# Government of India Ministry of Science and Technology Department of Science and Technology Science for Equity Empowerment and Development (SEED) Division

# CALL FOR PROPOSALS – 2020 (LAST DATE FOR SUBMISSION OF PROPOSALS: 31/10/2020)

# "SCIENCE TECHNOLOGY AND INNOVATIONS (STI) HUBS FOR DEVELOPMENT OF SCHEDULED CASTE (SC) AND SCHEDULED TRIBE COMMUNITIES (ST)"

#### BACKGROUND

The Scheduled Castes (SC) and Scheduled Tribes (ST) comprise about 16.6% and 8.6%, respectively of India's population (2011 census) which is more than 25 % of the total population. The various programmes of Department of Science and Technology (DST) had a precise mandate for development of SC and ST communities through specific Science and Technology (S&T) interventions. The Science for Equity Empowerment and Development (SEED) Division, besides the Schemes Special Component Plan for Scheduled Castes (SCSP) and Tribal Sub Plan (TSP), has implemented various programmes for the development and empowerment of SC and ST Communities through location specific coordinated programmes involving Knowledge Institutions and S&T based field organizations. The technological interventions also overcame the social discrimination problems in certain areas. It is thus observed that the coordinated programmes help demonstrate innovative approaches and mechanisms based on location specific appropriate technological inputs that enhance and create sustainable livelihoods for SC/ST communities on a large scale with visible impact.

#### THE NEED

The connotation of 'Development' has changed over a period of time. The initial attention of economic growth and economic development has now slowly moved on to include human perspective into the notion of development. Expansion of human capabilities was overlooked when taken in the context of economic growth of SC and ST Communities over a period of time. Hence there is need for rediscovery of human development approach. The pressing demand for the inclusion of wide range of indicators to measure the Quality of Life of people is gaining momentum. Quality of life is a broader concept than economic production and living standards. The importance of better standard of living of people in terms of their quality of life rather than the economic growth of the country is quite important. Thus societal interventions through Science and Technology (S&T) is a significant field of action research

that builds on interactions among humans, their technologies, and the environment, and on the use of such knowledge to advance sustainability goals towards equity.

Therefore, S & T based innovation, development and delivery programmes for the vulnerable sections of the society to address problems related to water, food, energy, health, habitat, mobility, and environment services in the context of growing aspirations and Quality of Life are to be formulated around sustainability science with new/improved skills and knowledge for livelihood security (please refer to **Annexure V** for various domains for socioeconomic development of SC and ST Communities). It is thus envisaged that establishment of Science Technology and Innovation (STI) Hubs will develop, nurture and ensure the development, improvement and delivery of appropriate and relevant S&T approaches for inclusive social and economic development of the Scheduled Caste and Scheduled Tribe population in the country. The STI Hubs may follow a bottom up approach for gathering information on livelihood system consisting of human, natural, social, physical and financial capitals (details in **Annexure VI**), local and indigenous knowledge and ingesting it with technological information to help development of target beneficiaries. The broad objectives of the STI Hub should be as follows:

#### **OBJECTIVES**

- To assess the natural resource and human resource endowment for sustainable livelihood planning through science, know-how, and practices
- To promote research, development & adaptation of appropriate and relevant technologies for socioeconomic development of target population
- To capture traditional & indigenous knowledge and upgrade the skills, building on local innovation & local knowledge systems (including integration of high end technologies with traditional & indigenous skills)
- Promotion, replication and scaling up of successful technologies leading to socio economic empowerment and capacity building
- o Creation of micro-enterprises and forward linkages

The investigators should give specific objectives related to the above in the proposal for STI Hub

#### **MODE OF IMPLEMENTATION**

The project development and implementation may be in collaborative, networked and partnership framework to resolve the last mile problem in the induction, delivery, management, use and extension of technology applications for social and economic development of target population. The STI Hubs should aim at creating mechanisms for S&T based Sustainable Rural Livelihoods in tune to the societal requirements. The STI Hubs shall also look at harnessing and leveraging frontier technologies available with other knowledge

institutions like Agricultural Universities, IITs, NITs, KVK's, central scientific departments etc. Thus, the STI Hubs shall facilitate the ecosystem for the socioeconomic development of SC/ST communities through

- Creation of sustainable livelihoods and employment opportunities
- Promoting equitable economic growth
- Improving productivity and reduce drudgery
- Promoting efficient and effective use of local and natural resources

# CRITERIA FOR SELECTION OF LOCATION FOR STI HUB

Ideally the STI Hubs should be located in a geographical area with predominant presence of SC/ST population (**refer figures 1 &2**). The location (target area) for establishment of an STI Hubs should have at least 30% SC or ST beneficiaries. The STI Hubs may be around R&D Institutions/Academic Institutions or it should have strong links with such institutions to ensure optimal use of the already existing expertise and facilities thus keeping the cost of the on lower side. *The STI Hubs though not restricted should be preferably established in aspirational districts. Efforts should be made to converge the activities of STI Hubs with the activities of Pradhan Mantri Adarsh Gram Yojana (PMAGY) in case the STI Hub is in the vicinity of PMAGY village*. The following aspects relating to the Host Institution (HI) need to be ensured while proposing an STI Hub:

- Experience in implementation of projects related to socio economic development with inputs of Science and Technology
- Dedicated team of R&D persons
- Industrial milieu in the region
- Proximity to other R&D/academic institutions
- Availability of infrastructure, basic equipment and expertise in the proposed interventions
- Strong commitment and willingness of the Host Institute
- Linkage with local self-governing bodies (panchayat etc)

The Science Technology and Innovation Hubs should serve as springboards for new ideas and innovation and should promote science and technology interventions & inspire innovations for the socio-economic development of Scheduled Caste and Scheduled Tribe Communities. The STI hubs can be co-located in the existing institutions. This co-location shall not only promote more effective utilization of the knowledge centres, but would also redefine their usage and role in fostering problem solving and project based learning and provide hands on/ practical learning and engagement in the process of science, technology and innovation. The STI Hubs should also coordinate with the local S&T based voluntary organizations for dissemination of technologies and interventions through network programmes.

#### **REQUIRED FACILITIES**

The STI Hubs should mainly draw upon the existing facilities available in the Host Institution including land and building. However, certain essential facilities, like modern work space computing and communication facilities, common facility centers for training may be established as per the proposed interventions. The host institution has to provide the requisite land and building besides implementing specific activities pertaining to the identified thrust areas and proposed interventions. The Host Institution has to play an important role not only in the establishment of the STI Hub but also in its smooth and efficient functioning. Each STI Hub is expected to become self-sufficient within a period of five years from the date of sanction of the project. In case of S&T based voluntary organizations, there should be well well-defined partnership/collaboration with academic institutions, universities, engineering college or a research laboratory having expertise in the proposed area of work. Similarly, academic institutions, universities, engineering college or a research laboratory applying for establishment of STI Hubs should have collaboration with S&T based voluntary organizations for dissemination and last mile delivery of interventions.

# THRUST AREAS FOR INTERVENTIONS

Each STI Hub would focus on not more than 4-5 Location Specific Appropriate Technologies for Creation of Sustainable Livelihoods and the proposed interventions should

- (a) be based on local resources and local markets
- (b) be capable to remove drudgery
- (c) be able to enhance efficiency with minimum occupational hazards
- (d) empowers/enhances status
- (e) provide flexibility to change with each situation- delivery, time frames
- (f) be adaptable and affordable.

Thus, the S & T based thrust areas for interventions for socio-economic development, capacity building (both institution and human capacities) and sustainable development for development of SC/ST Communities, though not restricted may focus on various domains for socioeconomic development of SC and ST Communities given in Annexure V.

#### **ELIGIBILITY CRITERIA**

The following organizations/institutes are eligible for receiving financial support for establishment of STI Hubs/Centers

(a) Universities and other higher educational institutions recognized or regulated by UGC/ AICTE and/or MHRD/ State Education Department

(b) Private Academic Universities/ Colleges/ Institutions and Government Aided Colleges recognized or regulated by UGC/ AICTE – would be considered as Non-Government Organization (NGO) and shall use 'NGO/ VO' option during the process of online submission of proposal.

(c) S&T based voluntary organizations, which are working in the rural areas with legal status or as a society registered under the Societies Registration Act 1860 or a trust registered under the Indian Trusts Act 1982 or Charitable or Religious Act 1920 or under the corresponding State Act with

- Minimum 10-year field level experience in rural technology development and management.
- Experience in handling projects having focus on S & T with support from scientific departments of Government of India.
- The organization has not been blacklisted by any Central or State Government Department.

In addition, the S&T based voluntary organizations are also required to submit the following documents while submission of proposal online on the DST e-pms portal.

- Copy of valid registration certificate/Trust Deed, Memorandum of Association, Rules and Byelaws of the society.
- Audited Statement of Accounts and Annual Activity Reports of the organization for the last 3 financial years.
- Organization's Unique ID in NGO Darpan Portal
- Registration in PFMS portal and Unique ID
- Well-defined partnership/collaboration with academic institution, university, department, engineering college or a research laboratory having expertise in the proposed area of work

# **General Terms and Conditions:**

1. Institutions/Organization receiving funds would assume financial and other administrative responsibility of the project.

2. In case of multi-institutional project, the Principal Investigator (PI) must furnish formal agreement from the collaborating institutions/scientists along with separate budget for each of the implementing institutions.

3. International travel is not permissible under the projects.

4. Staff recruited for a project should be paid as per the norms and guidelines of the DST.

5. The investigators who has been selected for further nurturing against the earlier call (July-September 2019) need not apply against this call.

6. The call is open to all the investigators (irrespective of the category they belong) fulfilling the eligibility conditions given in the call document.

#### SUBMISSION OF ONLINE APPLICATIONS TO SEED DIVISION, DST

The Principal Investigator should submit the project proposal online through DST's Electronic Project Management System (e-PMS) on portal www.onlinedst.gov.in the given format along long necessary documents. The investigators may please note the following.

1. Browse onlinedst.gov.in to access the homepage of the "DST e-PMS Portal", register, log in and submit the project proposal in prescribed Format under Science technology and Innovation Hubs.

2. Before filling up the form candidates are advised to carefully go through the relevant advertisement/call published at the DST Website (www.dst.gov.in) and also available under Proposal Formats in the e-PMS Portal after logging in the portal site

3. To save your time and avoid data loss please download the appropriate proposal format and fill all the information required as per the format as a Word and PDF file and then keep it ready for upload during submission of mandatory documents.

4. Click on "Submit Proposals" link which would take you to a page seeking multiple information starting with – General information, Principal investigator etc. Ensure to fill all the mandatory information sought against each menu.

5. After filling all above particulars there is provision for preview your detail before final submission of application form on clicking on "Preview" button. Preview page will display all particulars that you have mentioned.

6. Click on "Submit" button for submission of the proposal online. The TPN number generated after submission of proposal may be noted for future reference.

7. The enclosed conflict of interest document should also be submitted.

8. Applicants are advised to carefully fill and verify the details filled in the online application as no change will be possible/ entertained after clicking the Final Submit Button.

9. The Last date for submission of online proposals is 31/10/2020 after which the weblink will be automatically disabled for any usage

#### Please Note

1. It is mandatory to submit the proposals through <u>online mode</u>.

2. Proposal submitted through e-mail will not be entertained.

**3.** The investigators who has been selected for further nurturing against the earlier call (July-September 2019) need not apply against this call.

# FORMAT FOR APPLICATION

# SCIENCE TECHNOLOGY AND INNOVATION HUBS

Guidelines for formulation of proposals for establishing Science, Technology and Innovation (STI) Hubs at Knowledge Institutions for SC/ST Population

1. The proposal should be specifically aimed at welfare of SC/ST Population using Science and Technology inputs/processes

2. The proposal/project may focus on

(a) Development of novel/innovative technologies for the benefit of field SC/ST communities(b) Adaptive R&D (Location Specific Research & Technology Development)

(c) Field demonstration/extension oriented activities (Replication of successful models hitherto not adopted in the target area).

3. The project should clearly bring out how it will benefit the target population.

4. Financial support would be provided for purchase of equipment and creation of small infrastructure (including common facility centres)/construction costs, if it is absolutely essential. In case of extension programme, sophisticated and costly equipment would not be provided.

5. The site for project implementation should be in the vicinity of the selected target population

6. Efforts should be made for the direct involvement of SC/ST population in the project so that technology transfer could be done effectively.

7. The technology or extension programme should be selected taking into consideration the (a) aspirations and technology absorption capacity of local communities (b) availability of local resources and its conservation.

8. Interventions should aim at improving the physical, social and economic conditions of the target communities in addition to their present occupation/income.

9. The proposed interventions/activities of STI hubs should converge with other National and State level programmes

10. The project should not lead to environmental degradation or ecological imbalance.

11. The project activities should be towards generation of self-employment/ additional revenue generating and should not displace current job.

12. The project should develop strategies for capacity building, up scaling and creation of social enterprises

13. The STI Hubs though not restricted should be preferably established in aspirational districts. Efforts should be made to converge the activities of STI Hubs with the activities of Pradhan Mantri Adarsh Gram Yojana (PMAGY) in case the STI Hub is in the vicinity of PMAGY village.

#### **Instructions**

1. Font Style: Time New Roman, Font Size:12, Line Spacing: Single, Spacing between lines:0

# PART I: EXECUTIVE SUMMARY (This part should not exceed 12 pages)

# **1. Project Title**

Science Technology and Innovation Hub in\_\_\_\_\_, \_\_\_\_Block, \_\_\_\_\_Block,

#### 2. Name of the Institution & Address

# **3. Details of the Project Team**

# i. Name of the Principal Investigator:

ii. Name of Co-Investigator (s):

# 4. Project Area Profile:

(a) Demographic Details (give details of geographical area covered, climate, land use & cropping patterns, availability of natural resources & raw materials, availability of special skills/trades, etc.)

(b) Socio-economic Status (details of social conditions, current occupations of the target beneficiaries, present average annual income, availability of basic amenities and facilities etc.)

(c) Target Beneficiaries (type of target beneficiaries total size of target group(s), % of SC/ST of total population in project area etc.)

# 5. Nature of the Project (you may tick all the relevant options)

Technology development (new technology, new product/process)			
Adaptive R&D (Location Specific Research & Technology Development			
including Technology modification/modulation/ optimization, up/down scaling			
of existing systems, technology adaption/adoption etc)			
Technology transfer (field trials, demonstrations & transfer of technology)			
Technology dissemination and deployment (Replication of successful models,			
dissemination of available technology for solution of identified problem)			

#### 6. Give the details/list of technologies

- (a) selected for development and/or
- (b) selected for up/down scaling, technology adaption/adoption etc and/or
- (c) selected for transfer/dissemination and deployment

Sl. No.	Technologies (Interventions)	Justification
a.		
b.		

7. Importance of the proposed Technologies (Interventions) in the context of current status (livelihoods, health, socioeconomic status etc)

8. Science & Technology component/Innovativeness/Novelty of the project.

**9.** Expected Deliverables (5-6 clear cut deliverables)

**10.** Expected benefits to the target groups/population (5-6 clear cut deliverables)

11. Please give a brief business plan/enterprise model/sustainability of the project.

**12.** Details of the beneficiaries (direct and indirect – give tentative villages and tentative beneficiaries in each village)

#### **13. Details of Collaborators**

Sl. No.	Name and Address of the Collaborators	Purpose
1.		
2.		

#### **14. Duration (months):**

#### **15. Budget Summary:**

Recurring Cost : Non-Recurring cost :

Sl.	Items		Budge	et (in Rs.)	
No.		1 <sup>st</sup> Year	$2^{nd}$ year	3 <sup>rd</sup> year	Total
Α.	Recurring				
1.	Manpower				
2.	Consumables				
3.	Travel				
4.	Training Programme				
4.	Contingency				
5.	Overheads				
	Total (A)				
В.	Non Recurring				
1.	Equipment				
2.	Fabrication Costs				
3.	Construction Costs				
	Total (B)				
	Grand Total (A+B)				

# 16. Details of Principal Investigator, Co Investigators and Affiliation

i. Principal Investigator	
Name	
Sex and Date of Birth	
Highest Qualification and Expertise	
Designation	
Department	
Institute/University	
Complete Address with Pin Code	
Telephone and Fax Numbers	
Mobile Number	
E – Mail	
ii. Co Investigator	
Name	
Sex and Date of Birth	
Highest Qualification and Expertise	
Designation	
Department	
Institute/University	
Complete Address with Pin Code	
Telephone and Fax Numbers	
Mobile Number	
E – Mail	

# 17. Details of ongoing/completed projects of the investigator(s) during the last 5 years

S1.	Name of the project and	Funding	Cost & Duration	Status
No.	Reference No	Agency/Division		

18. Expected Output and Outcomes (please refer to tentative indicators given in Annexure VII, select indicators relevant to your project, you may also add other indicators specific to your project)

# PART II: TECHNICAL DETAILS OF PROJECT

# **1. Introduction** (under the following heads)

(a) Existing Natural Resource Endowment of the Target Area (to promote efficient and effective use of local and natural resources for improved livelihoods – give details of geographical area, climate, land use pattern & cropping patterns, availability of natural resources & raw materials etc.)

(b) Demographic details and Socio-economic profile – as per 2011 census (type of target beneficiaries total size of target group(s), % of SC/ST of total population in project area, details of social conditions, current occupations of the target beneficiaries, present average annual income, availability of basic amenities and facilities etc.)

(c) Brief Industrial Scenario of the target area (may refer to Industrial Profile of Districts by MSME)

(d) Indigenous Knowledge (IK)/Traditional Knowledge (TK), Skill and Practices (Community Knowledge and availability of IK skills/TK skills, Details of existing special skills/trades, including art, craft etc. of the target population)

(e) Details of the project implementation site/ Location map of the target area (as far as possible should be in the vicinity of the targeted population).

(f) Expertise available with proposed investigating group/institution for implementing project.(g) Infrastructure available including equipment at Pl's Organization

**2. Objectives** (well defined, restricted 3-4 objectives – do not copy from the objectives of the programme given at p.2, give objectives specific to your project)

# **3.** Technologies (Interventions) selected for development and/or dissemination along with justification

(a) Details focusing on Technology development (development of new technology, new product/process) and/or Adaptive R&D (Location Specific Research & Technology Development) and/or Technology dissemination (Replication of successful models)].

(b) Relevance of the proposed interventions to the existing Micro & Small Enterprises and Artisan Units, Industrial clusters and augmentation of proposed technologies in development of existing clusters

(c) Details indicating how the project/proposed technologies will benefit the target population

**4. Work Plan** (under the following heads on separate sheets)

(a) Methodology (detailed methodology for dissemination of technologies/interventions)

(b) Organisation of work elements

(c) Time schedule of activities giving milestones.

S1.	Name of Milestone	Expected Start	Expected Completion	Deliverables
No		(Month/Year)	(Month/Year)	

**5.** Details/Mechanism for the involvement of SC/ST Population in the project.

6. Indicate whether the project will help in maintaining environmental/ecological balances.

**7. Details of self-employment/revenue generation through the project in long term/development of entrepreneurship** (indicate the additional income per annum through this project per beneficiary/family).

8. Comment on the possibilities of the activity becoming self-sustainable / marketing / buy back arrangements /Micro Enterprise Development etc (give in terms of finite time including cost benefit analysis of the project) – Techno-economic viability of the project and its self-sustainability

# 9. Trainings & Workshops

(Given details of trainings and workshops to be conducted for capacity building, deploying and dissemination of technologies for achieving the target objectives)

#### 10. Parameters to be used for evaluation of the impact

(Give details of Pre-intervention benchmark studies/surveys - See Annexure VII also)

Pre Intervention (Bench Mark)	Anticipated Outcome (likely deliverables)

#### 11. Linkages with R&D institutions/S&T based knowledge institutions (NGOs) etc.

#### **12. Likely Impact of the Project.**

# PART III: BUDGET

#### BUDGET ESTIMATES - SUMMARY\*

Sl. No	Item	Budget				
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total	
А	RECURRING					
1	Manpower					
2	Consumables					
3	Travel					
4	Training Programs					
5	Review Meeting by DST					
6	Contingencies					
7	Institutional Overheads					
В	NON RECURRING					
1	Permanent Equipment					
2	Fabrication of Equipment					
3	Construction Costs					
	TOTAL					

\*In case of collaboration with different institutions, separate budget requirements should be furnished along with formal agreement from the collaborating institutions/scientists. Detailed justification need to be provided for all the budget heads as per the break up given below.

# A. RECURRING

#### 1. BUDGET FOR MANPOWER

Sl. No.	Designation	Budget (Rs)			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.					
TOTAL					

(Staff recruited for a project should be paid as per the norms and guidelines of the DST. The justification should contain the work allocation/functions of each project staff)

#### 2. BUDGET FOR CONSUMABLES

Sl. No	Consumables	Budget (Rs)				
		1 <sup>st</sup> Year 2 <sup>nd</sup> Year 3 <sup>rd</sup> Year Tot				
1.						
	TOTAL					

#### 3. BUDGET FOR TRAVEL

Sl. No	Purpose	Budget				
		1 <sup>st</sup> Year 2 <sup>nd</sup> Year 3 <sup>rd</sup> Year Total				
1.	Project Logistics					
2.	Field Activities					
TOTAL						

#### 4. BUDGET FOR TRAININGS

Sl. No	Description of Trainings	Budget				
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total	
1.						
	TOTAL					

#### 5. REVIEW MEETINGS BY DST

Sl. No	Description of Trainings	Budget			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.					
	TOTAL				

(Budget to be proposed for two meeting a year – should cover the travel cost, accommodation and local field visits of 6-8 experts)

#### 6. BUDGET FOR CONTINGENCIES

Sl. No	Item	Budget			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.					
	TOTAL				

#### 7. BUDGET FOR OVER HEADS

Sl. No	Item	Budget			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.					
	TOTAL				

# **B. NON RECURRING**

# BUDGET FOR PERMANENT EQUIPMENT/STRUCTURES

Sl. No.	Item	Budget			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	Equipment				
2.	Fabrication Costs				
3.	Construction Costs				
	TOTAL				

 $\circ$   $\;$  Detailed justification for each and every item of equipment should be given

• The construction cost should also include the costs towards establishment of STI Hubs/CFC for trainings/demonstrations etc

• Bill of materials/estimate for fabrication and construction cost should be provided

# PART IV: DETAILS OF THE IMPLEMENTING INSTITUTE

#### **1.** Description of the implementing agency (ies)

(In case of Voluntary Organizations/NGOs and Private Institutes please enclose copies of Registration Certificate/Trust Deed, Memorandum of Association including By-laws and Mandate, Audited statement of accounts for the last three years, Annual Report including activity profile for last three years.)

a. List of ongoing and completed projects during the last 10 years

Sl. No.	Title of the project	Name of	Status	Amount
		funding agency	(Ongoing/Completed)	(Rs lakh)
1.				

b. Expertise available with the proposed investigating group/institution for implementing the project (describe briefly in not more than one page)

c. Infrastructure available land/building (including equipments).

# 2. a. Type of organization:

	Implementing Org.	Collaborator
Academic Institution		
Research Organization		
S&T Council		
Voluntary Organization		
Other (please specify)		

#### b. Collaboration if any, give details of institution(s)

{Linkages with S&T Institution (in case of NGOs clear cut commitment/letter of consent of S & T institution to be enclosed)}

Sl. No.	Name of the Collaborator	Purpose
1.		
2.		

# ENDORSEMENT FROM HEAD OF THE INSTITUTE (on letter head)

It is certified that the project proposal titled "title of the project"

- 1. Has not been submitted to any other agency/agencies for financial support
- 2. The scale of pay, allowance, etc. proposed are those admissible to persons of corresponding status employed in the Institute/University/NGO/Voluntary Organization, and are in accordance with the guidelines on emoluments for research personnel as contained in (enclose guidelines if any in case of Central/State Government Institutions)
- 3. It is agreed that any research outcome or intellectual property right(s) on the invention(s) arising out of the project shall be taken in accordance with the instructions issued with the approval of the Ministry of Finance, Department of Expenditure
- 4. The institute welcomes participation of Dr/Shri/Smt/Km......as the Principal Investigator and Dr/Shri/Smt/Km.....as the Co-Investigator for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume responsibility of the fruitful completion of the project (with due intimation to DST).

Signature of Executive Authority of Institute/ University with Seal with date

#### **CERTIFICATE FROM THE INVESTIGATORS**

It is certified that

- 1. We agree to abide by the terms and conditions of the DST grant.
- 2. We did not submit this or a similar project proposal elsewhere for financial support.
- 3. We have explored and ensured that equipment and basic facilities will actually be available as and when required for the purpose of the project. We shall not require financial support under this project, for procurement of these items.
- 4. We undertake that spare time on permanent equipment will be made available to other users.
- 5. We have submitted the following documents online.

Duly filled application form (complete with all Annexure)	
Copy of valid Registration Certificate/Trust Deed, MOA with Bye Laws, Annual	
reports & audited accounts of the organization for previous 3 years (only for	
NGOs)	
Letter of Support and tie up with S&T institutions – Mandatory for NGO'S	
Endorsement from Head of Institute along with signatures of Investigators	
(original)	

- 1. Signature of Principal-Investigator with place and date
- 2. Signature of Co-Investigator place and date

# BIODATA OF PRINCIPAL INVESTIGATOR

A. Name:

B. Date of Birth

C. Institution

D. Whether belongs to SC/ST

E. Academic and professional career:

(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only) Details of Papers, Books, General Articles, Patents if any

H. List of Completed/Ongoing and Submitted projects

S1.	Name of the project and	Funding	Cost & Duration	Status
No.	Reference No	Agency/Division		

# BIODATA OF CO INVESTIGATOR (please enclose biodata of all the co-investigators)

A. Name:

- B. Date of Birth
- C. Institution
- D. Whether belongs to SC/ST

E. Academic and professional career: (From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only)

Details of Papers, Books, General Articles, Patents if any

H. List of Completed/Ongoing and Submitted projects

S1.	Name of the project and	Funding	Cost & Duration	Status
No.	Reference No	Agency/Division		

# <u>CRITICAL DOMAINS OF SOCIO-ECONOMIC WELL-BEING OF SC COMMUNITIES</u> (*Identified by MoSJ&E for PMAGY Villages*)

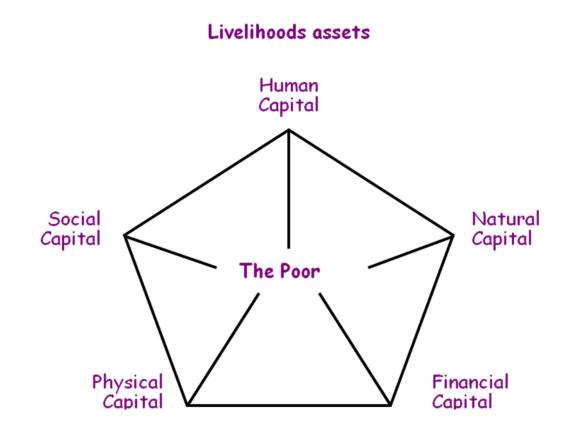
- 1. Drinking water and Sanitation
- 2. Education
- 3. Health and Nutrition
- 4. Social Security
- 5. Rural Roads and Housing
- 6. Electricity and Clean Fuel
- 7. Good Agricultural Practices
- 8. Financial Inclusion
- 9. Digitization
- 10. Livelihood & Skill Development

# DOMAINS OF DEVELOPMENT FOR ST COMMUNITIES (Ministry of Tribal Affairs)

- 1. Drinking Water and Sanitation
- 2. Irrigation
- 3. Connectivity
- 4. Housing
- 5. Health and Nutrition
- 6. Protection of Rights
- 7. Economic Development
- 8. Social Empowerment
- 9. Education
- 10. Promotion of Sports
- 11. Traditional Knowledge and Practices

The domains given above are purely indicative and the investigators my take other domains also pertaining to their target area and target population

**The Sustainable Livelihoods Framework** 



#### Human Capital

- o Health
- o Nutrition
- Education
- Knowledge and skills
- Capacity to work
- Capacity to adapt

#### **Natural Capital**

- o Land and produce
- Water & aquatic resources
- o Trees and forest products
- o Wildlife
- Wild foods & fibres
- Biodiversity
- Environmental services

#### **Financial Capital**

- Savings
- Credit/debt formal, informal, NGOs
- Remittances
- Pensions
- o Wages

#### **Social Capital**

- Networks and connections
  - Patronage
  - Neighbourhoods
  - Kinship
- Relations of trust and mutual support
- Formal and informal groups
- Common rules and sanctions
- Collective representation
- Mechanisms for participation in decision-making
- o Leadership

#### **Physical Capital**

- o Infrastructure
  - Transport roads, vehicles, etc.
  - Secure shelter & buildings
  - Water supply & sanitation
  - Energy
  - Communications
- $\circ$  Tools and techology
  - Tools and equipment for production
  - Seed, fertiliser, pesticides
  - Traditional technology

# Output Indicators (only indicative)

Sl. No	Indicator
1.	Number of new network programmes initiated
2.	Number of new technologies/ techniques/ tools/ processes developed
3.	Geographical Coverage/Number of beneficiaries/ households
4.	Number of technologies transferred and or deployed in field or commercialized
5.	Number of Reports/Manuals
6.	Number of patents applied/granted
7.	Number of papers published
8.	Number of Common Facility Centres/ Permanent Structures/ Common Resources
	Created
9.	Number of SHGs/CIGs/TAGs/FPOs formed under the Project
10.	Number of Skill development and Capacity building Programmes Conducted
11.	Number of Awareness and Trainings Programmes conducted
12.	Number of social, mini and microenterprises developed/ established

# Outcome Indicators (only indicative)

Sl. No	Indicator
1.	Access to efficient technologies which will build long term assets (Number of HH)
2.	Improved access to basic infrastructure facilities like Energy, Water, Health,
	Sanitation, Built environment etc (Number of HH)
3.	Improved access to financial institutions and digital infrastructure (Number of HH)
4.	Number of people and/or organizations using common facilities and infrastructure
	created under the project
5.	Livelihood Diversification (Number of livelihoods options generated)
6.	Backward linkages - Access to stable input resources and/or Access to affordable
	cost of capital (Number of HH)
7.	Forward linkages - Access to existing or newer linkages and/or Access to last mile
	supply chains (Number of HH)
8.	Number of skilled manpower (men and women) generated and jobs created
9.	Scientific Capacity Building & Technology Absorption Capacity – Knowledge
	transfer on best practices and Awareness on best alternatives (Number of people
	other than the project beneficiaries)
10.	Number of entrepreneurs created, Improvement in entrepreneurship ecosystem
11.	Number of other organizations motivated and mobilized for replication of project
	outcomes

# The investigators should add other relevant indicators specific to their project

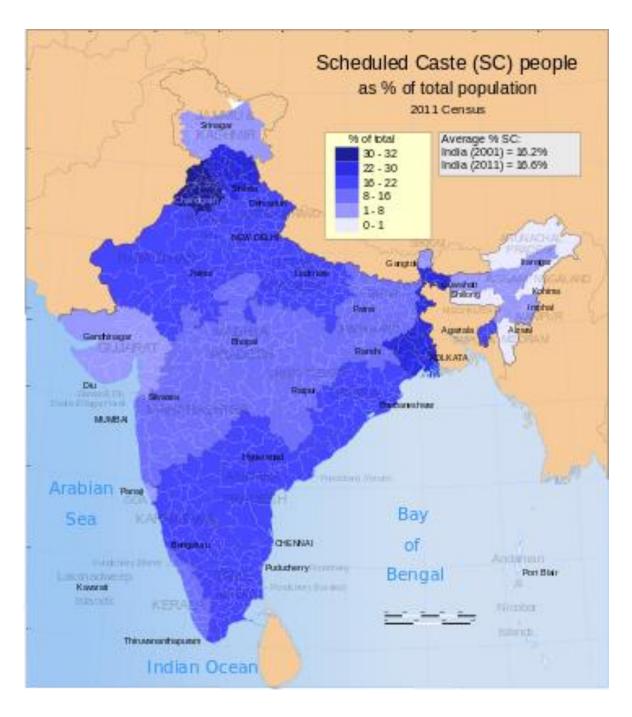


Figure 1: Distribution of Schedule Caste Population in India

FIGURE-2

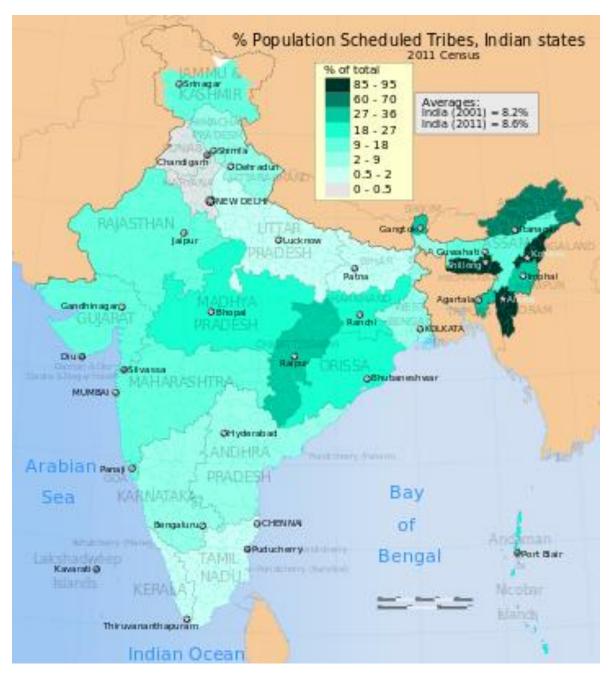


Figure 1: Distribution of Schedule Tribe Population in India

#### **DEPARTMENT OF SCIENCE AND TECHNOLOGY**

#### POLICY ON CONFLICT OF INTEREST

#### FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that is intended to protect the integrity of the decision making processes and minimize biasness. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision making process adopted by DST.

#### **Definition of Conflict of Interest**:

Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

#### **<u>1. Coverage of the Policy</u>**:

a) The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision making process.

b) This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators, Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

#### 2. Specifications as to what constitutes Conflict of Interest.

Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

(i) Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.

(ii) The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision making process or

alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant's form etc..

(iii) The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.

(iv) The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.

(v) The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.

(v) The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)

(vii) The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.

(viii) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.

(ix) The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.

(x) The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

# The Term "Relative" for this purpose would be referred in section 6 of Companies Act, 1956.

#### 3. Regulation:

The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and scientific ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

#### 4. Confidentiality:

The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

#### 5. Code of Conduct

#### 5.1 To be followed by Reviewers/Committee Members:

(a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.

(b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.

(c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.

(d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.

(e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.

(f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.

(g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.

(h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

#### 5.2 To be followed by the Applicant to the Grant/Award:

(a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.(b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

#### 5.3 <u>To be followed by the Officers dealing with Programs in DST:</u>

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

#### 6. Sanction for violation

#### 6.1 For a) Reviewers / Committee Members and b) Applicant

Any breach of the code of conduct will invite action as decided by the Committee.

#### **6.2 For Officers dealing with Program in DST**

Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

#### 7. Final Appellate authority:

Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision making process. The decision of Secretary, DST in these issues shall be final and binding.

#### 8. Declaration

#### I have read the above "Policy on Conflict of Interest" of the DST applicable to the Reviewer/ Committee Member/ Applicant/ DST Scheme or Program Officer # and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant \* I hereby declare that I have conflict of interest of any form pertaining to the proposed grant \*

\* & # (Tick whichever is applicable)

<u>Name of the Reviewer/ Committee Member or Applicant or DST Officer</u> (*Strike out whichever is not applicable*)

(Signature with date)