



SRIKRISHNA COLLEGE



Bagula ○ Nadia ○ W. B. ○ India

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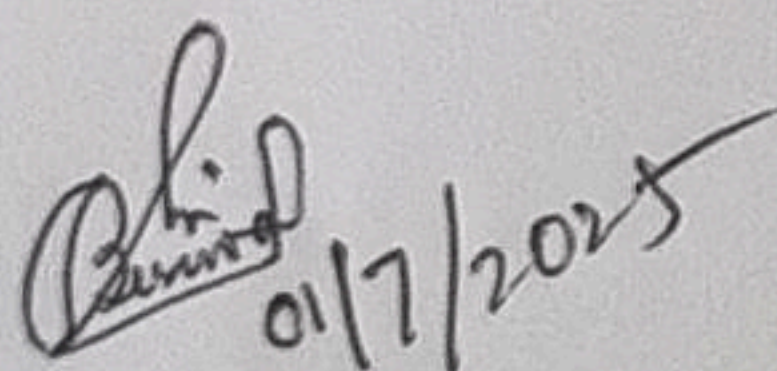
Re-accredited by NAAC, Grade-B+ (Cycle-III)

Department of Geography

Report on Field Work

Date: 25th April to 27th April, 2025

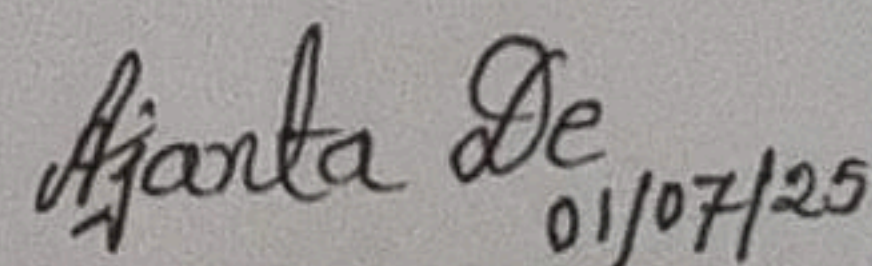
According to the syllabus of University of Kalyani it is a mandatory field work for 6th Semester students (CBCS). In this purpose Department of Geography had organized an educational tour cum field survey with 6th Semester (CBCS system) with 51 students including 4 teachers from 25th April to 27th April 2025. We had started our journey from Bagula, Nadia, West Bengal and ended at Shankarpur, East Midnapur, West Bengal. We had done our field work at Shankarpur around sea beach area under Ramnagar-I Community Development Block. The name of the village is Shankarpur village. We were specially visited New Digha Sea Beach, Science City and Marine Aquarium and Regional Center, Digha to gather comprehensive knowledge regarding the field survey. The name of the topic of the field work is ***"Effects of Coastal Erosion on the Fishing Community Livelihood: Shankarpur, East Midnapur, West Bengal, India"***. In this regard total of 40 households have been surveyed to gather data and information using structured open and close ended questionnaires. Beside this 02 students had completed their field work at Ghoraliya, Fulia, Nadia, West Bengal, India. The title of their topic was ***"River bank Erosion and Its Impact on Economy and Society-A Study of River Hooghly at Ghoraliya, Fulia, Nadia, West Bengal"***


01/7/2025

Signature of the HOD

HOD

Department of Geography
Srikrishna College (Estd-1950)
Bagula, Nadia, Pin-741502


01/07/25

Signature of Supervisor

REPORT ON FIELD WORK

(2024-2025)

1. **Topic Name (i):** *“Effects of Coastal Erosion on the Fishing Community Livelihood: Shankarpur, East Midnapore, West Bengal, India”.*
2. **Topic Name(ii):** “ River bank Erosion and Its Impact on Economy and Society-A Study of River Hooghly at Ghoraliya, Fulia, Nadia, West Bengal”
3. **Semester name of participation:** 6th Semester 2025
4. **Place:** Shankarpur, East Midnapore, West Bengal, India
5. **Place:** Ghoraliya, Fulia, Nadia, West Bengal
6. **Duration:** 25th April to 27th April,2025
7. **Student list of participation :** 51
8. **Course code:** GEO/H/CC/P/14

SL. NO.	NAME OF THE STUDENTS	REG. NO.	AGE	SEX
1	ANKITA DEWAN	32386	20	F
2	ANKITA KUJUR	32387	19	F
3	ANKITA SARKAR	32388	19	F
4	ARPITA HALDER	32389	20	F
5	BARSHA BISWAS	32390	19	F
6	BRISTI MONDAL	77075	20	F
7	BRISTI BISWAS	32391	19	F
8	DEBLENA SARKAR	32392	20	F
9	DEBLINA ROY	32393	20	F
10	DIPANWITA BISWAS	32394	20	F
11	DISHA ROY	32395	20	F
12	LIZA GAZI	32396	21	F
13	MADHURIMA SAHA	32397	20	F
14	MANDIRA PAUL	32398	19	F
15	MANJIMA GHOSH	32399	20	F
16	MITA SARKAR	32400	20	F
17	MOUMITA BISWAS	32401	20	F
18	MOUMITA BISWAS	32402	19	F
19	MOUSUMI BISWAS	32403	20	F
20	PRITI JOADDER	32404	20	F
21	PRIYANKA PRAMANIK	32405	20	F
22	PRIYANKA SAHA	32406	20	F
23	SAKSHI BISWAS	32408	20	F
24	SIMA SAHA	32409	20	F
25	SONALI BISWAS	32414	19	F
26	SUBHRA PAL	32415	20	F
27	SUILY BHADRA	32410	20	F
28	SNEHA BISWAS	32411	21	F
29	SNEHA DAS	32412	20	F
30	SNEHA GANGULY	32413	19	F
31	SUCHANDRA CHAKROBARTY	42042	19	F
32	SUSHMITA BISWAS	32418	20	F
33	SWAGATA BISWAS	32419	21	F
34	TINA SHARMA	32420	20	F
35	TIYASA SARKAR	32421	20	F
36	AKASH MONDAL	32422	21	M
37	AMIT RAJBANSHI	32423	21	M
38	ARIT DAS	32426	20	M
39	AVIJIT SANNYASHE	32427	20	M
40	BIPLAB SADHUKHAN	32428	20	M
41	DIBYAJYOTI BHATTACHARYA	32429	19	M
42	DIPTAM MONDAL	32430	19	M
43	MUSTAFIJUR MALITA	32431	20	M
44	PRITAM BISWAS	32432	20	M

45	SAMIRAN GHOSH	32433	21	M
46	SANTANU BISWAS	32434	19	M
47	SAYANDIP MANDAL	32435	21	M
48	SAYANTAN DEBNATH	32436	21	M
49	SOUMYAJIT SARKAR	32437	20	M
50	SUJOY KARMAKAR	32439	19	M
51	TONMOY SADHUKHAN	32440	20	M
	Teachers Name			
52	Dr.Nirmal Kr. Biswas		40	M
53	Dipankar Ghorui		47	M
54	Ajanta De		35	F
55	Papiya Achariya		39	F
56	DIPTANGSHU GHORUI(Son of Dipankar Ghorui)		9	M
57	AGNIVA SIKDAR(Son of Ajanta De)		5	M



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Ref. No.:

Date :

TO WHOME IT MAY CONCERN

It is for your kind information that A group of 51(Fifty One) students and 4(Four) teachers of Geography Department of this college is going to organize the Study Tour Cum Field Work at Shankarpur, Purba Medinipur, West Bengal) and its neighbouring places on 25th April to 27th April, 2025.

All concerned are requested to offer their help and cooperation for success of the said programme.

Place:Bagula

Date:

Shoza 24.4.25
Signature and Seal of the Principal

Principal
Srikrishna College
P.O.-Bagula, Dist.-Nadia.

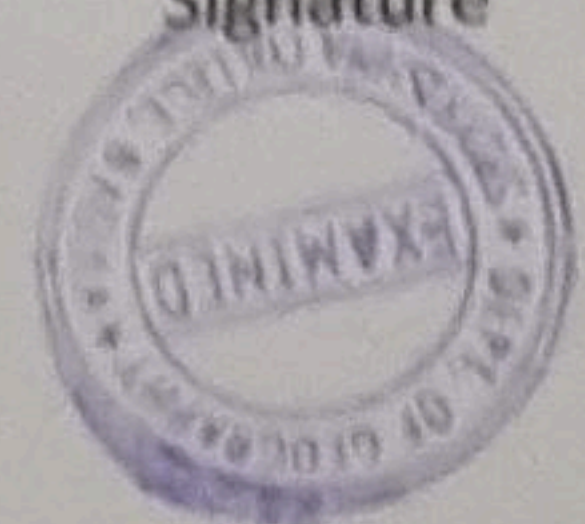
Post. - Bagula, Dist.-Nadia (W.B.), Pin-741502, Phone: 91-3473-272205/273812 • Fax: 91-3473-273812

Website: srikrishnacollegebagula.ac.in / email: srikrishnacollegebagula@rediff.com

CERTIFICATE

This is to certify that Disha Roy Roll. 3116137 No. 2234963 Registration No. 032395 of 2022-2023 has completed the project report on "Effects of Coastal Erosion on the Fishing Community Livelihoods: Shankarpur, East Medinipur, 2025" as part of fulfillment of Geography 6th semester Honours syllabus, course code: (GEO/H/CC/P/14) of University of Kalyani.

Date: 21/07/25

Ajanta De
Signature


PREFACE

Coastal erosion is one of the major problems of the coastal zones of Shankarpur, East Medinipur. Coastal erosion is a pressing issue that affects millions of people worldwide, particularly those who are living in coastal communities. For fishing communities, coastal erosion poses a significant threat to their livelihood, as it can lead to loss of fishing grounds, damage to infrastructure and displacement. This study aims to investigate the impact of coastal erosion on the livelihoods of fishing communities, with a focus on the social, economic, and environmental dimensions.

Coastal erosion can disrupt their fishing activities, damage their equipment and affect their income, leading to a decline in their overall well-being. Furthermore, coastal erosion can also have long-term consequences, such as loss of cultural heritage, social cohesion, and community identity.

The findings of this study are expected to inform policy and decision-making processes aimed at supporting the resilience and adaptability of fishing communities in the face of coastal erosion. By highlighting the challenges and opportunities facing these communities, this study aims to contribute to the development of effective strategies to promote sustainable livelihoods and coastal management practices.

INTRODUCTION

Coastal erosion is a significant threat to the livelihoods of fishing communities worldwide. The degradation of coastal ecosystems and the loss of land and infrastructure due to erosion can have far-reaching consequences for the social, economic, and environmental well-being of these communities.

Fishing communities are particularly vulnerable to coastal erosion due to their dependence on the coastal ecosystem for their livelihoods. The erosion of coastlines can lead to the loss of fishing grounds, damage to fishing infrastructure, and displacement of communities, ultimately affecting their income, food security, and way of life.

By understanding the effects of coastal erosion on fishing communities, this study aims to contribute to the development of effective strategies in the face of coastal erosion.

OBJECTIVES

The objectives of this study on the effect of coastal erosion on the fishing community livelihood are :-

1. The primary objective of this project report is to analyse the effect of coastal erosion on the fishing community livelihood.
2. To assess the impact of coastal erosion on the livelihoods of fishing communities, including their income, employment, and food security.
3. To examine the social and cultural impacts of coastal erosion on fishing communities.
4. To investigate the environmental impacts of coastal erosion on the coastal ecosystem and the natural resources that fishing communities depend on.
5. To develop recommendations for fishing communities to mitigate the impact of coastal erosion and promote sustainable livelihoods.

CAUSES OF COASTAL EROSION

Coastal erosion is a significant environmental hazard affecting India's vast coastline, which spans approximately 7500 km. It is primarily caused by natural processes such as wave action, tides and currents, exacerbated by human activities. Seasonal monsoon winds, cyclones, and storm surges can intensify erosion rates.

A. Natural Causes:

- 1. Sea level rise :** Global warming and climate change contribute to the rise in sea levels, making coastal areas more vulnerable to erosion. Rising sea levels increase the energy of waves and tides, leading to more erosion.
- 2. Wave action :** Waves especially during storms, can erode coastlines by removing sand and sediment.
- 3. Tides :** Rising and falling tides can cause erosion, especially when combined with other factors like wave action.
- 4. Storms :** Severe storms can cause significant erosion by generating powerful waves and storm surges.
- 5. Longshore Currents :** Currents that run parallel to the coast can transport sand and sediment, leading to erosion in some areas.

B. Human Induced Causes:

- 1. Coastal Development :** Construction of buildings, seawalls and other structures can disrupt natural sediment transport processes and lead to erosion.
- 2. Sand Mining :** Removing sand from beaches and coastal areas can exacerbate erosion by reducing the natural buffer against wave action.
- 3. Damming of Rivers :** Dams can trap sediment that would naturally flow to the coast, reducing the sediment supply and leading to erosion.
- 4. Climate change :** Increased storm intensity and sea level rise due to climate change can exacerbate coastal erosion.
- 5. Deforestation :** Removing coastal vegetation can weaken natural barriers against erosion, making the coastline more vulnerable.
- 6. Poor Coastal Management :** Lack of effective coastal management and planning can lead to development in vulnerable areas, increasing the risk of erosion.

Understanding the causes of coastal erosion is crucial for developing effective strategies to mitigate its impacts and protect coastal communities and ecosystems.

COASTAL EROSION MANAGEMENT PROCESSES

Coastal erosion is the process by which coastlines are gradually worn away due to natural forces such as waves, currents, tides, and human activities. The impacts include land loss, habitat destruction, and threats to human settlements. Managing coastal erosion is crucial for environmental sustainability, socio-economic stability, and disaster risk reduction.

Key Coastal Erosion Management Processes

1. Hard Engineering Techniques

- a. **Sea Walls** – Concrete or stone walls that protect the coast by absorbing wave energy.
- b. **Groynes** – Barriers built perpendicular to the shore to trap sediment and prevent longshore drift.
- c. **Revetments** – Sloping structures placed on banks or cliffs to absorb wave energy.
- d. **Breakwaters** – Offshore structures that reduce wave intensity before it reaches the shore.

2. Soft Engineering Techniques

- a. **Beach Nourishment** – Addition of sand or shingle to beaches to replace lost sediments and buffer against erosion.
- b. **Dune Stabilization** – Planting vegetation (e.g., marram grass) and installing fences to stabilize sand dunes.
- c. **Managed Retreat (Realignment)** – Allowing certain areas to erode or flood naturally to protect more valuable inland regions.

3. Eco-based or Nature-based Solutions

- a. **Mangrove Restoration** – Planting mangroves to act as natural buffers against wave action and storm surges.
- b. **Coral Reef Restoration** – Protecting or rehabilitating reefs to dissipate wave energy before it reaches the coast.
- c. **Living Shorelines** – Use of natural materials (like oyster reefs, vegetation) to stabilize coastlines while preserving habitats.

4. Policy and Governance Measures

- a. **Coastal Zone Management Plans (CZMP)** – Integrated, long-term planning for sustainable coastal development.
- b. **Land Use Zoning** – Restricting construction and land use in vulnerable coastal zones to reduce erosion risk.
- c. **Environmental Impact Assessment (EIA)** – Evaluating potential erosion impacts before approving coastal development.

5. Community-Based and Participatory Approaches

- a. Involving local communities in monitoring, decision-making, and implementation of erosion control projects.
- b. Promoting awareness and training on sustainable coastal practices.

Effective coastal erosion management requires a combination of engineering, ecological, and socio-political approaches. Integrated Coastal Zone Management (ICZM) is widely advocated as a holistic strategy that balances environmental, economic, and social objectives.

CONCLUSION

In recent years the natural process of coastal erosion is happening at an increased rate. This not only affects the land, but also affects the lives of those who are dependent on it and the economy of the land, but also affects the lives of those who are dependent on it and the economy of the nation. The result shows on the coastal erosion has a major impact on the lives of the fishermen's community. The fishing community has been facing various challenges such as loss of equipment, low fishing productivity, economic pressure resulting to being in debt etc. Ultimately, all these factors lead to disturbance in their physical, emotional, mental health and their livelihoods. Understanding the seriousness of the issue with regard to the fishermen's community, various schemes and programs should be created and should reach to them. This study has brought out the indirect causes which drive people to change their livelihood. Dependence on fishing activities increased, but with the advent of tourism some of them shifted to other jobs like shopkeeper and odd jobs in hotels. Thus, the government should be very careful in the development approach in the coasts.



Coastal bank erosion



Group Photo