

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "**Mapping, Modelling, Monitoring and Managing Invasive Species in some Protected Areas of Kashmir Himalaya, India**" for a period of 3 Year 0 Month at a total cost of Rs. **6891400** (Rupees Sixty Eight Lakhs Ninety One Thousand Four Hundred Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Mapping, Modelling, Monitoring and Managing Invasive Species in some Protected Areas of Kashmir Himalaya, India

2.2 Details of the Investigators:

Dr. Manzoor Ahmad Shah
Senior Assistant Professor,
Department of Botany,
University of Kashmir,
Srinagar, Jammu And Kashmir,
190006

CO-PI:

Prof. Zafar Ahmad Reshi
Professor,
Department of Botany,
University of Kashmir, Srinagar,
Jammu And Kashmir-190006

Dr. Irfan Rashid Kakroo
Assistant Professor,
Department of Botany,
University of Kashmir,
Srinagar, Jammu And Kashmir- 190006

2.3 Objectives:

1. Identification of species based on their stage of invasion for appropriate management solutions through stage-based characterization and Weed Risk Assessment (WRA) schemes
2. Assessment of the impact of worst invasive species such as *Alternanthera philoxeroides* and *Sparganium erectum* on habitability and feeding ecology of resident and migratory birds in *Hokersar* wetland
3. Studies on biology and ecology of two worst invasive species, one each in two different Protected Areas, for better understanding the causes of their spread.
4. Development of ecological restoration strategies of invaded habitats by planting native species suitable for wildlife species being protected in the two protected areas.

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **6891400/-** (Rupees Sixty Eight Lakhs Ninety One Thousand Four Hundred Only) as per details given below:

Budget Head	Year I	Year II	Year III	Total (Rs.)
Equipment	2695000.00			2695000.00
Manpower	720000.00	720000.00	806400.00	2246400.00
Contingency	100000.00	100000.00	100000.00	300000.00
Travel	150000.00	150000.00	150000.00	450000.00
Overhead	100000.00	100000.00	100000.00	300000.00
Consumables	300000.00	300000.00	300000.00	900000.00
Total (Rs.)	4065000.00	1370000.00	1456400.00	6891400.00

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at
Annexure-I

2.7 Manpower:

The details of the manpower sanctioned for the implementation of the project at
Annexure-II

3. Head of Account:

The **Non-Recurring** expenditure involved is debitable to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

The **Recurring** expenditure involved is debitable to:

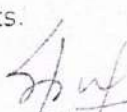
Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants-in-Aid General

4. Terms & Conditions:

Considering the time bound nature of the project, the project will be monitored by the Task Force / Committee constituted by DBT. In addition, the PI will submit half yearly progress report as per format in Annexure-V.

- 4.1 The other terms and conditions governing this sanction are attached at Annexure- III.
- 4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV
- 4.3 The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
6. The Dean Research, University of Kashmir, Jammu, Jammu And Kashmir would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
7. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-09/2012 dated 21 Oct 2014. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.


8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.
9. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org
10. This issues, under the power delegated to this Department and with the concurrence of IFD via their SAN No. **102/IFD/SAN/4228/2018-2019** dated **February, 01 2019**.
11. This sanction order has been noted at serial no. 27. in the Register of Grants.


(Dr. Onkar N Tiwar
Scientist 'I')

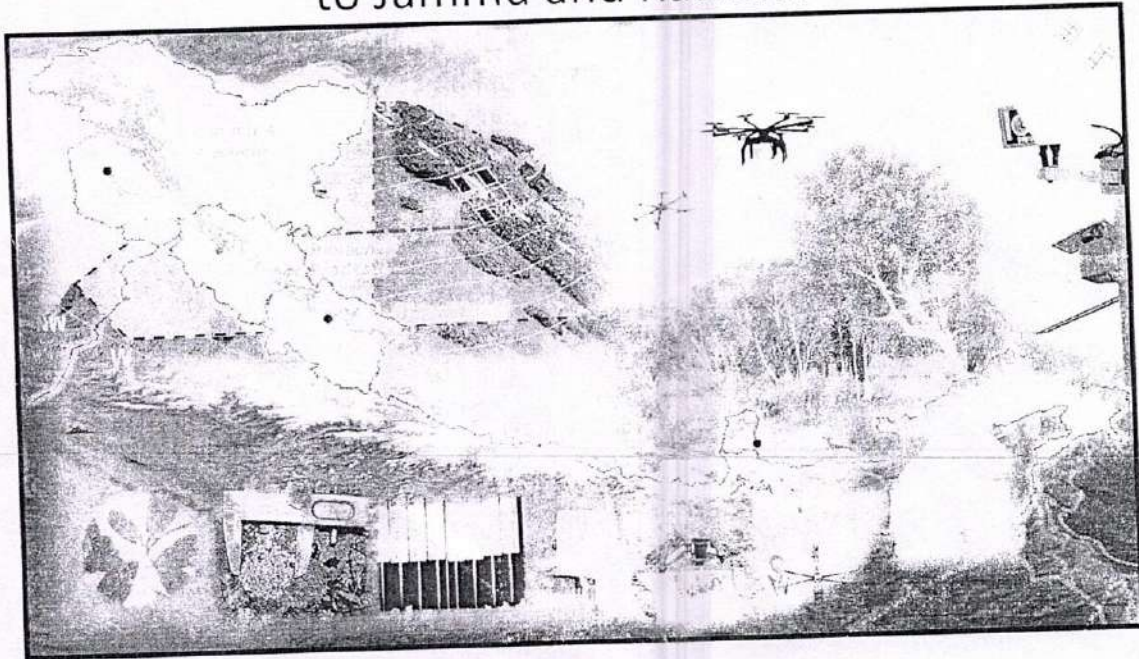
To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 The Dean Research, University of Kashmir, Hazratbal, Jammu - 190006, Jammu And Kashmir
- 3 Dr. Irfan Rashid Kakroo, Assistant Professor, Department of Botany, University of Kashmir, Srinagar, Jammu And Kashmir- 190006.
- 4 Dr. Manzoor Ahmad Shah, Senior Assistant Professor, Department of Botany, University of Kashmir, Srinagar, Jammu And Kashmir- 190006.
- 5 Prof. Zafar Ahmad Reshi, Professor, Department of Botany University of Kashmir Srinagar, Jammu And Kashmir- 190006.
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.


(Dr. Onkar N Tiwar
Scientist 'I')

Characterizing Patterns and Processes of Alpine Ecosystem in Indian Himalaya with Special Emphasis to Jammu and Kashmir



Work Plan 2022-23

under

Studies on Harnessing REMote Sensing for Environment and Climate (SHRESTI) programme

AED/BPSG/EP SA

Space Applications Centre, ISRO, Ahmedabad

&

Centre for Biodiversity and Taxonomy,

Department of Botany, University of Kashmir, Srinagar, Jammu & Kashmir

April, 2022

at

1

MOU
Shresti - Project

Budget: (Rs. in Lakh)

Overall budget estimate for 3 years = Rs. 28.98 Lakh

CBT, Dept. of Botany, University of Kashmir:

Budget (in lakhs)

S.No.	Head	2019-20	2020-21	2021-22
1	Services			
	Fellowship of SRF	4.03	4.03	4.03
	Wages for Field assistance	1.00	1.00	1.00
2	Travel (field survey, meetings, training, logistic)	1.50	1.50	1.50
3	Equipments (Phenocam, Soil temperature logger)	2.00	1.00	
4	Material /contingency / field kit / laboratory charges	1.00	1.00	1.00
5	Overhead/ Institutional charges (15%)	1.13	1.13	1.13
6	Total	10.66	9.66	8.66

Focal points:

SAC, Ahmedabad:

Dr C P Singh

CBT, Dep. of Botany, University of Kashmir:

Dr Anzar A Khuroo

Dr. Anzar Ahmad Khuroo
Senior Assistant Professor
Department of Botany
University of Kashmir

Characterizing Patterns and Processes of Alpine Ecosystem in Indian Himalaya

(Under Studies on Harnessing REmote Sensing for Environment and Climate
(SHRESTI) programme of SAC, ISRO)

Space Applications Centre, ISRO, Ahmedabad

and

CBT, Dept. of Botany, University of Kashmir (UoK), Srinagar, J&K

Work, Schedule, Responsibility and Fund Allocation for project extension period


April 2023 - March 2024

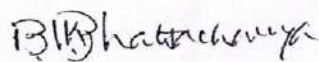
Schedule, Responsibilities

S.N.	Work/ Milestone	Schedule/End date	Responsibility
1.	Vegetation composition and diversity patterns of SHRESTI transects.	November, 2023	UoK
2.	Herbarium based reconstruction of the historical alpine zones.	December, 2023	UoK & SAC
3.	Soil properties (nutrients, microbiome) and leaf properties (nutrients) analysis of SHRESTI transects.	February, 2023	UoK
4.	Submission of Final Technical Reports with final database	March, 2023	UoK & SAC

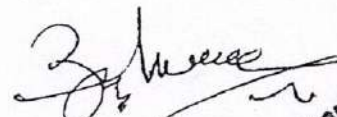
Fund Allocation

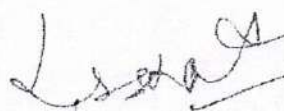
S.N.	Head	Budget (INR)
1.	Services	406000
2.	Travel	20000
3.	Contingency	23000
4.	Institutional Charges	66000
Total		5,15,000


(C.P. Singh)


Group Director
AESG/EP SA, SAC


Deputy Director
EP SA, SAC


Principal Investigator
University of Kashmir
Dr. Hameed Khuroo
Associate Professor
Department of Botany
University of Kashmir


Dean Research
University of Kashmir

No. BT/PR29607/FCB/125/17/2018
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 03.01.2019

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "**Management of invasive Ox-eye Daisy (*Leucanthemum vulgare*) in protected areas of Kashmir Himalaya**" for a period of 3 Year 0 Month at a total cost of Rs. **4687200** (Rupees Fourty Six Lakhs Eighty Seven Thousand Two Hundred Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Management of invasive Ox-eye Daisy (*Leucanthemum vulgare*) in protected areas of Kashmir Himalaya

2.2 Details of the Investigators:

Dr. Anzar A Khuroo

Senior Assistant Professor
Centre for Biodiversity and Taxonomy,
Department of Botany,
University of Kashmir,
Srinagar, Jammu And Kashmir,
190006

CO-PI:

Dr. Tanvir Ul Hassan Dar

Assistant Professor
School of Biosciences & Biotechnology
Baba Ghulam Shah Badshah University
Dhanore, Rajouri- 185234, Jammu (J&K)
Jammu And Kashmir

2.3 Objectives:

1. To assess the invasion impact of *L. vulgare* on the above-ground species richness, diversity and composition along altitudinal gradient
2. To determine the impact of *L. vulgare* on rhizospheric biota using molecular tools
3. To study ploidy level (chromosome number) of *L. vulgare* along an altitudinal gradient

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. 4687200/- (Rupees Forty Six Lakhs Eighty Seven Thousand Two Hundred Only) as per details given below:

Budget Head	Year I	Year II	Year III	Total(Rs.)
Equipment	900000.00			900000.00
Manpower	662400.00	662400.00	662400.00	1987200.00
Contingency	100000.00	100000.00	100000.00	300000.00
Travel	100000.00	100000.00	100000.00	300000.00
Overhead	100000.00	100000.00	100000.00	300000.00
Consumables	300000.00	300000.00	300000.00	900000.00
Total (Rs.)	2162400.00	1262400.00	1262400.00	4687200.00

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at Annexure-I

2.7 Manpower:

The details of the manpower sanctioned for the implementation of the project at Annexure-II

3. Head of Account:

The Non-Recurring expenditure involved is debitable to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

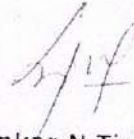
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3425	Other Scientific Research 2018-2019
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3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants in A & General

To,
The Pay & Accounts Officer,
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- 3 **Dr. Anzar A Khuroo**, Senior Assistant Professor, Centre for Biodiversity and Taxonomy, Department of Botany, University of Kashmir, Srinagar - 190006, Jammu And Kashmir
- 4 **Dr. Tanvir Ul Hassan Dar**, Assistant Professor, School of Biosciences & Biotechnology, Baba Ghulam Shah Badshah University, Dhanore, Rajouri- 185 234, Jammu (J&K), India
- 5 Cash Section, DBT (2 copies).
- 6 Sanction Folder.
- 7 File Copy.



(Dr. Onkar N Tiwari)
Scientist 'E'

No. BT/PR29155/FCB/125/6/2018
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 11.03.2019

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Conservation Genetics and Species Recovery of Threatened Himalayan Trillium in Hirpora Wildlife Sanctuary, Kashmir Himalaya" for a period of 3 Year 0 Month at a total cost of Rs. 7550480 (Rupees Seventy Five Lakhs Fifty Thousand Four Hundred and Eighty Only) on the terms and conditions detailed here under:

2 The Project :

2.1 Title : Conservation Genetics and Species Recovery of Threatened Himalayan Trillium in Hirpora Wildlife Sanctuary, Kashmir Himalaya

2.2 Details of the Investigators:

Project Coordinator

Dr. Tanvir Ul Hassan Dar
Assistant Professor
School of Biosciences and Biotechnology
Baba Ghulam Shah Badshah University
Rajouri, Jammu And Kashmir - 185234

Principal Investigators:

Dr. Tanvir Ul Hassan Dar
Assistant Professor
School of Biosciences and Biotechnology
Baba Ghulam Shah Badshah University
Rajouri, Jammu And Kashmir - 185234

Dr. Anzar A Khuroo

Senior Assistant Professor
Centre for Biodiversity and Taxonomy,
Department of Botany
University of Kashmir, Srinagar
Jammu And Kashmir - 190006

Objectives:

Overall Objectives:

1. To assess genetic diversity of Himalayan Trillium populations along altitudinal gradient
2. To undertake molecular characterization of the associated rhizospheric biota
3. To develop the species recovery program for habitat rehabilitation of Himalayan Trillium in Hirpora Wildlife Sanctuary and other Protected Areas of Kashmir Himalaya
4. To standardize the protocols for ex-situ conservation and mass propagation of Himalayan Trillium in the Botanical Gardens of BGSBU Rajouri/University of Kashmir, Srinagar

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **7550480/-** (Rupees Seventy Five Lakhs Fifty Thousand Four Hundred and Eighty Only) as per details given below:

Institute	Year I	Year II	Year III	Total Cost(Rs.)
1. Baba Ghulam Shah Badshah University	2531520	931520	987200	4450240
2. University of Kashmir	1481520	781520	837200	3100240
Total (Rs.)	4013040	1713040	1824400	7550480

Institute wise details are:

Budget Head	Year I	Year II	Year III	Total(Rs.)
1. Baba Ghulam Shah Badshah University				
Equipment	1600000.00			1600000.00
Manpower	431520.00	431520.00	487200.00	1350240.00
Travel	50000.00	50000.00	50000.00	150000.00
Contingency	50000.00	50000.00	50000.00	150000.00
Consumables	300000.00	300000.00	300000.00	900000.00
Overhead	100000.00	100000.00	100000.00	300000.00
Total (Rs.)	2531520.00	931520.00	987200.00	4450240.00

Handwritten signature

University of Kashmir

Equipment	700000.00			700000.00
Manpower	431520.00	431520.00	187200.00	1350240.00
Contingency	50000.00	50000.00	50000.00	150000.00
Travel	150000.00	150000.00	150000.00	450000.00
Overhead	100000.00	100000.00	100000.00	300000.00
Consumables	50000.00	50000.00	50000.00	150000.00
Total (Rs.)	1481520.00	781520.00	837200.00	3100240.00

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at Annexure-I

2.7 Manpower:

The details of the manpower sanctioned for the implementation of the project at Annexure-II

3. Head of Account:

The Non-Recurring expenditure involved is debitable to:

Demand No. 85	Department of Biotechnology
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3425.60.200.29.17.31	Grants-in-Aid General

Sp. of