



**Government of India**  
**Ministry of Science and Technology**  
**Department of Science and Technology**

**SCIENCE TECHNOLOGY AND INNOVATION (STI) HUBS FOR  
DEVELOPMENT OF SCHEDULED CASTE (SC) AND SCHEDULED  
TRIBE (ST) COMMUNITIES**

***CALL FOR PROPOSALS 2019***

The Department of Science and Technology invite proposals for establishment of Science Technology and Innovation (STI) Hubs to develop, nurture and ensure the development, improvement, and delivery of appropriate and relevant S&T approaches for Creation of Sustainable Livelihoods and enhancing the Quality of Life of the Scheduled Caste and Scheduled Tribe population in the country. The thrust areas for interventions though not restricted may focus on the following themes.

1. Agriculture and Food Security
2. Water and Energy
3. Affordable Health Care & Health Security
4. Habitat & Environment
5. Rural Enterprises
6. Information & Communication Technology (ICT)/Internet of Things (IOT)/Artificial Intelligence for Rural Development
7. Any other relevant S&T Interventions aiming at creation of sustainable livelihoods and improving the quality of life of SC/ST Population

**WHO CAN APPLY**

1. Universities and other higher educational institutions recognized or regulated by UGC/ AICTE and/or MHRD/ State Education Department
2. Private Academic Universities/ Colleges/ Institutions and Government Aided Colleges recognized or regulated by UGC/ AICTE
3. 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 1920 or Charitable or Religious Act 1920
4. Recognised R&D Labs/Centres

## APPLICATION PROCESS

1. The Principal Investigator should submit the project proposal online through DST's Electronic Project Management System (e-PMS) on portal [www.onlinedst.gov.in](http://www.onlinedst.gov.in) in the given format along with necessary documents.
2. For detailed guidelines and application format, applicants may go through the link <https://onlinedst.gov.in/Projectproposalformat.aspx> at Science for Equity Empowerment and Development (SEED) Division. The details of the programme, guidelines and format for submission of project proposal are also given under call for proposals on the web site of DST.
3. 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.
4. The proposal may be submitted either under **STI Hub for SC Community** or **STI Hub for ST Community** based on the target beneficiaries in the area of project implementation.
5. Investigators are required to **submit three hard copies** (print out of their online submitted application along with two copies) with the signatures in ink and rubber stamps of the concerned persons/ officials in an envelope super scribed as "Application for STI Hub" along with the TPN No.
6. The last date for submission of online proposals is **20<sup>th</sup> September 2019**, after which the link for submission of online proposals will automatically become inactive.

## EVALUATION OF PROPOSALS

The Proposals received under the call will be initially screened by the Internal Screening Committee/Secretariat of the Scheduled Caste Sub Plan and Tribal Sub Plan. The investigators of the shortlisted proposals will be called for a presentation before the Expert Committee/Programme Advisory Committee by the end of October 2019. The Officer-in-Charge may be contacted for any queries relating to establishment of STI hubs and Submission of Proposals under the call.

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**Science for Equity Empowerment and Development (SEED) Division**

**CALL FOR PROPOSALS 2019**

**“SCIENCE TECHNOLOGY AND INNOVATION (STI) HUBS FOR  
DEVELOPMENT OF SCHEDULED CASTE (SC) AND SCHEDULED  
TRIBE (ST) COMMUNITIES”**

**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. 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.

## **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
- Creation of micro-enterprises and forward linkages

## **MODE OF IMPLEMENTATION**

The project development and implementation should 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 50% 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 following aspects relating to the Host Institution (HI) need to be ensured while proposing an STI Hub:

- Implementation of projects related to socio economic development
- Dedicated team of R&D persons
- Industrial milieu in the region
- Proximity to other R&D/academic institutions
- Infrastructure, facilities and expertise available
- Strong commitment and willingness of the Host Institute

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 should 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 defined partnership/collaboration with academic institutions, universities, engineering colleges 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 the following themes.

### **1. Agriculture and Food Security**

- Improving methods of agriculture with extensive primary value addition
- Providing good quality seeds (development of seed banks) and fertilizers
- Crop diversification, changes in fertilizer use and application, changes in sowing and harvesting time
- Development of drought, flood and saline tolerant crops
- Decentralized food-processing (production and packaging at village level)
- Educational and outreach programmes on Soil-water conservation and management
- Small animal husbandry – improving livestock and fisheries breeding agro forestry and forestry techniques
- Agricultural extension services (market linkages, weather advisory services, organic certification system etc)

### **2. Water and Energy**

- Cost effective technologies for recycling and purification of water
- Potable water management
- Innovative and cost effective methods to handle sewage in rural areas
- Preservation and Restoration of Small Water-bodies
- Develop and demonstrate appropriate technologies for the treatment of greywater
- Wastewater Treatment and Reuse at Household/Community Level
- Sensors for monitoring Water Quality and Quantity
- Decentralized water reuse systems
- Low cost solar gadgets for heating and lighting solutions
- Alternative energy sources to wood and charcoal

### **3. Affordable Health Care & Health Security**

- Adaptation and resilience
- Vector control services
- Promote capacity-building in health education
- Promotion of Indigenous and Traditional health practices and knowledge systems
- Scientific validation of traditional knowledge and management practices - especially in the field of traditional system of medicines
- Diagnostic tools for rural health practitioners – telemedicine

### **4. Habitat & Environment**

- Green architecture – energy-efficient buildings and materials
- Waste management technologies - recycling
- Reducing carbon footprint; adopting green environment.
- Sustainable transportation/mobility

### **5. Rural Enterprises**

- Technologies for non-farm activities (Location specific technologies using locally available resources)
- Onsite incubation
- In-situ value addition to create successful enterprises with skill upgradation and capacity building.
- Capacity building of drop-out youth as Masons, Carpenters, Plumbers, Electricians, Fitters, Welders
- Out-sourced manufacturing in decentralized manner
- IT enabled services
- Manufacturing /services enterprises in rural areas
- Rural infrastructure and communication facilities
- Rural Bio-resources Centres and Business Models
- Enterprise development at the local level
- Value-chain analysis for enterprises

### **6. Information & Communication Technology (ICT)/Internet of Things (IOT)/Artificial Intelligence for Rural Development**

### **7. Any other S&T Interventions aiming at creation of sustainable livelihoods and improving the quality of life of SC/ST Population.**

**Proposals on Routine Training Programmes, Beekeeping, Mushroom Cultivation, Food Processing, Poultry, Piggery, Home Gardens etc. will not be considered under this call**

## ELIGIBILITY CRITERIA

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

(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 years 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
- 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. It is not mandatory that the PI or Co-I should belong to SC or ST Community (the call is open to all categories). However at least 50% of the beneficiaries of the project should belong to SC/ST Community**

## 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](http://www.onlinedst.gov.in) in the given format along with necessary documents. The investigators may please note the following.

1. Browse [onlinedst.gov.in](http://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 details given in this call to ensure the eligibility conditions before submitting the application online.
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/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. Click on "Submit" button for submission of the proposal.
6. 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. 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. The Last date for submission of online proposals is **20/09/2019** after which the web-link will be automatically disabled for any usage

### *Please Note*

1. It is mandatory to submit the proposals through online mode.
2. Proposal submitted through e-mail will not be entertained
3. Submission of proposal only on offline through hard copy without online submission of the proposal would be summarily rejected.
4. Investigators are required to **submit three hard copies** (print out of their online submitted application along with two copies) with the signatures in ink and rubber stamps of the concerned persons/ officials in an envelope super scribed as "Application for STI Hub" along with the TPN No. to

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## **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, for establishment of STI Hubs.
5. The target areas 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 interventions 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

#### **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,  
 \_\_\_\_\_ District, \_\_\_\_\_ State.

**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 (Replication of successful models, dissemination of available technology for solution of identified problem, demo and training etc.)	

**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 and dissemination

<i>Sl. No.</i>	<b>Technologies (Interventions)</b>	<i>Justification</i>
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. Suggested plan of action for utilization of the outcome expected from the project**

**12. Please give a detailed business plan/enterprise model/sustainability of the project.**

**13. Details of the beneficiaries (direct and indirect)**

**14. Details of Collaborators**

<i>Sl. No.</i>	<i>Name and Address of the Collaborators</i>	<i>Purpose</i>
1.		
2.		

**15. Duration (months):**

**16. Budget Summary:**

**Recurring Cost :**

**Non-Recurring cost :**

<i>Sl. No.</i>	<i>Items</i>	<i>Budget (in Rs.)</i>			
		<i>1<sup>st</sup> Year</i>	<i>2<sup>nd</sup> year</i>	<i>3<sup>rd</sup> year</i>	<i>Total</i>
<b>A.</b>	<i>Recurring</i>				
1.	Manpower				
2.	Consumables				
3.	Travel				
4.	Training Programme				
4.	Contingency				
5.	Overheads				
	<i>Total (A)</i>				
<b>B.</b>	<i>Non Recurring</i>				
1.	Equipment				
2.	Fabrication Costs				
3.	Construction Costs				
	<i>Total (B)</i>				
	<i>Grand Total (A+B)</i>				

**17. Details of Principal Investigator, Co Investigators and Affiliation**

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

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

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

**19. Details of ongoing/completed projects of the Institute during the last 5 years**

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

## 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 PI's Organization

### 2. Objectives (well defined, restricted 3-4 objectives – do not copy from the objectives of the programme)

### 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.

Sl. No	Name of Milestone	Expected Start (Month/Year)	Expected Completion (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 – in terms of employment generation, socioeconomics, quality of life, health and nutrition etc) – See Annexure V 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\*

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

\*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

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

(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

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

### 3. BUDGET FOR TRAVEL

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

### 4. BUDGET FOR TRAININGS

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

### 5. REVIEW MEETINGS BY DST

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

(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

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

### 7. BUDGET FOR OVER HEADS

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

## B. NON RECURRING

### BUDGET FOR PERMANENT EQUIPMENT/STRUCTURES

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

- 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 (enclose copies of sanction orders)

<i>Sl. No.</i>	<i>Title of the project</i>	<i>Name of funding agency</i>	<i>Status (Ongoing/Completed)</i>	<i>Amount (Rs lakh)</i>
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:

	<i>Implementing Org.</i>	<i>Collaborator</i>
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)}*

<i>Sl. No.</i>	<i>Name of the Collaborator</i>	<i>Purpose</i>
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 enclosed the following materials.

Duly filled application form (complete with all Annexure) – 1 hard copy plus 1 soft copy on a CD	
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) – 1 set only	
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

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

## BIODATA OF CO 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)

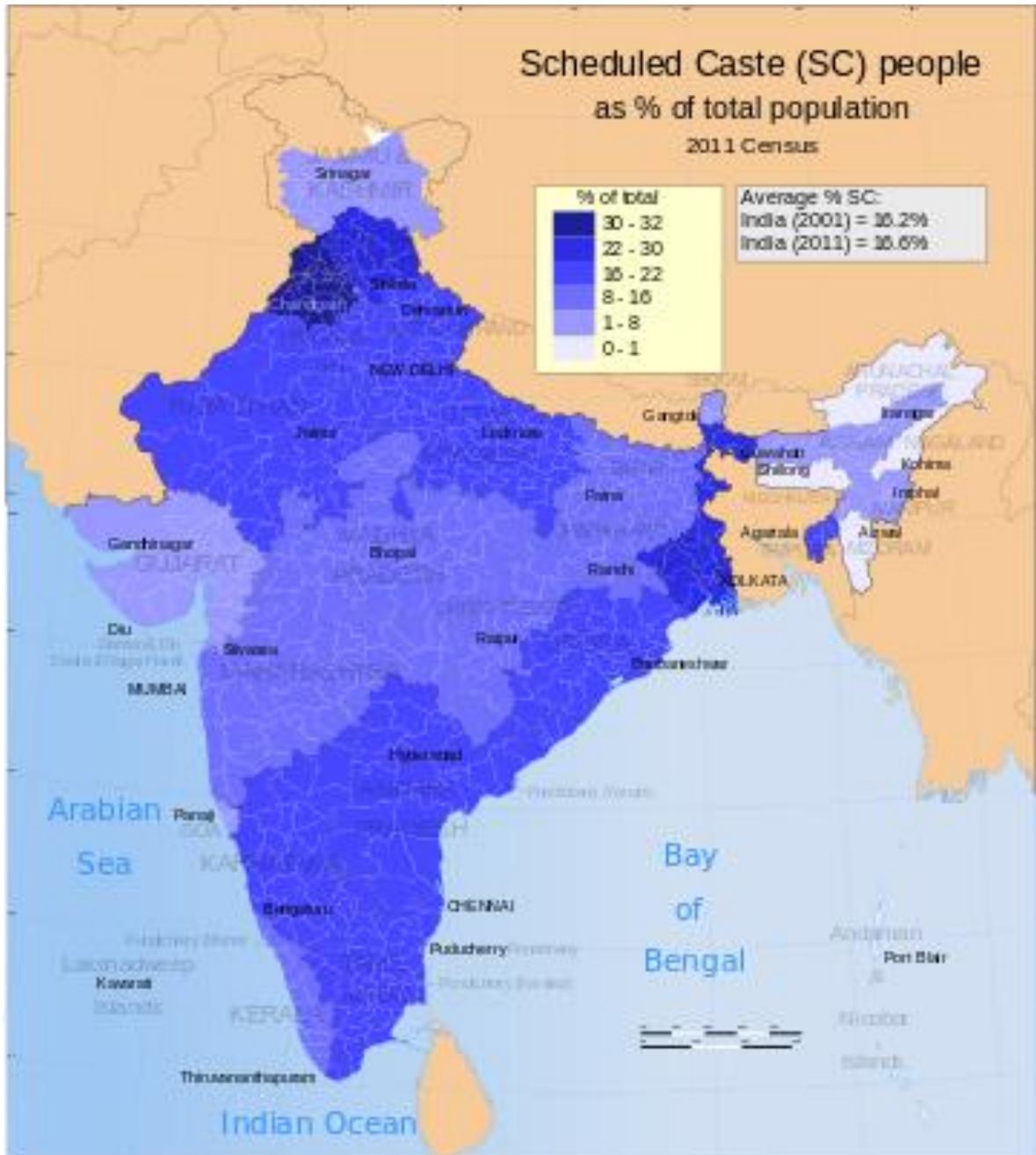
Details of Papers, Books, General Articles, Patents if any

H. List of Completed/Ongoing and Submitted projects

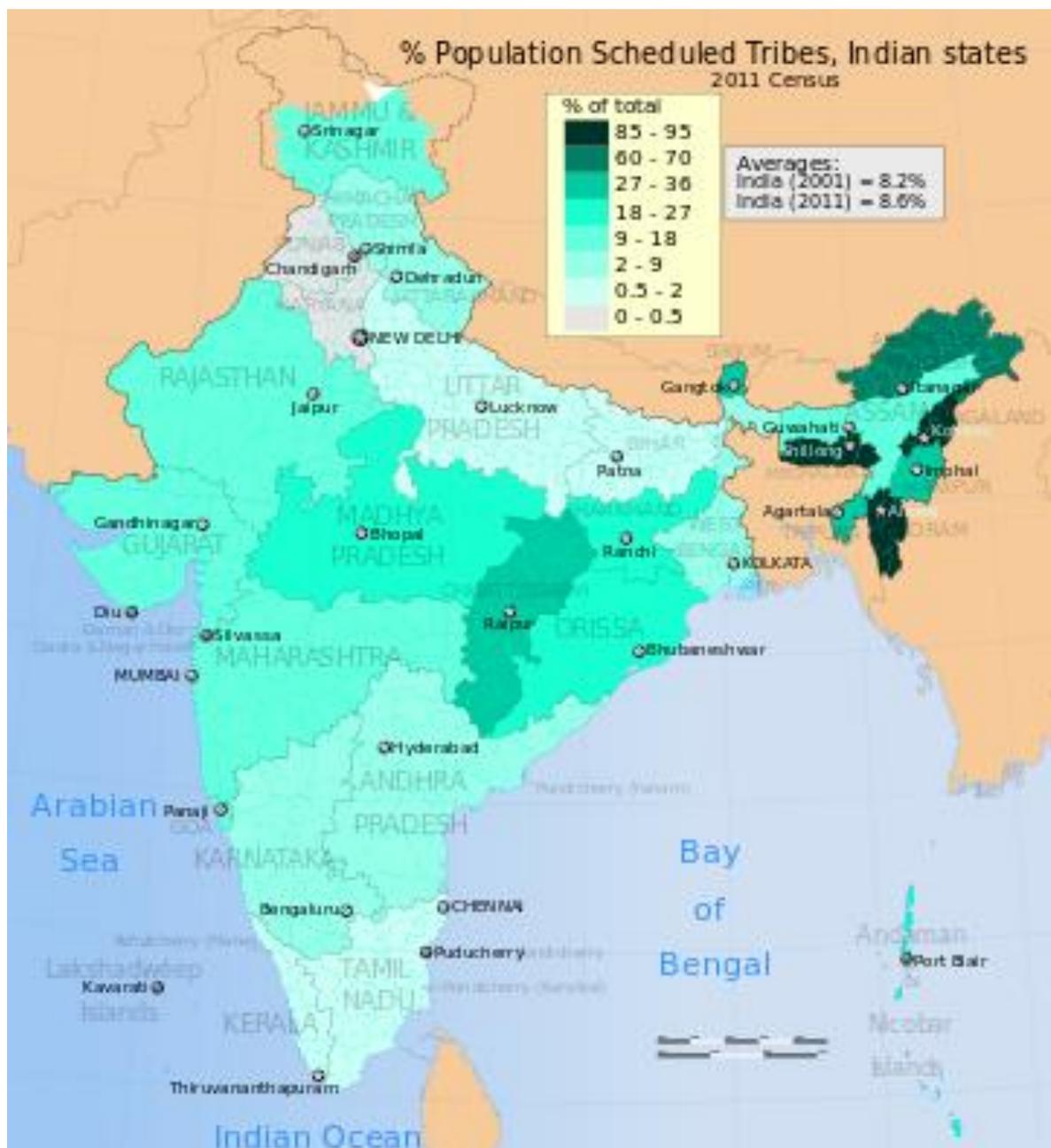
Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status

Suggest measurable indicators

Sl. No.	Indicators (as applicable)
1	Increase in crop production
2	Increase in land productivity
3	Change in land use pattern
4	Increase in irrigated area and/or drinking water coverage
5	Increase in family income
6	Increased availability of resources (natural and/or physical) and assets
7	No. of beneficiaries using facilities created under the project
8	Increase in livelihood/ employment opportunities
9	Diversification of livelihood activities with description
10	Improved linkages with banking/ financing institutions
11	Improved linkages with Distt. authorities/State Govt/ PRIs
12	No. of SHGs/technology user groups/cooperatives and/or enterprises formed
13	Improved linkages with market/ enterprises
14	Improved health of beneficiaries/ sanitation/ Less drudgery in work
15	Improved access to energy sources
16	No. of skilled/non skilled workers trained
17	No. of new technologies/products/processes/ services developed/adapted
18	Adoption of newly developed product indicated by number of adopters
19	No. of organizations motivated and mobilized for replication of project achievements
20	No. of publications produced (Title, Journal, issue, yr.)



**Figure 1: Distribution of Schedule Caste Population in India**



**Figure 1: Distribution of Schedule Tribe Population in India**

## **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.

#### **1. Coverage of the Policy:**

- 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.
- (vi) 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.

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# 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 To be followed by the Officers dealing with Programs in DST:**

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)

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

**(Signature with date)**