

**GOVERNMENT OF WEST BENGAL**  
**GOVERNMENT GENERAL DEGREE**  
**COLLEGE, LALGARH**  
**LALGARH::JHARGRAM::721516**  
[Website: www.lalgarhgovtcollege.org](http://www.lalgarhgovtcollege.org)

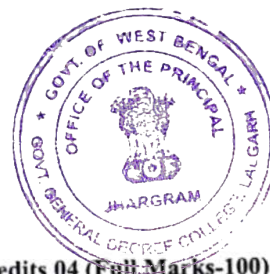
## **VALUE ADDED COURSE(VAC)**

**Value Added Course- (VAC)-01**

**Environmental Studies**

**Session-2023-2024**

## Value Added Course (VAC)



### Value Added Course (VAC)- 01

#### **VAC-01: ENVS- Environmental Studies**

**Credits 04 (Full Marks-100)**

#### **Course contents:**

##### **Unit-I: Introduction to environmental studies**

**(2 lectures)**

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.

##### **Unit-II: Ecosystems**

**(6 lectures)**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems: a) Forest ecosystem; b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

##### **Unit-III: Natural Resources: Renewable and Non-renewable Resources**

**(8 lectures)**

- Land resources and land use change; Land degradation, soil erosion and desertification;
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Joint forest management.
- Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & interstate).
- Energy resources: Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

##### **Unit-IV: Biodiversity and Conservation**

**(8 lectures)**

- Levels of biological diversity: genetic, species and ecosystem diversity; Bio-geographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

##### **Unit-V: Environmental Pollution**

**(8 lectures)**

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.
- Pollution case studies.
- Noise pollution.

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#### Unit-VI: Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impact on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.
- Environmental policy and gender issues

#### Unit-VII: Human Communities and the Environment

(6 lectures)

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management: floods, earthquake, cyclones and landslides.
- Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g. CNG vehicles in Delhi)

#### Unit-VIII: Field work

(Equal to 5 lectures)

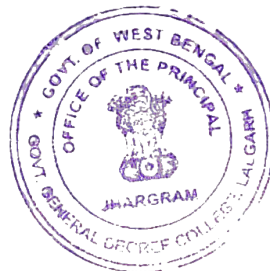
- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site--Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems--pond, river, Delhi Ridge, etc.
- Disaster management.
- Coastal ecosystem

#### Suggested Readings:

- Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
- Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
- Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
- Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
- Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
- Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36--37.
- McCully, P. 1996. *Rivers no more: the environmental effects of dams* (pp. 29--64). Zed Books.
- McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
- Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
- Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press
- Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co.Pvt. Ltd.
- Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.

VIDYASAGAR UNIVERSITY, PASCHIM MIDNAPORE, WEST BENGAL

**UG 1<sup>st</sup> Semester (CCFUP-NEP) Examination 2023**  
**Subject- Life Science**  
**Paper- VAC 01 (Environmental Studies Project)**



**Oral and Evaluations of Project Report**

**Date: 25.04.2024**

**ATTENDANCE RECORD**

ROLL NO	REGISTRATION NO	REG. YEAR	NAME	SIGNATURE OF THE CANDIDATE
4311123-2319274	VU231230365	2023-2024	ANANYA DEY ✓	Ananya Dey (25/04/2024)
4311123-2319284	VU231230380	2023-2024	SUDIPA JANA ✓	Sudipa Jana (25/04/24)
4311123-2319283	VU231230377	2023-2024	SANGITA KAMAR ✓	Sangita Kamar (25/04/24)
4311123-2319282	VU231230374	2023-2024	ROHAN KUMAR SHOW	
4311123-2319281	VU231230368	2023-2024	CHANDA DOLAI ✓	Chanda Dolai (25/04/24)
4311123-2319280	VU231230364	2023-2024	AMRIT MAHATA	
4311123-2319278	VU231230381	2023-2024	TANIMA MAL ✓	Tanima Mal (25/04/2024)
4311123-2319276	VU231230376	2023-2024	SAMIR SINGHA	
4311123-2319275	VU231230371	2023-2024	INDRANI JANA ✓	Indrani Jana 25/04/24
4311123-2319264	VU231230363	2023-2024	AMARJIT KARAK ✓	Amarjit Karak 25/04/24
4311123-2319273	VU231230362	2023-2024	AMAL MURMU	
4311123-2319272	VU231230378	2023-2024	SOUMEN MAHALI	Soumen Mahali 25/04/24
4311123-2319270	VU231230373	2023-2024	RIMA GHOSH	Rima Ghosh 25/04/24
4311123-2319268	VU231230370	2023-2024	INDRAJIT SINGHA ✓	Indrajit Singh 25/04/24
4311123-2319267	VU231230369	2023-2024	DEBIKA PAL	Debika Pal 25/04/2024
4311123-2319265	VU231230366	2023-2024	APURBA MAHATA	Apurba Mahata (25.04.24)

Rima Ghosh  
25/04/24

Indrajit Singh  
25/04/24





**Title:**

**CHECKLIST OF MEDICINAL PLANTS AT GOPEGARH**  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarth Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:**

Roll: 431123 No.: 2319264

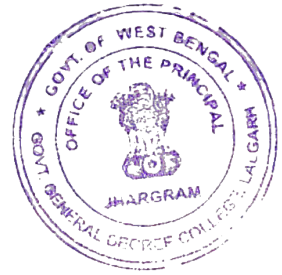
Registration No.: VU231230363 of 2023-2024  
ABC ID: 683808017937

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
**Lalgarth Govt. College, Lalgarth, Jhargram, W.B. 721516**

**Year: 2024**



## Declaration of the Candidate

I, Amarjit Karak, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was " Checklist of medicinal plant of Lalgarh " At

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/B.Com (Hons/General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Amarjit Karak

(Signature of the Candidate)

University Roll: 431123 No.: 2319264

Registration No.: VU23123030 of 2023-2024

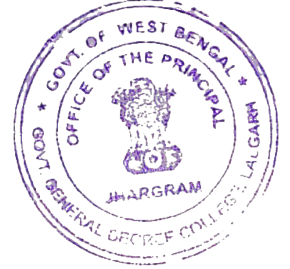
Date: 16/04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of English

P.O.: LALGARH; DIST.: JHARGRAM; e-mail: [principal@lalgarhgovtcollege.org](mailto:principal@lalgarhgovtcollege.org)



Memo No.

Date 16.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. Amorjit Karake , a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course** (VAC-01) entitled project, "checklist of medicinal plant of Jhargram,"

"as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc: Hons./General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dwaipayan Mitra, Assistant Professor of English, GGDC Lalgarh, Jhargram, W.B. on 16/04 /2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Signature of Supervisors:

(Asst Prof Dwaipayan Mitra)  
Assistant Professor of English, Dept. of English,  
Govt General Degree College Lalgarh, Jhargram,  
Jhargram, W.B



Govt. Gen. Degree College, Lalgarh, Jhargram, W.B., 721516

Value Added Course (VAC-01)

Project in Field for UG Students

Year: 2023-2024

Feedback Form

(This form must be signed by Field Guide and countersigned by the Institutional Head at office after completion of field trip)

Your Name in Capital Letter: AMARJIT KARAK

Your Subject : (H/G/ Multidisciplinary etc.): B.S.C (Botany, zoology, physiology)

Your title of the Project: checklist of medicinal plants at Gopegarh

Your Partner of the Project work at Field: Indrajit Singh

Your Guide teacher in Field: ~~Dr.~~ DR. DEBABRATA DAS

Your Supervisor's Name:

Any other Guide: Karam Saren, BUBAI Chakr

Date and Time of Arrival: 09/03/2024 (8:00 AM)

Date and time of Departure: ~~8:00 AM~~ 09/03/2024 (3:00 PM)

Hours spend on field: 7 hours

Overall Comment: Average/Good/Very Good/ Nice/ Excellent ✓

Management of the Organizer: Good

Your Phone No. 964726674 e-mail Id: amarjitkarak@gmail.com

Declaration: I have no objection in the event of field work at Gopegarh Heritage Area during study with guide teachers.

Signature of the Student: Amarjit karak

College Roll: No.:

Regd. No. (Univ.):

Signature of the Student: Amarjit karak

Signature of the Guide Teacher:

Verified by the Officer-in-Charge:  
(With Seal)

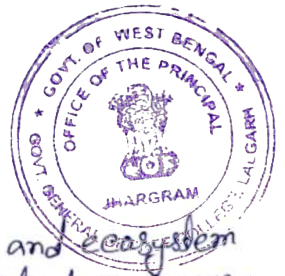
Officer - in - Charge  
Govt. General Degree College, Lalgarh  
Lalgarh, Jhargram, 721516



# সূচিকা



ক্রমিক নং	বিষয়	পৃষ্ঠা নং
১	ভূমিকা	২
২	উদ্দেশ্য	৩
৬	লেখক পরিচিতি	৪
৪	গানিকা	৫
৬	কলাকর্ম ও বিশ্লেষণ	৬-১৪
৬	সংগে (ক) অন্তর্ভুক্ত অংশ।	১৭
৭	উপসংহার	২০
৮	Abstract (সারসংক্ষেপ)।	২১
৯	Reference (উদ্ধৃতি)	২২
১০	উদ্ধৃতি স্থান	২৩
১১	সংস্করণ	২৪



Services: A general case study at Title: Ecological values and ecosystem  
Kankujhore area in Belpahari Range.

(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:**

Roll: 9311123 No.: 9319374.....

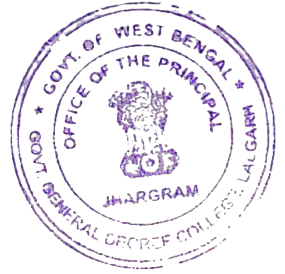
Registration No.: VU231230365 of 2023-2024  
ABC ID: 239960878389

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College. Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## Declaration of the Candidate

I, Ananya Dey, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "*Ecological values and ecosystem services:- A general case study at Kankrajhore area in Belpahari Range*"

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/~~B.Com~~ (Hons/General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Ananya Dey  
(Signature of the Candidate)

University Roll: 431123 No.: 2319274

Registration No.: VU2312300 of 2023-2024  
365

Date: 16/04/2024

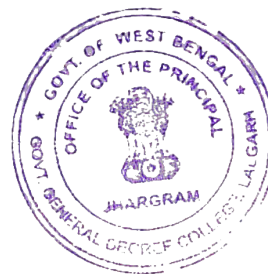
Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE

Department of Botany

P.O.: LALGARH; DIST.: JHARGRAM; e-mail: principal@lalgarhgovtcollege.org;



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

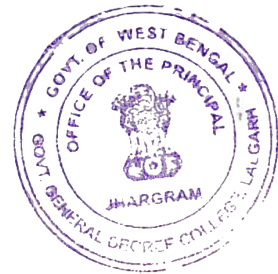
This is to Certify that Smt./Sri./Miss/Mr./Mrs. *Ananya Dey*, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course (VAC-01)** entitled project, "*Ecological values And Ecosystem services :- A General Case study At Bankrajphare In Belpahari Range.*" as per the guideline of Vidyasagar University under the title Flora at Local ex-situ site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 06/02/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

*Debabrata Das*  
Signature of Supervisors: 25/4/24

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

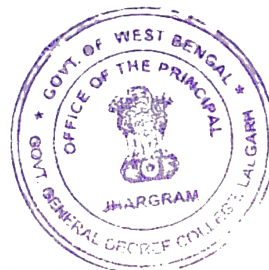


# Table of Contents



Subject	Page No.
Introduction	1
Objectives	2
Area under study	3
Materials	4
Methods	5
Result and discussion	6
Photo	7 - 9
Group Photo	10
Conclusion	11
Acknowledgements	12
References	13 - 14

Title: *Floral study on Digha Coast. W.B.*



(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A.  
(GENERA/HonsL) DEGREE IN HUMANITIES UNDER NEP-2020)

Title of the Project Paper: VAC-01 (Group 2)

Report Submitted to:

Lalgarth Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: *Apurba Mahata*  
Roll: *4311123* No.: *2319265*

Registration No.: VU231230366 of 2023-2024  
ABC ID: *747524557109*

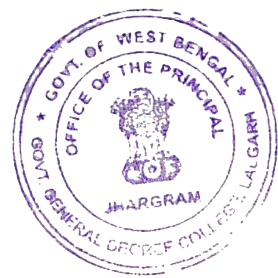
(Affiliated to Vidyasagar University, Midnapore, W.B)

Supervised by:

Dr. Debabrata Das, W.B.E.S  
Associate Professor and Head, Dept. of Botany,

Lalgarth Govt. College, Lalgarth, Jhargram, W.B. 721516

2024



## Declaration of the Candidate

I, Apurba Mahata, 1<sup>st</sup> year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "Floral study on Digba Coast."

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/~~B.Com~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Apurba Mahata

(Signature of the Candidate)

University Roll: 4311123 No. 2319265

Registration No.: VU 2312303 of 2023-2024

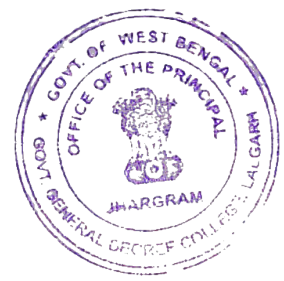
Date: 15/04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of Botany

P.O.: LALGARH; DIST.: JHARGRAM; e-mail: [principal@lalgarhgovtcollege.org](mailto:principal@lalgarhgovtcollege.org)



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. *Apurba Mahata*, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course** (VAC-01) entitled project, "*Floral study on Digha Coast, W.B.*"

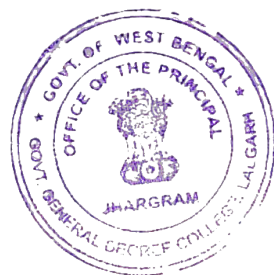
"as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 11/02/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

*Debabrata Das*  
Signature of Supervisors: 15/04/24

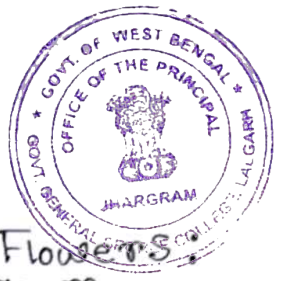
(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.



# ÷ प्रविष्टि : ÷



ক্রমিক নং.	বিষয়	পৃষ্ঠা নং.
i)	প্রতিষ্ঠান	1
ii)	উদ্দেশ্য	2
iii)	সংলাপন (জালিকা-1)	3
iv)	বৈজ্ঞানিক Scientific Name	4
v)	বিষয়	5-12
vi)	বিভিন্ন বৈজ্ঞানিক বস্তু	13
vii)	Adapted Flora	14
viii)	কৃত্রিম প্রকৃতি	15
ix)	References	16



**Title:** Fruits and Flowers  
*Resources in our Forest area, Jhargram*  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper:** VAC-01 (Group 1)

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: *chanda Dolal*

Roll: *4311123* No.: *2319281*

Registration No.: VU231230368 of 2023-2024  
ABC ID: 146205112646

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

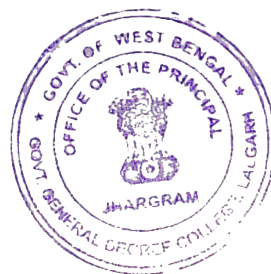
**Year: 2024**



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE

Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org:



Memo No.:

Date: 15.04.2024

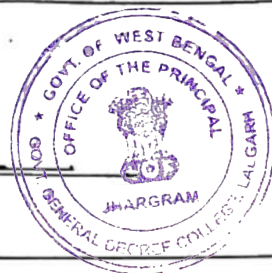
### To Whom It May Concern

This is to Certify that Smt./Sri/Miss/Mr./Mrs. Chanda Dolai, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on Value Added Course (VAC-01) entitled project, "Fruits and Flowers: Resources in our Forest area, Jhargram" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 6/2/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Debabrata Das  
Signature of Supervisors: 15/4/24

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

# Table of Contents



Sl. No.	Subject	Page No.
1	Summary	1
2.	Acknowledgements	2
3.	Table	3-4
4.	Introduction	5
5.	Area under Study	6
6.	Photo	7
7.	Requirements	8
8.	Procedure	9
9.	Objectives of the Study	10
10.	Objectives	11
11	Group Photo	12
12	References	13-14





**Title:**

**PLAIN AND HILL FOREST ECOSYSTEM OF JHARGRAM**  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT AMIN  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc W.B.  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:**

Roll: 4311123 No.: 2319267...

Registration No.: VU231230369 of 2023-2024  
ABC ID: 910899237814

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## Declaration of the Candidate

I, Debika Pal, 1<sup>st</sup> year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was " Plain and Hill Forest Ecosystem of Jhargram in W.B.

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/ ~~B.Com~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Debika Pal

(Signature of the Candidate)

University Roll: 431123 No. 2319267

Registration No.: VU2312 of 2023-2024  
30369

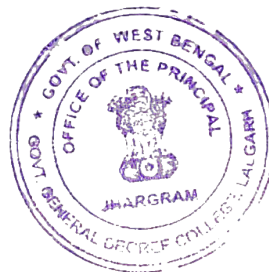
Date: 16 /04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org:



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

This is to Certify that Smt./Srl./Miss/Mr./Mrs. Debika Pal, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on Value Added Course (VAC-01) entitled project, "Plain & hill forest Ecosystem of Jhargram in West Bengal" as per the guideline of Vidyasagar University under the title Flora at Local ex-situ site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 6/02/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Debabrata Das 15/4/24  
Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

# Table of Contents



Subject	Page No.
Abstract	1
Introduction	2
Objectives	3
Conclusion	4
Requirements	5
Procedure	6
Acknowledgements	7
Results	8-9
Photo	10
Area Under Study	11
Group Photo	12
References	13-15





**Title:** checklist of medicinal plants  
of Midnapore

(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper:** VAC-01 (Group 1)

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:**

Roll: 4311123 No.: 2319268

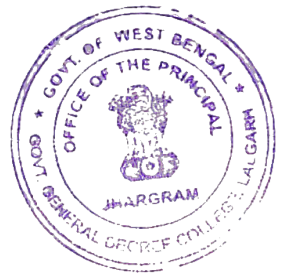
Registration No.: VU 231 230370 of 2023-2024  
ABC ID: 680091375436

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

**Year:** 2024



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of English

P.O.: LALGARH; DIST.: JHARGRAM; e-mail: principal@lalgarhgovtcollege.org;

Memo No.:

Date 16.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. Indrajit Singh, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course (VAC-01)** entitled project, "checklist of Medicinal Plants at mop ghosh"

" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dwaipayan Mitra, Assistant Professor of English, GGDC Lalgarh, Jhargram, W.B. on / /2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Signature of Supervisors:

(Asst. Prof. Dwaipayan Mitra)  
Assistant Professor of English, Dept. of English,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.



## Declaration of the Candidate

I, Indrajit Singh, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "checklist of medicinal plants of Jhargram"

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/~~B.Com~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Indrajit Singh  
(Signature of the Candidate)

University Roll: 4311123 No.: 2813268

Registration No.: 4311123 of 2023-2024  
VU 23123037

Date: /04/2024

Place: Lalgarh, Jhargram, W.B.



Govt. Gen. Degree College, Lalgarh, Jhargram, W.B., 721516

Value Added Course (VAC-01)

Project in Field for UG Students

Year: 2023-2024

Feedback Form

(This form must be signed by Field Guide and countersigned by the Institutional Head at office after completion of field trip)

Your Name in Capital Letter: INDRAJIT SINGHA

Your Subject : (H/G/ Multidisciplinary etc.): B.S.C (BOTANY, ZOOLOGY, PHYSIOLOGY)

Your title of the Project: checklist of medicinal plants at Utopogon

Your Partner of the Project work at Field: ~~Dr. Debajit Das~~ Amarjit Karak

Your Guide teacher in Field: Dr. Debajit Das

Your Supervisor's Name:

Any other Guide: Kobon Saha, BUBAY CHAK

Date and Time of Arrival: 09/03/2024 (8:AM)

Date and time of Departure: 09.03.2024 (3:PM)

Hours spend on field: 7 hrs

Overall Comment: Average/Good/Very Good/ Nice/ Excellent ✓

Management of the Organizer: Good

Your Phone No. 8170882062 e-mail Id: indrajitsingh0405@gmail.com

Declaration: I have no objection in the event of field work at Utopogon herbarium during study with guide teachers.

Signature of the Student: Indrajit Singha

College Roll: No.: 23

Regd. No. (Univ.): VU281230370

Signature of the Student: Indrajit Singha

Signature of the Guide Teacher:

Dr. Debajit Das  
Verified by the Officer-in-Charge:  
(With Seal)

Officer - in - Charge  
Govt. General Degree College, Lalgarh  
Lalgarh, Jhargram, 721516

# মুঠিমত্ৰ



ক্রমিক ক.	বিষয়	পৃষ্ঠা নং
০.	দ্রুতিকা	1
১.	উদ্দেশ্য	2
৩.	মতামত	3
৪.	ভাষিক	4
৫.	প্রশ্নোত্তর ও বিবরণ	5-19
৬.	ফর্ম (কম্পিউটার প্রোগ্রামিং)	20
৭.	উপস্থাপনা	21
৮.	Abstract (সংক্ষেপ)	22
৯.	Reference (সংগ্রহ)	23
১০.	কৃতজ্ঞতা জ্ঞাপন	24
১১.	সংস্করণ	25
১২.		
১৩.		





**Title: TREE SPECIES AND  
ECOLOGICAL DIVERSITY AT SOME FOREST RANGES**  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT OF  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc WEST  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020) BANGAL

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:** Indrani Jana

Roll: 4311123.. No.2312275....

Registration No.: VU231230371 of 2023-2024  
ABC ID:

751026751152

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## Declaration of the Candidate

I, Indrani Jana, 1<sup>st</sup> year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "Tree Species and Ecological Diversity at some forest ranges of West Bengal."

"as stipulated by our mentor teachers under the graduation syllabus of B.A./ B.Sc/~~B.Com~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Indrani Jana  
(Signature of the Candidate)

University Roll: 4311123.No.: 2319275

Registration No. VU231230<sup>371</sup> of 2023-2024

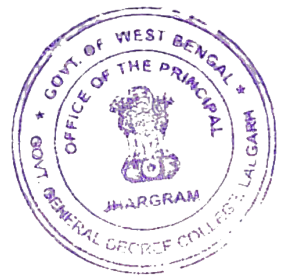
Date: 18/04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org:



Memo No.:

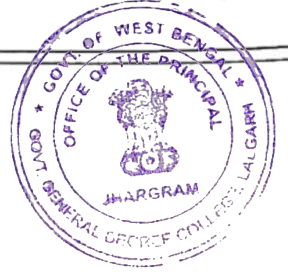
Date: 15.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. Indrani Jana, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course (VAC-01)** entitled project, "TREE species and ecological diversity at some forest Ranges of West Bengal" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 6 / 2/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

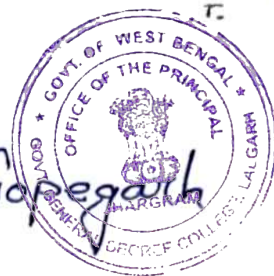
Debabrata Das 15/04/24  
Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.



## অধিষ্ঠান

ক্রমিক নং	বিবরণ	পৃষ্ঠা নং
1.	পূর্বনিবন্ধ	1-2
2.	অধীক্ষক উদ্দেশ্য	3
3.	অধীক্ষক কার্য	4
4.	তত্ত্বাবধিকার অবস্থান	5
5.	অধীক্ষক নীতি	6
6.	অধীক্ষক উদ্দেশ্য	7
7.	তত্ত্বাবধিকার কালসীমা	8
8.	তত্ত্বাবধিকার বিধিমালা	9
9.	আলোচ্য চিত্র	10
10.	মন্তব্য	11
11.	আম ও অস্বাক্ষর	12
12.	কৃতজ্ঞতা প্রকাশ	13
13.	অস্বাক্ষর নথি	14-15



**Title:** *checklist of Florant Gopegath*

(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A.  
(GENERA/HonsL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper:** VAC-01 (Group 2)

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: *Rima Ghosh*  
Roll: *4311123* No.: *2319270*

Registration No.: VU231230 *373* of 2023-2024  
ABC ID: *907935509615*

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Dr. Debabrata Das, W.B.E.S  
Associate Professor and Head, Dept. of Botany,

**Lalgarh Govt. College. Lalgarh, Jhargram, W.B. 721516**

**2024**





## Declaration of the Candidate

I. Rima Ghosh, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was " checklist of Flora at Gopegarh.

"as stipulated by our mentor teachers under the graduation syllabus of B.A./ B.Sc/ ~~B.Com.~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Rima Ghosh

(Signature of the Candidate)

University Roll: 4311133. No: 2319276

Registration No.: VU231230373 of 2023-2024

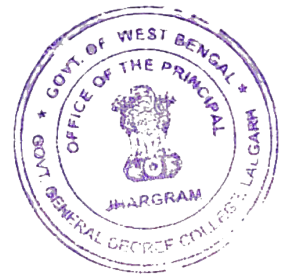
Date: 15 /04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of Botany

P.O.: LALGARH- DIST: JHARGRAM- e-mail: principal@lalgarhgovtcollege.org



Memo No

Date: 15.04.2024

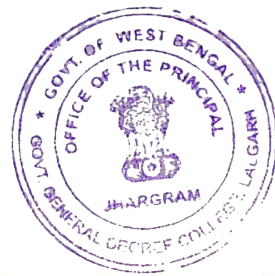
### To Whom It May Concern

This is to Certify that ~~Smt~~ ✓ ~~Sri~~ ✓ Miss ~~Mr~~ ✓ Mrs Rima Ghosh a 1<sup>st</sup> Semester B.A. (GLS) students of UG NEP-2020 GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course (VAC-01)** entitled project, "Checklist Flora at Gopegarh"

" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A. B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on ~~03~~ ✓ 03.2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Debabrata Das  
Signature of Supervisors 15/04/24

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.



# -ঃ আদেশঃ-

## -ঃ বিষয়ঃ-

ক্রমিক নং		পৃষ্ঠা নং
১.	ভূমিকা	১
২.	বৈদ্য	২
৩.	ফলাফল (তালিকা-১)	৩
৪.	বৈদ্যের Scientific Name	৪-৫
৫.	বিভিন্ন বৈদ্যের বর্ণনা	৫-১৭
৬.	বিশ্লেষণ	১৪
৭.	Abstract Flora	১৭
৮.	সংস্করণ	২০
৯.	ফলাফল	২১
১০.	সংস্করণ	২২-২৩
১১.	References	২২-২৩



**Title:**

**Elephant : An endangered species of our area**  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B A /B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: **Sangita Kumar**

Roll: **4311123** No.: **2319283**.....

Registration No.: **VU231230377** of 2023-2024  
ABC ID: **299401761466**

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## Declaration of the Candidate

I, Sangita Kamar, 1<sup>st</sup> year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was " Elephant : An endangered species of our area .

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/~~B.Com~~ (Hons/General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Sangita Kamar  
(Signature of the Candidate)

University Roll: 4311123...No.: 2319283

Registration No.: VU23123 of 2023-2024  
0377

Date: 18 /04/2024

Place: Lalgarh, Jhargram, W.B.

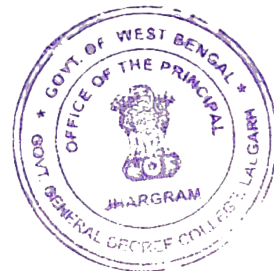




GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE

Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org:



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. Sangita Karmar, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on **Value Added Course** (VAC-01) entitled project, " ELEPHANT: An Endangered species of our area .

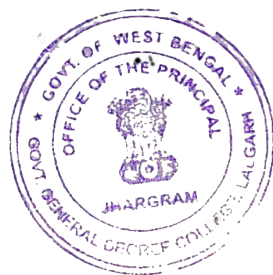
" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 06/04/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Debabrata Das 18/04/24

Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

## Table of Contents



Subject	Page No.
Introduction	1-2
Objectives	3
Requirements	4
Procedure	5
Result	6
Conclusion	7
Area Under study	8
Photo	9
Group photo	10
Reference	11-12

**Title:** Nature trail and record species at New  
Ocana to Dheusagar.



(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A.  
(GENERA/HonsL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 2)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: Soumen Mahali  
Roll: 4211123 No.: 2319272

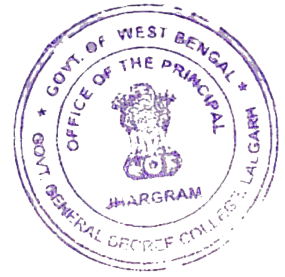
Registration No.: VU231230378 of 2023-2024  
ABC ID: 126629311111

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Dr. Debabrata Das, W.B.E.S  
Associate Professor and Head, Dept. of Botany,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

2024



## Declaration of the Candidate

I, Soumen Mahali, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "Nature trail and record species of New Digha From Oacana to Dheusagar."

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ ~~B.Sc/B.Com~~ (Hons/General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Soumen Mahali  
(Signature of the Candidate)

University Roll: 4311123 No. 2319272

Registration No.: VU2319303 of 2023-2024

Date: 23/04/2024

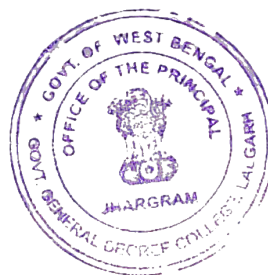
Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE

Department of Botany

P.O.: LALGARH; DIST.: JHARGRAM; e-mail: principal@lalgarhgovtcollege.org;



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. <sup>B.Sc.</sup> Soumen Mahali, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on Value Added Course (VAC-01) entitled project, "Nature trail and record species at New Digha from Oceana to Dheusagar." as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 22/01/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

*Debabrata Das 23/04/24*  
Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.







**Title:**  
MAN PLANT RELATIONSHIP IN OUR BHULAVEDA AND BELPHARI  
FOREST RANGE, W.B.

(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

**REPORT SUBMITTED BY:** Sudipa Jona

Roll: 4311123 No.: 2319284....

Registration No.: VU231230380 of 2023-2024  
ABC ID: 363939020270

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College, Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## Declaration of the Candidate

I, Sudipa Jana, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was "Man plant relationship in our bhulaveda and Belpahari forest range, W.B."

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/ ~~B.Com~~ (Hons./General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Jhargram, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Sudipa Jana  
(Signature of the Candidate)

University Roll: 4311123 No. 2319284

Registration No. VU231230380 of 2023-2024

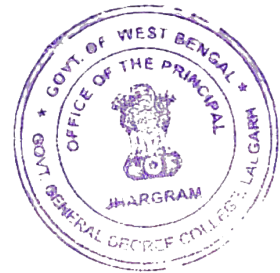
Date: 16/04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE  
Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org



Memo No.:

Date: 15.04.2024

### To Whom It May Concern

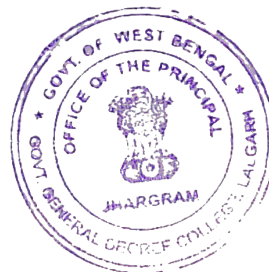
This is to Certify that Smt/Sri/Miss/Mr/Mrs. *Sudipa Jona .a l*<sup>st</sup>  
Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B.  
has done the allotted Project work on Value Added Course (VAC-01) entitled  
project, " *Man Plant relationship in our Bhulveda*  
*and Belpahari forest ranges West Bengal*  
" as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ*  
site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from  
Vidyasagar University in the year 2024 with full of satisfaction. He/She has  
completed 10 hours field visit for data collection and photography in connection  
with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany,  
GGDC Lalgarh, Jhargram, W.B. on 06/02/2024 from 6:00 a.m. to 6:30 p.m. He/She  
also completed study on the major topic in the field/College and at home to prepare  
the project report complete in all aspects covering 30 hours. We wish her/him every  
success in life.

*Debabrata Das* 15/04/24  
Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

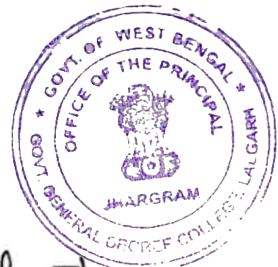


# TABLE OF CONTENTS



SL. NO.	Subject	Page No.
1.	Summary	1
2.	Introduction	2
3.	Objective	3
4.	Area under study	4
5.	Materials and Methods	5
6.	Result	6
7.	Discussion	7
8.	Conclusion	8
9.	References	9-10





**Title:**

**EcoSystem Services of forests of Jhargram**  
(A PROJECT REPORT ON ENVIRONMENTAL STUDIES BASED ON FIELD VISIT  
FOR THE PARTIAL FULFILLMENT OF THE 1<sup>st</sup> END SEMESTER B.A./B.Sc  
(Hons./GENERAL) DEGREE IN HUMANITIES UNDER NEP-2020)

**Title of the Project Paper: VAC-01 (Group 1)**

**Report Submitted to:**

Lalgarh Govt. College, Jhargram, W.B.  
Affiliated to: VIDYASAGAR UNIVERSITY,  
MIDNAPORE, W.B. 721102

REPORT SUBMITTED BY: *Tanina Mal*

Roll: *4311123* No.: *2319278*

Registration No.: VU23123038 1 of 2023-2024

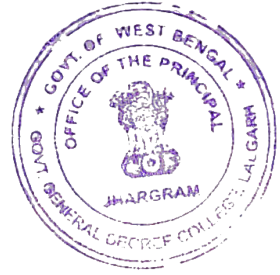
ABC ID: 173721984207

(Affiliated to Vidyasagar University, Midnapore, W.B)

**Supervised by:**

Prof. Dwaipayan Mitra, W.B.E.S.  
Assistant Professor of English, Dept. of English,  
Lalgarh Govt. College. Lalgarh, Jhargram, W.B. 721516

**Year: 2024**



## **Declaration of the Candidate**

I, Tanima Mal, 1st year, 1<sup>st</sup> End Semester, B.A./B.Sc (Hons./General) student of Lalgarh Government College, Lalgarh, Jhargram, West Bengal have done my allotted project work on *Environmental Studies*. The title of the Project was " Ecosystem Services of forests of Jhargram. "

"as stipulated by our mentor teachers under the graduation syllabus of B.A/ B.Sc/ ~~B.Com~~ (Hons/General) course affiliated to Vidyasagar University, Midnapore, West Bengal, India following NEP-2020 curriculum. It has been placed for the evaluation and for the partial fulfilment of Under Graduate (UG) degree, in Arts (Humanities) in the year 2024 from Government General Degree College, Lalgarh, Jhargram for 1<sup>st</sup> End Semester Examination, 2023, 2023- 2024 session.

Tanima Mal  
(Signature of the Candidate)

University Roll: 4311123 No.: 2310278

Registration No.: VU 23123 of 2023-2024  
0381

Date: 16 /04/2024

Place: Lalgarh, Jhargram, W.B.



GOVERNMENT OF WEST BENGAL  
LALGARH GOVERNMENT COLLEGE

Department of Botany

P.O.: LALGARH: DIST.: JHARGRAM: e-mail: principal@lalgarhgovtcollege.org:



Memo No.:

Date: 15.04.2024

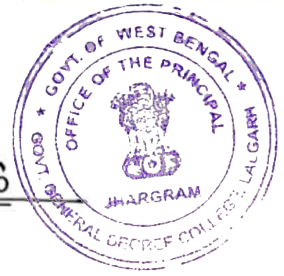
### To Whom It May Concern

This is to Certify that Smt./Sri./Miss/Mr./Mrs. Tanima Mal, a 1<sup>st</sup> Semester B.A. (GEN) students of UG NEP-2020/GGDC Lalgarh, Jhargram, W.B. has done the allotted Project work on Value Added Course (VAC-01) entitled project, "Ecosystem Services of forests of Jhargram."

"as per the guideline of Vidyasagar University under the title Flora at Local *ex-situ* site for the fulfilment of end semester B.A./B.Sc. Hons./ General degree from Vidyasagar University in the year 2024 with full of satisfaction. He/She has completed 10 hours field visit for data collection and photography in connection with the Project work supervised by Dr. Debabrata Das, Associate Prof. of Botany, GGDC Lalgarh, Jhargram, W.B. on 08/02/2024 from 6:00 a.m. to 6:30 p.m. He/She also completed study on the major topic in the field/College and at home to prepare the project report complete in all aspects covering 30 hours. We wish her/him every success in life.

Debabrata Das 15/04/24  
Signature of Supervisors:

(Dr. Debabrata Das)  
Associate Professor of Botany,  
Govt. General Degree College Lalgarh, Jhargram,  
Jhargram, W.B.

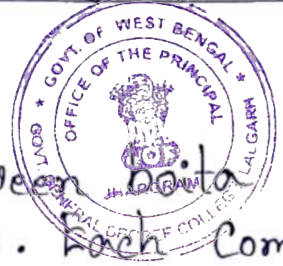


# Table of Contents

Sub ject	Page No.
Abstract	1
Introduction	2-3
Objectives	4
Requimenets	5
Procedune	6
Result	7
Photo	8
Area Under Study	9
Group Photo	10
Acknowledgement	11
Referencc e	12-13



## Abstract



Ecosystem is the interactions between biota and abiota in the environment. Each Component and their specific type of action is due to specific climatic conditions. So, ecosystem services mean to say the utmost value and results we got from the ecosystem.

This is therefore important for us. Soil, land, water, air etc. act jointly and serve as producers for any kind of component. Plants are the producers and produce food, fodder, wood, secondary products. They help to keep soil healthy, wealthy and productive. Good ecosystem services can better environment and keep the environment clean, green and ecofriendly. So, our requirements and need fulfil to make sure due to fit environment. In this report I am trying to complete all aspects of ecosystem services in our Jhargram forest area.

*Biswanath Chakraborty*

Officer-in-Charge  
Government General Degree College, Lalgarh  
Lalgarh, Jhargram, 721516