

Manika Gupta



Finance Branch - III (1)

Diary No. 182

Date 13/9/18

MoES-320

National Centre for Antarctic and Ocean Research
Earth System Science Organisation
(Ministry Of Earth Sciences, Government of India)
Headland Sada, Goa - 403804

Date: 28/03/2018

SANCTION ORDER (NCAOR/2018/HiCOM/05)

Director, NCAOR, is pleased to sanction a sub-project entitled "**Synergistic utilization of earth observations with modification of geo-spatial model to improve estimation of snowmelt contribution to discharge**" to Centre of Advance Studies in Geology, University of Delhi, under the Himalayan Cryospheric Observations and Modelling (HiCOM) initiative at a total cost of **Rs. 27,77,000/- (Rupees Twenty Seven Lakhs And Seventy Seven Thousand Only)** for a period of three years (2018-2020) on the terms and conditions detailed here under:

1. The Project

HiCOM: Synergistic utilization of earth observations with modification of geo-spatial model to improve estimation of snowmelt contribution to discharge

2. Implementation:

This project will be carried out at the Centre of Advance Studies in Geology University of Delhi as detailed at Annexure I. The project will be executed by Dr. Manika Gupta, Centre of Advance Studies in Geology University of Delhi as Principal Investigator (PI). The concerned PI will report about the progress to Head of the respective institution and PI will be responsible for implementation of the project. The time period for implementation of the project is for three years (2018-2020). The project will be initially funded for a period of one year from date of sanction. The release of funds for the subsequent years will be based upon recommendation of the duly constituted Project Monitoring Committee based on the progress of the project.

NCAOR has identified Dr. Paramanand Sharma as a potential collaborator for the project from ESSO-NCAOR.

3. Project Objectives

- Assimilating earth observations for retrieval of improved snow and runoff coefficient.
- To characterize and validate the temporal snowmelt contribution to discharge simulated through the model using the retrieved coefficients from earth observations.



- Developing and modifying the current snowmelt runoff model to provide probabilistic estimates of contribution of snowmelt runoff to discharge especially during winter period

4. Manpower

The following manpower is sanctioned under this project.

- Junior Research Fellow (01 No)

The host institute may follow their own guidelines in respect of the manpower engaged by them for the said project. In the absence of host institute guidelines, guidelines of DST, Government of India, should be followed.

5. Terms & Conditions:

- 5.1 The Principal Investigator (PI) shall be a permanent employee of the host Institutions / University/ Research Laboratory/ Organization, and expected to have sufficient exposure and prior experience in the proposed field. All basic facilities by way of accommodation, infrastructure etc. required for the project shall be provided by the host organization.
- 5.2 Project will be sanctioned for a specific period and the date of commencement of the project will be the issue of sanction order. The release of further funds will be only against the submission of (i) Audited Utilization Certificate, (ii) Audited Statement of Expenditure, (iii) List of assets acquired from the Project Grants, and (iv) Annual Progress Report.
- 5.3 Accounts should be maintained in a separate Register by controlling authority. This account shall be subjected to the audit and the report should be submitted periodically. If it is found expedient to keep a part or whole of the grant in bank account earning interest, the interest thus yielded should be reported to the NCAOR. This will be treated as credit to the host Institution / University / Organization and will be adjusted in the subsequent releases of the grant by NCAOR. The final audited statement of accounts pertaining to the grant should be submitted within 3 months of the termination / completion of the project. The audited accounts shall be submitted and the unspent balance if any shall be remitted to NCAOR. The Comptroller and Auditor General of India at its discretion shall have the right to access the books and audits of the Institution / University / Organization for the grants received from NCAOR.
- 5.4 Allocation of funds for various budgetary items as sanctioned shall be adhered strictly. Any deviation either in spending the money from the sanctioned amount for each head or after the lapse of time should be



spent only after obtaining the prior approval from NCAOR. No amount can be transferred from one head to other head without the prior approval of NCAOR.

- 5.5 The host Institution / University / Organization is not permitted to seek or utilize funds from any other organization (Government / Semi-Government / Autonomous or Private) for the same project.
- 5.6 Research Associates / Fellows and Technical Supporting Staff, can be appointed as per the guidelines of the concerned host institute. The project staff shall not to be treated as employees of the NCAOR. The deployment of such staff after the completion / termination of the project is not the concern / responsibility of the NCAOR.
- 5.7 The PI shall submit one hard copy and a soft copy of the annual progress report of the project by second week of April of every year during the entire duration of the project. The review committee constituted by NCAOR will review the progress of the work and suggest measures to ensure an early realization of the results of the project. During the execution period of the project, the host Institution / University / Organization shall extend all facilities to the committee of experts who will be on inspection / review.
- 5.8 Internal Travel can be included for participation in scientific conferences / symposia / workshops etc connected with the project. International Travel cost is not allowed out of project funds.
- 5.9 ~~Minor equipment not available in the nearby and expendable items to laboratory supplies and cost of computer time etc, may be proposed. However, equipment should be ordered within ninety days from the date of sanctioning of the project. Major equipments may be shared from NCAOR or collaborative institutions.~~
- 5.10. For permanent / semi permanent assets acquired solely or mainly out of the grant including books, furniture, etc., an audited record in the form of a register shall be maintained by the host Institution / University / Organization for the record purpose. The term Asset means (i) Immovable property or (ii) Movable Property of a capital nature where the value exceeds Rs.10,000/-. However, the grant shall not be utilized for construction of any building. At the end of each financial year, a physical stock verification certificate together with asset details is to be provided for the assets acquired under the project grants for the audit purpose.
- 5.11. All the assets including equipment, prototype acquired or fabricated out of project funds etc, will be property of NCAOR. They will remain with the host Institution / University / Organization concerned unless or otherwise directed by NCAOR. These should not be disposed off or encumbered or