

Guidelines for Purpose Driven Studies (National Hydrology Project)

INSTRUCTIONS FOR INVESTIGATORS

1.0 Terms of reference (TOR) for Investigators in general and Principal Investigator (PI) in particular

1. The Purpose Driven Studies (PDS) should be formulated to find out solution to some real-life problem of the concerned area.
2. For a PDS, the end-user organization / agency that will use outcome of the study should be clearly specified.
3. In general, the period of a PDS may not exceed 3 years. However, exceptions (up to a maximum of 5 years) will be considered depending upon the requirement of the study.
4. The proposal should be prepared as per the proforma (**Annexure-I**) and as per the guidelines given in **Annexure-II**.
5. Based on the budget allocation for various PDS studies under NHP, the cost of a PDS should not exceed Rs. 50.00 Lakh. However, in exceptional cases, the amount may exceed Rs. 50 lakhs for a PDS provided the PI gives proper justification in the proposal. The PI is advised to keep the budget requirement bare minimum in order to take up more number of PDS proposals within the stipulated budget for PDS.

**Performa of Application for Purpose Driven Studies (PDS)
Under National Hydrology Project**

Section – 1 (About Organizations involved & Study Team)

1.1 Project Title

1.2 Lead Organization

Name of the organization
Head of the organization
Address
Telephone, Fax
Email

[An Endorsement from Head of Organization (in given format) to be provided]

1.3 Principal Investigator (PI) from Lead Organization

Name of the organization
Head of the organization
Address
Telephone, Fax
Email

1.4 Co-PIs from Lead Organization

Name of the organization
Head of the organization
Address
Telephone, Fax
Email

1.5 Partner Organization (if any)

Name of the organization
Head of the organization
Address
Telephone, Fax
Email

[An Endorsement from Head of Organization (in given format) to be provided]

1.6 Principal Investigator (PI) from Partner Organization

Name & Designation

Date of Birth

Address

Telephone, Fax, Mobile

E-mail

1.7 Co-PIs from Partner Organizations

Name & Designation

Date of Birth

Address

Telephone, Fax, Mobile

E-mail

Section – 2 (Summary of the Proposal)

2.1 Project Title:

2.2 End-user Department/Organization/Agency:

2.3 Duration of the project:

2.4 Lead Organization:

2.5 Partner Organization (if any):

2.6 PI and Co-PI from Lead Organization:

2.7 PI and Co-PI from Partner Organization:

2.8 Total Cost of Project (Rs.)

- a) Lead Organization
- b) Partner Organization

2.9 Project Summary (Max. 200 words)

Section – 3 (About the Study Proposal)

3.1 Origin of the Proposal & Problem Definition (Maximum 350 words)

(Describe the research proposal, the background, how the idea originated etc.)

3.2 Specify Objectives of the Study

[Briefly list the objectives (not exceeding five)]

3.2.1 Brief Description of the Objectives

(Classify the objectives under one or more of the following and explain)

- a. Finding answers to as yet un-answered questions
- b. Development of a new computational procedure
- c. Development of software/application
- d. Development of new field technique
- e. Design and/or develop a new device: Investigation of the behaviour of a natural process
- f. Any other

3.3 Present State-of-Art

- a. Describe the work already done at International/National Level
- b. Explain how the work proposed to be done will be different from the work already done
- c. List the references examined

3.4 Methodology to be Adopted

(Describe clearly the proposed methodology for the study)

3.4.1 List new data to be generated under the project, if any

3.5 Envisaged Contribution of the Proposal

(Describe briefly the contribution of the proposed PDS to the Water Resources Sector)

3.6 How Research Outcome will benefit the End-user Department and Society

(Describe how the research outcome will be useful to end-user department and society)

3.7 End-of-project Deliverables

(Describe the envisaged deliverables of the study)

3.8 Work Plan & Activity Chart

(Describe various work elements of study and give a 3-monthly activity chart)

3.9 Details of Earlier Research Projects completed by PI/Co-PI funded under Hydrology Projects, if any

Section – 4 (About the Budget)

4.1 Total Cost of Project

4.2 Head-wise Abstract

S. No.	Head	Amount (Rs.)
1	Remuneration/Emoluments for Manpower	
2	Travel Expenditure	
3	Infrastructure and equipment	
4	Experimental Charges/Field work/Consumables	
5	Consultancy	
6	Contingencies	
	Total	

(Note: Provide year-wise details with justifications of each head in separate table)

4.3 Heads-wise Details

4.3.1 Remuneration/Emoluments for Manpower

(Rates for different positions as per DST/NIH norms)

Justification

4.3.2 Travel Expenditure (TE)

(Give the break-up for the TE indicating the places to be visited, purpose, number of visits to each place by air/ rail/ road with approximate cost for each visit)

Justification

4.3.3 Infrastructure/Equipment (Purchased item of permanent nature like software/data etc.)

(Give details indicating specifications, quantity and rate. Estimated cost for all items such as equipment, software etc.)

Justification

4.3.4 Experimental Charges

Justification

4.3.5 Consultancy

Please clearly mention the role of consultant. MOU has to be signed with consultant. The format of MOU will be decided on case to case basis with mutual consent between both the parties. However, MOU has to be brought to the notice of R&D Section of NIH.

Date:
Place:

Signature of PI

Name/Designation

Format for Endorsement from the Head of Organization

Project Title:

1. Certified that the Institute welcomes participation of _____ as the Principal Investigator and _____ as the Principal Co-Investigators for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Principal Co-Investigators will assume the responsibility of the fruitful completion of the project (with due information to NIH).
2. Institute undertakes to provide financial and other management responsibilities of the project.
3. Institute undertakes to provide all necessary infrastructure facilities for the execution of the project.

Name and Signature of Head of Institution

Date:

Place:

* * *

**Guidelines for Formulation and Submission of Research Proposals
under R&D Programme of NHP**

1.0 Preparation of Research Proposal

The proposal should be well written clearly stating a synopsis of the work already done nationally and internationally, the objectives, methodology, estimated cost, duration of PDS, milestones and phasing of physical & financial progress, deliverables and outcomes.

Proposals which clearly identify the new aspect of a technology/ innovation to be made and propose to take the investigation to its logical conclusion including field trials; proposals where the probable users of the new technology are not only identified but also join the R&D work, stand a better chance of acceptance. The PI should ensure that the proposed research have not been done elsewhere to avoid duplication.

Note: Proposals that do not undertake investigation of any new techniques, which are more in nature of data collection and application of known techniques to the data; proposals where the end-user of the new technique is not clearly identified, will not be considered for funding.

1.1 Components / Expenditure Heads of Estimate

The expenditure to be incurred on the PDS may be kept under the following expenditure heads /components while preparing the estimate:

1. Remuneration / Emoluments for Manpower
2. Travel Expenses (TE)
3. Infrastructure / Equipment
4. Experimental charges
 - Consumables
 - Non-research personnel
 - Third party service (typing of report, lab analysis etc.)
5. Consultancy
6. Contingencies

The proposal should contain year-wise physical and financial phasing of each component. The provisions for above expenditure heads/ components as elaborated in the following paragraph should strictly be adhered to while formulating the proposal.

1.1.1 Remuneration / Emoluments for Manpower

- a. A limited number of research personnel, called Research Staff, may be engaged to assist the investigators in conducting research. There are only three categories for the research personnel allowed in the PDS:
 - Junior Research Fellow (JRF)
 - Senior Research Fellow (SRF)
 - Research Associate (RA)

- b. Eligibility and Remuneration / Emoluments for research personnel (JRF, SRF and RAs) would be as per **Annexure-III** or orders issued by MoWR/NPMU from time to time.
- c. The components of Remuneration / Emoluments for research personnel should be indicated in the estimate in terms of man-months and all financial outgo for it should be indicated year-wise / phase-wise in the estimate.
- d. Though the primary responsibility of conducting the research is that of the PI and Co-PIs, no part of their salaries can be charged to the estimate. The salaries of the investigators (PI and Co-PIs) are to be paid out of the regular budget of the Institute where they are employed.
- e. No provision for honorarium or other such cash incentives to the Investigators is permissible.
- f. The reward for the investigators (PI and Co-PIs) is indirect by way of opportunity for pursuit of academic excellence and its attendant benefits; travel grants; opportunities to participate in seminars/workshops.

1.1.2 Travel Expenditure (TE)

- a. Provision can be made in the estimate for travel expenses connected with research. The entitlement for TE for each category will be as per rules of the host institute. The estimate should not be lump sum. The places intended to be visited, number of visits, purpose, mode / class (economy class by air/ AC-II tier by rail/ by road restricted to AC-II tier of rail fare) should be given.
- b. The mode of journey allowed (air/rail/road) will be as per TE entitlement rules of the host institute and limited to rates admissible under Government of India rules and directions issued by Ministry of Finance from time to time.
- c. Provision should be made for one long distance journey by one person once a year for attending the R&D Session or meeting of the PDS for presentation of work done. The provision made on this account should be indicated separately.

1.1.3 Infrastructure

- a. Infrastructure comprises purchase of equipment of a permanent nature and its installation; purchase of software; purchase of data like the meteorological data from IMD or the satellite imageries from NRSC.
- b. Purchase of computers and its peripherals may be considered only in rare cases where the importance of the work so demands.

1.1.4 Experimental charges

- a. Experimental charges include the expenditure for actually conducting the research and comprises cost of engaging any labour, cost of all consumables, cost of any construction related to research activity sanctioned in the PDS.

- b. Cost of minor items/equipment up to Rs. 1000/- such as pipelines, fixers, general tool etc. even of permanent or semi-permanent nature may also be booked under this head instead of 'infrastructure'.
- c. Wages for non-research personnel / staff (laborers etc.) engaged for PDS may be allowed under "Experimental Charges" only if the following two conditions are fulfilled:
 - The said staff is engaged specifically for the purpose of said study.
 - The said staff will be working full time only for the purpose of said study.

In case such provision is made, the PI should provide justification for the same along with the expenditure statement.

- d. No salary of the lab assistant, helper, typists and other such personnel who are employees of the institute, can be charged to the PDS. However, a provision for a nominal honorarium to such non-research staff of the Institute may be made under experiment charges for their extra work done for the PDS. Only one person may be so considered for such extra work from one PDS at a time. The PI should give a certificate to this effect.

1.1.5 Contingency

- a. Contingency is only a budget provision for unforeseen situations; for any variation in estimation of four main sub-heads. A provision of upto 5% of the total cost of these or Rs 1.00 lakh, whichever is less can be included in the estimate.
- b. It is emphasized that contingency is not a separate head of expenditure. There are only four heads for expenditure, namely Remuneration/Expenditure for Manpower, Travel Expenditure, Infrastructure and Experimental charges. Therefore, the contingency is not visible in the expenditure statement, whereas it may be visible in the estimate.

1.2 Consent of Collaborating organizations

In case of multi-organizational proposals, the PI from the lead organization has to submit the consent of Collaborating Institutes regarding their contribution in PDS, estimated cost, amount of contingency and share of overhead charges in the prescribed format given at **Annexure-I**.

1.3 Monitoring and Periodic Returns

For the purpose of monitoring, release and other service requests, the PI is required to submit an annual progress report as on 31st March, on or before 30th June. The periodic returns / documents required to be submitted are:

- a. A brief narrative report (two copies only)
- b. A report of the progress
- c. Utilisation Certificate
- d. A proforma for Statement of Equipment purchased

2.0 Dissemination and Publication of Research Findings

- i) The data pertaining to the project should be systematically collected, scientifically documented.
- ii) The Investigator(s) are required to publish some research papers emerging out of the PDS in leading National/International Journals. If the results of research are to be legally protected, it should not be published without securing legal protection and approval of NPMU.
- iii) The research findings of the PDS on its completion would also be disseminated by PI through presentation in workshop / seminar etc.
- iv) The Investigator(s) should not enter into collaboration with a foreign party (individual/ industry) without prior approval of NPMU.

Remuneration / Emoluments for JRF/SRF/RA

The Remuneration / Emoluments and other service conditions for research personnel engaged by PI / Institutes for carrying out research work under R&D programme of MoWR are based on Department of Science and Technology (DST) Guidelines [Refer SR/S9/Z-09/2012 dated Oct. 21, 2014] as given below.

i) Junior Research Fellow (JRF) / Senior Research Fellow (SRF)

Designation & Qualification	Emoluments per month for first 2 years	Emoluments per month after 2 years / SRF
<u>Junior Research Fellow (JRF) leading to PhD</u> Post Graduate (PG) Degree in Basic Sciences and NET qualified OR Graduate Degree in Professional Courses and GATE or equivalent qualification	Rs. 25000/-	Rs. 28000/-

The local organization should review the performance of the fellow after two years through an appropriate review Committee constituted by the Head of the organization. The fellowship in the slab after 2 years of research experience may be provided after successful assessment by this review committee.

In programmes where there is a need to engage research personnel at a level higher than JRF/SRF and such need has been accepted by the funding agency, the remuneration for such personnel may be fixed as indicated below.

ii) Research Associates (RA)

Research associates may be fixed at a consolidated amount at one of the 3 pay levels given below, depending upon the qualifications and experience. The Institute / Organization concerned may decide the level in which a particular associate should be placed based on the experience.

S. No.	Category/level	Emoluments per month
1	Research Associate-I (RA-I)	Rs. 36000/-
2	Research Associate-II (RA-II)	Rs. 38000/-
3	Research Associate-III (RA-III)	Rs. 40000/-

Note: The stipend of research fellow/associate is exempt from the payment of income tax under 10(16) of IT Act, 1961.

Essential Qualifications:

The Essential Qualification (EQ) for RA are Doctorate (PhD/MD/MS/MDS) or equivalent degree or having 3 years of research, teaching and design and development experience after MSc/MPharm/ME/MTech will be eligible for award as RA.

Service Conditions:

1. **DA and CCA:** JRFs, SRFs and Research Associates will not be entitled to these allowances.
2. **House Rent Allowance (HRA):** All research fellows may be provided hostel accommodation wherever available and those residing in accommodation provided by the Institute will not be eligible for drawing HRA. Wherever provision of hostel accommodation is not possible, HRA may be allowed to all the above categories viz, JRF, SRF and RA, as per Central Government norms applicable in the city/location where they are working. The fellowship amount may be taken as basic for calculating the HRA.
3. **Medical Benefits:** The research fellows and research associates (JRF/SRF/RA) will be entitled for medical allowance as applicable in the implementing organization.
4. **Leave and other entitlement benefits:** The JRF/SRF are eligible only for casual leave while Research Associates are entitled to leave as per rules of the host organization. Participation of any of these categories (JRF/SRF/RA) in any scientific event / workshop in India or abroad will be treated as “on duty”. The travel entitlement for JRF/SRF/RA for participation in scientific events / workshops in India will continue to be the same as earlier i.e. 2nd AC by rail. Maternity leave, as per Government of India instructions issued from time to time, would be available to female candidates in all categories.
5. **Bonus & Leave Travel Concession:** JRFs, SRFs and Research Associates will not be entitled to these allowances.
6. **Retirement Benefits:** JRFs, SRFs and Research Associates will not be entitled to these benefits.
7. **Publication/Patent:** The results of JRF/SRF/RA’s research work may be published in standard referred journals at the discretion of the fellow or his Guide. It should be ensured by the fellow that the assistance provided by the funding agency of Government of India is acknowledged in all such publications.
8. **Encouragement for pursuing higher degree:** Students selected as JRF/SRF may be encouraged to register for higher degrees and the tuition fees to undertake these studies may be reimbursed to the student from the contingency grant sanctioned under the project grant, if required.

9. Obligations of JRF/SRF/RA

- a) He/She shall be governed by the disciplinary regulations of the host Institute where he/she is working.
- b) The JRF/SRF/RA must send a detailed consolidated report of the research work done during the entire period of fellowship on completion of the tenure/resignation of the fellowship at the earliest.

10. Age Limit

The upper age limit for JRF/SRF/RA is 28, 32 and 35 years respectively on the day on which application is made. A small relaxation can be considered for suitably qualified and experienced candidates if so recommended by a selection committee. The upper age limit is relaxable for SC/ST/OBC/Women and physically handicapped candidates as per DST Guidelines.