

**Government of West Bengal**  
**Department of Science & Technology and Biotechnology (DSTBT)**  
Vigyan Chetana Bhavan, Block-DD, Plot-26/B, Sector-I  
Salt Lake, Kolkata-700064

**Application Format for Science Popularisation Programme**

(Please upload the filled in "Application Format" along with necessary documents in vigyansathi portal)

1. Programme Type (ref SN 10 of the Guidelines): Seminar Organised by School (sl 3)
2. Title of the proposed Programme: Awareness on Food Security (sl 20)
3. Target Group (Faculty, Teacher, Research Scholar, Student, Community): Minority Students.
4. Duration (days): 02; Tentative Dates of the proposed Programme: 17-18 August 2021
5. Aims, Objectives and Details of the Programme (attach separate sheet, if necessary): .....  
Separate Sheet - A
6. Name, Designation, Postal Address, mobile no. and e-mail id of the (only one) Programme Co-ordinator (PC) (attach separate sheet, if necessary): .....  
Separate Sheet - B
7. Legal status of the Institute (School/ College/ University/ Institute/ Polytechnic/ ITI/ Autonomous body/ registered NGO/ Trust etc.): Govt. Aided Madrasah  
Index No - 18-02-03-01-003, H.S Code No - 02499  
V.T.C Code No - 157A, DLSB Code - 19180511003
8. Date wise detail Programme Schedule (attach separate sheet, if necessary): .....  
Separate sheet - C
9. Collaborating Institutions/ Organizations, if any, with their specific contribution: .....  
NA
10. Expected number of participants and list of Resource Persons/ Invited Speakers: .....  
Separate Sheet - D
11. Give details of the grant received from DSTBT in last three Financial Years, if any alongwith the date of submission of UC, Audited SoE, Report etc.: .....  
NA
12. Name and address of the authority to whom the allotted amount is to be credited (if sanctioned) who will also be responsible for submitting the UC, audited SoE, Programme Completion Report, Feedback, Still and Video photographs etc. of the grant: .....  
Shaiful Islam, Teach-in-charge, Bhanganar A.H. High  
Madrasah (HS), Bhanganar, South 24 Parganas, W.B.
13. Total Programme Expenditure (A)/ Organisation's contribution (B)/ Grant expected from DSTBT (C): C: ₹ 50,000/- = (A: ₹ 60,000/- - B: ₹ 10,000/-)  
(provide detail Budget break-up as per Annexure-I and Bank details as per Annexure-II):

**Check List (put tick) of attachments to be submitted with the application**

- Proposed Total Budget with break-up (Annexure-I) and Bank Details (Annexure-II) in Institute/ Organization's letter head: **YES/NO**
- For registered NGO/ Trust, filled in Application Format recommended by the appropriate Recommending Authority, viz., Jt.BDO/ BDO/ SDO/ DM/ Executive Officer-Municipality/ Commissioner-Municipal Corporation as the case may be (where the programme is actually going to be held): **YES/NO**
- For registered NGO/ Trust, attested copies of the registration certificate, latest renewal certificate, Memorandum and Rules & Regulations of the Organization, last three years Audited Statement of Accounts, Annual Reports etc., List of recommended beneficiaries: **YES/NO**

**DECLARATION**

Certified that the details furnished in the filled in format are correct to the best of our knowledge & belief and that the amount of financial assistance, if sanctioned, will be utilized for the purpose for which it is granted within the time as prescribed by DSTBT. We also undertake to abide by the General Guidelines and Terms & Condition prescribed by DSTBT and provide due coverage to DSTBT during the Programme and publications/ print and electronic media made from the Programme in future. We also declare that within one month after completion of the Programme we shall submit the Utilisation Certificate (UC), Audited Statement of Expenditure (Audited-SoE), Programme Completion Report, Feedbacks from the Participants, still and video photographs etc.

Signature: *Dalia Mazumder*

Date: 15/3/2021

Name of Programme Coordinator:  
*DR. DALIA MAZUMDER*

Designation: *ASSISTANT TEACHER*

Address:

*BHANGAR A.H. HIGH  
MADRASAH (H.S.)* (Office Seal)

*Bhangar,  
South 24 Parganas  
743502*

Signature: *Sahiful Islam*

Date: 15/03/2021

Name of Head of the Institution:

*Sahiful Islam*  
Designation: *Teacher-in-charge*  
*Bhangar A.H. High Madrasah (H.S.)*  
*Bhangar, 24 Parganas (S)*

Address:

**RECOMMENDATION**

(only for registered NGO/ Trust)

Certified that the said Organisation is reputed in this field and I/ we recommend the said proposal for getting grant-in-aid from DSTBT, Govt of West Bengal for the benefit of the local students/ community etc.

Signature:

Date:

Name of Recommending Authority:

Designation:

## Annexure-I

## Proposed Total Budget with break-ups

| Sl. No.                 | Items required with justification and rate                                                                                              | Total expenditure (A) Rs. | Institution/ Organization Contribution (*) (B) Rs. | Grant Expected from DSTBT (C= A-B) Rs. |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------|----------------------------------------|
| 1.                      | Honorarium to Resource Persons/Experts<br>08 Lecture X Rs 500.00 per Lecture                                                            | 4,000.00                  |                                                    |                                        |
| 2.                      | Training/Study materials, Consumables expenses<br>50 Students @Rs. 150.00 per kit                                                       | 7,500.00                  |                                                    |                                        |
| 3.                      | Hall rent, if any<br>Hire of Chair Table etc                                                                                            |                           | 10,000.00                                          |                                        |
| 4.                      | Publicity materials<br>Flex, Banner etc L.S                                                                                             | 1,000.00                  |                                                    |                                        |
| 5.                      | Travel Expenses<br>L.S.                                                                                                                 | 5,000.00                  |                                                    |                                        |
| 6.                      | T.A. to the external Resource Persons/ Experts<br>06 Lecturer X Rs. 200.00 per one lecture                                              | 1,200.00                  |                                                    |                                        |
| 7.                      | Documentation expenses including audio-visual<br>Like, print, Register Note books, Binding etc)<br>L.S                                  | 4,000.00                  |                                                    |                                        |
| 8.                      | Light Refreshments<br>Including Resource Persons and helping hands.<br>60 nos. X 02 Days X Rs. 120.00                                   | 14,400.00                 |                                                    |                                        |
| 9.                      | Auditors' fee L.S.                                                                                                                      | 3,000.00                  |                                                    |                                        |
| 10.                     | Other expenses, if any (please specify)<br>Water Carrier, Sweeper, Sound System, rope, scissor, Marker pen, other unforeseen etc . L.S. | 9,900.00                  |                                                    |                                        |
| Grand Total Expenditure |                                                                                                                                         | 50,000.00                 | 10,000.00                                          | 60,000.00                              |

(\*) At least 10% of the total budget contribution from the Institute/ Organization is desirable.

*Dalia Mazumder.*  
(Dr. Dalia Mazumder)  
Programme Coordinator

*(Signature)*  
(Saiful Islam)  
Head of the Institute  
15/03/21

Teacher-in-charge  
Bhangar A.H. High Madrasah (U.S.)  
Bhangar, 24 Parganas (S)

## Annexure-II

## Bank details of the Applicant Organization

|                                                                     |                                                 |
|---------------------------------------------------------------------|-------------------------------------------------|
| Name of the Organization                                            | BHANGAR A.H. HIGH MADRASAH(H.S)                 |
| Bank Account Number & name of the Account holder/ Organization      | ACNO-45090100002222, BHANGAR A.H HIGH MADRASAH. |
| Type of Account<br>(Saving or Current A/c)                          | Saving                                          |
| Name of the Bank                                                    | BANK OF BARODA                                  |
| Name of the Branch with Branch address                              | GHATAK PURUR                                    |
| IFSC of the Branch                                                  | BARB0GHATAK                                     |
| Mobile Number of the Programme Coordinator/Head of the Organization | 7980107960                                      |
| PAN/TAN of the Account holder/ Organization                         | AAALB18398                                      |

*Dalia Mazumder*  
(Dr. Dalia Mazumder)  
Programme Coordinator

*(Signature)* 15/03/21  
(Sajful Islam)  
Head of the Institute

Teacher-in-charge  
Bhangar A.H. High Madrasah (H.S.)  
Bhangar, 24 Parganas (S)

## AIM AND OBJECTIVES

### ANNEXURE- A

Food security is defined by FAO as access by all people at all times to the food needed for a healthy and active life. Achieving food security means ensuring that sufficient food is available, that supplies are relatively stable and that those in need of food can obtain it. Although over the years governments, with support have addressed food security and its related elements in many ways, today some people are chronically undernourished. With a growing world population this situation will worsen unless very determined and well-targeted actions are taken to improve food security.

01. To popularization of Science among students
02. To aware about Nutrition, food quality and food safety
03. To develop a basic concept regarding daily nutritional food
04. To reduce the average household food insecurity
05. To make an idea for Dietary diversity for the specified population group
06. To find the Dietary diversity for the Student group
07. To recommend the Caloric intake for school/ Madrasah student in daily allowances
08. To develop a knowledge about Weight-for-age or height-for-age for relative to World Health Organization standards
09. Achieving nutrition objectives usually requires the introduction of activities that affect non-food causes of malnutrition, like public health interventions or the promotion of improved student food.
10. To improve their national food security through rapid increases in productivity and food production
11. To improve people's access to food
12. The sociological contexts of food production, access, quality, and consumption
13. To develop the basic idea about food intake and to prepare a base line data for future programme.

*Dalia Mazumder*

Dr. Dalia Mazumder  
(Programme Co-ordinator)

**About Programme Coordinator**

**ANNEXURE- B**

Name: Dr. Dalia Mazumder

Present Employment: Assistant Teacher

Name of School/ Madrasah: Bhangar A.H. High Madrasah (H.S), Bhangar, South 24 Parganas

e-Mail: [ddpalui@gmail.com](mailto:ddpalui@gmail.com)

Phone No. 9064766294/9432431955

Address:

a) School/ Madrasah: Vill. + P.O. + P. S. : Bhangar, South Parganas

b) Residential : 479- Banerjee Para Road, Paschim Putiari, Kolkata-700041

Experience:

a) Research: 02 Years as SRF + 02 Years as Ph. D Research Scholar

b) Teaching: 01 years as Contractual Lecturer at South Calcutta Girls' College  
14 + years in School/ Madrasah

*Dalia Mazumder.*  
Dr. Dalia Mazumder  
(Programme Co-ordinator)

### Date wise Detail Programme Schedule (Tentative)

ANNEXURE- C

Venue: Bhangar A.H. High Madrasah, Bhangar, South 24 Parganas

Date: 17.08.2021 & 18.08.2021

| Date       | Topics                                                                                | Resource Person                                                          | Time               |
|------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------|
| 17.08.2021 | Registration                                                                          |                                                                          | 10.00 AM           |
|            | Introduction: Students and Local Area                                                 | Sahiful Islam,<br>Head of the Institute                                  | 11.00AM-12.00 Noon |
|            | Food –Physical and Mental development enhancing the ability to pay attention in class | Dr. Dalia Mazumder,<br>Assistant Teacher,<br>Biology                     | 12.00 Noon-1.00 PM |
|            | Refreshment Break                                                                     |                                                                          |                    |
|            | Availability of Local Nutritious food                                                 | Dr. Debjani Dey<br>Professor, Dept. of<br>Geography, Bhangar<br>College. | 2.00 PM-3.00 PM    |
|            | Food and Health                                                                       | Dr. Animesh Hore,<br>Doctor of Nalboni<br>Hospital, Bhangar              | 3.00 PM-4.00 PM    |
| 18.08.2021 | Government and Food Security                                                          | Sahiful Islam,<br>Head of the Institute                                  | 11.00AM-12.00 Noon |
|            | Food status: Past and Present                                                         | Dr. Debjani Dey<br>Professor, Dept. of<br>Geography, Bhangar<br>College  | 12.00 Noon-1.00 PM |
|            | Refreshment Break                                                                     |                                                                          |                    |
|            | Different Food and Nutritional Value                                                  | Dr. Animesh Hore,<br>Doctor of Nalboni<br>Hospital, Bhangar              | 2.00 PM-3.00 PM    |
|            | Discussion & Evaluation                                                               | Dr. Dalia Mazumder,<br>Assistant Teacher,<br>Biology                     | 3.00 PM-4.00 PM    |

*Dalia Mazumder*

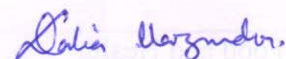
Dr. Dalia Mazumder  
(Programme Co-ordinator)

### **Expected Number of Participants and List of Resource Persons/ Invited Speakers**

#### **ANNEXURE- D**

- Expected Number of Participants: 50 (fifty) nos.  
Minority Students from Class V to XII
- Resource Persons:

| Name               | Designation                                            | / Invited Speaker      |
|--------------------|--------------------------------------------------------|------------------------|
| Sahiful Islam      | Head of the Institute                                  | Institutional Resource |
| Dr. Dalia Mazumder | Assistant Teacher, Zoology                             | Institutional Resource |
| Dr. Debjani Dey    | Professor, Dept. of Geography, Bhangar College         | Invited Speaker        |
| Dr. Animesh Hore   | Doctor, Nalboni Hospital, Dept. of Health, West Bengal | Invited Speaker        |



Dr. Dalia Mazumder  
(Programme Co-ordinator)



केन्द्रीय अंतर्स्थलीय मात्स्यकी अनुसंधान संस्थान

(भारतीय कृषि अनुसंधान परिषद्)

बैरकपुर कोलकाता- ७००१२०, पश्चिम बंगाल

**Central Inland Fisheries Research Institute**

(Indian Council of Agricultural Research)

**Barrackpore Kolkata-700 120 West Bengal**

**Dr. B. C. Jha**

Principal Scientist

**TO WHOM SOEVER IT MAY CONCERN**

This is to certify that Mrs. Dalia Palui (Majumder) worked under me as a Senior Research Fellow under a National Agricultural Technology Project entitled *Assessment of Status and Possible Impact of Exotic Fish Species in Major River systems of India* of ICAR for period of two years ending 31 December, 2004. The project was basically dealt with ecology and biodiversity of river systems.

Mrs. Dalia is a diligent, sincere, motivated and energetic lady with genuine sense of responsibility towards work. It is my pleasure to mention that her contribution in the above said project was quite significant.

Her integrity is beyond doubt and she possesses strong moral value. I know nothing against her.

I wish her all the success in her life.

*B. C. Jha*  
20/11/2005

**PRINCIPAL SCIENTIST**

Central Inland Capture  
Fisheries Research Institute  
Barrackpore, W. B.



GRAM : FISHSEARCH, Phone : (033) 2592-1190/91 (O), 2592-0177 (Director)  
2593-5288 (SAO), 2593-5289 (FAO), Fax : 033-2592-0388, E-mail : cifri@vsnl.net.in



# VIDYASAGAR UNIVERSITY

MIDNAPORE ★ WEST BENGAL ★ PIN 721102

Phone : (03222) 276554 :: 276555 :: 276557 :: 276558

Ref. No.....

Date 07/03/2009

To whom it may concern

This is to certify that, Smt. Dalis Palui is working for her Ph. D. degree under joint supervision of myself and Professor H.C. Datta since 2007. She has already completed her field and Laboratory work and may submit the Thesis by July-August, 2009. She is very much sincere and hardworking in habit. I wish her every success in Life.

Bidhan Chandra Patra  
07/03/2009

Professor Bidhan Chandra Patra  
Aquaculture Research Unit  
Department of Zoology  
Vidyasagar University  
Midnapore - 721 102, W.B., India

Fax : (91) 03222, 275329, 264338

e-mail : vidya295@sancharnet.in // website ; url : http : // www.vidyasagar.ac.in



# THIRD INTERNATIONAL CONFERENCE

On the Theme

**Mother Earth: Environmental Crisis & Sustainable Strategies**



ICME-2018

Organised by

**Department of Environmental Science**

THE UNIVERSITY OF BURDWAN

## Certificate of Participation

This is to certify that

Dr. Salia Palui Majumder Assistant Teacher  
(Name of the participant) (Designation)

(College/University/Institute)

(Place)

presented paper / participated in the **THIRD INTERNATIONAL CONFERENCE** on the Theme:

**"Mother Earth: Environmental Crisis & Sustainable Strategies"** held during January 11 to 13, 2018.

Purba Bardhaman, West Bengal, India  
Date: January 13, 2018



Jt. Convener  
International Conference  
Environmental Sc., The University of Burdwan



Jt. Secretaries  
International Conference  
Environmental Sc., The University of Burdwan

## Plankton Distribution and Productivity at Kakdwip in the River Ganga in Relation to Certain Environmental Variables

Dalia Palui\*, B. Patra\* and D. Palui\*\*

\* Dept. of Zoology, Vidyasagar University

\*\*Assistant Director of Fisheries, West Bengal

### Abstract

Aquatic wealth is passing through a critical phase throughout the Globe owing to increased anthropogenic pressure. Any life phenomenon on earth is closely related to water and life cannot evolve without water. The River Hooghly is also under threat like anthropogenic activity, siltation, Sea going Fishing Boat activities etc. and loosing the natural characteristics of the ecosystem. Hence, a concert effort has been made for the study at the saline zone i.e. Kakdwip to study the limnological and biotic variable and their role in production process, including the conservation of the biodiversity thriving, where a regular tidal interaction is going on. After commissioning of the Farakka barrage (1975-1977), the increased freshwater discharge has resulted in considerable decrease in salinity in this region. This has effected major changes in the marine Zone in water and soil characteristics, plankton dynamics, and productivity. Kakdwip region of the estuary was more or less congenial for high aquatic productivity with the regular nutrient interaction through tidal effect.

Key words: anthropogenic pressure, siltation, biodiversity, plankton dynamics etc.

### Introduction

The Hooghly estuary- can be divided into three zones on the basis of salinity gradient (Dutta et. al. 1973). But after construction of Farakka Barrage during 1975, from Kakdwip to Frezerganj including the entire Sunderbans is the marine zone (Sinha et. al. 1996). After commissioning of Farakka barrage in 1975, the Hooghly estuary receives freshwater from Ganga through manmade Feeder canal and Bhagirathi, which improved the ecology of the estuary (Sinha et al. 1996). It is an accepted fact that the freshwater becomes a major determining factor in salinity (Ketchum 1951, Pritchard 1955), hydrology and fishery of any estuarine system (Dutta et al. 1973). The marine region i.e. also in Kakdwip, is now densely populated of which, majority of them were migrated from the adjacent district Midnapur and also the refugees from Bangladesh. Most of these rural people are living much below abject poverty and they are solely or partly dependent on these virgin and fragile. Kakdwip, in the Hooghly estuary mixohaline in nature, exhibiting semidiurnal-tide. Siltation is the other important phenomenon in this zone as the river Ganga has an annual runoff of 493 Km<sup>3</sup> and carries 616 x 10<sup>6</sup> tonnes of suspended solids to the Hooghly

## DISTRIBUTION OF NUTRIENTS AND PRIMARY PRODUCTION IN TWO DIFFERENT SALINITY REGIME OF HOOGHLY RIVER, INDIA.

Dalia Palui\*, S. Patra, D. Palui\* and N. C. Dutta\*\*

Aquaculture Research Unit, Department of Zoology, Vidyasagar University,  
Midnapore – 721 102, West Bengal.

\* Department of Fisheries, Government of West Bengal.

\*\* Department of Zoology, Calcutta University, Kolkata – 700 019

**ABSTRACT** ■ The Hooghly estuarine system located in West Bengal is the important estuaries of the Indian coast under the Gangetic delta called the Sundarbans, which is considered as estuarine inlets carrying tidal brackish-water causing, considerable fluctuations in salinity and other physico chemical condition resulting in significant changes in the estuarine ecosystem. Water and soil characteristics of Hooghly estuary at freshwater and marine regions were studied during the period, July 2006 to June 2008. In water dissolved oxygen, pH, total alkalinity, phosphate, nitrate and silicate contents were higher in the freshwater zone compared to those at the marine zones indicating that the nutrients were allochthonous. Salinity was very low in freshwater zone, but high salinity was noted in marine zone. Nutrient rich diluted water from the Hooghly estuarine and run off from catchment areas, during monsoon, enter into this estuarine inlet. In soil the marine region had higher contents of available and total Nitrogen, available Phosphorus, Organic carbon and sp. conductivity. Gross and net primary productions were significantly higher at the marine zone which indicated that this zone is nutrient rich and more productive. The study indicated that the Hooghly main channel was, on the whole, conducive for aquatic animals during the period. Ample food supply from the Sundarban mangrove vegetation, absence of aquatic pollution, tidal effect etc., were important role for high availability of *P.monodon* seed and other fisheries resources, mainly prized prawns, mullets (*Mugil* sp), hilsa (*Tenualosa* sp.), milkfish (*Chanos* sp), bhetki (*Lates* sp) etc., because of regular active tidal interaction.

**Key words :** Estuary, Brackish-water, tidal effect, effluent, fish yield, Hooghly river.

### Introduction :

The Hooghly estuary is (Latitude 21°-24° N and Longitude 88° -89°E; 300km from N-S and 150 km from E-W) one of the most productive estuaries of the world. The Hooghly-Matlah estuary can be divided into five zones on the

basis of salinity gradient (Sinha *et. al.* 1996). However, my drotiology and Fishmy of Hooghly matlah estnary have been sequentially monitored and presontly have been subdisded into four zerox based on salinity regimes, zone I, II, III and IV has been B hens in Figure 1

\* Corresponding author : Dalia Palui



# Golden Jubilee International Conference

On  
*Trends in Zoology*  
(January 3-4, 2019)

Organized by  
Department of Zoology  
The University of Burdwan  
West Bengal, India

## Certificate

This is to certify that Prof. / Dr. / Mr. / Ms. *Danir Dharvi (Mazumder)*..... of  
*Dept. of Zoology, Widyasagar University, Midnapore*.....  
chaired a session / delivered invited lecture / presented a paper / participated in the Golden Jubilee International  
Conference on 'Trends in Zoology' held on January 03-04, 2019, organized by the Department of Zoology,  
The University of Burdwan, Burdwan, West Bengal, India.

*[Signature]*  
Dr. K. Ghosh & Dr. S. N. Chatterjee  
Organizing Secretaries

*[Signature]*  
Prof. A. Barik  
Convener

*[Signature]*  
Prof. G. Chandra  
President

*[Signature]*  
Prof. N. C. Saha  
Vice Chancellor

# South Calcutta Girls' College

NAAC Accredited

72, Sarat Bose Road  
Kolkata-700 025

Phone : Principal : 2454-2265  
Office : 2475-3785



Ref. No.....

Date .....201

## TO WHOME IT MAY CONCERN

This is to certify that Smt. Dalia Majumder served our College as a  
Contractual whole time Teacher in Zoology from 10.07.2006 to 21.11.2007.

She is sincere, enthusiastic, punctual and a very good teacher.

I wish her all the success.

*D. Majumder* 18.1.13

Teacher-in-Charge & Secretary.

Teacher-in-Charge & Secretary  
South Calcutta Girls' College  
72, Sarat Bose Road, Kol-25

# VIDYASAGAR UNIVERSITY



This is to certify that

*Dalva Palur (Majumder)*

obtained the Degree of Doctor of Philosophy

in *Zoology* under the Faculty of

*Science* of this University in the

year 2012

*Midnapore*  
20th July, 2012

*Vice-Chancellor*