achievement of a desirable, sustainable and secure future.

2. Objective of Call:

Technological solutions for sustainable environment are interdisciplinary and multi-dimensional in nature. Integration of such solutions is the need of the hour. This call aims to mount/integrate S&T interventions specifically to address prevalent environmental (energy, water & air) challenges for improvement in environment. Keeping the above in mind and with an intention of applying technology to improve the living conditions, the location and demand of intervention should in the first place be clearly identified in the proposal. The participation of user agency should be ensured right from the beginning for designing and implementation of such solutions. These successful research leads and solutions are expected to generate best practices for wider adoption for mitigating similar challenges across the country.

3. Eligibility

The proposals have to be submitted in the consortium mode only. The consortium is to be lead by faculties/scientists working in regular position in recognized Academic Organization /Public funded R&D

Institution/ Laboratories. Central Government / State Government supported or recognized (Public or Private) academia, National / State funded R&D Labs in partnership with S&T based voluntary organization, DSIR recognized SIRO organization, autonomous central and state government agencies, etc may form consortium. The consortium should essentially include at least a user having stake and interest in the intervention, a solution designer and a solution provider. The role of solution designer and provider can be assumed by the same organization, if the organization has required expertise and experience.

4. Duration : 3 years maximum

5. Project cost: Project cost should commensurate with the activities planned and due justification may be provided. Appropriate cost schedules may be followed for civil construction of project work, wherever needed.

6. Call Dates

Call Opening Date : 25.12.2019

Call Closing Date : Extended till 30.06.2020

7. Proposal Formulation:

The applicants are encouraged to identify current challenges/needs in identified locations (including aspirational districts and locations majorly inhabited by SC/ST population) and propose technological intervention/s to address the identified challenge/s in consultation with stakeholders. The relevance of the intervention should be based on specific survey or study conducted to identify needs of the location chosen. The formulation exercise would typically involve collecting site specific conditions and assessing holistic requirement. Scouting of technology options developed will be an integral part of formulating the proposal. The implementation and sustainance methodology post intervention also needs to be explicitly stated and elaborated alongwith suitable undertaking /commitments from local bodies/stakeholders. This is mandatory requirement for submission of proposal.

8. Criteria for evaluation

The technology solution, proposed, should necessarily be developed through indigenous research initiative and need to have been tested in lab environment and demonstrated in field at certain scale. The proposals would generally be evaluated based on the following criteria:

- i) Demand of proposed solution and its potential superiority over existing options.
- ii) Technical feasibility, social acceptability, and environmental soundness
- iii) Potential sustainability of intervention.
- iv) Stakeholders involvement including community rooting.

DST at the behest of Expert Panel may introduce any other criteria considered to be critical for successful implementation of the project.

9. Proposal Format and Submission:

Proposals may be submitted at e-PMS (onlinedst.gov.in) under Technology Mission Division in prescribed format available on e-PMS and at DST website.

Two (2) hardcopies of uploaded research proposal should also be sent to Dr. G.V Raghunath Reddy, Scientist 'E', Technology Mission Division (E&W), Department of Science & Technology (DST), Technology Bhavan, New Mehrauli Road, New Delhi- 110016 by Speed Post and reach before the closing date of the call. The envelope should be superscribed with the **“Call for proposals for Integrated Technology Interventions for Sustainable Environment”**.

FAQs for Integrated Technology Interventions for Sustainable Environment Call

What are the theme areas of the call “Integrated Technology Interventions for Sustainable Environment”?

The proposals under the call should stick to themes areas within water, energy and air only.

Is the call seeking proposals for R&D or Technology Development?

No, the call is not seeking proposals for R&D or Technology Development. The call primarily deals with study of prevalent energy, water and air related challenge in any geographical location of the country and deployment appropriate technology (indigenous/ ready to deploy) to address that challenge.

What is the number of Interventions that will be supported and what is the cost of each Centre?

Initially, it proposed to support 20 Intervention Centres, however, the final number is dependent on how many proposal meet the call criteria. The cost of each centre may vary depending upon the population size of the area in question, nature and enormity of the challenge being addressed.

What should be typical population size for each Centre to address a challenge?

Population size may range from 150-500 people per unit and multiples thereof depending on the total population of that particular place/region in question. Sustainability of intervention post project will be key factor irrespective of population size.

What are the technologies that can be deployed?

Both commercial technologies emanating from indigenous research led efforts and ready-to-deploy technologies emanating from indigenous research led efforts related to energy, water and air can be employed to address the challenges. The technologies should meet the benchmarks in term of cost, quality and performance when implemented at scale.

Is the proposal required to be submitted in consortium mode? Who can lead consortium?

Yes, the proposals have to be submitted in consortium mode only. The consortium should essentially include at least a user having stake and interest in the intervention, a solution designer and a solution provider. The consortium is to be lead by faculties/scientists working in regular position in recognized Academic Organization /Public funded R&D Institution/ Laboratories.

Who all can be part of the consortium?

Central Government / State Government supported or recognized (Public or Private) academia, National / State funded R&D Labs in partnership with S&T based voluntary organization, DSIR recognized SIRO organization, autonomous central and state government agencies, etc may form consortium. Financial and technical participation of corporate houses

as part of their CSR activities under Section 135 of the Companies Act 2013 will also be encouraged.

Can solution designer and provider be from the same institute/ organization?

The role of solution designer and provider can be assumed by the same organization, if the organization has required expertise and experience.

Are State S&T Council allowed to participate as consortium member?

Yes, State S&T Council are eligible to participate as consortium member.

Can Corporates participate as consortium member?

Financial and technical participation of corporate houses as part of their CSR activities under Section 135 of the Companies Act 2013 is welcome and will be encouraged.

How should the proposal be formulated?

The consortium is expected to identify and study the site/region of choice and scout for matching/ appropriate technology solution/s to address the challenges. The proposal should have engineering, optimization and configuration plan for the proposed work package, based on feasibility study of site.

Can a proposal address only one theme area i.e. Energy or water or Air alone?

No, the call is for integrated technology interventions for sustainable environment, hence the proposal is required to address at least 2 themes.

What is the typical size of funding for the project?

The cost of the project commensurate with the activities planned. The cost of the project may range from 50 -500 lakh based on the activities planned.

Are there any preferential locations for intervention?

Yes, the locations having scheduled castes/scheduled tribe population greater than 48% and those in aspirational districts identified by NITI Aayog will receive priority provided there is definite need and demand for intervention. The areas severely affected by challenge will also receive preference.