#### **GUIDELINES AND FORMAT FOR SUBMISSION OF PROJECT PROPOSALS**

#### SCIENCE & SOCIETY PROGRAMMES GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY SCIENCE & SOCIETY DIVISION TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD NEW DELHI-110 016

# SCIENCE & SOCIETY PROGRAMMES PREAMBLE

We believe that if our resources, needs of our people, S & T expertise and our managerial and administrative talents are carefully interwoven, we will start producing a tapestry of change which will start meeting the needs of larger and larger sections of our people in the coming years.

#### **INTRODUCTION**

Science and Technology play a vital role in the development strategy of various sections of the society. Schemes described in this publication have been formulated with the broad objective of providing opportunities to motivated scientists, and field-level workers to take up projects with inputs of science and technology for benefit of disadvantaged sections of society. Programmes are implemented through S & T institutions, University Departments and Non-Government Organisations.

Salient features of the programmes are described in

Section-I.

Guidelines for formulating the proposals are laid down in

Section-II.

Proforma for submitting proposals are in Section-III

#### **ELIGIBILITY CONDITIONS**

In the guidelines that follow, the term Non-Governmental Organisation (NGO) has been used to denote only those organisations which are Non-Governmental, Voluntary and non profit making. Organisations working in rural areas with legal status as a Society, registered under the Societies Registration Act 1860 or under the corresponding State Act as a Trust registered under the Indian Trust Act 1982 or Charitable or Religious Act 1920, Recognised Schools, Colleges, Universities and R & D Laboratories are eligible to apply.

#### **SECTION I**

#### SCIENCE & TECHNOLOGY APPLICATION FOR RURAL DEVELOPMENT

#### (STARD)

STARD aims at facilitating development of promising voluntary

organisations and innovative technologies which are related to rural

development.

#### **OBJECTIVES**

1) To strengthen the existing institutions, field groups, NGOs ect. involved in research and application of innovative S & T solutions for rural development by providing long-term support for core personnel.

- 2) To catalyse research, development and adoption of technology by funding development efforts.
- 3) To motivate scientists and technologist for applying their expertise to problems in the rural areas.
- 4) To take up all such activities which are conducive to the attainment of the above objectives.

#### **PRIORITY AREAS**

To direct efforts of the experts, the following priority areas have been identified :

Exploration, harvesting and purification of water in rural areas with particular emphasis on land water and cover management.Low-cost housing : Use of local resources, skills and techniques for constructing houses with minimum acceptable comfort at reduced cost inclusive of improved domestic drainage and waste disposal. Agriculture and Animal Husbandry: Effective use of inputs, post harvest technology including low-cost storage and preservation.

Engineering Services : Repair and maintenance of agricultural tools and machinery.

Rural industries: Feasibility studies and initial assistance for setting up sustainable rural industries.

#### SCIENCE AND TECHNOLOGY FOR WOMEN

This scheme is focussed on women as specific target group.

#### **OBJECTIVES**

(1) To promote research, development and adaptation of technology, improve the life, working conditions and opportunities for gainful employment of women especially in rural areas.

(2) To increase the contribution of women to science and technology and development.

#### **PRIORITY AREAS**

The following priority areas have been identified under the scheme

- specific science and technology application programmes to solve the problems of women in different regions such as hill areas, coastal and arid zones.

- -- Research and development on post-harvest technology and agricultural implements used by women.
- -- Involvement of women in low-cost preservation and processing of horticultural produce.

-- Utilisation of agricultural and animal residues through such technologies which can provide opportunities for income generation.

- -- Association of women with wasteland development.
- -- Involvement of women in indigenous health practices and cultivation of medicinal plant.
- -- Research, development and demonstration programmes to minimise occupational hazards of women.

-- Desig, fabrication and improvement of equipment furniture and instruments used by women in different occupations.

-- Identification and popularisation of technologies relating to water management, health and sanitation.

-- Upgradation of traditional skills for utilisation of available resources and providing means for women to enter into the organised sector or for starting entrepreneural production units.

-- Involvement of women in modern industries particularly in electrical and electronic technologies.

-- Studies on issues concerning women scientists.

The following points are specifically assessed in the proposals for women :-

-- Are women singled out as a specific target group ?

-- Do the stated objectives allow for the potential contribution of women to the primary goals of the project ?

-- What are the stated benefits expected for women in the areas of land ownership, acquisition of skills, increased productivity, increased earnings, welfare amenities ?

-- Does the project envisage greater participation by women in decision making both inside and outside household ?

-- Did women and men play any role in planning the project ? Where they consulted ?

# SCIENCE AND TECHNOLOGY FOR WEAKER SECTIONS (STAWS)

This scheme is aimed at the development of economically weaker sections of the society in rural and urban areas. It focuses attention on specific S & T inputs for improvement of rural artisans, landless labourers etc. Emphasis is placed on multi-sectoral approach incorporating original ideas based on locally available resources and incorporating the direct beneficiary groups in decision making.

# **OBJECTIVES**

(1) To promote research development and adaptation of science and technology for improving quality of life of weaker sections.

(2) To motivate scientists for applying their knowledge and expertise to problems of the weaker communities.

# **PRIORITY AREAS**

Based on the advice of the Expert Committee, the scheme has been given specific direction and approach and the following priority areas have been identified:

Action oriented, innovative field programmes in technology demonstration and utilisation implemented by S & T field groups working with artisans, landless labour and other weaker sections.

Technology generation and adaptation programmes by S & T institutions, undertaken in cooperation with, and as back-up to the programmes of S & T field groups. Programmes to help the traditional artisans e.g. blacksmiths, carpenters with a view to organizing theme for better earning/reduced drudgery through innovative skill development, training programmes and adaptive research and development.

Technology generation and adaptation programmes :-

\* To initiate filed demonstration and utilisation programmes.

\* To develop and diversify existing artisan-based production networks to economically viable, sciencebased norms of organisation and production.

\* To develop new/improved technology to improve and diversify the local economy, utilisation of local resources to upgraded the skills of landless labour, etc.

\* Identification and undertaking of these programmes in co-operation with S & T field groups, with demonstration projects as output. Short-duration field investigation projects by S & T field groups to identify demonstration project/programmes and technology generation and adaptation programmes.

#### SCHEME FOR YOUNG SCIENTISTS (SYS)

The scheme is focussed on young scientists who have adequate background of and training in fields of science and technology and show inclination to undertake action research projects which are socially relevant.

# **OBJECTIVES**

(i) To provide opportunities to young scientists for pursuing innovative research ideas which have direct bearing on social problems.

(ii) To provide opportunities for interaction and exchange of ideas with the scientific community.

(iii)To involve young scientists in national S & T development process through fellowships in selected NGOs.

(iv) To take up activities which are conducive to the attainment of the above objectives.

# **ELIGIBILITY CONDITIONS**

The scheme is open to young scientists, upper age limit being 35 years and having a minimum qualification of graduation in Engineering or Post-graduation in science.

# **PRIORITY AREAS**

The scheme is directed towards national development as well as capability building of the young scientists. The broad areas in which proposals will be considered include those listed under the Section in STARD, STAWS and S & T for woman.

# TRIBAL SUB-PLAN (TSP)

This scheme aims at improving living condition of scheduled tribes based on sustainable science and technology activities.

# **OBJECTIVES**

S & T initiatives to be carried out with major emphasis on the following :

- -- Preserving traditional artisonal skills and upgrading the same.
- -- Finding out alternative employment potential wherever the present occupation is dwindling.
- -- Improvement in existing equipment and machinery and introduction of new techniques.

-- To promote research, development & adaptation of S & T for improving quality of life of scheduled tribes including primitive tribal groups.

# **PRIORITY AREAS**

- -- Identification of major socio-economic sector for S & T intervention.
- -- Identification of location specific S & T programme.
- -- Application of science and technology for manpower development
- -- Effective and sustainable utilisation of available natural resources.
- -- Land use, ecology and environment.

Specific activities which are given priority are the following

- -- Development, demonstration and extension of viable models in the tribal artisanal trades.
- -- Value addition to products based on traditional stills.

-- Sensitizing voluntary agencies, scientists, project officers (ITDP) and related agencies to S & T approach for tribal development through short-term intensive workshops and long-term training courses.

-- Awareness generation to possible technology options.

-- Encouraging the voluntary organisations working in tribal areas to interact between R&D institutions, universities, funding agencies and the tribal population.

-- Other activities which would complement these objectives like workshops, seminars, publications etc.

# SPECIAL COMPONENT PLAN FOR SC POPULATION (SCP)

# **INTRODUCTION**

The Special Component Plan prepared by the Department of Science & Technology aims at integrating numerous programmes initiated by the department to improving the lot of the SC community through intervention of science & technology.

# **OBJECTIVES**

i) To promote research, development and adaptation of Technology for improving the quality of life of the economically weaker sections of scheduled castes in urban/rural areas.

ii) To promote scientists & technologists to apply their knowledge and expertise to the needs of economically weaker scheduled caste communities, especially in rural areas.

iii) To promote activities such as workshops, seminars, publications, jathas etc. which would help in achieving the objectives listed above.

# **PRIORITY AREAS**

- S&T intervention for sustainable development and income generation amongst scheduled caste artisans/farmers;

-- S&T intervention for improving skill and efficiency of occupations among economically weaker sections;

-- Recycling of wastes including night soil, low cost sanction and rehabilitation of scavengers;

-- Leather tanning, carcass utilization and production of traditional/non-traditional products from such operations.

-- Optimising the design of cycle rickshaws to increase income, reduce drudgery and improve general health and well-being simultaneously sharpening their competence for undertaking repairs and maintenance.

-- Development of functional capability among SC/ST and other weaker sections of population for improving their socio-economic conditions.

# **OPERATION OF THE SCIENCE AND SOCIETY PROGRAMMES**

Considerable flexibility is built into the operation of the programmes. Committees of Experts guide the activities under each of the programmes. Proposals are evaluated through the peer review mechanism as well as on-the-spot visits by experts. Progress is monitored through presentations at workshops organised periodically and also field visits.

# SECTION II

# **GUIDELINES FOR FORMULATING PROPOSALS**

The Department has been processing proposals over the past decade and the guidelines which follow are based on experience gained during this period.

1. Please confine your proposal to a few specific aspects of a problem which can be analysed and improved in a 2/3 year period.

The following strategy may be considered:

i) Review the Socio-Economic status of the weakest sections of population;

ii) Identify the priorities of these people, and possible science and technology intervention.

iii) Match the critical gap areas where the expertise of your group can effectively contribute to fulfilling these needs; alternatively, interface with research and development institutions who can be associated as resource persons/institution.

iv) From these gap areas, select one or two specific aspects which could be analysed and changed through a 2/3 year project.

(For details please see Annex. I)

2. While writing the proposal, please ensure that scientific and technical details are clearly spelt out.

3. Proposals with broad objectives written without specific details are not viewed favourably. Major programmes of extension based on proven technologies are also not considered.

4. Routine training programmes ( which are otherwise covered Under TRYSEM and such other programmes ) are not entertained .

5. Results of ongoing and completed projects of the organization must be reflected in the formulation of new proposals .

6. All correspondence, including proposals may be sent to the following address :-

Head (Science and Society Division) Department of Science and Technology. Technology Bhavan, New-Mehrauli Road, New Delhi-110016. Telephone No.:667373 Telegram: SCIENCTECH NEW DELHI Telex: 73381,73317,73280 Fax: 661682, 6863847,6862418,664567 E-Mail: dst@sirneted.ernet.in

#### **GENERAL TERMS AND CONDITIONS**

1. The Principal Institution assumes financial and other administrative responsibilities of the project.

2. In case of multi-institutional project, the Principal Investigator (PI) has to obtain formal agreement from the collaborating institutions/scientists

3. International travel is not permissible under the project.

4. The manpower recruited for the project should be paid as per the rules of the Institute and guidelines of the Government of India.

5. The proposals are scrutinized by experts in the field and after peer review an expert committee takes the final decision.

#### DOCUMENTS/ENCLOSURES REQUIRED WITH THE PROPOSAL:

a) Endorsement from the Head of the Institution (on letter head)

- b) Certificate from Investigator(s)
- c) Details of the proposals 20 copies

d) Name and address of experts/institutions who may be interested in the subject/outcome of the project (circulation list).

e) Registration Certificate, Memorandum of Association and Rules and Regulation of the Institution

f) Balance sheet, Audited Statement of accounts and the annual report (pertaining to the last two financial years

\* In exceptional circumstances the department will accept fewer copies of proposals from small organisations in remote and difficult regions.

# INSTRUCTIONS FOR FILLING UP THE PROFORMA

- 1. Please use paper of A4 size (21 X 29 cms).
- 2. Please type as per the layour given in the formats.
- 3. Please do not skip reproduction of any section even if the answer in "nil" or given elsewhere.

4. Project title should be within two lines. A title "To survey existing tools and equipment and develop appropriate spinning equipment for processing of local wool produced in the country' may be sharpened to "processing of local wool-Survey of existing tools and developing improved ones" (underline key words).

5. Indicate the scheme under which the proposal should ideally be considered.

6. Expected total duration of the project should normally not exceed 36 months.

7. If project is to be executed by more than one institution (which is welcomed) and /or requires regular inputs from other scientists, names of collaborating institutions/scientists may be recorded.

8. Use telegraphic languages to the maximum extant possible for objectives, work plan methodology, expected outcome etc.

#### **SECTION III**

#### ENDORSEMENT FROM THE HEAD OF INSTITUTION

( TO BE GIVEN ON LETTER HEAD )

PROJECT TITLE:

1. Certified that 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 the responsibility of the fruitful completion of the project (with due intimation to DST).

2. Certified that the equipment, other basic facilities and such other administrative facilities as per terms and conditions of the grant, will be extended to investigator(s) through out the duration of the project.

3. Institute assumes to undertake the financial and other management responsibilities of the project.

Name and Signature of Head of Institution

Date : .....

Place : .....

# **REMARKS**

In regard to research proposals emanating from scientific institutions/laboratories under various scientific departments the Head of the institution is required to provide a justification indicating clearly whether the research proposal falls in line with the normal research activities of the institution or not and if not, the scientific reasons which merit its consideration by DST.

# **CERTIFICATE FROM THE INVESTIGATOR**

Project Title :			
1. I/We agree to abide by the	ne terms and conditions of the	e DST grant.	
2. I/We did not submit this	or a similar project proposal	elsewhere for financial support	
		basic facilities will actually be ot request financial support une	
4. I/We undertake that spa	re time on permanent equipm	ent will be made available to o	ther users.
5. I/We have enclosed the	following materials :		
I T E M S	NUMBER OF COPIES		
(a) Endorsement from the	Head of the institution	One (on letter head)	
(b) Details of the proposal	3	20	
(c) Registration certificate, Balance sheet and annual rep		, rules and regulations of the in	nstitution, a audited
Date :			
Place : Investigator		Name & Sig	nature of
	FORMATS FOR SUBMIS	SION OF PROJECTS	
	( TO BE FILLED E	BY APPLICANT )	
A. IDENTIFICATION			
1. Project title :			
2. Programme applied for			
STARD:	S&T For Women	STAWS :	
SYS	SCP	TSP	

3. Board subject :

Field	Testing	Income Generation
4. Dura	tion	Number of months
5. Total	Cost :	
6. Princ	ipal Investigator:	
7. Desig	gnation :	
8. Depa	rtment :	
9. Orga	nisation/	
Inst. N	lame	
10 Add	ress (including Tel	ephone, Telex, Fax Numbers)
P I N	:	
11. Date	e of Birth :	
12. Sex	(M/F)	
13. Co-I	nvestigator:	
14. Desi	gnation :	
15. Dep	partment :	
16. Orga	nisation/Inst.: Na	ne
17. Add	ress : (Including T	elephone, Telex, Fax Numbers)
PI	N :	
18. Date	of Birth	
19. Sex	(M/F)	
20. Capa	ability of the Organ	isation
(a) Ex	xpertise available w	ith the group
(b) Li	st of on-going and	completed projects by the group giving the following details
Title of	Year of start	Project Name of sponsoring

the project and completion cost organisation

#### **B. TECHNICAL DETAILS**

1. Description of the problem and its priority as perceived by the people including socio-economic status of the area (300 words)

2. Suggested solution(s) and alternatives with anticipated physical and financial benefits. Please also state solutions attempted by your institution and others to solve the problem(s) (200 words)

- 3. Objectives of the project (brief and to the point)
- 4. Report of preliminary investigation conducted (if any) (300 words)
- 5. Methodology- to cover (300) words
  - (a) S&T component of the project
  - (b) Linkages with S&T institutions/resource persons/R&D agencies for technical back up.
  - (c) Information about local economy, relevant artisinal skills, markets available and link up etc.
- 6. Work Plan :

(a) Phasewise plan of action including consultation with the target group, resource persons etc. upto post project activities.

(b) Time schedule of activities giving milestones,

7. Techno-economic viability/cost benefit analysis (to include cash flow, working capital management, pay back period etc.)

- 8. Comment on the likely impact on adjoining areas/society.
- 9. Comment on the possibilities of the activity becoming self sustainable.
- 10. Suggested parameters for monitoring effectiveness of intervention during and after the project.

#### C. BUDGET

#### BUDGET ESTIMATES : SUMMARY

(In Rupees)

# BUDGET

1st Year 2nd Year 3rd Year Total

# A. Recurring

- 1. Salaries/Wages
- 2. Consumables
- 3. Travel
- 4. Other costs

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B. Non-Recurring

Permanent Equipment

Grand total (A+B)

\* Financial Year : April to March

\* Count six months from submission of the proposal to arrive at expected time point for commencement of the project.

\* Please provide brief justification for each head of expenditure (100 words for each)

BUDGET FOR SALARIES/WAGES

Designation	Monthly	BUDGET
(number of	Emoluments	
persons)	1st Yr. 2nd	l Yr. 3rdYr. Total
	(M.M.) (M.M.	) (M.M.) (M.M.)*
Full time		
Part time		
Total		

\* m.m. : man months to be given within brackets before the budget

amount.

#### BUDGET FOR CONSUMABLES

(In Rupees)

\_\_\_\_\_

# BUDGET

Items -----

1st Yr. 2nd Yr. 3rd Yr. Total

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Total

\_\_\_\_\_

BUDGET FOR TRAVEL (In Rupees)

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# B U D G E T

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1st Yr. 2nd Yr. 3rd Yr. Total

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Travel 1. Local

2. Out Station

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Total

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BUDGET FOR OTHER COSTS

(In Rupees)

	BU	D G E T			
	1st Yr. 2nd Y		Total		
. Contingencies				-	
o. Others					
Total					
				MANENT E( s)	QUIPMENT
			` •		
Sl. No. Name o	of Equipment	Estir	nated Cos	-	
Sl. No. Name o		Estir	nated Cos	-	
Sl. No. Name o	of Equipment	Estir	nated Cos	-	

- A. Name B. Date of Birth
- C. Institution D. Whether belongs to SC/ST
- E. Academic and professional career:

Academic career :

Professional career:

F. Award/Prize/certificate etc. won by the investigator ;

G. Publication (Numbers only)

Books Research Papers, reports General articles

Patents Others (Please specify)

H. List of completed and on going projects

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Sl. No. Title of project Duration Total cost Funding Agency

from to

-----

Sl.No. Title of Project Name of Organisation Status

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(Annex-1)

# **GUIDELINES FOR ACTION RESEARCH PROJECTS\***

1. Identify the project area and project site based on a preliminary assessment of the area as well as the people using the following criteria:

(i) A minimum level of infrastructural facilities particularly roads, electricity and potential for irrigation.

(ii) Presence of local organisations like Panchayats or cooperatives or voluntary groups.

(iii) Certain amount of homogeneous villages are preferable in terms of its social structure.

(iv) The general perceived interest or response of the people or arousal-proneness for development activity.

(v) The extent of poverty as per the guidelines in operation.Consultation with the concerned official/non-official systems in the area.

2. Identify the common resources in the village and the way the people utilise them or envisage utilising them and the type of supervisory function exercised by the village community on these resources.

3. (i) Identify any of the regular development programmes being implemented in the project area, agencies involved and beneficiaries covered. Identify sources of funds for these schemes in operation by Government sponsored programmes so that where possible, their efforts could be integrated into the experimental projects.

(ii) Assess the impact of these programmes and problems experienced in its management.

4. Building up rapport with the identified people at project sites by frequent informal visits, meeting with all sections of the people, discussion with leaders culminating in organising gram sabha meetings.

5. Appraising the gram sabha of the proposed programme, the inputs of the programme and assessing their reaction and obtaining consent. These interactions will lead to information which have a higher level of relevance in project planning and implementation.

6. Conduct a house to house survey on various socio-economic indicator assess awareness of programmes, facilities and services, their attitudes and felt basic needs.

7. The survey results have to be organised meaningfully and the major trends be discussed again in the gramm sabha in order to.

(i) Appraise them of the existing situation indicating the common needs felt by the people and also the number of people who are poor as per the guidelines which should be made explicit.

- (ii) The list of beneficiaries needing assistance should be assessed in the gram sabha.
- 8. Involve the local panchayat/organisation in ;
  - (i) Identification of the beneficiaries.
  - (ii) Identification of schemes for the beneficiaries in consultation with them.
  - (iii) Providing local supervision in the implementation of the programme.

9. In order to involve the officials and the bankers and also to bring about co-ordination between the different sectoral departments in the project area, constitute a local committee where membership can be extended to the Revenue Officers, officers of all the development department, the panchayats, banks and cooperatives. This committee should be given the task of preparing the plants, identifying the available funds thorough other Government sponsored programmes, managing the finance and the seed money and supervise the implementation as well as monitoring of the programme. The project team from external agency should use this existing systems in implementing the programme where their roles should be that of a catalytic agent.

- 10. Launching the projects.
  - (i) Identify and provide for the infrastructure needs.
  - (ii) Ensure supply of inputs for the scheme
  - (iii)Arrange for subsidy where available and loan
  - (iv) Monitor the progress as frequently as possible by the project team, Panchayat and Local Committee.

11. initially, the seed money should be operated through the local bank and decision of the local cocmmittee. Gradually, the seed money may be transferred to the Gram Panchayat to be operated by them for such activities as the panchayat decides but should ensure that it continues to serve as a revolving fund.

12. Organise an awareness camp for the identified beneficiaries to orient them to the type of schemes selected and through the concerned subject matter spepcialists, they, should be given the necessary guidance in operationalising the scheme and indicate the source of assistance/guidance available whenever they experience problems.

13. Ultimately, the attempt should be made to devolve the project management to the local panchayat/organisation and they should be educated to handle the project on a continuous basis. This could be one of the measures of the success of the action research project.

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\*\* Action research project on developing village community by integrating basic needs and ecological resource perspepctives"by Dt.B.C. Mathayya, Dr.G.N. Reddy, Mr.P.B. Reddy, National Institute of Rural Development, Hydrabad.\*\*