



From: Principal & Secretary

91 3213 255282

saratecentenary@gmail.com

secollegednk.ac.in

Dhaniakhali, Hooghly, 712302

Sarat Centenary College

Dhaniakhali, Hooghly

Founded: 1976

Recognised Under UGC 2F&12B

WB Govt. Aided

Affiliated to The University of Burdwan

3 RD CYCLE OF NAAC ACCREDITATION PROCESS - 2024

CRITERION: 3 - Research, Innovations and Extension

Key Indicator:

3.1 Resource Mobilization for Research

3.2 Innovation Ecosystem

3.3 Research Publications and Awards

3.4 Extension Activities

3.5 Collaboration



D. N. Baruah

Principal & Secretary,
Sarat Centenary College
P.O. - Dhaniakhali, Dist- Hooghly



From: Principal & Secretary

• +91 3213 255282
• saratcentenary@gmail.com
• sccollegednk.ac.in
• Dhaniakhali, Hooghly, 712302

Sarat Centenary College

Dhaniakhali, Hooghly

Founded: 1976
Recognised Under UGC 2F&12B
WB Govt. Aided
Affiliated to The University of Burdwan

No: SCC/

Date 06/08/24

3 RD CYCLE OF NAAC ACCREDITATION PROCESS - 2024

CRITERION: 3 - Research, Innovations and Extension

Key Indicator:

3.1 Collaboration

Metric: 3.1.1.1- Supporting Documents



A. H. Bhattacharya
Principal & Secretary,
Sarat Centenary College
P.O.- Dhaniakhali, Dist- Hooghly

UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098

V-039/15-16
ounts Officer
y Grants Commission
Regional Office, Kolkata 700 098

(ERO) ID No. WB1-073

Date 05-Dec-16

S No. 228071

WB1G00005714

02 JAN 2017

Sub : Release of Grant-in-Aid under the Scheme of Minor Research Project in Humanities & Social Sc during 12th Plan In the year 2016-17 to Sarat Centenary College

ected to convey the sanction of the Commission for payment of Rs. 130000
the scheme Minor Research Project in Humanities & Social Sc
incipal, Sarat Centenary College
lan expenditure to be incurred during the current financial year as per details given below

ame of the grant Deb Mondal, Bengali ment	Approved allocation (Rs.)	Amount already sanctioned (Rs.)	Amount being sanctioned now (Rs.)	Total grant released including Gen/SC/ST component (Rs.)
Non-Recurring	100000	0	100000	100000
curring	60000	0	30000	30000
		Total	130000	

ponent-wise total grants released to the College now:
Rs. 0 ST:Rs. 0 General:Rs. 130000 Total:Rs. 130000

accordingly I am to further inform that:

SC component: 16% (3B-2202.03.789.27.01(SC):Rs. 0
ST component: 8%, (3C-2202.03.796.28.01(ST):Rs. 0
General component (including Minorities): 76% or 100% (3A-2202.03.102.02.1(General):Rs. 130000

sanctioned amount is debitable to Head of account as mentioned above and valid for payment by
ounts Officer, UGC-ERO, Kolkata to the College during the financial year 2016-17 only.
amount of the grant shall be drawn by the Accounts Officer (Drawing and Disbursing Officer), University Grants
mission on the Grant-in-Aid bill and shall be disbursed to and credited to grantee as above through Electronic mode
ough PFMS portal at the following details:
(a) Details (Name & Address) of Account Holder:
Principal, Sarat Centenary College

Dhaniakhali, Hooghly

West Bengal 712302

50100188691050

HFECOC04390

(b) Account No.: 31009989902

(c) IFSC Code : SBIN0010545

HDFC Bank

(d) Name & Address of Branch: State Bank of India, Dhaniakhali Branch

You are requested to confirm the receipt of the above amount in your account by sending back
the enclosed stamped receipt within 7 days.

The grant is subject to the adjustment on the basis of Utilisation Certificate in the prescribed proforma submitted by the
University/College/Institution.

The University/College shall maintain proper accounts of the expenditure out of the grant which shall be utilised only on
approved items of expenditure.

The University/Institution may follow the General Financial Rules, 2005 and take urgent necessary action to amend their
manuals of financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved
manuals on financial procedures may adopt the provisions of GFRs, 2005 and instructions/Guidelines there under from time
to time.

The Utilisation Certificate to the effect that the grant has been utilised for the purpose for which it has been sanctioned shall
be furnished to the University Grants Commission as early as possible after the closing of the current financial year.
The assets acquired wholly or substantially out of the University Grants Commission's grant shall not be disposed or
encumbered or utilised for the purpose other than those for which the grant was given, without proper sanction of the
University Grants Commission.

A register of assets acquired, wholly or substantially out of the grant shall be maintained by the University/College in the
prescribed form.

All communications are to be addressed to the
Joint Secretary by designation and not by name

F.PHW-038/15-16 (ERO)



UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098
Phone : (033) 2335 4767
Fax : (033) 2335 0586

The Principal,
SARAT CENTENARY COLLEGE
Dhaniakhali, Hooghly
West Bengal-712302

02 JAN 2017

Subject : Approval of financial assistance to Dr./Mr./Ms RAMANUJ KONAR, Department of English of
your college for Minor Research Project regarding.

Madam,

1. The University Grants Commission has approved the proposal of Minor Research Project mentioned hereinabove as per the recommendations of the Expert Committee and has also approved an allocation of ₹ 172000/- for the project as per details given below :

Non-Recurring Items :		Amount (In ₹)
Books and Journals		60000/-
Equipment		52000/-
Recurring Items :		
Travel and Field Work		30000/-
Hiring Services		0/-
Chemicals and Consumables		0/-
Contingency (including special needs)		30000/-
Total :		172000/-

2. The terms and conditions of the grant will be as per the Guidelines of the scheme.
3. A sanction letter (100% of non-recurring and 50% of recurring grant) is enclosed herewith.
4. The college is requested to submit 'Acceptance Certificate' duly signed by the Principal and The Principal Investigator after receiving this letter.
5. The date of implementation will be the date of receipt of the first instalment by the college and it may be intimated in the Acceptance Certificate. The tenure of the Project will be for two years for all subjects.

Yours sincerely,

(Dr. Mohammad Arif)
Joint Secretary

Copy forwarded for information & necessary action to;

1. The Registrar, Burdwan University.
2. The Director, Higher Education, Government of West Bengal state, state Secretariat.
3. Dr./Mr./Ms RAMANUJ KONAR, department of English
4. Guard File


(Vinod Sharma)
Under Secretary

UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098

7/FR-2016-17 - 590

HW-038/15-16
Accounts Officer
University Grants Commission
Regional Office, Kolkata 700 098

(ERO) ID No. WB1-073

Date: 05-Dec-16
S.No. 228070

02 JAN 2017

WBHIG00005734

Sub : Release of Grant-in-Aid under the Scheme of Minor Research Project in Humanities & Social Science during 12th Plan in the year 2016-17 to Sarat Centenary College

am,
rected to convey the sanction of the Commission for payment of Rs. 142000
is the scheme Minor Research Project in Humanities & Social Sc
Principal, Sarat Centenary College
Plan expenditure to be incurred during the current financial year as per details given below.

Use of the grant	Approved allocation (Rs.)	Amount already sanctioned (Rs.)	Amount being sanctioned now (Rs.)	Total grant released including Gen/SC/ST component (Rs.)
On-Konar, English	112000	0	112000	112000
Non-Recurring	60000	0	30000	30000

Component-wise total grants released to the College now:
C.Rs. 0 ST:Rs. 0 General:Rs. 142000 Total:Rs. 142000

Accordingly I am to further inform that:

A. SC component: 16% (3B-2202.03.789.27.01(SC):Rs. 0
B. ST component: 8%, (3C-2202.03.796.28.01(ST):Rs. 0
C. General component (including Minorities): 76% or 100% (3A-2202.03.102.02.1(Gen):Rs. 142000

The sanctioned amount is debitable to Head of account as mentioned above and valid for payment by
Accounts Officer, UGC-ERO, Kolkata to the College during the financial year 2016-17 only.
The amount of the grant shall be drawn by the Accounts Officer (Drawing and Disbursing Officer), University Grants
Commission on the Grant-in-Aid bill and shall be disbursed to and credited to grantee as above through Electronic mode
through PFMS portal at the following details:

(a) Details (Name & Address) of Account Holder:
Principal, Sarat Centenary College

Dhaniakhali, Hooghly

West Bengal 712302

50100183691050

(b) Account No.: 31009989902

HDFC Bank

HDFC0004390
(c) IFSC Code: SBRN0010545

(d) Name & Address of Branch: State Bank of India, Dhaniakhali Branch

You are requested to confirm the receipt of the above amount in your account by sending back
the enclosed stamped receipt within 7 days.

The grant is subject to the adjustment on the basis of Utilisation Certificate in the prescribed proforma submitted by the
University/College/Institution.

The University/College shall maintain proper accounts of the expenditure out of the grant which shall be utilised only on
approved items of expenditure.

The University/Institution may follow the General Financial Rules, 2005 and take urgent necessary action to amend their
manuals of financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved
to time.

The Utilisation Certificate to the effect that the grant has been utilised for the purpose for which it has been sanctioned shall
be furnished to the University Grants Commission as early as possible after the closing of the current financial year.

The assets acquired wholly or substantially out of the University Grants Commission's grant shall not be disposed of
encumbered or utilised for the purpose other than those for which the grant was given, without proper sanction of the
University Grants Commission.

A register of assets acquired, wholly or substantially out of the grant shall be maintained by the University/College in the
prescribed form.

All communications are to be addressed to the
Joint Secretary by designation and not by name



UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098
Phone : (033) 2335 4767
Fax : (033) 2335 0586

F.PHW-039/15-16 (ERO)

The Principal,
SARAT CENTENARY COLLEGE
Dhaniakhali, Hooghly
West Bengal-712302

02 JAN 2017

Object : Approval of financial assistance to Dr./Mr./Ms SANKARDEB MONDAL, Department of Bengali of
your college for Minor Research Project regarding.

Madam,

1. The University Grants Commission has approved the proposal of Minor Research Project mentioned hereinabove as per the recommendations of the Expert Committee and has also approved an allocation of ₹ 160000/- for the project as per details given below :

Non-Recurring Items :	Amount (In ₹)
Books and Journals	30000/-
Equipment	70000/-
Recurring Items :	
Travel and Field Work	20000/-
Hiring Services	10000/-
Chemicals and Consumables	0/-
Contingency (including special needs)	30000/-
Total :	160000/-

2. The terms and conditions of the grant will be as per the Guidelines of the scheme.
3. A sanction letter (100% of non-recurring and 50% of recurring grant) is enclosed herewith.
4. The college is requested to submit 'Acceptance Certificate' duly signed by the Principal and The Principal Investigator after receiving this letter.
5. The date of implementation will be the date of receipt of the first instalment by the college and it may be intimated in the Acceptance Certificate. The tenure of the Project will be for two years for all subjects.

Yours sincerely,


(Dr. Mohammad Arif)
Joint Secretary

Copy forwarded for information & necessary action to;

Copy forwarded for information & necessary action to;

1. The Registrar, Burdwan University.

2. The Director, Higher Education, Government of West Bengal state, state Secretariat,

3. Dr./Mr./Ms SANKARDEB MONDAL, department of Bengali

4. Guard File


(Vinod Sharma)
Under Secretary

REQUEST FOR ANNUAL INSTALMENT WITH UP-TO-DATE STATEMENT OF EXPENDITURE

1. SERB Sanction Order No and date : original EMR/2016/005262 dated 31.07.2017
Continuation EMR/2016/005262 dated 06.03.2019
2. Name of the PI : Dr. Sandip Kumar Basak
3. Total Project Cost : Original sanction Rs. 3936790/-
4. Revised Project Cost (if applicable) :
5. Date of Commencement : 28. 9. 2017
6. Statement of Expenditure :
(Month wise expenditure incurred during current financial year)

Month & year	Expenditure incurred/ committed
01-11-2018 to 31-03-2019	0

1. Grant received in each year:
 - a. 1st Year : **Rs. 1911700/-**
 - b. 2nd Year : **Rs. 900000/-**
 - c. 3rd Year :
 - d. Interest, if any : **Rs. 11080/- +Rs.5917/-+Rs.4446/-+ Rs.3314.82/-=Rs. 24757.82/-**
 - e. Total (a + b + c + d) : **Rs. 2836457.82/-**

Statement of Expenditure

(to be submitted financial year wise i.e. DOS* to 31st March of that financial year say 20XX, 01-04-20XX till 31.03.20XX+1 year and so on)

Sr No (I)	Sanctioned Heads (II)	Total Funds Allocated (indicate sanctioned or revised) (III)	Expenditure Incurred			Total Expenditure till.. (VII = IV + V + VI)	Balance as on (date) (VIII = III - VII)	Requirement of Funds upto 31 st March next year	Remarks (if any)
			1 st Year (IV)	2 Year (1.11.2018 to 31.3.2019) (V)	3 rd Year & so on (1 st April to 31 st March next year) (VI)				
1.	Manpower costs	Rs. 721600/-		0		0	Rs. 721600/-	Rs.330000/-	
2.	Consumables	Rs. 600000/-		0		0	Rs. 600000/-	Rs.300000/-	
3.	Travel	Rs. 300000/-		0		0	Rs. 300000/-	Rs.150000/-	
4.	Contingencies	Rs. 199988/-		0		0	Rs. 199988/-	Rs.100000/-	
5.	Others, if any								
6.	Equipment	Rs. 22/-		0		0	Rs. 22/-	0	
7.	Overhead expenses	Rs. 225490/-		0		0	Rs. 225490/-	Rs. 132400/-	
8.	Total	Rs. 2047100/-		0		0	Rs. 2047100/-	Rs.1012400/-	

Sandip Kumar Basak
(DR SANDIP KUMAR BASAK)

Name and Signature of Principal Investigator:

Date: 23.12.2019

For Samir Banerjee and Associates
 Chartered Accountants

Samir
 SAMIR BANERJEE

Proprietor M-065173

UAN: 19065173444027, FRN 326251E 29/12/19.

Drawing & Disbursement Officer
 Sarat Centenary College
 Dhaniakhali, Hooghly

Drawing & Disbursement Officer
 Sarat Centenary College
 Dhaniakhali, Hooghly

Signature of Competent finance officer
 (with seal)

Date: 23.12.2019

Note:

1. Expenditure under the sanctioned heads, at any point of time, should not exceed funds allocated under that head, without prior approval of SERB i.e. Figures in Column (VIII) should not exceed corresponding figures in Column (III)
2. Utilization Certificate (Annexure III) for each financial year ending 31st March has to be enclosed along with request for carry-forward permission to the next financial year.



No. F.PSW-047/15-16 (ERO)

To

The Principal,
Sarat Centenary College
Dhaniakhali, Hooghly
West Bengal-712302

Subject : Approval of financial assistance to Dr./Mr./Ms Dr. UJJAL KUMAR MUKHERJEE, Department of Mathematics of your college for Minor Research Project regarding.

Sir/Madam,

1. The University Grants Commission has approved the proposal of Minor Research Project mentioned hereinabove as per the recommendations of the Expert Committee and has also approved an allocation of ₹ 280000/- for the project as per details given below :

Non-Recurring Items :		Amount (In ₹)
Books and Journals		25000/-
Equipment		145000/-
Recurring Items :		
Travel and Field Work		50000/-
Hiring Services		0/-
Chemicals and Consumables		0/-
Contingency (including special needs)		60000/-
Total :		280000/-

*Re-allocation
is possible
only*

2. The terms and conditions of the grant will be as per the Guidelines of the scheme.
3. A sanction letter (100% of non-recurring and 50% of recurring grant) is enclosed herewith.
4. The college is requested to submit 'Acceptance Certificate' duly signed by the Principal and The Principal Investigator after receiving this letter.
5. The date of implementation will be the date of receipt of the first instalment by the college and it may be intimated in the Acceptance Certificate. The tenure of the Project will be for two years for all subjects.

Yours sincerely,

MA
(Dr. Mohammad Arif)
Joint Secretary

Copy forwarded for information & necessary action to;

1. The Registrar, Burdwan University.
2. The Director, Higher Education, Government of West Bengal state, state Secretariat,
3. Dr./Mr./Ms Dr. UJJAL KUMAR MUKHERJEE, department of Mathematics
4. Guard File

Vinod Sharma
(Vinod Sharma)
Under Secretary



ग्रान्ट इनियूज़ रिपोर्ट

UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098

TR-2016-17-309

No. PSW-047/15-16

The Accounts Officer
University Grants Commission
Eastern Regional Office, Kolkata 700 098

(ERO) ID No. WB1-073

Date: 21-Nov-16

S.No. 227885

WBHG00005734

Sub : Release of Grant-in-Aid under the Scheme of Minor Research Project in Science
during 12th Plan in the year 2016-17 to Sarat Centenary College

Sir/Madam,

I am directed to convey the sanction of the Commission for payment of Rs. **225000**
towards the scheme Minor Research Project in Science
to the Principal, Sarat Centenary College
for the Plan expenditure to be incurred during the current financial year as per details given below:

Purpose of the grant	Approved allocation (Rs.)	Amount already sanctioned (Rs.)	Amount being sanctioned now (Rs.)	Total grant released including Gen/SC/ST component (Rs.)
Dr. U.K.Mukherjee, Mathematics 1st instalment	170000	0	170000	170000
MRP-Non-Recurring	110000	0	55000	55000
Total				225000

Component-wise total grants released to the College now:
SC:Rs. 0 ST:Rs. 0 General:Rs. 225000 Total:Rs. 225000

Accordingly I am to further inform that:

- A. SC component: 16% (3B-2202.03.789.27.01(SC):Rs. 0
- B. ST component: 8%, (3C-2202.03.796.28.01(ST):Rs. 0
- C. General component (including Minorities): 76% or 100% (3A-2202.03.102.02.1(General):Rs. 225000

2. The sanctioned amount is debitable to Head of account as mentioned above and valid for payment by Accounts Officer, UGC-ERO, Kolkata to the College during the financial year 2016-17 only.
3. The amount of the grant shall be drawn by the Accounts Officer (Drawing and Disbursing Officer), University Grants Commission on the Grant-in-Aid bill and shall be disbursed to and credited to grantee as above through Electronic mode through PFMS portal at the following details:

(a) Details (Name & Address) of Account Holder:
Principal, Sarat Centenary College

Dhaniakhali, Hooghly

West Bengal 712302

(b) Account No.: 31009989902- 501001 88 6910 50

14DFC

(c) IFSC Code : SBIN0010545- 14DFC 0004390

(d) Name & Address of Branch: State Bank of India, Dhaniakhali Branch

You are requested to confirm the receipt of the above amount in your account by sending back the enclosed stamped receipt within 7 days.

4. The grant is subject to the adjustment on the basis of Utilisation Certificate in the prescribed proforma submitted by the University/College/Institution.
5. The University/College shall maintain proper accounts of the expenditure out of the grant which shall be utilised only on approved items of expenditure
6. The University/Institution may follow the General Financial Rules, 2005 and take urgent necessary action to amend their manuals of financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved manuals on financial procedures may adopt the provisions of GFRs, 2005 and instructions/Guidelines there under from time to time.
7. The Utilisation Certificate to the effect that the grant has been utilised for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission as early as possible after the closing of the current financial year.
8. The assets acquired wholly or substantially out of the University Grants Commission's grant shall not be disposed or encumbered or utilised for the purpose other than those for which the grant was given, without proper sanction of the University Grants Commission.
9. A register of assets acquired, wholly or substantially out of the grant shall be maintained by the University/College in the prescribed form.



UNIVERSITY GRANTS COMMISSION
EASTERN REGIONAL OFFICE
LB 8 Sector III Salt Lake, Kolkata 700 098

জাতীয় বিজ্ঞান বিদ্যুৎ কলা

10. The grantee institution shall ensure the utilization of grant-in-aid for which it is being sanctioned/paid. In case of non-utilization/part utilization, or mis-utilization of grants sanctioned by the Commission for the purpose for which these were approved and accordance with the terms and conditions of the approval or does not furnish the required documents or is disaffiliated from the University the entire amount paid by the Commission shall be refunded by the College with simple interest @10% per annum as amended from time to time on unutilized amount from the date of drawal to the date of refund . as per provisions contained in General Financial Rules of Govt. of India will be charged.
11. The University/College shall follow strictly the Government of India/UGC's guidelines regarding implementation of the reservation policy [both vertical (for SC,ST&OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
12. The University/College shall fully implement the Official Language Policy of the Union Govt. and comply with the Official Language Act, 1963 and Official Languages (used for official purposes of the Union) Rules, 1976 etc.
13. The grants should not be used for Self-Financing/Unaided Courses.
14. It may be noted that the accounts of the grant-in-aid institution shall be subject to inspection by Officers of the ERO, UGC, Kolkata.
15. The interest earned by the University/Colleges/Institute on this grant-in-aid shall be treated as additional grant and may be shown in the UC/Statement of expenditure to be furnished by grantee institution.
16. The sanction issues in exercise of the delegation of powers vide UGC Order No. 130/2013 [F.No.10-11/12(Admn.IA&B)] dated 28.5/2013.
17. The University/Institutions shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutes, 2009.
18. The University/Institutions shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC).
19. The accounts of the University/Institutions will be open for audit by the Controller & Auditor General of India in accordance with the provisions of General Financial Rules, 2005.
20. The annual accounts i.e. balance sheet, income and expenditure statement and receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
21. Funds to the extent of Rs. _____ are available under the scheme.
22. This issue with the concurrence of UGC vide Diary No. 98 (UGC) dated 06.09.2016
23. The college is registered / mapped with PFMS Portal.

Yours faithfully,


(Dr. Mohammad Arif)
Joint Secretary

. Copy forwarded for information and necessary action to :

1. Principal, Sarat Centenary College
Dhaniakhali, Hooghly
West Bengal 712302

He/She is requested to abide by these instructions/Guidelines of sanction order

2. Registrar/ Director, Co-ordinator, College Development Council, Burdwan University
3. Auditor General, Govt. of West Bengal
4. The Secretary, Higher Education, Govt. of West Bengal
Dr. U.K. Mukherjee, Mathematics
- 6.


(Vinod Sharma)
Under Secretary

E-PAYMENT DETAILS

The sanctioned grant of Rs. **225000** has been credited to your college Account No 31009989902
at Bank State Bank of India, Dhaniakhali with IFS Code SBIN0010545 through PFMS Portal. Vide UTR

confirmation No. _____ dated _____


(Dr. A. K. Dasgupta)
Accounts officer

P.SW-047/15-16



विश्वविद्यालय अनुदान आयोग
UNIVERSITY GRANTS COMMISSION
पूर्वक्षेत्रीय कार्यालय
EASTERN REGIONAL OFFICE
शिक्षा मंत्रालय, भारत सरकार
Ministry of Education, Govt. of India
एलबी -C, सेक्टर III, साल्टलैक, कोलकाता - ७०० १०६
LB - 8, Sector III, Salt Lake, Kolkata - 700 106

All communications are to be addressed to the
Joint Secretary by designation and not by name



शासकीय विद्यालय
Phone : (033) 2335 4767
Fax : (033) 2335 0586

By Speed Post

No. F. PHW-037/15-16(ERO)

Date: 07/04/2021

To

The Principal,
Sarat Centenary College,
Dhaniakhali,
Hooghly,
West Bengal-712302.

16 AUG 2021

Sub: Settlement of Minor Research Project awarded to Dr. S. Bhattacharyya, Department of Pol. Science.

Sir/Madam,

This has reference to your letter no. nil dated 08/03/2021 on the subject mentioned above. In this context, I am to inform you that due to late submission of the Final report, the Minor Research Project has been settled without release of further grant on the basis of Utilization Certificate for the grant released so far.

Yours sincerely,

Deputy Secretary
UGC-ERO

Copy to:

**Dr./Mr./Ms. Susanta Bhattacharyya,
Department of Political Science,
Sarat Centenary College,
Dhaniakhali,
Hooghly,
West Bengal-712302.**

Education Officer
UGC-ERO

To
 The Secretary,
 University Grants Commission
 Eastern Region, Chingrighata, Salt lake
 Bidhannagar, Kolkata - 700105

SUB : Final Submission of MRP Report (UGC:XII Plan) along with Audited expenditure statements of Dr. Susanta Bhattacharyya, Principal Investigator, Sarat Centenary College, Dhaniakali, Hooghly (vide approval letter No : F.PHW-037/1516 ERO, dated 02/01/2017) & appeal to disburse the rest amount (Rs. 65000/- sixty five thousand) at earliest

Respected Madam / Sir,

Kindly please accept final report of my Minor Research Project along with necessary papers as per protocol & release the rest amount Rs. 65000/- (sixty five thousand) out of approved Rs. 250000/- (Two laks fifty thousand) at earliest.

Expenditure statement is of two laks fifty thousand of the total sanctioned amount.

Delayed submission is mostly due to extensive field work, & health related complications of myself followed by Covid-19 impasse.

The effective date of starting the Project was 19th June, 2017, (the date when the released amount Rs. 185000/- hit the bank account) & continued upto early May, 2020.

Pl accept & do the needful.

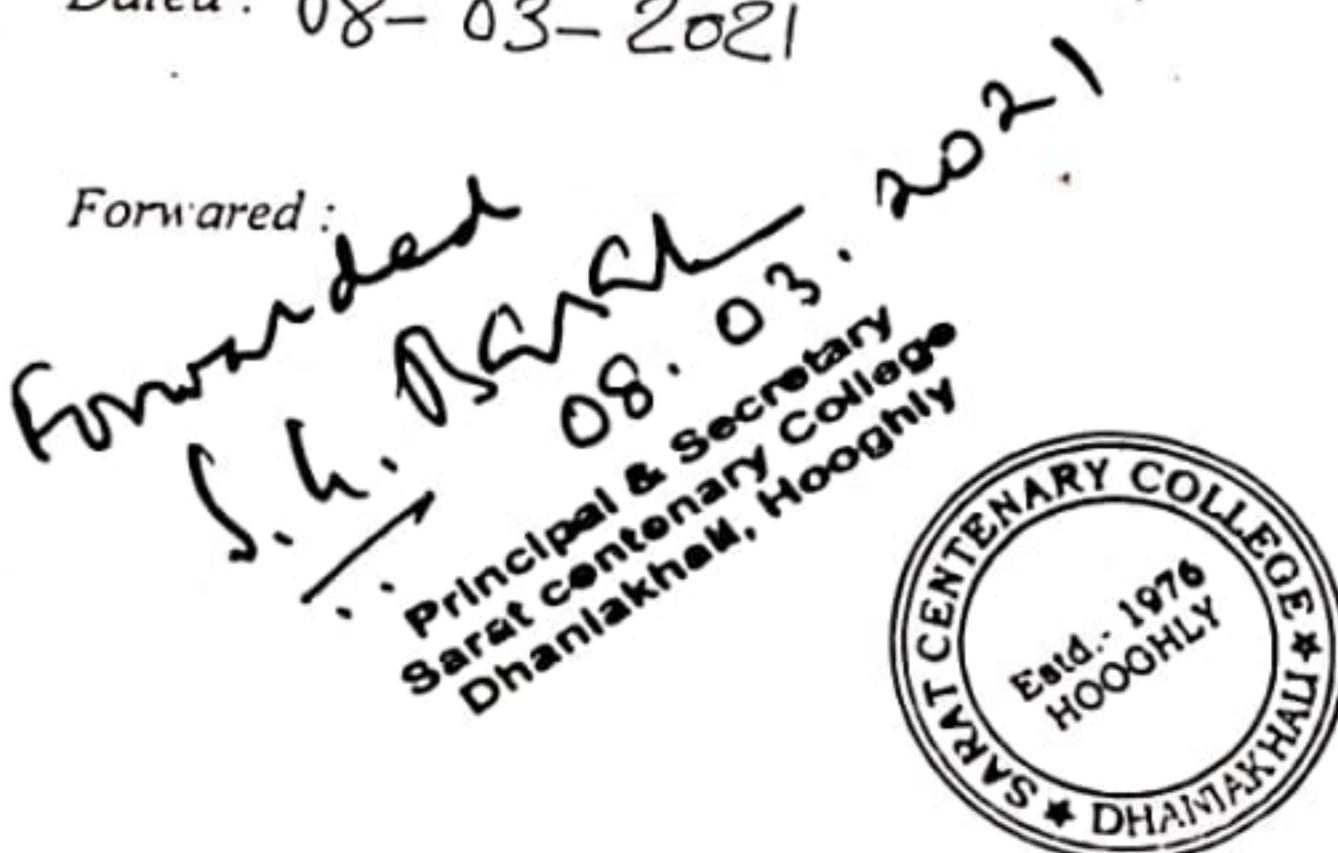
Thanking you

Yours Sincerely,
 Dr. Susanta Bhattacharyya
 (approval letter No : F.PHW-037/1516(ERO),
 dated 02/01/2017)

Principal Investigator &
 Associate Professor in Political Science.
 Sarat Centenary College.
 Dhaniakali, Hooghly, West Bengal

Dated: 08-03-2021

Forwarded:



*On behalf of Dr. Susanta Bhattacharyya
 Principal Investigator
 Sarat Centenary College, Dhaniakali
 Hooghly*



Sandip Basak <sandipbasak9592@gmail.com>

M Gmail

SERB-Notification

1 message

SERB_Administrator@serbonline.in <SERB_Administrator@serbonline.in>
To: serbinfo1@gmail.com

Wed, May 27, 2020 at 12:18 PM

**Science and Engineering Research Board**
(Statutory Body Established Through an Act of Parliament : SERB Act 2008)
Department of Science and Technology, Government of India

FILE NO. EMR/2016/005262

SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

(a statutory body of the Department of Science & Technology, government of India)

5 & 5A, Lower Ground Floor
Vasant Square Mall
Plot No. A, Community Centre
Sector-B, Pocket-5, Vasant Kunj
New Delhi-110070

Dated: 20-May-2020

ORDER

Subject: Research project entitled "**Study of reproductive biology of mangrove species in Sundarbans in correlation to its potential for mangrove restoration**" under the guidance of Dr. SANDIP KUMAR BASAK, Botany, Sarat Centenary College , Dhaniakhali, Hooghly, West bengal-712302.

1. This is in continuation of SERB's sanction order No. "EMR/2016/005262" dated "31 July, 2017 " of **Science and Engineering Research Board (SERB)**.

2. Sanction of the competent authority is hereby accorded to the payment of a sum of **Rs. 600000/-** (Rupees Six Lakh only) under 'Grants-in-aid General' to **Principal, Sarat Centenary College, Dhaniakhali** being the 3rd grant for the financial year 2020-2021 for implementation of the above said project.

3. Sanction of the competent authority is also accorded to the carry forward of unspent balance of **Rs. 12618/-** (Rupees Twelve Thousand Six Hundred and Eighteen only) (Recurring Rs. 12596 and Non-Recurring Rs. 22) to Sarat Centenary College, Dhaniakhali from FY 2019-2020 to FY 2020-2021 for the same purpose for which it was sanctioned.

4. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at the website (www.serb.gov.in).

5. It is certified that provision of GFR 212 relating to Utilization Certificates (Ucs) for the funds released under the grant have been satisfied and the UC/s is/are enclosed herewith.

6. The expenditure involved is debitible to **Fund for Science & Engineering Research (FSER)**

This release is being made under Core Research Grant. (PAC Plant Sciences)

7. The Sanction has been issued to Sarat Centenary College, Dhaniakhali with the approval of the competent authority under delegated powers on **19 May, 2020** and vide Diary No. **SERB/F/123/2020-2021** dated **20 May, 2020**

8. The release amount of **Rs. 600000/-** (Rupees Six Lakh only) (Recurring Rs. 600000 and Non-Recurring Rs. 0) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

PFMS Unique Code	WBHG00006196
Account Name	SARAT CENTENARY COLLEGE
Account Number	50100310972328
Bank Name & Branch	HDFC bank Branch Dhaniakhali, Hooghly, West Bengal 712302
IFSC/RTGS Code	HDFC0004390
Email id of A/C Holder	sandipbasak9592@gmail.com
Email id of PI	sandipbasak9592@gmail.com

9. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

10. As per rule 211 of GFR the accounts of Grantee Institution shall be open to inspection by the sanctioning authority / audit whenever the institute is called upon to do so.

11. The institute will furnish to the SERB, Utilization certificate(separate for Recurring & Non-Recurring) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. After completion of the project unspent balance if any should be returned as Demand Draft drawn in favour of "Fund for Science and Engineering Research" payable at New Delhi.

13. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

14. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

(Dr. Shilpi Paul)

Scientist E

ms_ps@serbonline.in

To,

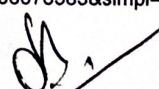
Under Secretary

SERB, New Delhi

Copy forwarded for information and necessary action to: -

1.	The Principal Director of Audit, A.G.C.R.Building, IIIrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB , New Delhi.
3.	File Copy
4.	Dr. SANDIP KUMAR BASAK Botany Sarat Centenary College , Dhaniakhali, Hooghly, West bengal-712302 Email: sandipbasak9592@gmail.com Mobile: 919434353556
5.	Principal, Sarat Centenary College, Dhaniakhali

(Dr. Shilpi Paul)





TFR - 2019-20 - 712

University Grants Commission, Eastern Regional Office
Lb-8, Sector III, Saltlake, Kolkata- 700106

No: F: PSW - 165/15 - 16 (ERO)

March, 2020

The Accounts Officer
Eastern Regional Office
University Grants Commission
Kolkata

PFMS Unique Code No: WBHG00005734

Sub: Release of Grants-in-aid to **Sarat Centenary College, Dhaniakhali, Hooghly, Pin - 712302**, under XI/
XII Plan - Minor Research Project - on Second /Final installment /reimbursement basis.

Sir/Madam,

On the basis of the documents submitted by the college, Commission has approved for the sanction of payment of grant as final installment or reimbursement of Rs. 64996/- to the above college as detailed below:

Purpose of the grant	Allocation	Grant Already Released	Grant being released now as second /final/on reimbursement basis	Confirmation Number From Beneficiary Bank
Dr. S.K. Basak, Botany Final Instalment				
MRP - Recurring	130000	64996	64996	

File may be treated as settled.

If paid on reimbursement basis, the funds have already been utilized.

1. The sanctioned amount is debatable to Head of Account as detailed below.(GRANT IN AID 31 & 35)

Amount sanctioned (Rs.)	For General (76%) (Rs.)	For SC 16% (Rs.)	For ST 8% (Rs.)

2. The sanctioned amount is debatable to the Head of account as mentioned above and is valid for payment during the financial year 2019-2020 only.
3. The amount of the grant shall be drawn by the Account Officer, ERO, UGC, Kolkata (Drawing and Disbursing Officer), University Grants Commission on the Grants-in-aid bill and shall be disbursed to and credited to the Principal, **Sarat Centenary College, Dhaniakhali, Hooghly, Pin - 712302** by him/her through PFMS mode.
4. The Grant is subject to the Adjustment on the basis of Utilization Certificate in the prescribed Performance submitted by the College.
5. The University/College shall maintain proper accounts of the expenditure out of the Grants, which shall be utilized, only on approved items of expenditure.
6. The college may follow general financial rules,2017
7. The utilization certificate to the effect that the Grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission as early as possible after the close of the current financial year. Balance grant, if any will be released only on receipt of audited UC and Statement of Expenditure etc., signed by Principal AND Chartered Accountant.
8. The assets acquired wholly or substantially out of University Grants Commission's Grant shall not be disposed or encumbered or utilized for the purposes other than those for which the Grant was given without proper sanction of the University Grants Commission and should, at any time the College ceased to function, such assets shall revert to the University Grants Commission.
9. The University/College/Institute shall maintain a Register of Assets acquired wholly or substantially out of the Grants in the prescribed form.
10. The University/College/Institute shall insure that all the payments to the beneficiaries /vendors shall be made only through EAT module of PFMS.

*To Accountant
Pl. to the
needful
03/10/2020*

11. The refund of unspent grant in aid / or interest , If any, be credited in following UGC account Through e mode (RTGS/NEFT) under intimation to this office
Name of the Bank: Canara Bank, Salt Lake City, Kolkata
Account No: 2549101011380, Holder of account: UGC Kolkata.
IFSC Code: CNRB0002549, MICR Code: 700015036.

12. The grantee institution shall ensure the Utilization of grants-in -aid for which it is being sanctioned / paid. In case of non-Utilization/part utilization, or mis-utilization of grants sanctioned by the Commission for the purpose for which these were approved and in accordance with the terms and conditions of the approval or does not furnish the required documents or is disaffiliated from the University the entire amount paid by the Commission shall be refunded by the College with simple interest @ 10% per annum as amended from time to time on unutilized amount from the date of drawl to the date of refund as per provisions contained in General Financial Rules of Government of India, will be charged.

13. The grant should not be used for Self-Financing/Unaided Courses.

14. It may be noted that the accounts of the grant-in-aid institution shall be subject to inspection by Officers of the ERO, UGC, Kolkata.

15. The interest earned by the University/ College/Institute on this grants in aid shall be treated as additional grant and may be shown in the U.C./Statement of expenditure to be furnished by grantee institution.

16. The sanction issues in exercise of the delegation of powers vide Commission Office Order No: 69/2014 dated May, 2014.

17. The institution shall take immediate action for its accreditation by NAAC.

18. The institution shall strictly follow the UGC regulations on menace of ragging in higher education institutions, 2009.

19. The funds to the extent are available under the Scheme.

20. The college is registered /mapped with PFMS portal.

Yours faithfully

Joint Secretary

GAR No.

Copy forwarded for information and necessary action to:

1. The Principal
Sarat Centenary College
Dhaniakhali
Hooghly
Pin – 712302

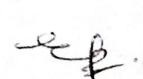
He /She is requested to abide by these instructions/guidelines of sanction order.

- (2) The Secretary, Higher Education, Govt. Of (W.B, JH, BH and ODH)
- (3) Auditor General (Govt. of W.B./Bihar/Jharkhand/Odisha)
- (4) Register, Burdwan University
- (5) Dr. S.K. Basak, Botany

E-PAYMENT DETAILS

The sanctioned grant of Rs. 64996/- has been transferred to your college Account No **50100188691050**. at HDFC Bank with IFS Code: **HDFC0004390** through RTGS/Direct Credit (CBS to CBS). The Canara Bank, Salt Lake Branch has confirmed the above transfer of funds to your college through RTGS/Direct Credit transaction vide UTR confirmation No. **WUPI-179CSA-529968** dated **16 Mar 2020**

You are requested to confirm the receipt of the above amount in your account by sending back the enclosed stamped receipt within 7 days.


Education officer

GOVERNMENT OF WEST BENGAL
Science & Technology and Biotechnology DEPARTMENT

Tel:

Fax:

Memo No : 2009 (Sanc.)/STBT-11012(22)/6/2020-ST SEC

Date: 11/03/2020

Sanction Order for Grant-in-Aid in Cash

Demand No. : 76 Department Code : BS Financial Year : 2019 - 2020

1. Sanctioning Authority: Science & Technology and Biotechnology

2. Recipient of Grant: Sarat Centenary College.

3. Category of the recipient of Grant: Grantee Institution

4. Amount Sanctioned: Rs.50000/-

Rupees Fifty Thousand Only.

5. DDO Code :- CAFSTA003

6. DDO Designation: Sec. Officer, Science & Technology & Biotechnology Dept.

7. Department Code: BS-Science & Technology and Biotechnology

8. Head of Account Code :76-3425-60-200-010-31-02-V

9. Scheme Name : Financial Assistance to other Scientific Bodies for undertaking Scientific

10. Name of the Treasury/PAO & Accounts office: Pay & Accounts Officer-III, Calcutta PAO-III

11. Type of Grant:- Non-Recurring

12. Utilization Certificate Required or Not: Yes

13. Purpose of Grant : National Seminar on Biodiversity Conservation & Sustainable Development with a sense of urgency to combat desertification and climate change.

14. Applicable T.R Form No:- TR Form No.31

15. An amount of Rs.50000/-(Rupees Fifty Thousand Only.) is hereby sanctioned for payment of Grant to the recipients as per Sl.No.2 from the Head of Account as stated in Sl.No.8 above against the Budget Provision of the Financial Year 2019 - 2020. The sanctioned amount will be payable through Transfer Credit into the LF/PL/Other Deposit Account/ECS/Cheque, as the case may be following the order issued by Finance Department in this regard.

16. Total released amount is within the Budget Provision of the Financial Year. 2019 - 2020

17. This order issues in exercise of the power delegated under Finance Department Memo. No. 1854-F.B. dated- 26.03.2019 & 550-F.B. dated-30.07.2019 with the concurrence of Finance Deptt. vide Gr. F.A. Branch U.O. No. 305

18. The Principal Accountant General (A&E), West Bengal and Pay & Accounts Officer/Treasury Officer and other concerned are being informed.

19. Remarks: Present release Rs. 50,000/- will be transferred through e-Pradan system to Sarat Centenary College. A/C No.-50100188691050 (SB), IFSC CODE-hdfc0004390, Mobile No.- 9434353556.

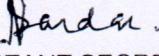
sdf

ASSISTANT SECRETARY

Science & Technology and Biotechnology

Copy forwarded for information and necessary action to:-

1. The Principal Accountant General (A&E), Treasury Buildings, Kolkata-700001
2. The Principal Accountant General (Audit), Treasury Buildings, Kolkata-700001
3. The Principal Accountant General (Receipt, Works &Local Bodies Audit),CGO Complex at Salt Lake,Kolkata-700091
4. Sec. Officer, Science & Technology & Biotechnology Dept.
5. Pay & Accounts Officer-III, Calcutta PAO-III
6. PSO.
7. Shri A.K.Kalidaha, SSO.
8. Principal & Programme Coordinator, Sarat Centenary College, Dhaniakhali, Hooghly-712302.
9. Shri Soumyajit Mukherjee, SSO.
10. Guard File.


ASSISTANT SECRETARY

GOVERNMENT OF WEST BENGAL
Science & Technology and Biotechnology DEPARTMENT

Tel:

Fax:

Memo No : 2010 (Sanc.)/STBT-11012(22)/11/2019-ST SEC

Date: 11/03/2020

Sanction Order for Grant-in-Aid in Cash

Demand No. : 76 Department Code : BS Financial Year : 2019 - 2020

1. Sanctioning Authority: Science & Technology and Biotechnology

2. Recipient of Grant: Sarat Centenary College.

3. Category of the recipient of Grant: Grantee Institution

4. Amount Sanctioned: Rs.50000/-

Rupees Fifty Thousand Only.

5. DDO Code :- CAFSTA003

6. DDO Designation: Sec. Officer, Science & Technology & Biotechnology Dept.

7. Department Code: BS-Science & Technology and Biotechnology

8. Head of Account Code :76-3425-60-200-010-31-02-V

9. Scheme Name : Financial Assistance to other Scientific Bodies for undertaking Scientific

10. Name of the Treasury/PAO & Accounts office: Pay & Accounts Officer-III, Calcutta PAO-III

11. Type of Grant:- Non-Recurring

12. Utilization Certificate Required or Not: Yes

13. Purpose of Grant : Two Days Seminar on Popular and Basic Sciences: A Quest Towards Foundation of Science.

14. Applicable T.R Form No:- TR Form No.31

15. An amount of Rs.50000/- (Rupees Fifty Thousand Only.) is hereby sanctioned for payment of Grant to the recipients as per Sl.No.2 from the Head of Account as stated in Sl.No.8 above against the Budget Provision of the Financial Year 2019 - 2020. The sanctioned amount will be payable through Transfer Credit into the LF/PL/Other Deposit Account/ECS/Cheque, as the case may be following the order issued by Finance Department in this regard.

16. Total released amount is within the Budget Provision of the Financial Year. 2019 - 2020

17. This order issues in exercise of the power delegated under Finance Department Memo. No. 1854-F.B. dated- 26.03.2019 & 550-F.B. dated-30.07.2019 with the concurrence of Finance Deptt. vide Gr. F.A. Branch U.O. No. 304

18. The Principal Accountant General (A&E), West Bengal and Pay & Accounts Officer/Treasury Officer and other concerned are being informed.

19. Remarks: Present release Rs. 50,000/- will be transferred through e-Pradan system to Sarat Centenary College. A/C No.-50100188691050 (SB), IFSC CODE-hdfc0004390, Mobile No.- 9434404699.

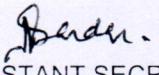


ASSISTANT SECRETARY

Science & Technology and Biotechnology

Copy forwarded for information and necessary action to:-

1. The Principal Accountant General (A&E), Treasury Buildings, Kolkata-700001
2. The Principal Accountant General (Audit), Treasury Buildings, Kolkata-700001
3. The Principal Accountant General (Receipt, Works & Local Bodies Audit), CGO Complex at Salt Lake, Kolkata-700091
4. Sec. Officer, Science & Technology & Biotechnology Dept.
5. Pay & Accounts Officer-III, Calcutta PAO-III
6. PSO.
7. Shri A.K.Kalidaha, SSO.
8. Principal & Secretary, Sarat Centenary College, Dhaniakhali, Hooghly-712302.
9. DR. UJJAL KUMAR MUKHERJEE, Programme Coordinator, Sarat Centenary College, Dhaniakhali, Hooghly-712302.
10. Shri Soumyajit Mukherjee, SSO. 11) Guard File.


ASSISTANT SECRETARY



WEST BENGAL HERITAGE COMMISSION, Government of West Bengal. Constituted u/s 3 (1) of West Bengal Act IX of 2001
1 Satyen Roy Road, Behala, Kolkata 700034, Phone: 2445-0083/2445 0037 Fax:33 2445 0083 e-mail: pbheritage@gmail.com

No: 212/W-9/WBHC/2010-11.

Dated: 03/12/2019

To
The Principal & Secretary
Sarat Centenary College
Dhaniakhali, Hooghly

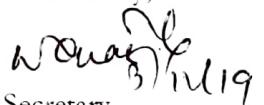
Sub : **Proposal for Collaboration and Partial Financial Assistance for Organising Seminar.**

Sir,

With reference to your letter vide no SCC/2019/227 dt: 09/11/2019 this is to inform you that the Commission has decided to extend Collaboration and Partial Financial support providing Rs. 20,000/- for the above event.

You are requested to send a cancelled cheque showing Bank AC no. IFS code no. etc. for remitting the money.

Yours faithfully,


Secretary
West Bengal Heritage Commission



भारतीय सामाजिक विज्ञान अनुसंधान परिषद
(मानव संसाधन विकास मंत्रालय)
पूर्वी क्षेत्रीय केन्द्र

Phone : (033) 2436 - 0093
2436 - 0104
Fax : (033) 2436 - 0607
E-mail : ericssr@vsnl.net
icssrerc@gmail.com
Website : www.ericssr.org

INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH

(Ministry of Human Resource Development)

EASTERN REGIONAL CENTRE

1/R-1, Baishnabghata Patuli Township, Kolkata - 700 094

Ref. : ICSSR-ERC/2019-20/92

Date : 17/12/2019

To
Dr. Ramanuj Konar
Assistant Professor of English
Sarat Centenary College
Dhaniakhali, Hooghly.
Pin - 712302

Sub : Issuance of cheque for organizing an interdisciplinary seminar on “Heritage, Culture & Identity: Re-Negotiating Spaces of Memory in a time of Rapid Urbanisation” during January 20-21, 2020

Dear Dr. Konar,

I refer to your letter no.SCC/2019/270, dtd.06-12-2019 with regard to issue of a cheque for organizing an interdisciplinary seminar on “Heritage, Culture & Identity: Re-Negotiating Spaces of Memory in a time of Rapid Urbanisation” during January 20-21, 2020.

I have pleasure to inform you that the amount of Rs 70,000/- (Rupees seventy thousand only) has been transferred to your given A/c no.31009989902 on 17/12/2019, vide our cheque no.256093, dtd.11-12-2019, drawn on State Bank of India, Baroda Park Branch, Kolkata towards partial support for the seminar. Please send an official receipt.

As indicated earlier, please send papers proceedings of the seminar after it is held along with audited statement of accounts and utilization certificate duly certified by the auditor.

Thanking you.

Yours sincerely,

(Saibal Kar)
Hon. Director

Encl: As above.

FILE NO. EMR/2016/005262
SCIENCE & ENGINEERING RESEARCH BOARD(SERB)
(a statutory body of the Department of Science & Technology, government of India)
5 & 5A, Lower Ground Floor
Vasant Square Mall
Plot No. A, Community Centre
Sector-B, Pocket-5, Vasant Kunj
New Delhi-110070

Dated: 31-Jul-2017

ORDER

Subject: Financial Sanction of the research project titled "**Study of reproductive biology of mangrove species in Sundarbans in correlation to its potential for mangrove restoration**" under the guidance of Dr. SANDIP KUMAR BASAK, Botany, Kandi Raj College , Department of botany, kandi raj college, kandi, murshidabad, kandi-742137, Murshidabad, West bengal-742137 - Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of Rs. 3936790/- (Rs. Thirty Nine Lakh Thirty Six Thousand Seven Hundred and Ninety Only) with break-up of Rs. 899300/- under Capital (Non-recurring) head and Rs.3037490/- under General (Recurring) head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. 3936790/- has been approved are given below:

The following budget may be considered for **Kandi Raj College, Kandi**

S. No	Head	Total (in Rs.)
A	Non-recurring	
1	Equipment -> UPRIGHT EPI-FLUORESCENCE MICROSCOPE WITH ACCESSORIES -> Stereozoom trinocular microscope	899300
A'	Total (Non-Recurring)	899300
B	Recurring Items	
1	Recurring - A : (Manpower, Consumables, Travel, Contingencies)	2679600
2	Recurring - B : (Overhead Charges)	357890
B'	Total (Recurring)	3037490
C	Total cost of the project (A' + B')	3936790

2. Sanction of the SERB is also accorded to the payment of
 - **Rs. 899300/-** (Rupees Eight Lakh Ninety Nine Thousand Three Hundred only) under 'Grants for creation of capital assets' and **Rs. 1012400/-** (Rupees Ten Lakh Twelve Thousand Four Hundred only) under 'Grants-in-aid General' to **Principal, Kandi Raj College, Kandi** being the first installment of the grant for the year 2017-2018 for implementation of the said research project.
3. The expenditure involved is debitable to **Fund for Science & Engineering Research (FSER)**
This release is being made under Extra Mural Research Funding (Individual Centric). (PAC Plant Sciences)
4. The Sanction has been issued to Kandi Raj College, Kandi with the approval of the competent authority under delegated powers on **24 July, 2017** and vide Diary No. **SERB/F/3740/2017-2018** dated **26 July, 2017**
5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).
6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.
7. While providing operational flexibility among various subheads under head Recurring-A, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.
8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.
9. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.
10. The release amount of **Rs. 1911700/-** (Rupees Nineteen Lakh Eleven Thousand Seven Hundred only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

Account Name	Principal, Kandi Raj College
Account Number	10610297391
Bank Name & Branch	State Bank of India Kandi, Kandi Kalibari Road, Kandi, Murshidabad 742137
IFSC/RTGS Code	SBIN0000237
Email id of A/C Holder	principalkrc.krc@gmail.com
Email id of PI	sandipbasak9592@gmail.com

11. The institute will furnish to the SERB, New Delhi, separate Utilization certificate (UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EMR/2016/005262 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

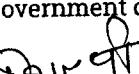
14. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any, beyond the duration of the project.

15. As this is the first grant being released for the project, no previous U/C is required.

16. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

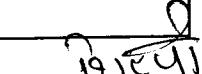


(Dr. Shilpi Paul)
Scientist E
ms_ps@serbonline.in

To,
Finance & Budget Officer
SERB, New Delhi

Copy forwarded for information and necessary action to:-

1.	The Principal Director of Audit, A.G.C.R.Building, IIIrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB , New Delhi.
3.	File Copy
4.	Dr. SANDIP KUMAR BASAK Botany Kandi Raj College , Department of botany, kandi raj college, kandi, murshidabad, kandi-742137, Murshidabad, West Bengal-742137 Email: sandipbasak9592@gmail.com Mobile: 919434353556 (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.gov.in)
5.	Principal, Kandi Raj College, Kandi (Receipt of Grant may be intimated by name to the undersigned)



(Dr. Shilpi Paul)
Scientist E
ms_ps@serbonline.in

No. BT/PR30531/BCE/8/1496/2018

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 29/02/2020.

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 "**Demonstration of established bio-restoration technology for ecological restoration of degraded mangrove ecosystem in Indian Sunderbans through site-specific approach across differential degradation gradients**" for a period of 5 Year 0 Month at a total cost of Rs. **24189420** (Rupees Two Crores Fourty One Lakhs Eighty Nine Thousand Four Hundred and Twenty Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Demonstration of established bio-restoration technology for ecological restoration of degraded mangrove ecosystem in Indian Sunderbans through site-specific approach across differential degradation gradients

2.2 Details of the Investigators:

Dr. Krishna Ray

Assistant Professor

Department of Botany, West Bengal State University
Berunanpukuria, Malikapur, Barasat, Kolkata, West Bengal, 700126

CO-PI:

Dr. Sandip Kumar Basak

Principal, Botany,
Sarat Centenary College
Dhaniakhali, Hooghly, Chandannagar, West Bengal 712302

Dr. Singaram Kulandaivel

Conservator of Forests & Joint Director
Forest Department, Govt of West Bengal
West Bengal Forest Department
3rd floor, North Block, Bikash Bhawan, Salt Lake, Kolkata, West Bengal, 700091

2.3 Objectives:

1. To restore degraded mangrove plots on the mud flats and along the eroded embankments measuring in total ~100 acres along the estuarine areas of Sundarbans with the help of already established restoration technology
2. To identify the degradation stressors associated with loss of mangrove ecosystem homeostasis across the degradation gradient and an attempt to mitigate them

2.4 Time Schedule:

The duration of the project is 5 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **24189420/-** (Rupees Two Crores Forty One Lakhs Eighty Nine Thousand Four Hundred and Twenty Only) as per details given below:

Budget Head	Year I	Year II	Year III	Year IV	Year V	Total(Rs.)
Equipment	1010300.00					1010300.00
Manpower	3794400.00	3794400.00	3913440.00	3913440.00	3913440.00	19329120.00
Overhead	70000.00	70000.00	70000.00	70000.00	70000.00	350000.00
Travel	300000.00	300000.00	300000.00	300000.00	300000.00	1500000.00
Consumables	250000.00	250000.00	250000.00	250000.00	250000.00	1250000.00
Contingency	150000.00	150000.00	150000.00	150000.00	150000.00	750000.00
Total (Rs.)	5574700.00	4564400.00	4683440.00	4683440.00	4683440.00	24189420.00

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. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
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. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
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:

4.1 The other terms and conditions governing this sanction are attached at Annexure- III.

डॉ. संगीता कस्टरूरे / Dr. Sangita Kastur -
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi
Page No. [2 / 6]

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 Registrar, West Bengal State University, Kolkata, West Bengal 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-08/2018 dated 30 Jan 2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.

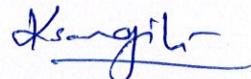
8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts 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. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project investigator(s) and Host Institution(s) shall compulsory comply the same before undertaking such activities.

11. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No 102/I.F.D./SAN 3972 / 2019/2020 dated 29.02.2020.

12. This sanction order has been noted at serial no. NIL in the Register of Grants.



(Dr. Sangita Kasture)
Scientist 'F'

डॉ. संगीता कस्टरे / Dr. Sangita Kasture
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय, IITM Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

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 Registrar, West Bengal State University, Barasat, Berunanpukuria, Malikapur, North 24 Praganas, Kolkata - 700126, West Bengal
- 3 Dr. Krishna Ray, Assistant Professor, Department of Botany, West Bengal State University, Berunanpukuria, Malikapur, Barasat, Kolkata - 700126, West Bengal
- 4 Dr. Sandip Kumar Basak, Principal, Botany, Sarat Centenary College, Dhaniakhali, Hooghly, Chandannagar West Bengal 712302
- 5 Dr. Singaram Kulandaivel, Conservator of Forests & Joint Director Forest Department, Govt of West Bengal, West Bengal Forest Department, 3rd floor, North Block, Bikash Bhawan, Salt Lake, Kolkata, West Bengal, 700091
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.

Kangil-

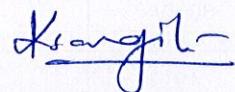
(Dr. Sangita Kasture)
Scientist 'F'

डॉ. संगीता कस्टरूरे / Dr. Sangita Kasture
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Annexure -I

Details of the Equipment sanctioned for the implementation of the project entitled **"Demonstration of established bio-restoration technology for ecological restoration of degraded mangrove ecosystem in Indian Sunderbans through site-specific approach across differential degradation gradients"**:

West Bengal State University			
SNo.	Name of Equipment	No.	Cost(Rs.)
1.	Maintenance of the earlier constructed central nursery on site and other branch nurseries required to be constructed	1	180000.00
2.	B.O.D. incubator shaker	2	197800.00
3.	Freezer cum Cooler	1	29400.00
4.	Concentrator plus, complete system with integrated diaphragm vacuum pump with rotor	1	550000.00
5.	Liquid Nitrogen Container	1	53100.00
Total			1010300.00



(Dr. Sangita Kasture)
Scientist 'F'

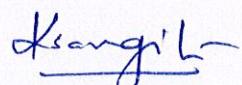
डॉ. संगीता कस्तूरे / Dr. Sangita Kasture
वैज्ञानिक 'एफ' / Scientist 'F'
वायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विद्याना और रेसो मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Annexure -II

Details of the manpower sanctioned for the implementation of the project entitled "**Demonstration of established bio-restoration technology for ecological restoration of degraded mangrove ecosystem in Indian Sunderbans through site-specific approach across differential degradation gradients**":

Head	No. of Position	Year I	Year II	Year III	Year IV	Year V	Total (Rs.)
Junior Research Fellow Rs. 31000/-+24% HRA	2	922560	922560	0	0	0	1845120
Senior Research Fellow Rs.35000/-+24% HRA	2	0	0	1041600	1041600	1041600	3124800
Research Associate Rs. 47000/-+24% HRA	1	699360	699360	699360	699360	699360	3496800
Field Assistant/Field supervisor@ Rs.20000/-+24% HRA	1	297600	297600	297600	297600	297600	1488000
Workers/ Field workers @ Rs.18000/-+24% HRA	7	1874880	1874880	1874880	1874880	1874880	9374400
Total(Rs.)		3794400	3794400	3913440	3913440	3913440	19329120

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019 for JRF/SRF/RA and OM No. SR/S9/Z-05/2019 dated 21.08.2019 for all other categories.



(Dr. Sangita Kasture)
Scientist 'F'

डॉ. संगीता कस्तुरे / Dr. Sangita Kasture
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

BT/PR39375/FCB/125/51/2020
Government of India
Ministry of Science & Technology
Department of Biotechnology

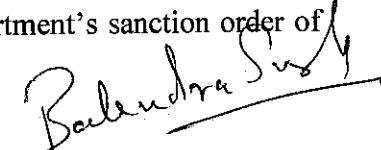
Block 2, 7th Floor
CGO Complex, Lodhi Road
New Delhi 110 003
Dated: 12th May, 2022

Addendum

In continuation of this departments' sanction order of even no. dated 17th March, 2022 of the project entitled "**Development of Biological Control Technology for invasive species Polyalthia suberosa Hamjam in wild life Sanctuary of Bethuadahari West Bengal**" being implemented at West Bengal State University, Kolkata, West Bengal, The name of Co-Investigators are included as per following details-

S.N.	Details
1.	Dr. Sandip Kumar Basak, Sarat Centenary College (Affiliated to the University of Burdwan, West Bengal) Dhaniakhali, Hooghly, West Bengal
2.	Dr. Arup Kumar Mitra, St. Xavier's College(Autonomous) Kolkata (affiliated to the University of Calcutta)
3.	Mr. Rana Datta, Deputy Conservator of Forests & Divisional Forest Officer, Nadia Murshidabad Division, Directorate of Forests, Govt of West Bengal

2. The other terms and conditions of the project as given in the Department's sanction order of dated 17th March, 2022 will remain unchanged.


(Dr. Balendra Singh)
Scientist 'C'

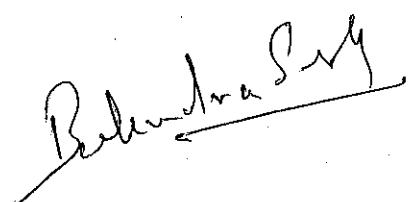
To,

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 Registrar, West Bengal State University, Barasat, Berunanpukuria, Malikapur, North 24 Praganas, Kolkata - 700126, West Bengal
3. Dr. Krishna Ray, Assistant Professor, Botany, West Bengal State University Berunanpukuria, Malikapur, Barasat West Bengal, Kolkata - 700126, West Bengal

4. Dr. Sandip Kumar Basak, Sarat Centenary College (Affiliated to the University of Burdwan, West Bengal) Dhaniakhali, Hooghly, West Bengal
5. Dr. Arup Kumar Mitra, St. Xavier's College (Autonomous) Kolkata (affiliated to the University of Calcutta)
6. Mr. RanaDatta, Deputy Conservator of Forests & Divisional Forest Officer, Nadia Murshidabad Division,
7. Directorate of Forests, Govt of West Bengal
8. Cash Section, DBT (2 copies).
9. Sanction Folder.
10. File Copy



(Dr. Balendra Singh)
Scientist 'C'



West Bengal Pollution Control Board
(Department of Environment, Government of West Bengal)
"Paribesh Bhavan" 10A, Block - LA, Sector-III,
Bidhannagar, Kolkata- 700 106
Tel: 2335 9088/8100 & Fax 8073/2813

Memo No: 3398-2022-RHRB/1/C. Lab

Date: 05.12.2022

LETTER OF AWARD

To

Dr. Krishna Ray
Associate Professor, Deptt. Of Botany
West Bengal State University
Berunanpukuria, Malikapur,
Barasat, North 24 Pgs,
Kolkata 700 126

Sub: Project on "In Situ Bioremediation Approach at Two Drains Leading to Noai Khal (falling on the River Bidyadhami) and Khardah Khal (falling on the River Hooghly) Respectively for Effective Removal of Pollutants in Domestic Sewage"

Ref: Project proposal submitted by Dr. Krishna Ray, Associate Professor, Deptt. Of Botany West Bengal State University, Berunanpukuria, Malikapur, Barasat, North 24 Pgs, Kolkata 700 126

Madam,

With reference to above, this is to inform you that the West Bengal Pollution Control Board (WBPCB) is pleased to accept your proposal and award the project work mentioned under subject above under terms and conditions as detailed below.

- 1. Project Title:** **In Situ Bioremediation Approach at Two Drains Leading to Noai Khal (falling on the River Bidyadhami) and Khardah Khal (falling on the River Hooghly) Respectively for Effective Removal of Pollutants in Domestic Sewage**
- 2. Principal investigator:** Dr. Krishna Ray, Associate Professor, Deptt. Of Botany, West Bengal State University, Berunanpukuria, Malikapur, Barasat, North 24 Pgs, Kolkata 700 126, E mail: kray91@gmail.com
- 3. Name of Co-Investigator** Prof. Punyasloke Bhadury, Center for Climate and Environmental Studies, Indian Institute of Science education and Research Kolkata

4. **Name of Co-Investigator** Prof. Bhoopesh Mishra, Research and Development Director (Honorary), Aqua Avani Aerobio production unit (Mr. Watinuksung Jamir)

5. **Name of Co-Investigator** Dr. Sandip Kumar Basak, Sarat Centenary College, Dhaniakhali, Hooghly, WB, Pin -712302

3. **Project coordinator:** Dr. Anada Banerjee, Scientist WBPCB

3. **Duration of project:** Six (06) Months
Actual date of project initiation to be informed by Dr. Krishna Ray, Associate Professor, Deptt. Of Botany, West Bengal State University, Berunanpukuria, Malikapur, Barasat, North 24 Pgs, Kolkata 700 126

4. **Study matter:** Two major open drains through which municipal sewage are discharged directly into the Noai Canal falling on the Bidyadhari river as well as Khardah Canal falling on the River Hooghly on a daily basis.

5. **Project Objectives:**

- (a). Onsite in situ novel free Water Surface (FWS) constructed Wetland approach to cause water quality improvement of domestic sewage water of Nohai and Khardah canal drains falling on the River Bidyadhari and falling on the River Hooghly respectively for effective removal of pollutants in domestic sewage.
- (b). Onsite in situ novel application of functionalized biochar coated with metabolically superior bacterial consortia to cause water quality improvement of domestic sewage water of Nohai and Khardah canal drains falling on the river Bidyadhari and falling on the River Hooghly respectively for effective removal of pollutants in domestic sewage.
- (c). Feasibility of the scaling up of these combined approach on in situ bioremediation of domestic sewage water of other canal drain sources.

6. **Methodology:**

- I. Onsite in situ novel free Water Surface (FWS) constructed Wetland approach to cause water quality improvement of domestic sewage water of Nohai and Khardah canal drains falling on the River Bidyadhari and falling on the River Hooghly respectively for effective removal of pollutants in domestic sewage.**
- a.** Constructed wetland is fully flooded with water, for which reason it can be similar to natural

wetland. The aim to plant selective hydrophytes in such way at the point sources of Nohai and Khardah canal drains with series of planted flooded beds so that it will resemble a natural wetland.

- b.** The pollutants are supposed to get flushed out by means of natural processes. The organic matter gets trapped during sedimentation process and eventually accumulates at the bottom of the beds.
- c.** The rhizospheric zones of these hydrophytes will attract decomposing bacteria. Contaminants present in wastewater are supposed to be reduced by microbial and plant absorption.
- d.** Usually free water surface constructed wetland is used in advance treatment followed by secondary and tertiary treatment processes.
- e.** A combination of native emergent macrophytes, submerged macrophytes and free-floating macrophytes will be plated onsite near the drain and up to some distance at preliminary level. Emergent species will be used are *Phragmites spp.*, *Typha spp.*, *Marsilea quadrifolia*, *Juncus spp.* *Acorus spp.*, *Carex spp.*, & *Eleocharis spp.* Submerged plants will be used are *Nelumbo*, *Nymphaea*, *Hydrilla*, *Ceratophyllum demersum*, *Vallisneria natans*, *Myriophyllum verticillatum*, *Potamogeton crispus*. Floating plants will be used are *Nymphoides*, *Trapa bispinosa*, *Hydrocharis dubia*, *Lamna minor*.

II. Onsite in situ novel application of functionalized biochar coated with metabolically superior bacterial consortia to cause water quality improvement of domestic sewage water of Nohai and Khardah canal drains falling on the river Bidyadhari and falling on the River Hooghly respectively for effective removal of pollutants in domestic sewage.

- a.** A novel in situ bioremediation approach for cleaning of point sources such as open drains through which municipal sewage are discharged directly into the Nohai Canal and Khardah Canal on a daily basis.
- b.** In particular, sewage released from these open drains have unusually high fecal coliform bacterial load.
- c.** The application of functionalized biochar coated with metabolically superior bacterial consortia. The biochars with bacterial consortia when applied in situ in these drains will completely breakdown total dissolved solids, Suspended Solids, as well as inhibit growth of Fecal Coliforms, in addition to utilization of complex forms of carbon and

nitrogen present in effluents. Moreover, the activated biochar-based biopolymer hydrogels with engineered porosity can itself remove substantial amount and types of contaminants including pesticides, heavy metals, antibiotics, microplastic, among others that may be present in sewage of open drains.

III. Feasibility of the scaling up of these combined approach on in situ bioremediation of domestic sewage water of other canal drain sources

- a. Dissolved Oxygen (By probe / by manual Winkler Azide Modification Method)
- b. Biochemical Oxygen demand (3 days 27°C)
- c. Chemical Oxygen Demand (Open refluxed Method)
- d. Total Nitrogen (Persulfate Digestion Method)
- e. Ammonia (Phenate Spectrophotometric)
- f. Nitrate (spectrophotometer)
- g. Total Phosphorus(spectrophotometer)
- h. Multiple Tube fermentation Technique for Coliform Bacteria (MPN test)/ by kit
- i. Membrane Filtration Method for total coliform and thermotolerant (fecal) coliforms
- j. EC-MUG Tes for confirmation of E. coli.

7. **Submission of reports and deliverables:** (a). Final project report of Noahi Canal and Khardah Canal in five hard copies and one soft copy after completion of project.

8. **Project cost:** (a). **Total project cost for Six Months = Rs. 21,10, 000.00/- only (Rupees Twenty-one Lakh Ten Thousand only)**
 (b). The project cost will be spent as per following schedule:

**A. Non-Recurring (e.g. Equipments, accessories)
 (One time)**

West Bengal State University

Sl no	Items	Price in Rs.	Total Price in Rs
1.	Heating mantel	1800	1800
2.	BOROPURE GLASS FIOLTRATION ASSEMBLY with silicon stopper , 47 mm	13985	13985
3.	Vacuum Pump	15000	15000
4.	Desiccator Set with cover & Porcelain Plate	9515	9515
5.	COD digestion unit (with tube and condenser)	55000	55000
6.	Water Bath (for condensation with digital panel)	15000	15000

7.	Stirrers (Magnetic Hot Plate Stirrer)	8700	8700
8.	Transilluminator (for molecular identification of microbes)	141600	141600
9.	DO meter	55000	55000
10.	Centrifuge Mini Spin	94400	94400
Sub total of A			410000

B. Recurring (for 6 months)
West Bengal State University

B.1 Manpower

Sl no.	Position No.	Consolidated Emoulment	Total for 3 months in Rs
1	Project Fellow (2) @ 25000p.m *6 months	150000*2=300000	300000
2	Manual labour on daily wage needed at onsite for vegetation collection, planting , maintenance and biochar+consortia charging	200000	200000
Sub Total of B .1			5,00000

B.2 Consumables
West Bengal State University

Sl no.	Item	In Rs	Total
1	Chemicals	200000	200000
2	Glassware	100000	100000
Indian Institute of Science Education and Research Kolkata			
1.	Chemicals	800000	800000
Sub Total of B .2			1100000

B.3

Sl no.	Item	For 6 months in Rs	Total
1.	Travel (WBSU)	50000	50000

B.4

Sl no.	Item	For 6 months in Rs	Total
1.	Contingency (WBSU+IISER kolkata)	25000+25000	50000

B.5

Sl no.	Item	For 6 months in Rs	Total
1.	Overhead (If applicable)	0	0

Subtotal of B (B.1+B.2+B.3+B.4+B.5) =
 $(5,00000+1100000+50000+50000+0) = 1700000$

GRAND TOTAL = (A+B) = (410000+1700000) = 21,10,000/-

Total project cost will include all activities under the project as mentioned in this Letter of Award and submission of final reports and other deliverables as mentioned in Clause 7 above.

9. Terms of payments

Payments will be made in A/c Payee cheque(s) favour of West Bengal State University or through Bank Transfer. The PI has to inform the Bank Account details of the Institution.

a. The 1st installment of payments of Rs. 10,30,000/- as mobilization advance will be paid after acceptance of letter of Award and submission of information on project start date and claim bill in triplicate for the said amount.

b. The 2nd installment of payments after 3 months of Rs. 10,30,000/- will be paid after acceptance of claim bill and utilization certificate of the mobilization advance for adjustment.

c. Final installment of Rs. 50,000/- of contingency will be paid after acceptance of the final reports and all other deliverables as per Clause 7 above, utilization certificate for entire project cost and claim bill in triplicate for the said amount.

10. Termination:

a. WBPCB shall have the right to change the scope of work including termination of the work as deemed fit case of any breach of contract.

b. If at any time it is noticed that project is discontinued without prior intimation to the WBPCB, the project may be cancelled without showing any further reason.

11. Other Terms
Conditions:

a. In case of dispute, if any, decision of the Member Secretary of the WBPCB shall be final and binding.

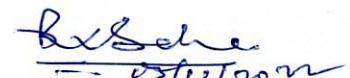
b. The *data*, information generated and the instruments/hardware developed through the project being the WBPCB's property, its reproduction for publication or use after the project period in any form will require prior approval from the WBPCB, otherwise the WBPCB may take necessary action.

c. The WBPCB has no liability for any recruitment for this project work.

d. All Instruments and assets under this project shall be returned to the State Board after completion of the project and before payment of the final installment.

12.

If you agree to the above terms and conditions, please return to the duplicate copy of this order duly signed and sealed as a token of your acceptance confirming us the date of commencement of this project and other documents as detailed above required for further processing.


Dr. Ram Krishna Saha
Chief Scientist, WBPCB

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 "**Development of Biological Control Technology for invasive species, Polyalthiasuberosa, Hamjam, in Wild Life Sanctuary of Bethuadahari, West Bengal**" for a period of 3 Year 0 Month at a total cost of **Rs.3983360** (Rupees Thirty Nine Lakhs Eighty Three Thousand Three Hundred and Sixty Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : **Development of Biological Control Technology for invasive species, Polyalthiasuberosa, Hamjam, in Wild Life Sanctuary of Bethuadahari, West Bengal**

2.2 Details of the Investigators:**Dr. Krishna Ray**

Assistant Professor

Department of Botany

West Bengal State University

Berunanpukuria, Malikapur, Barasat, Kolkata, West Bengal, 700126

2.3 Objectives:

1. Study of invasion mechanisms of the invasive species Polyalthiasuberosa (commonly called "Hamjam") in the Wild Life Sanctuary of Bethuadahari
2. Detection and isolation of any fungal/rhizobacterial pathogen of "Hamjam" showing lethal disease/growth suppression solely specific to the invader species and native to the Wild Life Sanctuary
3. Optimization of the field application of the bio-control agent/agents in model plot of 5 acres in the "Hamjam" infested area of the sanctuary

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. 3983360/-**(Rupees Thirty Nine Lakhs Eighty Three Thousand Three Hundred and Sixty Only) as per details given below:

Budget Head	Year I	Year II	Year III	Total(Rs.)
Equipment	1780000.00			1780000.00
Manpower	922560.00	0.00	520800.00	1443360.00
Overhead	20000.00	20000.00	20000.00	60000.00
Travel	20000.00	20000.00	20000.00	60000.00
Consumables	180000.00	180000.00	180000.00	540000.00
Contingency	40000.00	30000.00	30000.00	100000.00
Total (Rs.)	2962560.00	250000.00	770800.00	3983360.00

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. 89	Department of Biotechnology
3425	Other Scientific Research 2021-2022
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 to Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

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

Demand No. 89	Department of Biotechnology
3425	Other Scientific Research 2021-2022
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 to Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. Terms & Conditions:

- 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 Utilisation Certificate and Statement of Expenditure. The interest earned should be remitted to the Consolidated fund of India through Bharat Koshportal(www.bharatkosh.gov.in) as per GFR-2017-230(8) after finalization of the account for a given Financial Year.
5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
6. The Registrar, West Bengal State University, Kolkata, West Bengal 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-05/2019 dated 30 Jan 2019. 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. The equipment /instrument shall have to be purchased within eighteen(18) months from the date of release of the capital grant for a particular year. Fresh permission shall have to be sought from DBT in the event the organization fails to purchase the equipment/instrument within the prescribed period of eighteen (18) months from the date of release of sanctioned amount
10. It is mandatory to acknowledge financial support provided by DBT in bold letters via inclusion of Grant reference number, Name of the Department (i.e. DBT) and the duration of the financial support including the dates in acknowledgement section of publications/patents/technology transfer documents/media communications/press announcements/exhibitions and other such events, vide notification no. DBT/PCAH/Gen/01 dated 07.06.2012 during and after the completion of the project
11. It is obligatory to assess/observe the biosafety compliance for rDNA activities to be performed by grantee organization(s) and investigators for the proposals submitted to DBT for financial support as per the notification vide no. BT/BS/17/459/2011-PID dated 26.09.2012
12. Medical allowance will not be paid with Manpower salary, as medical benefits are not part of salary component. The research fellows (JRF/SRF/Research Associate)will be entitled for Medical allowance from the implementing Institutions as applicable
13. 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
14. (I) "The PIs/Implementing Agencies shall strictly adhere to the GoI instructions issued vide OM No.F.4.1.2021-PPD dated 30.6.2021 in the matter of issue of Global tender Enquiry with special reference to instructions contained under para 4 of the said OM for procurement of equipments, spares and consumables for research purposes and shall not issue Global Tenders Enquiries before seeking the approval of the competent authority".
(II) "After incurring the expenditure on import of such items and at the time of submission of UCs to the department next year, the PIs will also furnish the copy of the approval sought from the competent authority for issue of the GTE for such items of import. The release of next installment of grant will be subject to the fulfillment of the above condition."
15. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project Investigator(s) and Host Institution(s) shall compulsorily comply the same before undertaking such activities
16. Continuation of the project beyond 31.3.2021 will be subject to appraisal and approval of the DBT umbrella scheme on "Biotechnology Research and Development" for continuation beyond 14th FCC As per Ministry of. Finance OM.NO.C-13015(34)MF CGA/PFMS/Misc/2014-15/2095-2127 dated
17. 03.03.2015 all transaction involving cash component has to be made through Public Financial Management System (PFMS) w.e.f 01.04.2015 to each beneficiaries.
As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be
18. 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.

The expenditure by the implementing agency is to be incurred only through the EAT module of PFMS.

19. This issues, under the power delegated to this Department and with the concurrence of IFD vide their
20. SAN No.**102/IFD/SAN/3425/2021-22** dated **17/03/2022**
21. This sanction order has been noted at serial no. 27 in the Register of Grants

Balendra Singh
(Dr. Balendra Singh)
Scientist C
Department of Biotechnology
Govt. of India
C.G.O. Complex, Lodhi Road
New Delhi-110003

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 Registrar, West Bengal State University, Barasat, Berunanpukuria, Malikapur, North 24 Praganas, Kolkata - 700126, West Bengal
- 3 Dr. Krishna Ray, Assistant Professor, Botany, West Bengal State University Berunanpukuria, Malikapur, Barasat West Bengal, Kolkata - 700126, West Bengal
- 4 Cash Section, DBT (2 copies).
- 5 Sanction Folder.
- 6 File Copy.

Balendra Singh
(Dr. Balendra Singh)
BALENDRA SINGH
Scientist
Department of Biotechnology
Govt. of India
C.G.O. Complex, Lodhi Road
New Delhi-110003

Annexure -I

Details of the Equipment sanctioned for the implementation of the project entitled "**Development of Biological Control Technology for invasive species, Polyalthiasuberosa, Hamjam, in Wild Life Sanctuary of Bethuadahari, West Bengal**":

West Bengal State University			
SNo.	Name of Equipment	No.	Cost(Rs.)
1.	-86°C Freezer, Model: U410-86	1	650000.00
2.	UPRIGHT TRINOCULAR RESEARCH MICROSCOPE WITH IN-BUILT HD RESOLUTION 9" LCD SCREEN AND DEDICATED CAMERA ATTACHMENT	1	380000.00
3.	Laminar Flow Clean Air Work Station (Horizontal)	1	250000.00
4.	Culture Room facility	1	500000.00
		Total	1780000.00

Balendra Singh
 BALENDRA SINGH
 Scientist 'C'
 Department of Biotechnology
(Dr. Balendra Singh)
 C.G.O. Complex, Lodhi Road
 New Delhi-110003
 Scientist 'C'

Annexure -II

Details of the manpower sanctioned for the implementation of the project entitled "**Development of Biological Control Technology for invasive species, Polyalthiasuberosa, Hamjam, in Wild Life Sanctuary of Bethuadahari, West Bengal**":

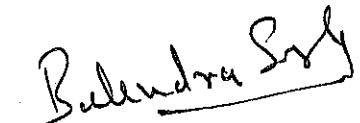
Head	No. of Position	Year I	Year II	Year III	Total (Rs.)
Junior Research Fellow Year 1 & 2 Rs.31000/-p.m +24%HRA	1	461280	461280	0	922560
Senior Research Officer Rs.35000/-+24%HRA	1	0	0	520800	520800
Total(Rs.)		461280	461280	520800	1443360

Balendra Singh
 BALENDRA SINGH
 Scientist 'C'
 Department of Biotechnology
 Govt. of India
 C.G.O. Complex, Lodhi Road
 New Delhi-110003

Quarterly Deliverables of the project:-

	Quarterly Deliverables of the project	Time line
1.	1. Advt. publication 2. Staff recruitment 3. Initiation of Purchase and procurement process of instruments 4. Survey for exclusive disease or growth suppression symptoms in WLS, Bethuadahari	Q1[0-3 Months]
2.	1. Quadrat study in WLS to prove dominance of invasive species referred 2. Seed output, viability, dispersal, entire life cycle of invader study 3. Invader seed germination, seedling maintenance optimization under control culture room 4. Start of causal organism isolation and pure culture establishment associated with disease symptom and growth suppression phenotype exclusively observed for the invasive species	Q2
3.	1. molecular identification of disease causing/growth suppressing causal organisms by ribosomal RNA gene sequencing (18SrRNA/ITS/16SrRNA) 2. Start of Rhizospheric microbial population (AMF, mutualistic bacterial population) isolation from rhizosphere of invader and native species 3. Seed collection from native/invader species and optimization of seedling growth under control culture room	Q3
4.	Allelopathic effect of invader if any to be proved by 1. Impact of leaf leachates/root-exudates/ rhizospheric soil/rhizospheric soil microbes of the invader species on seed germination and growth of other native species of the sanctuary under control culture room 2. Assay of probable presence of any allelochemical like catechin, L-tryptophan, methyl jasmonate etc. through HPLC analyses in the root exudates/leaf leachate/rhizospheric soil extract of the invader. HPLC optimization may take some more time	Q4
5.	1. Conclusion to be drawn on role of "Hamjam" leaf litter/root exudate on resident plant population (both field and laboratory studies) 2. Conclusion to be drawn on role of rhizospheric microbial population on native plant population (both field and laboratory studies) 3. Start of assay of growth suppression by rhizobacteria established in pure culture to be screened for growth negating parameters. 4. Start of host range specificity studies of the pathogenic fungus under control culture room condition	Q5
6.	1. Assay of growth suppression of rhizobacteria continued. 2 Host range specificity studies of the pathogenic fungus continued. 3. Growth effect studies to confirm the specificity of growth suppression to be exclusively associated with the invasive species under control condition. 4. Comparative study for efficiency of control of invasive species by fungal pathogen/deleterious rhizobacteria under controlled condition.	Q6
7.	1. Assay of growth suppression of rhizobacteria continued. 2 Host range specificity studies of the pathogenic fungus continued. 3. Continued growth effect studies to confirm the specificity of growth suppression to be exclusively associated with the invasive species under control condition. 4. Continued comparative study for efficiency of control of invasive species by fungal pathogen/deleterious rhizobacteria under controlled condition	Q7

8.	1. Conclusion on invasion mechanism 2. Conclusion on host range specificity and control efficiency of pathogenic fungus on invasive species 3. Conclusion on host range specificity and control efficiency of deleterious rhizobacteria, if any on invasive species 4. Comparative statement on efficiency of control and host specificity among fungal pathogen/ growth inhibiting rhizobacteria on invasive species	Q8
9.	1. Continuation of host range specificity studies, if unfinished yet 2 Optimization of large scale development of spore suspension/bacterial culture asinocula for application to the field. 3. Optimization of the appropriate time of application in field.	Q9
10.	1. Ideal plot selection in WLS for field application 2. Approximate stage of plant to be chosen 3. Selection of untreated control plots for comparison 4. Appropriate dose of biocontrol agent decided for field application 5. Field application initiated	Q10
11.	Monitoring the effect of application of the developed bio-control agent in model plots infested with the invasive species in terms of growth, mortality and spread, throughout several seasons under different climatic conditions keeping untreated control plots for comparison	Q11
12.	1. Monitoring the effect of application of the developed bio-control agent in model plots continued 2. Monitoring the effect of single application and multiple applications of biocontrol agent/agents. 3. Monitoring the effect separately or in a synergistic manner. 4. Recovery of the inoculated pathogen, persistence of inoculated pathogen, intensity of infection/association in field on invasive species population. 5. Measuring control efficiency of biocontrol agent applied, right from the field. 6. Estimation of re-emergence frequency of the invasive species after initial field application	Q12


 (Dr. Balkendra Singh)
 Scientist 'C'
 Department of Biotechnology
 Govt. of India
 C.G.O. Complex, Lodhi Road
 New Delhi-110003