

GOVERNMENT OF RAJASTHAN
DEPARTMENT OF SCIENCE & TECHNOLOGY

GUIDELINES & FORMAT FOR SUBMISSION OF RESEARCH &
DEVELOPMENT PROJECT FOR FINANCIAL SUPPORT FROM DST
RAJASTHAN

For encouraging application oriented research and transfer of appropriate technology to the rural masses, lot of emphasis is being given by the Department for R&D activities. Guideline for submission of R&D projects including 'Terms and Conditions' for the financial assistance is annexed herewith for inviting proposals of the research projects from Professors/ permanent faculty/Scientists working in Universities/ Colleges/ State Government Research departments/ Institutions Autonomous bodies, Educational Institutions, including state Medical and Engineering Colleges, and Universities. The broad themes for which these R&D Projects invited are as under: -

1. Application of Science and Technology for the upliftment of rural population of the State.
2. Attempts to solve shortage of energy, energy consumption pattern of the rural and urban areas, saving and conservation of energy, use of solar energy for lighting, solar ponds, energy penetration and study of impacts.
3. Development of energy saving agricultural tools and equipments, food processing and storage methods, moisture conservation, new methods of preservation of fruits, control of pests and diseases of fruits and crops.
4. Development of rural technology by creating awareness and dissemination of new technologies.
5. Studies on fluorosis, nutritional blindness and other common diseases prevailing in rural areas of the State and their preventive methods and dissemination of knowledge.
6. Study of common animal diseases, their preventive methods and dissemination of knowledge; improved dairy and poultry technologies.
7. Problems of environmental pollution in industrial areas of the State.
8. Drinking water problems of the State and measures to overcome.
9. Development of low cost housing material and dissemination of the information among the users.
10. Science and Technology for women in reducing drudgery and; health hazards in day to day activities and promoting employment generating activities for them.
11. Impact of deforestation of the catchments areas of big reservoirs.

12. Development of ground water resources.

13. Study of mineral wealth and their use for the State mining and their impact on eco-system.

Kindly submit R&D Project Proposal in prescribed format in five copies through Head of the Institution to :-

Commissioner,
Department of Science & Technology,
Government of Rajasthan,
506, 4th Floor, Mini Secretariat,
Bani Park,
Jaipur-302016.

For further information, kindly contact Project Officer, R&D at

Phone : 0141-2202696, 0141-2202041 (0)
E-mail : director-dst@rajasthan.gov.in
Fax : 0141-2201248

PART 'A'

GENERAL INFORMATION AND INSTRUCTIONS FOR SUBMITTING RESEARCH PROPOSALS

1. The Department initiate, support, promote and coordinate such research and development projects and programmes (including demonstration projects) which are likely to be relevant to the achievement of specific objectives and help in fruitful exploitation of the natural resources of the State, through various institutions, organisations and agencies in the State. Projects will be entertained which are based on the following thrust areas :-
 - (i) Related to utilisation of Science and Technology for achieving the socio-economy objectives of the State and in particular, the objectives of tackling the problems of backwardness, unemployment and poverty in the rural areas, and among the weaker section of the society, such as scheduled Caste, Scheduled Tribes, Landless Labour, Artisans, Small and Marginal Farmers and Women.
 - (ii) Related to the application of Science and Technology for the upliftment of Rural poor.
 - (iii) Attempt to solve the problems of shortage of energy through the application of new technologies available in the field like non-conventional energy sources.
 - (iv) Catalyst in creating scientific and technological awareness in the State.
 - (v) Related to agriculture, basic science, life science, energy, industry, electronics and applied engineering and also having direct relevance to the economic and social development in the State.
 - (vi) Related to the transfer of technology from National level research institutions to the remotest area of the State.

The above set criteria is only indicative of the kind and quality research proposals expected by the Department. Proposals pertaining to purely survey oriented work, academic studies will not be considered for extending financial assistance.

2. The proposals should be prepared and submitted strictly according to the format prescribed by the Department.
3. Please read explanatory notes and detailed instructions carefully for completing each section of prescribed format while preparing the proposal.
4. Copies of the proposal and other required document to be sent in one lot through proper channel to :

The Commissioner,
Department of Science and Technology
506, 4th Floor, Mini Secretariat,
Bani Park, Jaipur 302016.

5. All the research proposals will be acknowledged and registration number will be allotted by the Department and in future all the communications/enquiry about the project will be made through this registration no. and the title of the project only.
6. Components of Research Grant :- Grant for a research project will be provided to the concerning organisation, institution or an agency for the use of principal investigator to cover the following :-
 - (i) Appointment of research associates/fellows and technical supporting staff e.g. technicians, mechanics, etc. and payments of salaries and cost of service benefits to them. The salaries will be paid as consolidated amounts either in regular monthly installments or as lump sum payments. The Principal Investigator who is employed and already receiving a salary will not be paid out of this assistance.
 - (ii) Acquisition of minor ancillary equipment and expendable items, laboratory supplies.
 - (iii) Payment of honoraria or part time allowances for services utilized in the scheme (e.g. typists, stenographers, accounts clerk, laboratory assistants etc.)
 - (iv) Any other expenditure which the Department of Science & Technology considers appropriate, depending upon the requirements of a specific proposal.

7. Evaluation Process:-

R&D projects received by the Department will be scrutinised at the departmental level. Those scrutinized will be sent to three subject experts for evaluation.

Based on expert comments, the projects which are approved by atleast two out of three subject experts will be presented before the Expert Advisory Committee (EAC) – State Level Committee constituting eminent experts of related fields.

After due approval of the EAC proposal will be given financial assistance by the Department.

8. Approval of Research Projects :-

- (i) Projects will be sanctioned for a specified period (Maximum three years), total cost and year wise breakup will be as approved by the Government. The authorities of the institution where the research work is to be carried out would be responsible for administration of the scheme and maintenance of accounts. The Principal Investigator will arrange with the institution to

receive and make payments on his behalf. The grant shall be exclusively utilized for the purpose for which it is sanctioned.

- (ii) All accounts maintained by the institutions will be subjected to audit by the institution's auditor. On termination of the project, the accounts duly audited by the auditor s shall be submitted and the unspent balance if any, shall be remitted back to the Department.
- (iii)The project will become operative with effect from the date on which grant is received by the institution. The exact date of commencement of work is to be communicated to the Department.
- (iv)The Principal Investigator shall submit three copies of the quarterly progress report of the work on the project. In addition the Department may designate scientists/ specialists to visit the institution periodically and may organise monitoring workshop for reviewing the progress of the work and for suggesting measures to ensure early realization of the objective of the project. On completion of the project, 5 copies of a consolidated report of the work done on the project should be submitted to Department.
- (v) Projects will be normally sanctioned to institutions which have most of the essential facilities in the form of equipment for the type of research work to be undertaken. The expenditure on purchase of ancillaries to the equipments, travel and contingencies may be incurred by the Principal Investigator as provided in the budget sanctioned for the project.
- (vi)The selection and appointment of different kind of staff for the project may be made the Principal Investigator of the research project for the period not exceeding the sanctioned duration of the project. In other cases, the institution should be kept informed about it.
- (vii)Investigator wishing to publish papers based on research work done under S&T Research Projects should acknowledge the financial support received from the Department.
- (viii)The State Department of S&T reserves the right to terminate the grant at any stage if convinced that the grant has not been properly utilized or appropriate progress is not being made.

9. The emoluments to the Research Staff engaged in the projects sanctioned by the Department of Science & Technology, Govt. of Rajasthan are as under :

Eligibility	JRF	SRF
a) Post graduate degree in Scientific disciplines, other than Medical and Engineering.	@ Rs.10,800/- p.m.	@ Rs.12,000/- p.m.
b) Fields (Medical/ Engineering)		
i) MBBS with one year internship and	@ Rs. 11,400/- p.m.	@ Rs.15,000/- p.m.
ii) Post graduate degree in Engineering/Technology	@ Rs.11,400/- p.m.	@ Rs.15,000/-p.m.

(ix) If the investigator to whom a grant has been sanctioned, leaves the institution where the project is based, the investigator should submit a complete and detailed report of the work done by him or the project till the date of his relieving .

(x) All equipment and stores purchased out of the grant would remain with the institution concerned unless otherwise directed by the Department.

PART 'B': PRESCRIBED FORMAT

1. Important Note on Project Formulation:

(a) Please confine your project to only a few specific aspects of problem, which can be studied in depth in a period of three years. To identify the specific consider/proceed along the following lines.

(i) Having decided on a broad topic of research review the National Status.

(ii) Identify critical gap areas where your expertise can effectively contribute.

(iii) From these areas, identify one or two specific aspects which can be studied in depth through a three years research project.

(b) While writing the proposals, please ensure that scientific and technical details are clearly spelt out. Avoid generalities.

(c) Proposals with broad objectives not achievable in three years, written without specific details would be viewed unfavorably.

2. Instructions for Filling up the Performa :

- (i) Please use paper approximately of A4 size.
- (ii) Please type as per the layout given in the formats.
- (iii) Please do not skip reproduction of any section even if the answer is “nil”.

Please read additional instructions given on the following pages before filling the corresponding section of the format.

3. DOCUMENTS/ ENCLOSURES REQUIRED WITH THE PROPOSAL

Item	Head of the Institution	Number of copies	Number of copies
(a)	Endorsement from the (one letter head)		One
(b)	Certificate from investigator(s)		One
(c)	Details of the proposals from the section 1 to 57 (stitched)		five
(d)	Name and address of experts/institutions who may be Interested in the subject outcome of the project (circulation list)		Two

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- 4. The Principal Institution assumes financial and other administrative responsibilities of the project.
 - 5. In case of multi institutional project the Principal Investigator (PI) has to obtain formal agreement from the collaborating institution/scientists.
 - 6. International travel is not permissible under the project.
 - 7. The manpower recruited for the project should be paid as per the rules of the Institute and guidelines of the Government of Rajasthan.
 - 8. It is the policy of DST to maximize the use of equipment. In this light, Investigator shall permit the use of spare or idle capacities of equipment procured under the project by bonafide users.

3(a) ENDORSEMENT FROM THE HEAD OF THE INSTITUTION
(To be given on letter head)

Project Title : _____

- (i) Certified that the Institute welcomes participation of Shri/Ms as the Principal Investigator and Shri/Ms as the Principal Co-Investigator for project and that in the unforeseen event of discontinuance by the Principal Investigator, the Principal Co-Investigator will assume the responsibility of the fruitful completion of the project (with due intimation to Department of Science and Technology / Government of Rajasthan, Jaipur.)
- (ii) Certified that the equipment and other basic facilities as enumerated in Section 54 and such other administrative facilities as per terms and conditions of the grant will be extended to the investigator (s) throughout the duration of the project.
- (iii) Institute assumes to undertake the financial and other management responsibilities of the project.

Name and Signature of
Head of Institution.

Date

In regard to the research proposals emanating from scientific institutions/laboratories under various scientific department, the Head of 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 Department of Science and Technology / Government of Rajasthan, Jaipur.

3 (b) CERTIFICATE FROM THE INVESTIGATOR

Project Title : _____

(i) I/We agree to abide by the terms and conditions of the Department of Science and Technology / Government of Rajasthan.

(ii) I/We did not submit the project proposal elsewhere for financial support.

(iii) I/We have explored and ensured that equipment and basic facilities (enumerated in Section 54) will actually be available as and when required for the purpose of the projects. I/We shall not request financial support under this project for procurement of these items.

(iv) I/We have enclosed the following documents :

Item	Number of copies
- Endorsement from the Head of Institution (On letter head)	One
- (This) certificate from Investigator(s)	One
- Details of the proposal from Section 1 to 57 (stitched)	Five
- Name and address of experts Institution interested in The subject/outcome (of Principal Investigator)	Two

Name & Signature of Investigator (s).

Date

Place

FORMAT FOR SUBMISSION OF PROJECTS
(To be filled by applicant)

1. Project Title :
2. Broad Subject :
 - Atmospheric Science
 - Chemical Sciences
 - Earth Sciences
 - Engineering Sciences
 - Life Sciences
 - Mathematical Sciences
 - Physical Sciences
 - Other Interdisciplinary
3. Sub Area :
4. Duration in months :
5. Total cost :
6. Project Category :
 - (a) Applied Research (Process/Product Development)
 - (b) Technology Development
 - (c) Any Other
7. Principal Inv. Name :
(Whether belongs to SC/ST/OBC attach certificate)
8. Designation :
9. Department :
10. Institute Name :
11. Address :
12. Date of Birth: Sex (M/F) :
13. Telephone Fax :
14. Co-Investigator :
15. Designation :
16. Department :

17. Institute Name :

18. Address :

19 Date of Birth: Sex (M/F) :

20.Telephone Fax :
Gram e-mail

21. Co-Investigator

22. Designation

23. Department

24. Institute Name

25. Address

26. Date of Birth: Sex (M/F)

27. Telephone Fax Gram e-mail

28. Co-Investigator

29. Designation

30. Department

31. Institute Name

32. Address

33. Date of Birth: Sex (M/F)

34. Telephone Fax Gram e-mail

Project Title:.....Registration No.....(to be filled by
DST)

Principal Investigator.....Institution
I).....II).....

35. Project summary (maximum 150 words)

36. Key words (maximum 6)

37. Technical details

38. Introduction (under the following heads)

- (a). Origin of the proposal
- (b). Definition of the problem
- (c). Objective

39. Review of status of Research and Development in the subject

- (a). International status
- (b). National status
- (c). Importance of the proposed project in the context of current status
- (d). Review of expertise available with proposed investigating group/institution in the subject of the project
- (e). Patent details (domestic and international)

40. Work plan

- (a). Methodology
- (b). Organisation of work elements
- (c). Time schedule of activities giving milestones (also append to bar diagram and mark it as Section 53)
- (d). Suggested plan of action for utilization of research outcome expected from the project.

41. BUDGET ESTIMATES: SUMMARY

	Item	BUDGET			(in Rupees)
	N	1st Year	2nd Year	3rd Year	Total
A.	Recurring				
	1.Salaries/wages				
	2. Consumables				
	3. Travel				
	4. Other costs				
	Grand total (A+B)				

N.B. Entries here should match with those given in section 42 to 46; justification for each item is to be given in Section following it that is section 43, 45, 47, 49 and 51.

42. BUDGET FOR SALARIES/WAGES

		BUDGET			(in Rupees)
		1st Year (m.m.*)	2nd Year (m.m.)	3rd Year (m.m.)	Total (m.m.)
Designation & number of persons	Monthly Emoluments				
Total					

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

43. Justification for the manpower requirement.

44. BUDGET FOR CONSUMABLE MATERIALS

		BUDGET			(in Rupees)
Item		1st Year	2nd Year	3rd Year	Total
	Q*				
	B**				
	F***				
Total	B				
	F				

*Q: Quantity or number, ** Budget, ***F: Foreign Exchange Component in US\$

45. Justification for costly consumable (if not provided for in Section 40(a) i.e. Methodology)

46. BUDGET FOR TRAVEL

		BUDGET			(in Rupees)
		1st Year	2nd Year	3rd Year	Total
	Travel (Only inland travel)				

47. Justification for intensive travel, if any.

48. BUDGET FOR OTHER COSTS/CONTINGENCIES

		BUDGET			(in Rupees)
		1st Year	2nd Year	3rd Year	Total
	Other costs/Contingency costs				

49. Justification for specific costs under other costs, if any.

50. Time Schedule of Activities through BAR Diagram

51. List of facilities being extended by parent institution(s) for the project implementation.

A) Infrastructural Facilities:

Sr. No.	Infrastructural Facility	Yes/No/ Not required Full or sharing basis
1.	Workshop Facility	
2.	Water & Electricity	
3.	Laboratory Space/ Furniture	
4.	Power Generator	
5.	AC Room or AC	
6.	Telecommunication including e-mail & fax	
7.	Transportation	
8.	Administrative/ Secretarial support	
9.	Information facilities like Internet/ Library	
10.	Computational facilities	
11.	Animal/ Glass House	
12.	Any other special facility being provided	

B. Equipment available with the Institute/ Group/ Department/ Other Institutes for the project:

Equipment available with	Generic Name of Equipment	Model, Make & year of purchase	Remarks including accessories available and current usage of equipment
PI & his group			
PI's Department			
Other Inst In the region			

52. Detailed Bio-data of the Investigator(s) / Co-Investigator(s) including Name, Address, Date of Birth, Institution's Address etc. Academic Qualifications (University/College from where attained, year of passing, class, Thesis title etc.) Publications list (Title of paper, authors, Journal details, pages, year etc.) Patent list, if any List of Projects implemented

53. Details of Research Projects being implemented/ completed/ submitted by the Investigator(s)/Co-Investigators including

Investigator(s) Name & Institute

Project Title

Project Status:

Completed-duration, period (from.... to.....), funding agency and total cost
On-going-duration, date of start, funding agency and total cost
proposed-duration, funding agency where submitted and total cost

Summary of the project Major Results/ Highlights of the project including achievement (publications, patents etc.), for completed projects
Up-to date Technical progress report for on-going projects.

54. Any other relevant matter.

File No** _____

1. Title :

2. Proposed Budget for 3 years :

2.1 Total :

2.2 Equipment :

(Please give list of major/ minor equipment)

2.3 Staff (proposed research staff) :

2.4 Other Recurring costs :

Consumable :

Travel :

Contingency :

Any other expenses :

3. Date of receipt** :

4. PI Name, Designation & Address :

5. Date of Birth :

6. Co-Investigator(s) details :

7. Date of Birth(s) :

8. Other projects with the PI/Co-PI(s) :

Sr.No.	Title	Cost (in rupees)	Duration	Agency