DEPARTMENT OF GEOGRAPHY

S.R.F. COLLEGE, BELDANGA, MURSHIDABAD

DVV Clarification

1.3.2

## FIELD WORK REPORT

1. ATANU SAHA(B.Sc Honours in Geography)

Department of Geography
S. R. Fatepuria College
Beldanga, Murshidabad

FIELD REPORT
ON

SOCIO-ECONOMIC STATUS AND ISSUES OF CULTIVATION OF BELIA KHARI MOUZA, MURSHIDABAD, WEST BENGAL

FOR THE UG SEMESTER-V EXAMINATION 2021,
UNIVERSITY OF KALYANI
PAPER- CC/P/11
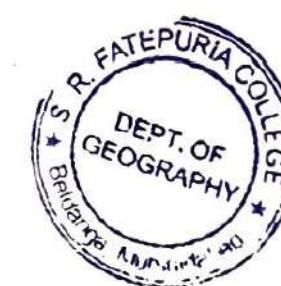
Submitted By

Name: ATANU SAHA
Roll No. 3115245-1971053
Semester-V
Reg. No. 068927
Session: 2019-2020

Ref. No.:- SRFC/2022

Date: 19.01.22

CERTIFICATE

This is to certify that **ATANU SAHA Roll 3115245 No. 2075452, Session: 2019-2020** the student of the under graduate semester- V examination 2021, department of geography, S.R.Fatepuria college, has successfully completed her Field Report entitled **"Socio-Economic Status and Issues of Cultivation of Belia Khari Mouza, Murshidabad, West Bengal"** as a partial fulfillment of the syllabus of under graduate course,(CBCS CC-11research methodology and field work) under my supervision.

Dr. Abdus Sattar Shaikh
Head, department of geography
Department of Geography
S. R. Fatepuria College
Beldanga, Murshidabad

S.R.Fatepuria College, Beldanga, Murshidabad.,

iH

CONTENT

Preface

Acknowledgement

List of Table

List of Figure

List of Photograph

PREFACE

I feell immensely delighted to present this field report based on primary data collected from field survey and secondary data collected from different sources. In this report I have tried to give all the important and appropriate things about the report.

In this report, I have endeavoured to make this report attractive and easy to understand. Each and every topic of the report is well-explained in detail which will enhance the depth of the learning experience. I have also included pictures or diagrams related to the topics which is my creativity.

ACKNOWLEDGEMENT

Primarily I would thank god for being able to complete this field report with success. Then I would like to express my special thanks of gratitude to our teacher Mr. Abdus Sattar Shaikh of the department of Geography, Sewnarayan Rameswar Fatepuria College. Who give me the golden opportunity to do this wonderful report on the given topic which also help me in doing a lot of research and I came to know about so many new things, I am really thankful to them

Secondly I am thankful to my parents to get me a moral support and guided me.

Last but not the least I would like to thank my friends, they also guided me in different matters regarding this report and they helped me a lot in finalizing this report within the limited frame of time.

Atanu Saha
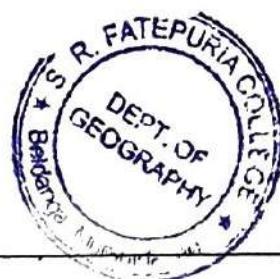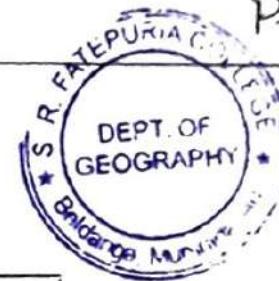
LIST OF Table

ROUTE MAP

WEST BENGAL

27N
22N

MURSHIDABAD DISTRICT

0   20 Km

BERHAMPORE

BELDANGA

N

P. 9 (A)
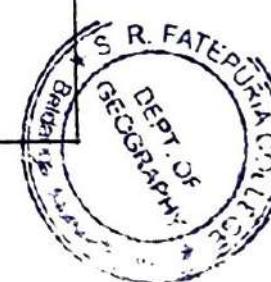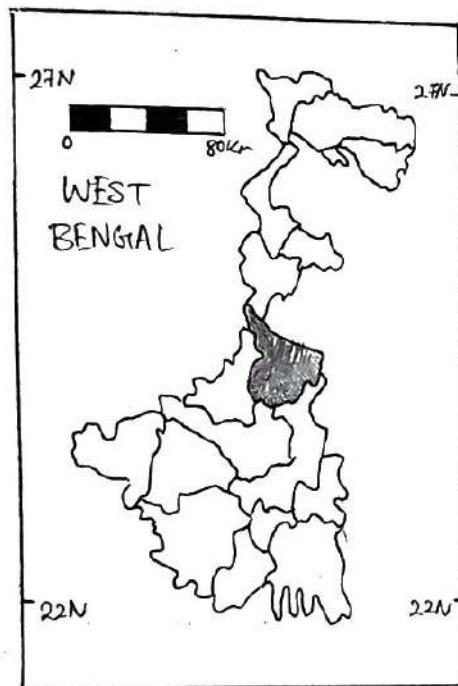
LOCATION MAP OF STUDY AREA (BELIA KHARI)

27°N · 27°N · WEST BENGAL · 0 20 40 60 Km · 22°N · 22°N

MURSHIDABAD DISTRICT · 0 5 10 15 20 Km · N

BELIA KHARI MOUZA · 0 100 200 300 400 m

BERHAMPORE BLOCK · 0 2 4 6 8 Km

S. R. FATEPURIA COLLEGE DEPT. OF GEOGRAPHY
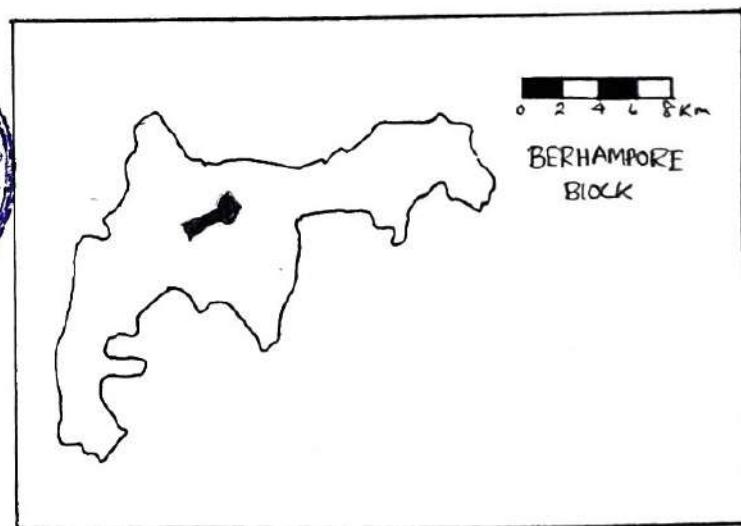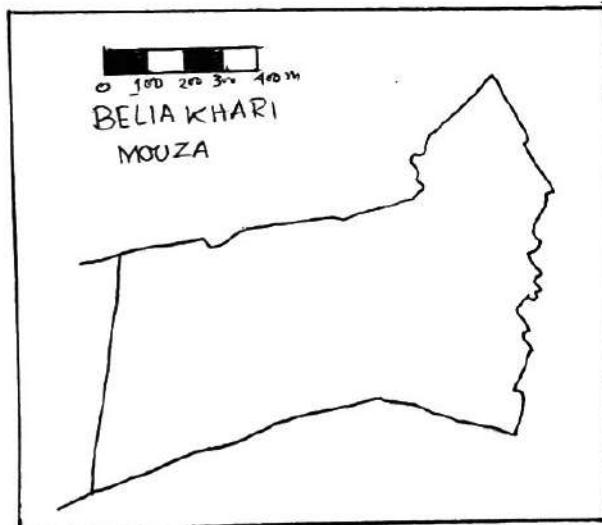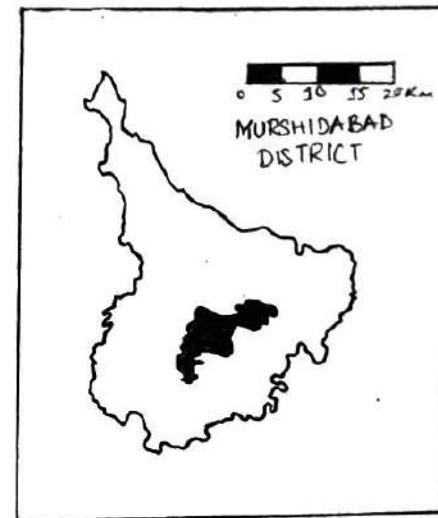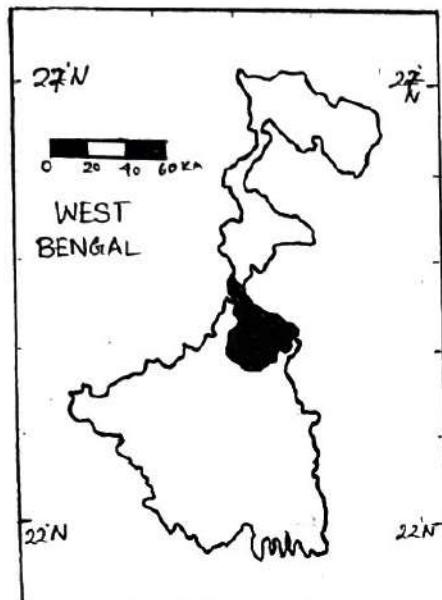
a) Arun Makal et al (2017), in their study Issues and Problem in Agricultural Development. A study on the farmers of west Bengal has found that huge number of farmers of suffered by lack awareness of government schemes, agricultural loans and marketing assistance. Besides, the farmers of west Bengal face a high irrigation Problem and the nature of the Soil also become vanished due to the Chemical fertilizers.

b) Merlin Kamala and M Suganty (2016), in the article of pest management in Jasmine States that there are more than 80 Jasmine Species are found in India out of which only three species are used for Commercial Cultivation. Their study Significance State that Tamil Nadu is attacked by various number of pests which Cause massive harm to the Jasmine Plants.

c) Maria Nijnik etal (2009), in their study Paper considers rural land use by analysing Stakeholder values and perceptions concerning various Landscape Components. The purpose is to show that landscape Content and landcover interactions with societal Connections should be a base for land use development. The practical goal is to deliberate research tools to quantify public opinions and attitudes, which Could form bases for developing of decision support tools.

Pre-field survey:- i) Literature survey to be known with the study area will be very helpful to evaluate the changing pattern.

ii) Finalizing the list of Collection of old maps relevant documents etc.

Field survey:- i) sample survey to interpret the socio economic and demographic data in quantitative and qualitative way,

ii) Questionnaire survey a structured questionnaire as an added source at data.

iii) Collection of secondary data ~~form~~ from different source like the census, village dictionary, the grampanchyeat office.

Post field work :- Analysis of the data Collected, Preparation of final map. Table and diagrams and report writing

1.5 Review of Literature

Literature is reviewed on the next page.

- To have knowledge of the infrastructural facilities available in the area and to findout whether they are sufficient enough to meet the Changing local needs.

- To identify the various socio economic Problem.

1.4 Database & Methodology

The methodology which has been followed for data Collection is door to door method. I try to approached to each individual's house and asked the question's that had been formulated before the Conducting Survey. Data were Collected through personal interview, discuss with families members on the assessment spot.

Primary Data

i) Goverment documents, Public records
ii) Interview and discussion

Secondary Data

i) Test book, Review articles
ii) Art

dabad district, west bengal as my study area. The study area is located at the bank of the small water body. Krishnamoti which itself has both natural and social significance. The study area is about 15 km north from my institution.

Choice of the study area The subject geography is the study of man-nature relationship. As per syllabus of the Kalyani university for the honours candidates a socio-economic survey with emphasis on land use has been conducted on behalf of our department on 23th and 24th December 2021 to fulfill the basic demand of geography I have selected such a village as my study area. Which for its socio economic growth depends upon a small water body. Not only the human lifestyle but the water body is also being influenced by human behaviour.

1.3 Objective of the study area
- To examine agriculture development
- To study the socio-economic condition of the people of the study area.

1.1 INTRODUCTION

Land use acts as an interface between people and the environment as it forms a unifying concept in which socio-economic and ecologic variables coincide. The ecosystem services and its resources are significantly positively correlated with land use but some forms of land use degrade ecosystems and the services they provide. Land use has important impacts on the functioning of socio-economic and environmental systems with important tradeoffs for sustainability, food security, biodiversity and the vet vulnerability of people and ecosystems to global change impacts. Therefore, a single research approach does not suffice for a complete analysis of land use status. Instead, a combination of multiple approaches is necessary for land use status analysis. However, for the sustainable use of land resources, identifying land use status and condition are necessary to protect the limited land resource from unplanned utilization. The aims of this paper are to understand to existing land cover and land use pattern of Belia Khari Mouza and to figure out the socio-economic condition of the study area.

1.2 Location of the study area

I have selected Belia Khari Mouza under Haridasmati Gram Panchayat of Berhampore block in Murshi-

LIST OF FIGURES

BASE MAP OF BELIA KHARI MOUZA

MOUZA - BELIA KHARI
DISTRICT - MURSHIDABAD

N

HARIDASMATI NO. 87

CHARBEGHPUR NO 86

BARGACHI KANAN DAYEM NO. 85

0   500   1000m
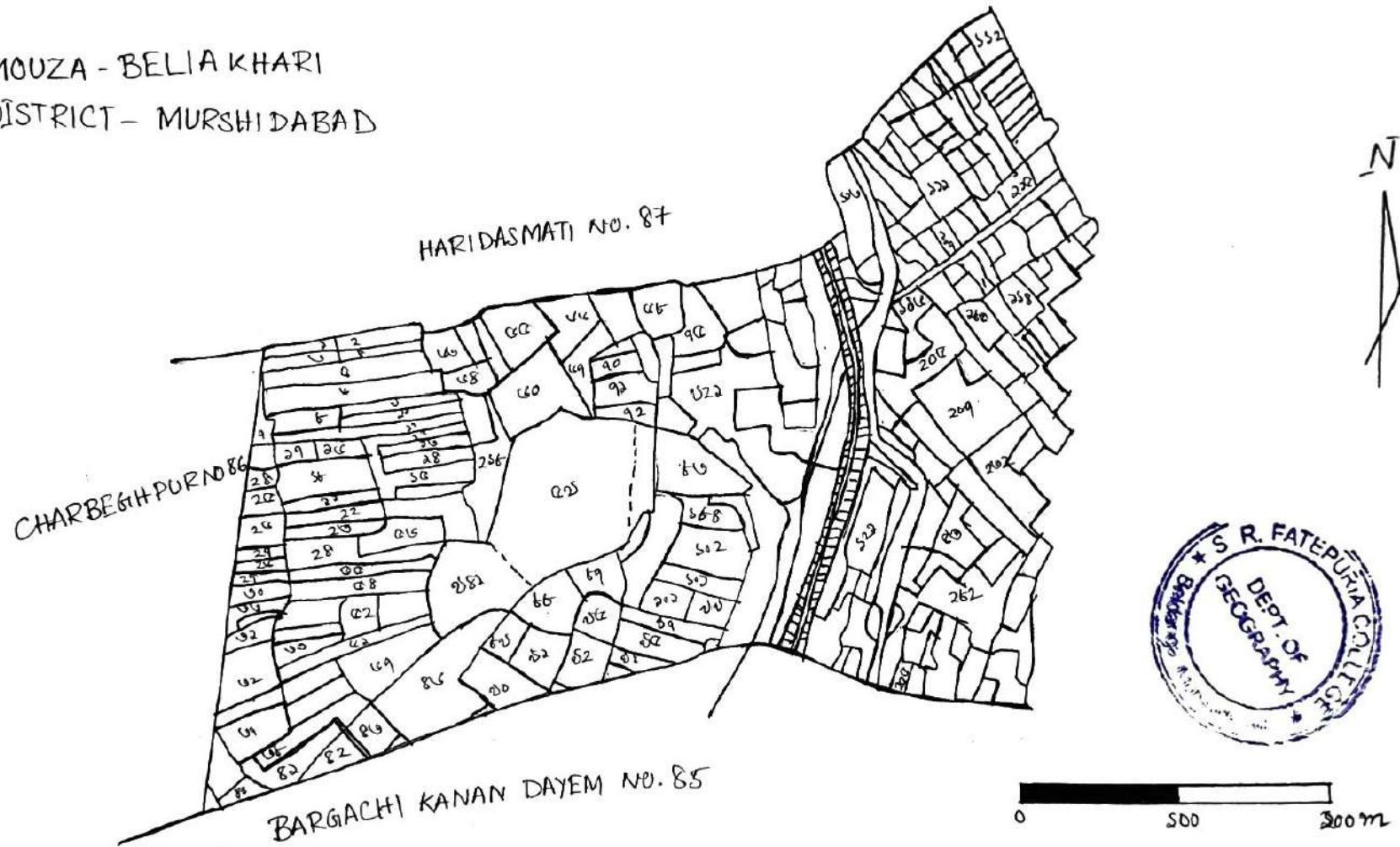
Source: Haridasmati Gram Panchayeat Office.

PROBLEM OF PRESERVATION

Farmers stated that storage is a problem after the harvesting the crops. There is no good cold storage near the village. sometimes proper preservation of potato is done in the cold storage.

PROBLEMS RELATED TO MARKET

The market related problem include low price of produced crop in market, price fluctuations, distance of the market, market saturation, insufficient profit, insufficient place of selling, informal marketing-system, and export problem. At present, most of the farmers are facing problems due to fluctuating market price. In the competitive market economy, the farmers are not getting sufficient profit by selling their produced crop.

ENVIRONMENTAL PROBLEM

The environmental problem is mainly occurred by nature which mainly include problem of climate, disease and pest. Therefore, the environmental damages are seen in all cropping system. sometimes plants or seedings of flower are ruined due to weather. Environmental damages are found in case of flower farming. More rain hailstorm and storm destroy the flower plants.

CULTIVATION PROBLEMS OF THE STUDY AREA

PROBLEM OF IRRIGATION

Irrigation is an important problem among the all farm farmers in this villages. There is no Governmental facility for irrigation in the villages. They do not get any help from the Government in such cases. Due to the development of modern irrigation techniques nowadays farmers in the study area they face a number of new problems which include power failure; high diesel price; and. Occasional unavailability of diesel. Besides, high irrigation charge is also a problem particularly faced by the poor farmers.

PROBLEM OF LAND

Farming lands in the study area and are decreasing day by day due to growth of population and development communication.

PROBLEM OF SOIL

Soil problem is an important issue in farming. The fertility of soils is destroying day after day due to use of more chemical fertilizers. But recently some problems are identified within soil which is an important cause for reduction of potato production.
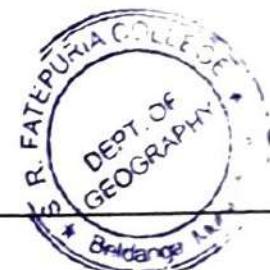
Settlement Area
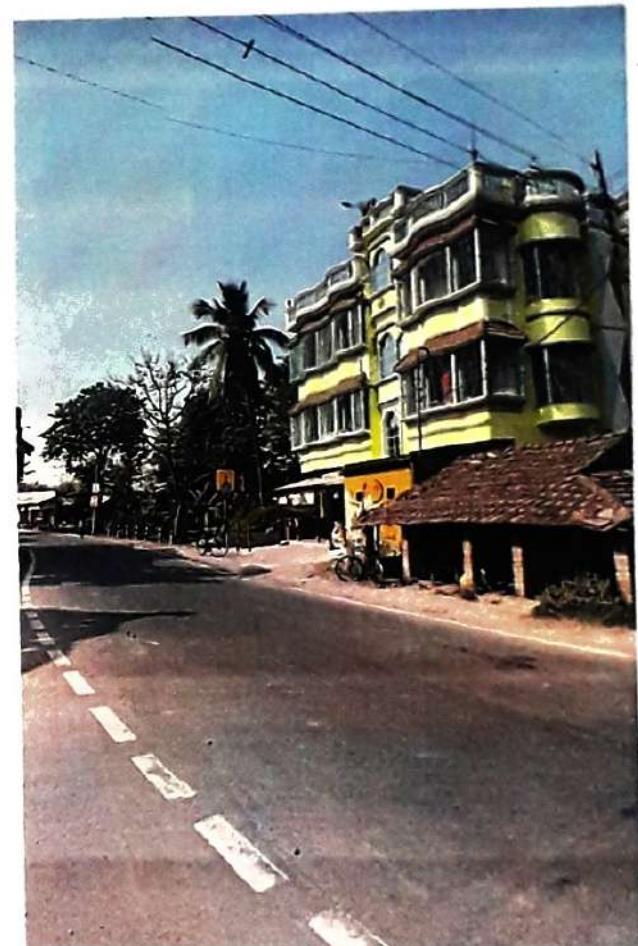
LAND USE RELATED PROBLEMS OF THE STUDY AREA

To define a problem it is necessary to establish the present situation, judge ways in which it is unsatisfactory and identify ways in which it might be made better.

Apart from when planning new settlements on unoccupied land, this stage of diagnosis of problems is of the highest importance. Without identifying problems and analysing their causes, one is in no position to plan for improving the situation. Three closely related methods, any of which can be used at this stage, are farming systems analysis, diagnosis and design and rapid rural appraisal.

The fundamental field survey method may be summarized as:
- Talk to the people
- look at the land

Land use problems related with wrong land use decision have been a main challenge for humankind.

Occupation Status
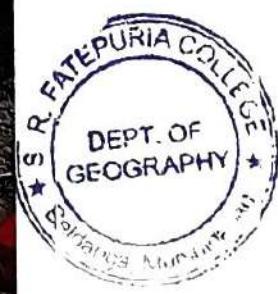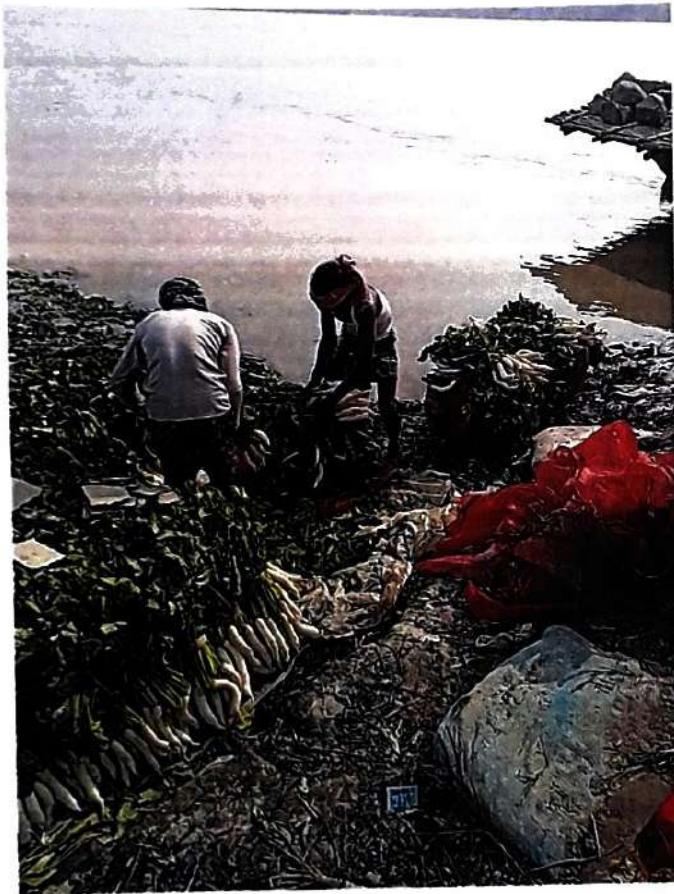
ECONOMIC STATUS OF BELJA KHARI MOUZA

Table: 3 Calculation for bar graph (occupational)

Occupations	No. of Person
Govt. service	19
Private sector	3
Business	8
Agriculture	43
Labour	23
self employed	0

It indicates the Concentration of primary economic activities which is a Common phenomenon for most of the village in west Bengal.

BAR GRAPH

LEGEND
- Govt. service
- Private Sector
- Business
- Agriculture
- Labour

scale
vertical scale 1cm to 10
Horizontal scale 1 cm to 1 unit

Table: 4 Calculation for Bar graph (Annual income)

Annual Income	No. of family
< 10,000	7
10000 - 20.000	44
20.000 - 30.000	16
30,000 - 40000	11
> 40000	2
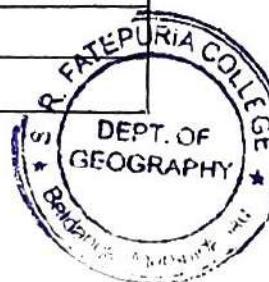
BAR GRAPH
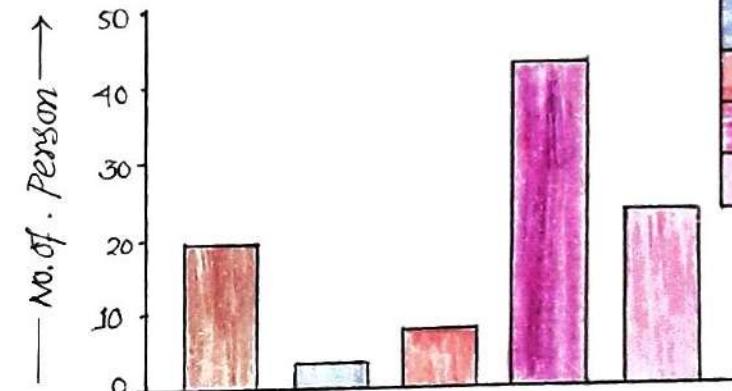
LEGEND
- < 10,000
- 10000 - 20.000
- 20000 - 30.000
- 30000 - 40000
- > 40000
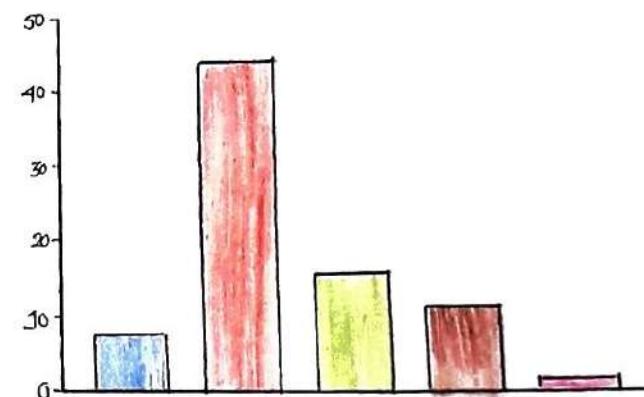
scale
vertical scale 1cm to 10
Horizontal scale 1 cm to 1 unit

DEMOGRAPHIC STATUS OF BELIA KHARI MOUZA

Table:1 Calculation for age sex pyramid

Age group	Male	Female
0-19	57	51
20-39	94	101
40-59	77	75
>60	23	19

Our study area of belia khari mouza is large
Size of village under murshidabad district. Above
the data table and graphs show that the study
area is most of the people is 94 101 20-39
age groups.

Table :2 Calculation for Bar graph (cast system)

Caste	GE	OBC	SC	ST	Total
No.of.family	33	19	25	14	91

The data table is show that the study area
is most of the family is GE Caste then
OBC, SC, ST.

PYRAMID DIAGRAM

Scale 1cm to 33 nope

LEGEND
Male
Female

BAR GRAPH

LEGEND
GE
OBC
SC
ST

Scale
vertical scale 1cm to 10 unit
Horizontal scale 1cm to 1 unit
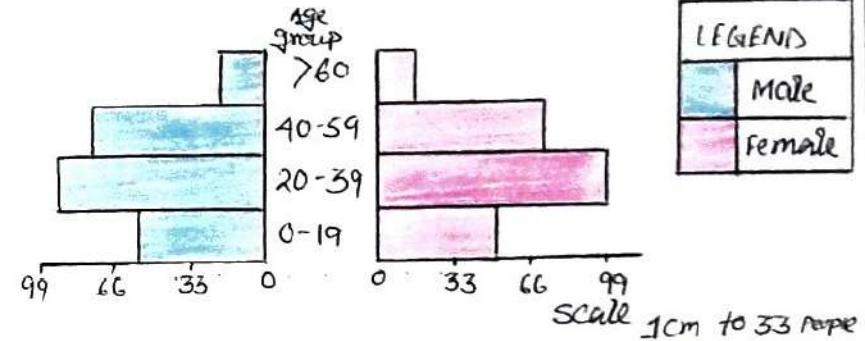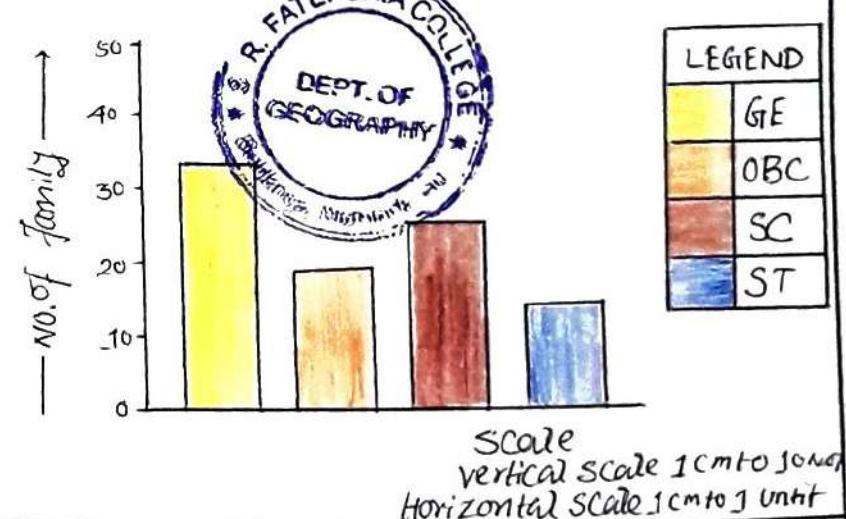
PHYSICAL SETUP OF THE STUDY AREA

Geology

our study area is a place on the upper part of gangetic delta. It is compesed of recent alluvial and the surface consists of sandy clay. On the whole the study at murshidabad district show that fine slid has farms the plane lands.

Topography

Murshidabad district has an average elevation of about 18m (59ft). The study area is also part of a plain land.

Flora

Due to the presence of acetic soil and as result of monsoon climate this region is covered with mango, coconut tree & sal-teak, and bamboss like grass. Infact due to the influence of human activity. the flora present to totaly in manmade rather than natural.

Soil : About 1-2m of thick brown mottled soil with soft and incipient ferruginous concretion develop on younger deltaic plain. The soil PH ranges from 6.7 to 74

Climate

The climate of the study area characterized by an oppressive hot summer and high humidity almost throughout the year. The average annual rainfall in this study area is 1328 mm. The mean daily temperature at 23.8° and 11.9° celsius

- Level of irrigation: Available/Not available

  **If available status of irrigation:-Good/Satisfactory/Not good/Bad

12. Others:

- Whether HYV seeds used or not:(Yes/No)
- Whether fertilizer used or not:(Yes/No)
- How are the waste disposals: Good/Satisfactory/Not good/Bad
- Role of administration: Excellent/Good/Satisfactory/Needs improvement/Poor

PROBLEMS:

Education:

Health:

Transport & Communication:

Cultivation:

Administration:

9. Socio-economic Facility:

- Type of house: Kacha / Paka /Semi paka

- Source of drinking water supply: Own well/tube well/Tape water/Others

- Energy consumption: L.P.G./Kerosene/Coal\Fuel wood/Others

- Electricity: (Yes/No)

- Household amenities: Refrigerator/Television/Cell-phone/Computer/Mixer/if other please mention.

- Transport facility: Good/Satisfactory/Not good/Bad

- Sanitary facility: Open privy/Community toilet/Septic tank

- Garbage disposal: (Yes/No)

- Sources of medical Facility: Primary health center/Hospital/Dispensary/Others

10. Occupational status of the member:

Sl.No.	OCCUPATION	No. of members
1	Govt . service	
2	Private sector	
3	Business	
4	Agriculture	
5	Labour	
6	Self employed	

11. Land useRelated:

- Size of land holding;

- Owner of land or not:(Yes/No)

- Land use for commercial purpose or not:(yes/No)

- Type of agricultural land: Single crop/Double crop/ Multi crop.

QUESTIONNAIRE

PLACE: MOUZA:

1. Name of the Head of the family:

2. Name of the locality:

3. Religion: 4.Cast:

5. Type of family (Joint/Nuclear):

6. Original resident:(yes/No)
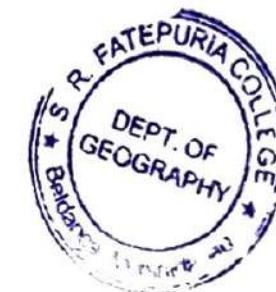
If no then mention the length of stay……………..(Years)

7. Type of housing: (i)Ownership   (ii)Rented

8. Family member details:

Member no.	Name of member	Age	Sex	Literacy level							Income(Monthly)

APPENDIX

BIBLIOGRAPHICAL REFERENCES

- MCGRAW- HILL. 2003, Land-use survey (Online)

- AMLER.B. BETKE. D. EGER. H., EHRICH.C., KOHLER. A & KUTTER.A. 1999. Land use planning. Universum Wiesbaden.

- Arun Makal, Abhradip Banerjee (2017). Issues and problems in Agriculture Development. A study on the Farmers of West Bengal.

- Mellor J.W (1966). The Economics of Agriculture Development

- banglarbhumi.gov.in - for download mouza map

- Open Sources from websites

CONCLUSION

This study area near Beshampore town in murshidabad district of West bengal. Most of the people here are involved in agriculture despite being educated. They are totally depend on groundwater as a source of water. They use most of the land for their agriculture. The majority of people are General cast then SC, OBC, ST. There are ~~most male than female~~. large number of male than female.

Education facilities are available. The houses are made by cement, bricks, tile. No public transport are available. In many houses private vehicles are present. The study area's villagers have many cow, goat, duck, hen, buffalo etc.
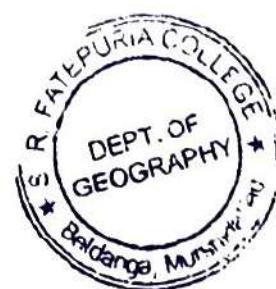
RECOMMENDATION & SUGGESTION

- Roads and other means of Communication in the village should be improved.
- Cottage industries should be revived and agriculture should be modernized.
- Village should be electrified to remove the depressing darkness of rural night.
- Village should be educated regarding elementary hygiene and scientific method of cultivation.
- This study area should have a hospital or a primary health Centre to provide medical aids to the villagers.
- Rural banking should be set up for financial assistance to the village people.
- Govt. Banks and also NGO'S should be providing loans and subsidies to farmer and help to grow farming and also to small scale business.

Agriculture
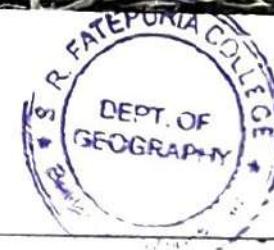
DEPARTMENT OF GEOGRAPHY

S.R.F. COLLEGE, BELDANGA, MURSHIDABAD

DVV Clarification

1.3.2

FIELD WORK REPORT

1. ABID HOSSAIN (B.Sc Honours in Geography)
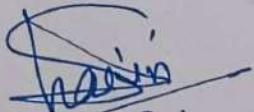
Department of Geography
S. R. Fatepuria College
Beldanga, Murshidabad

LIVELIHOOD STATUS OF HAZARD-PRONE COMMUNITIES: A CASE STUDY OF UTTARCHAR MAJHAR DEAR, RANINAGAR BLOCK-2, MURSHIDABAD, WESTBENGAL

A FIELD BASED PROJECT REPORT

SUBMITTED TO THE DEPARTMENT OF GEOGRAPHY

S.R.FATEPURIA COLLEGE UNDER UNIVERSITY OF KALYANI

BELDANGA, MURSHIDABAD
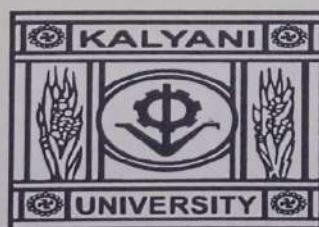
UNIVERSITY OF KALYANI

GEOGRAPHY PRACTICAL NOTE BOOK

B.A HONOURS 5th SEMESTER EXAMINATION 2022

REGN NO   072981

ROLL NO   3115245 - 2075452

SESSION   2020 - 2021
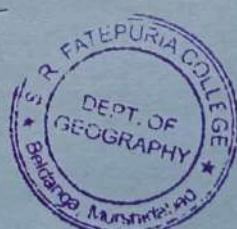
Our Group photo

CERTIFICATE

This is to certify that **MD ABID HOSSAIN Roll 3115245 No 2075452** the student of the under graduate semester- V examination 2022, department of geography, S.R.Fatepuria college, has successfully completed her Field Report entitled **"livelihood Status of Hazard-prone Communities: A case study of Uttarchar Majhar Dear, Raninagar block-II, Murshidabad, west Bengal"** as a partial fulfillment of the syllabus of under graduate course,(CBCS CC-11research methodology and field work) under my supervision.
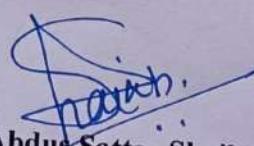
Dr. Abdus Sattar Shaikh
Head, department of geography
Department of Geography
S. R. Fatepuria College
Beldanga, Murshidabad

ACKNOWLEDGEMENT

It is my pleasure to submit my Research report on "Livelihood status geomorphic Hazard - prone communities: A case study of Uttar char Majhardiar mouza, Murshidabad district, West Bengal". This work resulting out of a series of comported efforts has been completed going through a number of steps.

It is the first step of my acknowledgement, I would like to extent my hearties gratitude to my guide Abdus sattar Shaikh, Head of the Department of Geography, S. R. Fatepuria College, Beldanga, Murshidabad who was guided me throughly to complete this Report and his valuable suggestions required for this Report.

I am also thankful to the Consider of members of Raninagar - II municipality and Raninagar B.L.R.O for gave their Valuable supposit to prepare my data base, related maps and other relevant documents to fulfill my dissertation report.

Name - Md. Abid Hossain
Semester - V
Roll No - 3115245- 2075452

Md Abid Hossain
Signature of the Researcher

PREFACE

The Subject geography is multidisciplinary by nature. The subject from different viewpoints are done in this subject is includes application of geography knowledge in the study of environment. In this study of socio economic and land use, in the study of tourism growth and in many other sector. The present work highlight on in the traditional study of geography that is man and environment relationship where an attempt has been made of justify the role of both the agents that is man and environment.

The major geomorphic hazards are tidal ingression, dual environment and river bank erosion. By this affect the local people's life insecure. Human adjustments to these problems include acceptance technological control and emergency measures. Uttarchar Majhdiar is the home about 1000 families enganged in different types of ocapation's like agriculture etc.

Basically the area always eroded by continuous hazard and flood. So we find out many problem and we also find solution about their Uttarchar Majhardiar.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PHOTOGRAPHS

CHAPTER-1

(1) INTRODUCTION

1.1) Location of the study area :-

We have selected Uttarchar Majhardiar mouza under Raninagar-II block in Murshidabad district, West bengal as our study area. The study area is located at the river of Paddma, Raninagar which itself has both natural and social significance. The study area is about 54 km North from our institution.

1.2) Selection of the study area :-

The Subject geography is the study of man-nature relationship. As per syllabus of the kalyani University for the honours candidates 5th Semester a socio-economic survey with emphasis on landuse has been conducted on behalf of our department on 23rd November 2022 to fulfill the basic demand of geography we have selected such a village as our study area which its socio-Economic status influenced upon a river Padma. The Natural Hazard like River bank errosion, Flood, cyclone etc influenced Livelihood status of Uttarchar Majhardiar mouza. This context we have selected the study area.

LOCATION MAP OF STUDY AREA

MURSHIDABAD DISTRICT IN WESTBENGAL

86°E   89°E

27°N   WEST BENGAL

0 20 60 100km

27°N

22°N   22°N

86°E   89°E

N
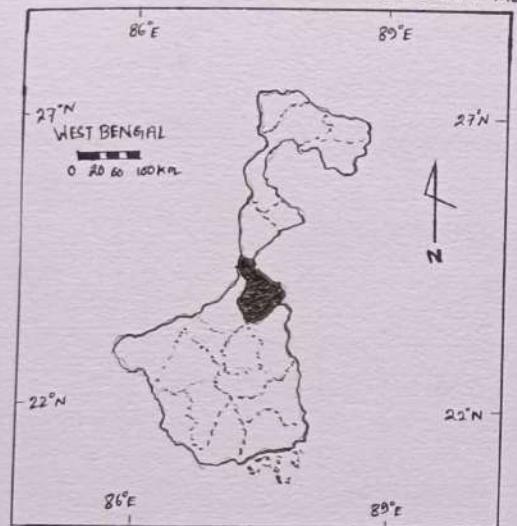
RANINAGAR-II IN MURSHIDABAD
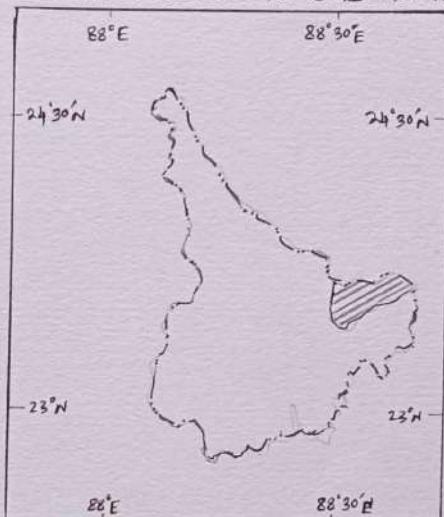
88°E   88°30'E

24°30'N   24°30'N

23°N   23°N

88°E   88°30'E

UTTAR CHAR MAJHARDIAR MOUZA

88°53'37"E   88°53'02"E

24°31'65"N   24°31'65"N

24°31'50"N

88°53'37"E   88°53'02"E

UTTARCHAR MAJHARDIAR MOUZA IN RANINAGAR-II BLOCK

88°52'E   88°54'28"E

24°31'65"N   24°31'6"N

24°31'N   24°39'N

88°52'E   88°54'28"E
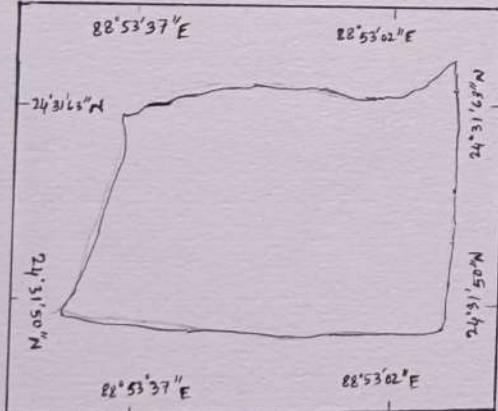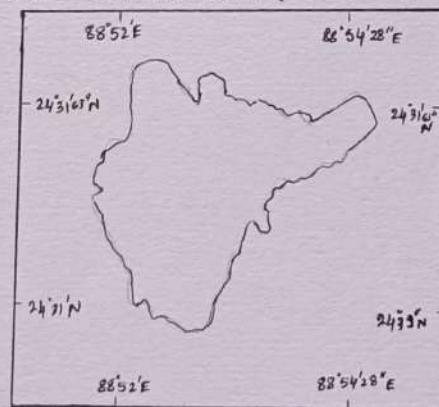
SOURCE - NATMO MURSHIDABAD, MOUZA MAP FROM LRO OFFICE RANINAGAR II

10

AREA MAP

UTTAR CHAR MAJHARDIAR

B.S.F ROAD

UTTAR CHAR MAJHARDIAR

CHAR DURGAPUR

CHAR HARDANGLA

HIGH SCHOOL

BANSGARA

DA

Source—

B.S.F ROAD

INDEX

S SCHOOL

→ AWC

卍 MASJID

ॐ TEMPLE

HEALTH CENTRE

RAMNAGAR   SAGARPARA

KAHARPARA

RANINAGAR
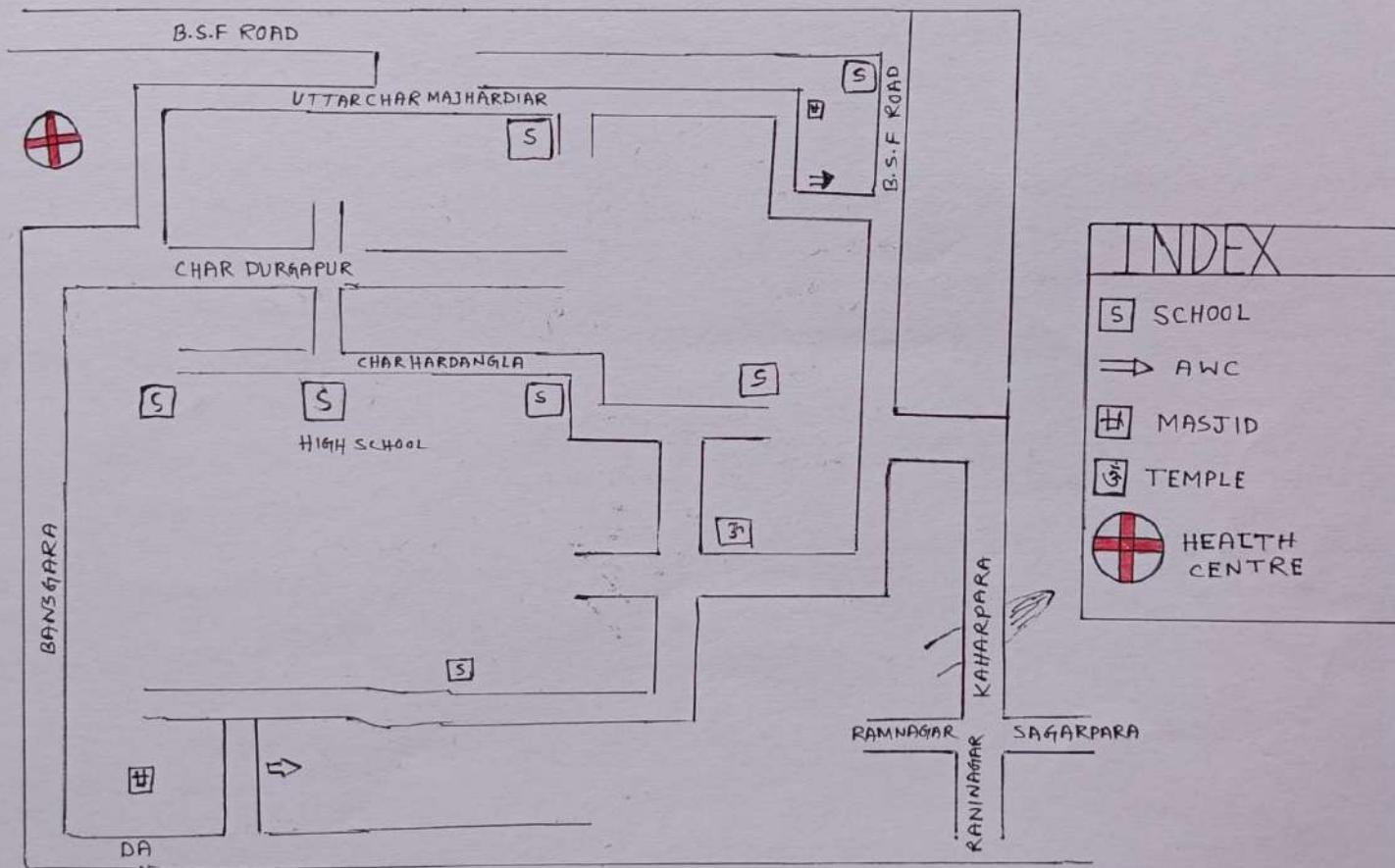
SIGNIFICANCE OF THE FIELDWORK

We study these areas to know about their socio economic conditions, natural hazards of the Uttar char Majhardiar. There are riverbank erosion hazard such as tropical cyclones, storm, floods, are very much affected in these areas randomly and as a result the Uttarchar Majhardiar eroded day by day. These areas are very backward to communicate for any kind of information and transport irrigation system is very poor in this area. Their livelihood insecurity of local people lack of infrastructure, power supply and environment pollution degradation caused by other source.

The education level is not also good and most of the people are belonging to BPL category, National Rural Govt. Scheme helps the people in this area. We are finding many types of problem by this survey. By this survey we are discuss many problem to protect this area in every way.

ROUTE MAP OF STUDY AREA

86°E   89°E   N

27°N   WESTBENGAL   27°N

0 20 60 100 Km

22°N   22°N

33°S

86°E   89°E

88°00'E   88°30'E

N

23°30'N   JHARKHAD   23°30'N

BANGLADESH

UTTAR CHAR
MAJHARDIAR

BIRBHUM

SCALE   NADIA

BELDANGA
SR.F.COLLEGE

23°00'N   23°00'N

BURDWAN

88°00'E   88°20'E
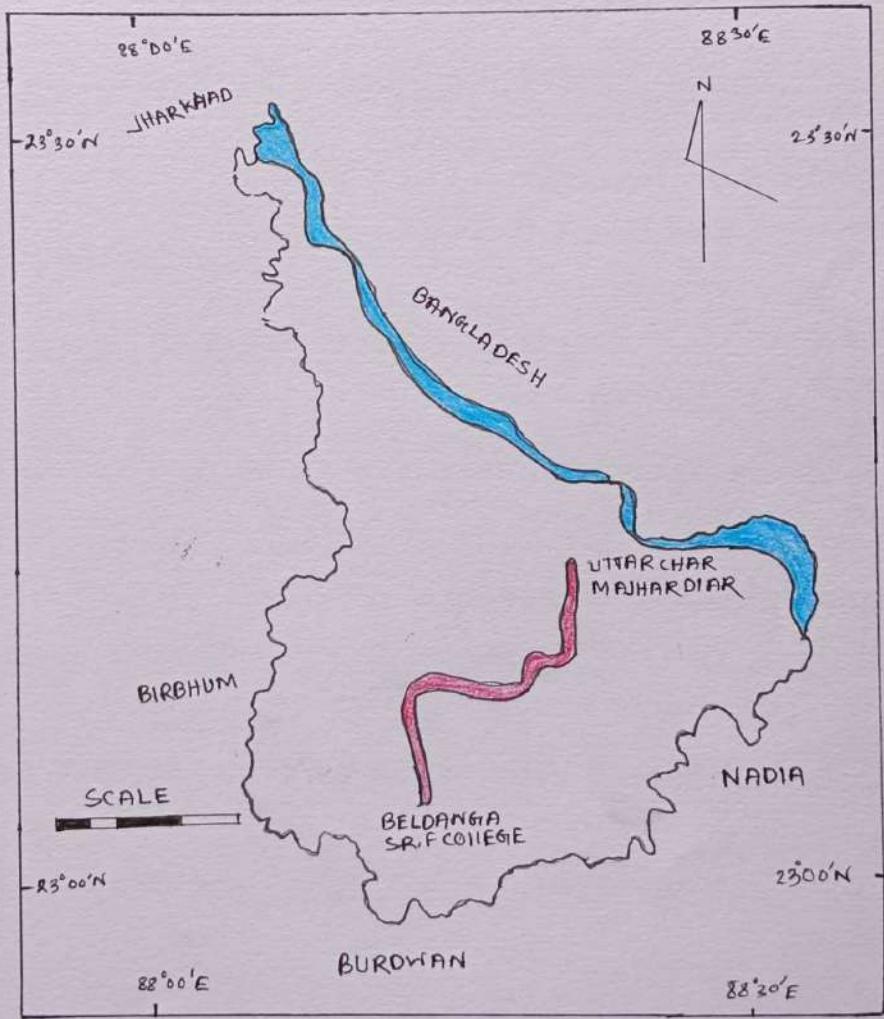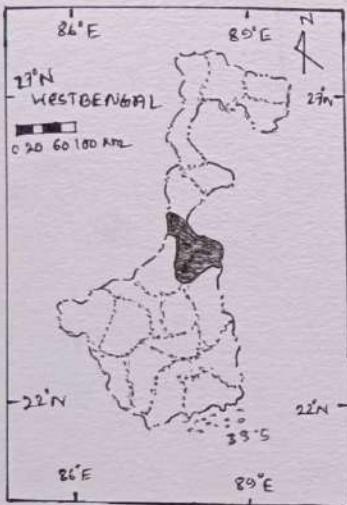
SOURCE - NATMO

OBJECTIVE OF THE STUDY AREA

The specific objectives are as follows:-

1. To analyse the existing socio economic and environmental status of the study area in order to identify environmental issues and problems.

2. To assess vulnerability through physical damage analysis of river bank erosion and flooding.

3. To make an economic assessment of this environmental damage based on first hand exploratory survey.

4. To have an overview of prevailing adaption strategies already taken based on questionnaire based survey.

5. To identify the impact level of river bank erosion hazards on local communities.

DATA BASE & METHODOLOGY

Methodology is the systematic, theoretical analysis of the methods applied to a field of study, on the theoretial analysis of the body of methods and principles associated with a branch of Knowledge. It typically, encompasses concept such as paradigm, theoritical model, phases and quantitative or qualitative techniques.

In a very general sense, methodology refers to the preparation for the field work which is categorized into three main steps. These are — 1. Pre-field study. 2. Field study 3. Post-field study.

During our field work we also followed the following steps:

1. **Pre field study:** Pre-field means the work done before the field survey. Our pre-field study includes the collection of various information about the surveyed area on which the entire research work is conducted.

2. **Field study:-** Our field study is mainly conducted through the collection of primary data from the field with the help of questionnaire. Generally, primary data refers to the data which is collected by the surveyor himself direct from the field.

These include:

i. Site visit to Uttar char Majhardiar mouza in order to gain first hand understanding of the nature of the site, its habitats, river bank processes and landscape characteristics and their problems.

ii. Interaction with the local community and meetings with the officials of relevant government departments working on different issues of the study area.

3. Post-field study :- Our post-field study is mainly based on the analysis and interpretation of the primary & secondary data collected from the pre-field & field studies. After the collection of primary data by random sampling survey through questionnaire we are conducted master table & then different carto graphic techniques are applied to present the socio economic data. The next step is interpretation scientific analysis and interpretation is required for the explanation of socio economic data.

BASE MAP OF UTTAR CHAR MAJHARDIAR MOUZA
JL NO 88 POLICE STATION- RANINAGAR-II
DIST- MURSHIDABAD

BANSGARA-04

BANSGARA-02

DAKSHIN CHAR MAJHARDIAR-02

DHAKSHIN CHAR MAJHARDIAR-01

SCALE 16"= 1 MILE
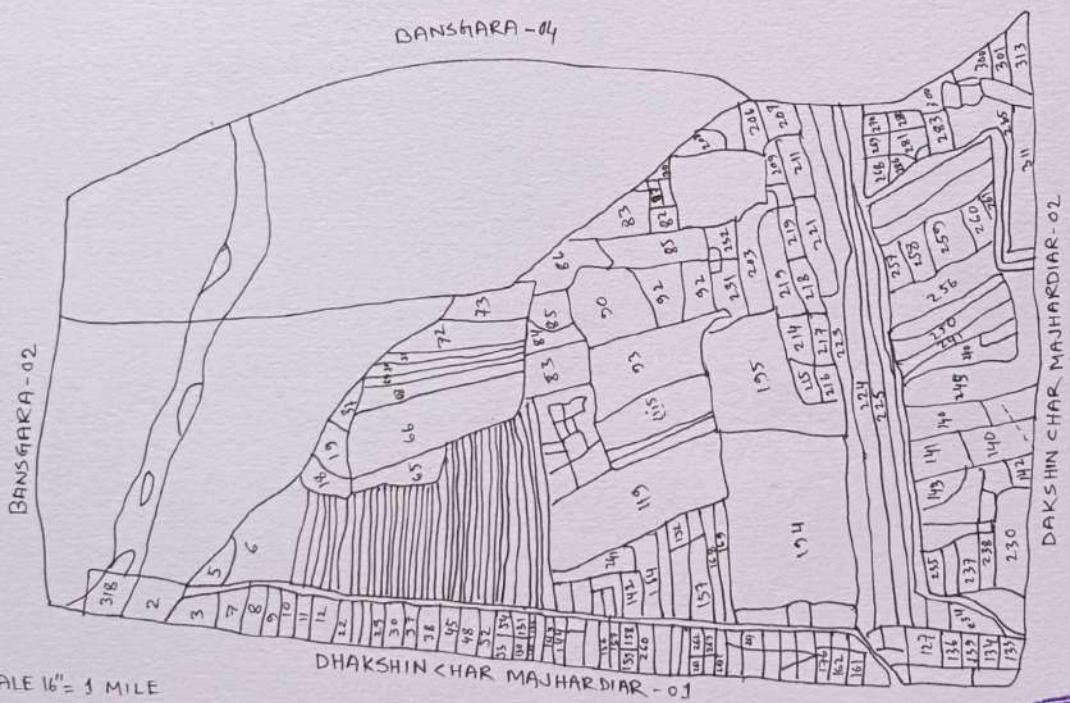
MILE 5 4 3 2 1 0   5   10 MILE
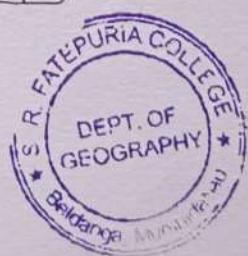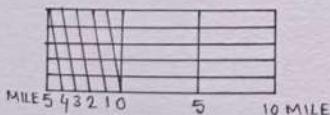
SOURCE - RANINAGAR-02 L.RO OFFICE

CHAPTER-2

(2) PHYSICAL SET UP OF THE STUDY AREA

2.1) Geology :-

Our study area is place on the beside part of paddma river. It is composed of recent alluvial and the surface of sandy clay and sand along the course of the river. On the whole study area of total Raninagar-II block show that natural Hazard influenced forms the plane lands.

2.2) Topography :-

Murshidabad district has an average elevation of about 20 mt the study area is also part of a plain area. That the region has negligible relative relief and the study area has a site straight forwards the pad ma river.

2.3) climate :-

This region is also affected by this monsoon, statistic based on climate data provides that June is warmest month of the region with on highest temparatures of about 40°c. while January is the coldest month with the lowest temparature of 10°c following the study 10 previous years. And annual rainfall about 150-200cm is common for this area this area through frequent drought has been observed in current years. climate for the nearest meteorological station at Berhampure is provide the fowing statics.

2.4) soil :-

Like any other part of the great plain region our study is also cover with alkaline, strong alkaline soil. This areas soil like alluvial type. This soil also good for all over agricultural activities. This areas soil is high Nitrogen and allow to good for agriculture.

SOIL PH VALUE

88°52'E   88°54'28"E

24°31'63"N

24°3'63"N

24°31'58"N
88°53'16"E
PH-8.5
(strongly
alkaline)

24°31'54"N
88°53'E
PH-8.5

24°31'N
88°52'53"E
PH-8 (ALKALINE)

24°31'63"N
88°53'01"E
PH-8.3

24°31'60"N
88°53'02"E
PH-50
(very strongly
alkaline)

24°31'06"N
88°52'57"E
PH-8.5

24°31'N
88°52'E
PH-7 (NUTRAL)

24°31'49"N
88°52'55"E
PH-8

24°31'60"N
88°52'60"E
PH-8.5

24°31'N   24°31'N

88°52'E   88°54'28"E
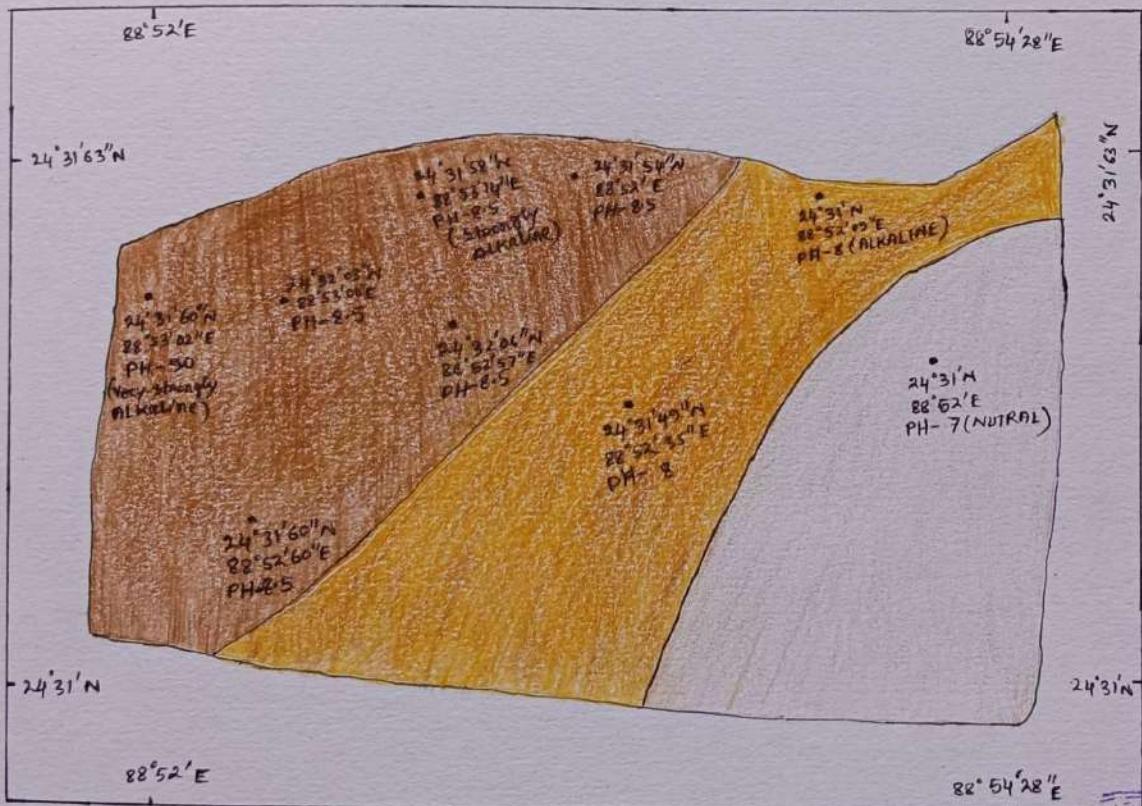
SCALE

KM 100   50   0   100 200 300km

SOURCE - FIELD SURVEY 2022

SOIL NITROGEN VALUE

88°52'E   88°54'28"E

24°31'65"N   24°31'63"N

· 24°31'58"N   · 24°31'54"N
  88°53'14"E   88°52'E   · 24°31'N
                                                     88°52'89"E

24°31'60"N · 24°32'05"N
88°53'02"E   88°53'00"E   · 24°32'06"N
kg/acre 20.41   88°52'57"E   ·
High   24°31'N
                                                           88°52'E
                        · 24°31'49"N
                          88°52'88"E   kg/acre 20.41
                          kg/acre 20.41   High
                          High

· 24°32'60"N   ·
  88°52'60"E

24°31'N   24°31'N

88°52'E   88°54'28"E

SCALE

M 100   50 0   100 200 300m

SOURCE - FIELD SURVEY 2022

70
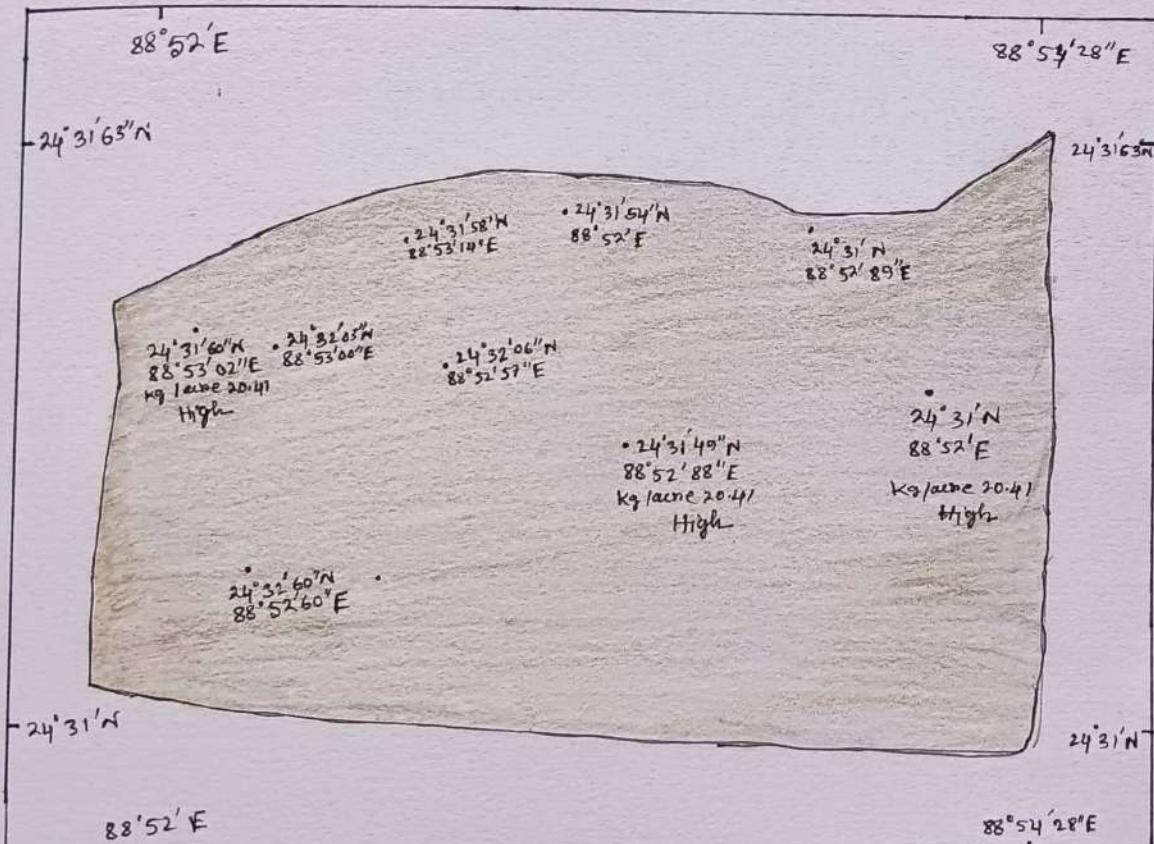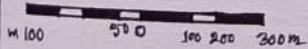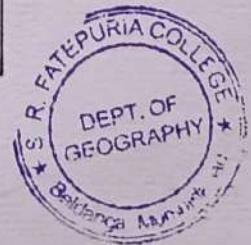
2.5) Drainge:- The whole region of the padma plain has a boundary by the river. Then whole region compresses on different water bodies and small water body near by the study area and also use tank water for Agriculture. The small water body in such an evidence of the previous flow of the major river.

2.6) Natural Vegetation and Agricultural field:- In the study area is also good for agriculture. Inthis area is very good for cultivation due to alluvial soils. Along with this, natural trees grow in aboundance In this area, paddycultivation is very good in monsoon and mustard, dal, lentil cultivation is very good in winter. The trees are very green and big.

2.7) Flora and Fauna:- Fauna is all of the animal life present in a particular region or time. Very types fauna located in the area and The corresponding term for plant is Flora. Very types of flora are seen in the study are water hyacinth, Nelumb nucifera.

physical Set up of the Study area

Murshidabad, West Bengal, India
8G8G+HCH, West Bengal 742308, India
Lat 24.316679°
Long 88.525688°
23/11/22 01:48 PM GMT +05:30
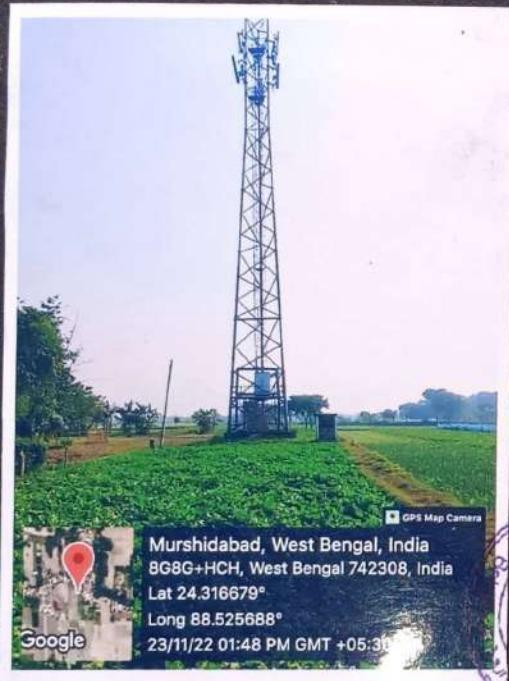
Soil Sample Collection and Testing

null, West Bengal, India
Unnamed Road, West Bengal, India
Lat 24.315962°
Long 88.530206°
23/11/22 01:02 PM GMT +05:30
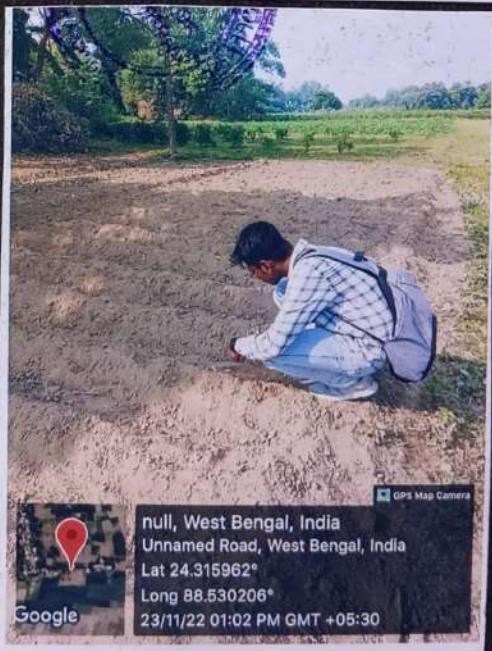
CHAPTER-3

DEMOGRAPHIC STAUS OF UTTARCHARMAJHARDIAR MOUZA

Table 1.1:- calculation for Pie diagram (Gender)

Gender	No of family	in degree	Redius of the pie (r)	Scale
Male	343	186°14'	$r = \sqrt{\frac{Total}{\pi}}$ $= \sqrt{663}$ $= \frac{2.14}{2.73}$ (bejis)	1cm to 3unit
Female	320	173°46'		

Our study area of Uttar char Majhardiar mouza medium size of village under Murshidabad district. Above the table and graph show that the study area is 51.73% by male population but about 48.26% total population are Female.

Table 1.2:- calculation for Pie diagram (Religion)

Religion	No of family	In degree	Redious of the pie (r)	Scale
Hindu	435	236°11'	$r = \sqrt{\frac{Total}{\pi}}$ $= \sqrt{663}$ $= 8.15$ $= 2.73$	1cm to 3unit
Muslim	228	123°49'		

Our study area of Uttar char Majhardiar mouza is medium size of village under Murshidabad district. Above the data Table and graph show that the study area is 65.61% most accured by Hindu population but about 34.38% total population are Muslim.

Table 1:3 :- calculation for Bar graph (caste system)

Caste	Total	Percentage	Scale
General	198	29.86	1cm to 10%
SC	314	47.36	
ST	59	8.89	
OBC	92	13.87	

The data table is group show that the study area is mostly allured by shedule caste population 47.36%. General caste is 29.86% of population and shedule Tribe 8.89 and other Backward caste is 13.87%.

Table 1:4 :- calculation for Pie diagram (Migrated people)

Migrated family	No of family	in degree	Radius of pie	Scale
Yes	11	28°5'	$r = \sqrt{\frac{total}{\pi}}$	1cm to 2 unit
No	102	331°55'	$= \sqrt{\frac{14}{\pi}}$ = 3.77	

The study area of Uttarchar Majhardiar mouza in Raninagar-II block under Murshidabad district. The data table show that the study area is 92.19% population non-migrated people and Migrated people is 7.81%..

DEMOGRAPHIC STATUS OF UTTAR CHARMAJHARDIAR MOUZA

GENDER

LEGEND
- MALE
- FEMALE

RELIGION

LEGEND
- HINDU
- MUSLIM

CASTE SYSTEM

PERCENTAGE

60
50
40
30
20
10
0

GEN SC ST OBC

CASTE

SCALE
1 cm to 10% population
fo caste

MIGRATED PEOPLE

LEGEND
- YES
- NO

27
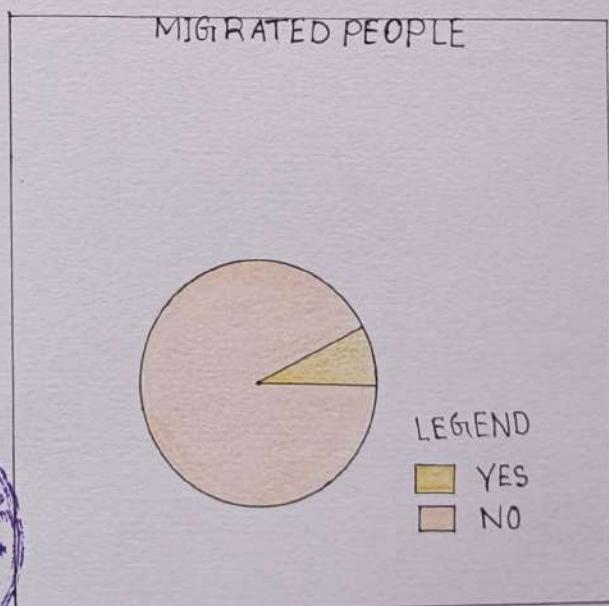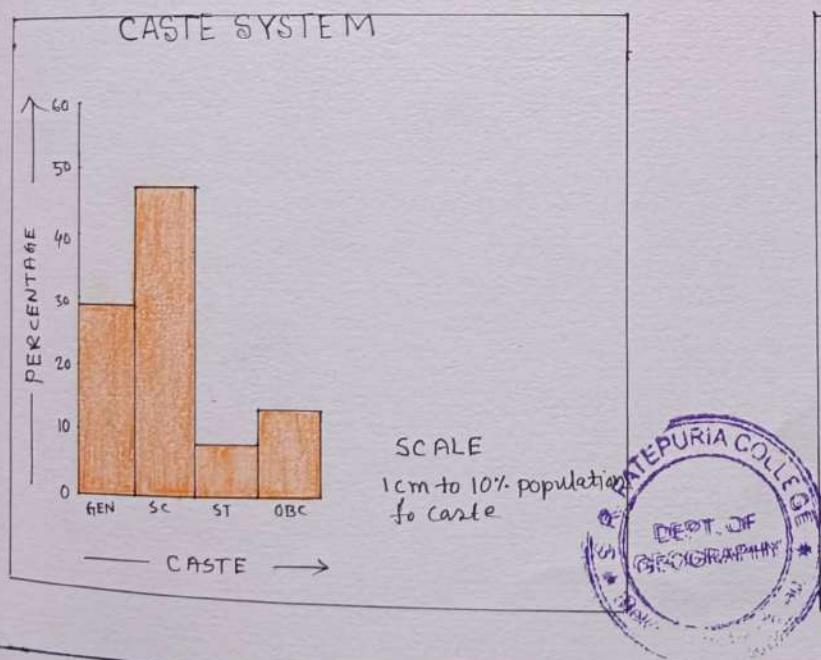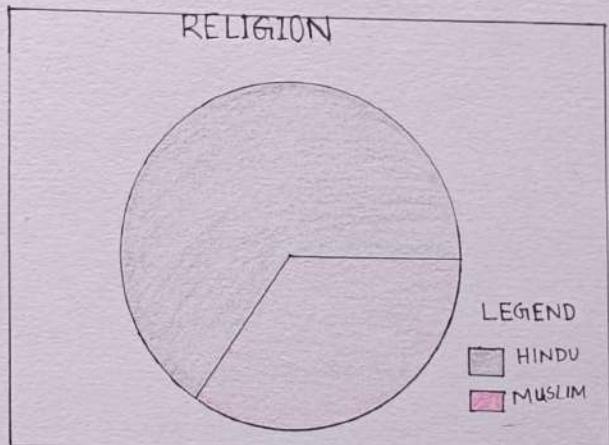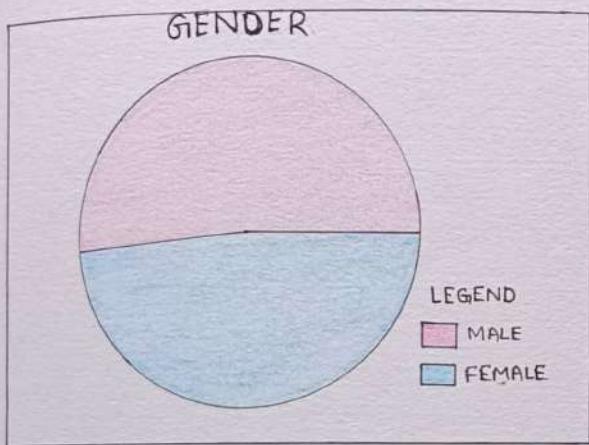
Table 1.5 calculation for pie (Type of family)

Type of family	No of family	in degree	Radius of the pie	Scale
Joint	38	97°1'	$r = \sqrt{\frac{total}{\pi}}$ $= \sqrt{\frac{141}{\pi}}$ $= 3.77 \times 1.88$	1cm to 2 unit
Nuclear	102	262°59'		

Our study area is Uttarchar Majhardiar is a rural area under Murshidabad district. A loft the data table and graph that the study area is maximum population 73.04% family is Nuclear and 26.95% family is Joint.

Table 1:6 calculation for Bargraph (size of family)

Size of the family	Total	Percentage	Scale
Below 4	59	41.84	1cm to 10%
5-8	74	52.48	
above 8	8	5.67	

Both the sample survey and secondary data available form the Uttarchar Majhardiar mouza in Raninagar-II block under Murshidabad district. In the study area 41.84% below 4 size of the family and mostly 5-8 size of the family is 52.48%.

Table:1:7 calculation for Age sex pyramid (Age sex composition)

Age sex pyramid	No of Male	percentage Male	No of Female	percentage Female	scale	Scale mediated M	F
0-5	26	7.58	31	5.68	1cm to 5 unit	1.51	1.93
6-15	50	14.57	51	15.93		2.91	3.18
16-30	91	26.63	108	33.75		5.30	6.75
31-45	81	23.61	78	24.37		4.72	4.87
46-60	60	17.49	42	13.12		3.49	2.62
above 60	33	9.62	10	3.15		1.92	0.63

our study area is Uttarchar Majhardiar is a rural settlement area mostly people are 16-30 in age sex pyramid 26.53% male population and 33.75% is female population.
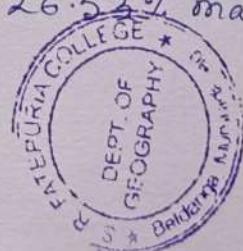
TYPE OF FAMILY
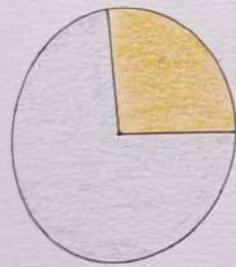
LEGEND
- ☐ JOINT
- ☐ NUCLEAR

SIZE OF FAMILY

PERCENTAGE

60
50
40
30
20
10

4>   5-8   <8
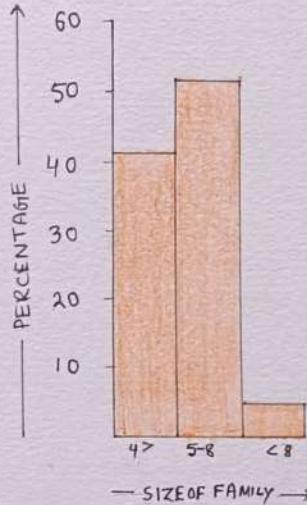
— SIZE OF FAMILY →

SCALE

1 cm to 10 % Size of Family

AGE -SEX PYRAMID

above 60
46-60
31-45
16-30
6-15
0-5

35 30 25 20 15 10 5 0   0 5 10 15 20 25 30 35

MALE POPULATION (%.)   FEMALE POPULATION (%.)
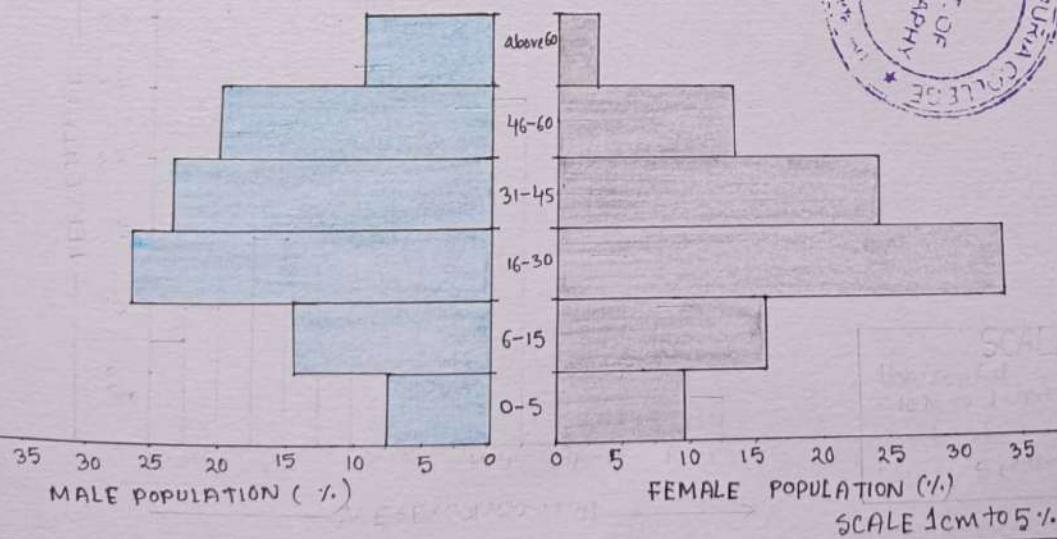
SCALE 1cm to 5%.

Table 1.8 :- calculation for pic (Literacy and illiterate)

Gender	Total	Percen in degree	Radius of pie	Scale
Male	206	190°38'	$b = \sqrt{\frac{Total}{\pi}}$	1cm to 2 unit
Female	183	169°22'	$= \sqrt{\frac{141}{\pi}}$ $= 3.77 = 1.88$	

The survey area is Uttarchar Majhardiar mouza is maximum population 52.95% family literate in male population and 47.04%. Female population is literate.

Table 1.9 :- Calculation for pic (Illiteracy)

Gender	Total	in degree	Radius of pie	Scale
Male	116	183°57'	$b = \sqrt{\frac{Total}{\pi}}$	1 cm to 2 unit
Female	111	176°03'	$= \sqrt{\frac{227}{\pi}} = 2.59$ $= 4.78$	

The survey area is Uttarchar Majhar diar mouza is maximum population 51.10% Illiterate in male population and 48.89% is illiterate in Female population.

Table 1:10 Calculation for Comparative Bargraph (level of Education)

Below IV		IV		VIII		X		XI		VII		P.G		Others		Scale
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	1cm to 10 unit
32	28	25	31	47	44	45	95	35	41	14	3	2	3	2	2	

Our study area is Raninagar-II block under Murshidabad district in Uttarchar Majhardiar mouza is weak in education. few population are higher educated and mostly population primary educated and secondary educated in the total population.

LITERACY
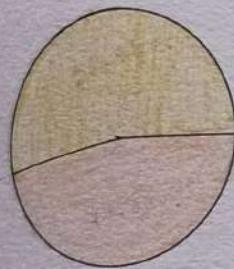
LEGEND
- ■ MALE
- ■ FEMALE

ILLITERACY

LEGEND
- ■ MALE
- ■ FEMALE

LEVEL OF EDUCATION
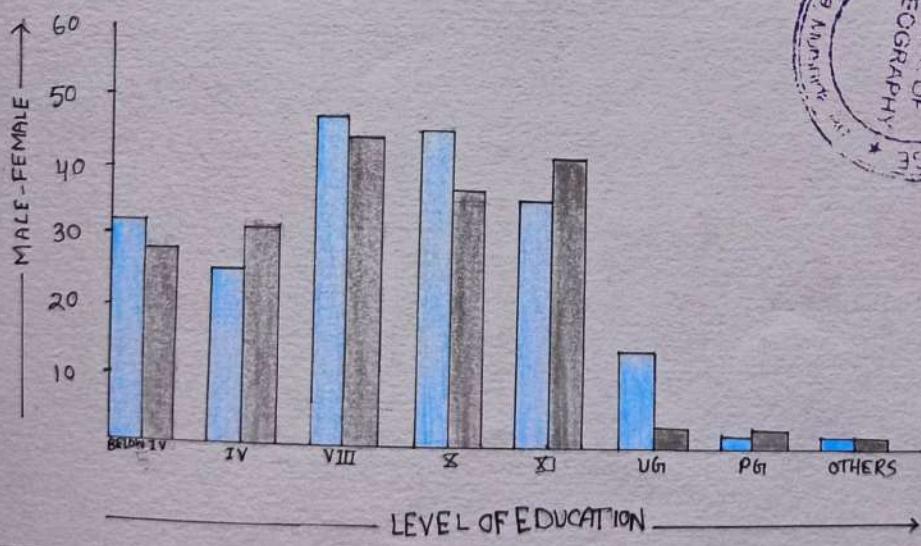
MALE-FEMALE

60
50
40
30
20
10

BELOW IV   IV   VIII   X   XI   UG   PG   OTHERS

LEVEL OF EDUCATION

SCALE

Horizontal
1 CM to 1 Level of Education

Verti SCALE
1 cm to 10 Unit Male-Female
Level of Education

Demographic Status of Uttar char Majhardiar Mouza
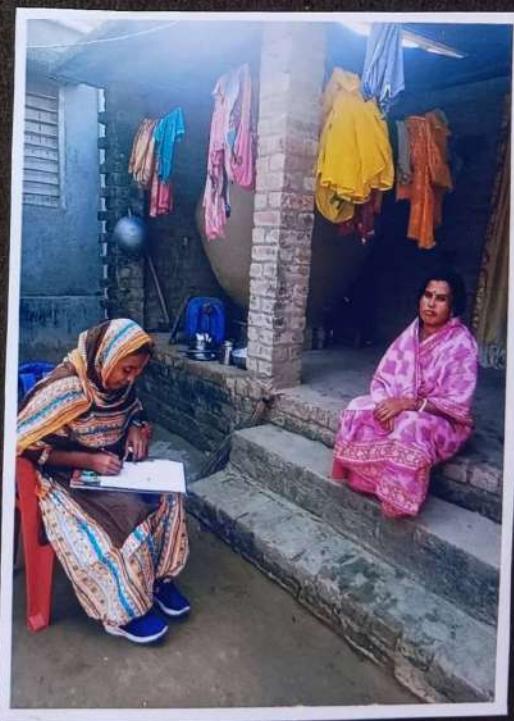
ECONOMIC STATUS OF UTTAR CHAR MAJHARDIAR MOUZA

Table 2.1 calculation for bar (Occupation).

Total	Worker	Percentage	Nonworker	Percentage	Scale
Male	243	69.42%	107	30.57%	1cm to
Female	15	4.77%	299	95.22%	20%

It indicates the concentration of primary economic activities which is a common phenomenon for most of the villages in West Bengal.

Table 2.2 calculation for bar (cropping pattern

Cropping pattern	No of family	Percentage	Scale
Single	39	28.96	1cm to
double	22	16.05	10%
Multiple	76	55.47	

It indicates the concentration of primary economic activities which is common people engaged in multiple cropping 55.47% and few population in the area 16.05% are engaged in double cropping.

Table 2.3 calculation pro bar (Total Income Monthly)

Total Income Monthly	No of family	percentage	scale
Below 3000	9	6.38	
3000-6000	28	19.85	1 cm to
6000-8000	55	39.	
Above 8000	49	34.75	6%

Both the sample survey and secondary data available from the Uttarchar Majhardiar indicates a huge concentration of people 39% family 6000-8000 income monthly. All the facts prove that the economic conditions of the study area Uttarchar Majhardiar Mouza is in a satisfactory level.

Table 2.4 calculation for comparative Bar (Type of worker)

Cent govt		State govt		Business		cultivation		fishing		Labour Agricul		Daily Labour	
M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	0	4	1	12	0	89	8	15	0	47	3	54	2

Our study area of Uttarchar Majhare diare Mouza mostly population are engaged in cultivation and secondly few family are labour in agriculture very few family are engaged in state govt and Business.

ECONOMIC STATUS OF UTTARCHAR MAJHARDIAR MOUZA

OCCUPATION

LEGEND
■ MALE ■ FEMALE
SCALE
1 CM to 20 unit Male-
FEMALE OCCUPATION

CROPPING PATTERN

SCALE
Horizontal
1 cm to 1 unit cropping
V. SCALE
1 cm to 10% CROPPING
PATTERN

TOTAL INCOME IN MONTH

SCALE
1 cm to 6% TOTAL INCOME IN MONTH

TYPE OF WORKER

LEGEND
■ MALE ■ FEMALE
SCALE
1 cm to 15 male-
female type of
Worker.

S. R. FATEPURIA COLLEGE
DEPT. OF GEOGRAPHY
Beldanga, Murshidabad
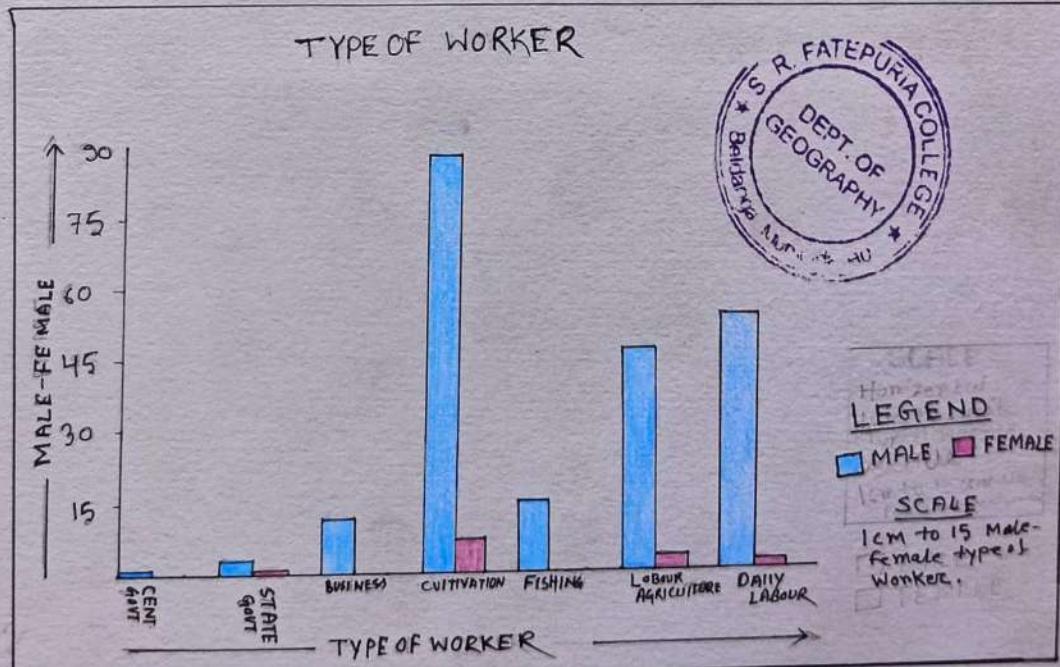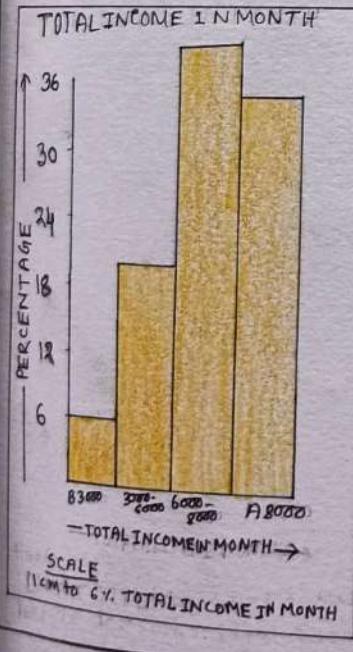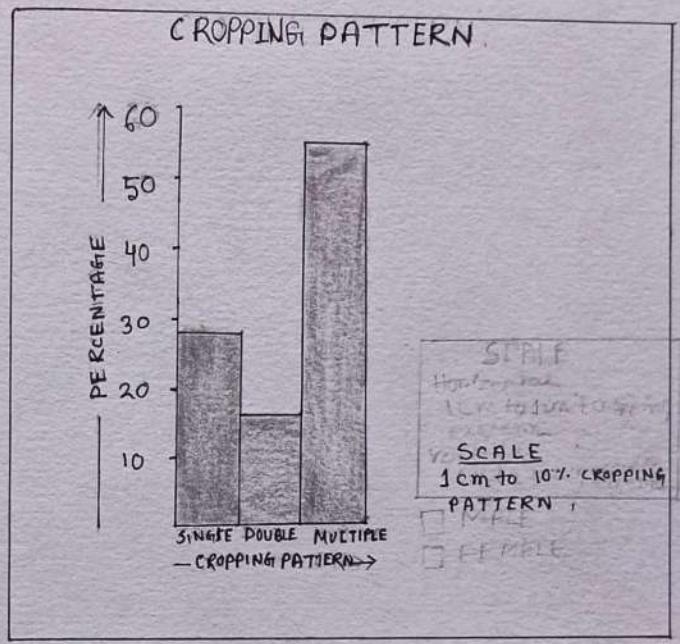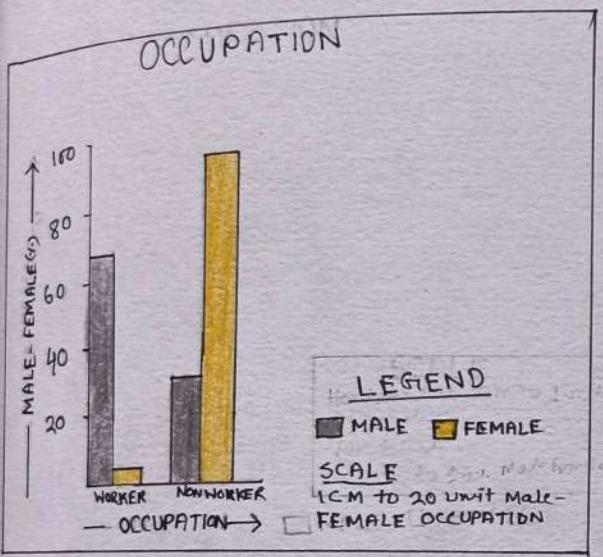
ECONOMIC STATUS OF UTTAR CHAR MAJHARDIAR MOUZA

SOCIAL STATUS OF UTTAR CHAR MAJHAR DIAR MOUZA

Type: 3:1:- Calculation for Bar graph (Type of House)

Type of House	Percentage	No of family	Scale
Kancha	12.48	17	1cm to
Pucca	70.28	97	15 %.
Semipucca	19.56	27	

The status of economic, educational status reveal the social status. To not the cultural and social like style sample were done. On house hold condition and the products used for amusement purpose the studies produce the following data.

Table 3.2:- Calculation for Bar graph (Material used)

Material used	No of family	Percentage	Scale
Bamboo	17	11.88	
Wood	0	0	1cm to
Straw	0	0	15 %.
Cement	118	82.51	
Others	8	5.59	

It indicates the concentration of material used 82.51% in pucca house made by cement in the study area Uttar char Majhardiar mouza. few famil made his house 11.88% in Bamboo.
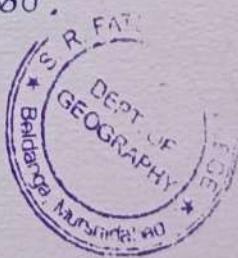
Table 3.3 :- calculation for Bar graph (Source of Drinking water)

Source of Drinking water	No of family	Percentage	Scale
Public Tube well	42	29.78	1cm to 10%
Well	12	8.51	
Tube well	87	61.70	
other	0	0	

They availability of safe drinking water is most common for all the house holds. Through the presence of arsenic free tube well 61.70% is sufficient numbers.

Table 34 calculation for Bar graph (Source of fuel)

Source of fuel	No of family	Percentage	Scale
Wood	82	39.13	1cm to 10%
cow dunk cake	52	36.87	
LPG	74	52.48	

The use of Uttar char Majhardiar mostly use of LPG 52.48% and 39.13% family use wood, also other hand 36.87% family use cow dank cake.

SOCIAL STATUS OF UTTARCHAR MAJHARDIAR MOUZA

TYPE OF HOUSE

PERCENTAGE (Y-axis: 15, 30, 45, 60, 75)

KACHA PACCA SEMI PACCA
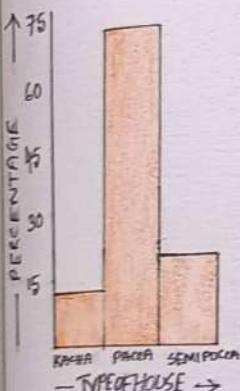
— TYPE OF HOUSE →

Scale
1cm to 15% Type
of House.

MATERIAL USED MADE HOUSE

PERCENTAGE (Y-axis: 15, 30, 45, 60, 75, 90)

BAMBO WOOD STRW CEMENT OTHERS
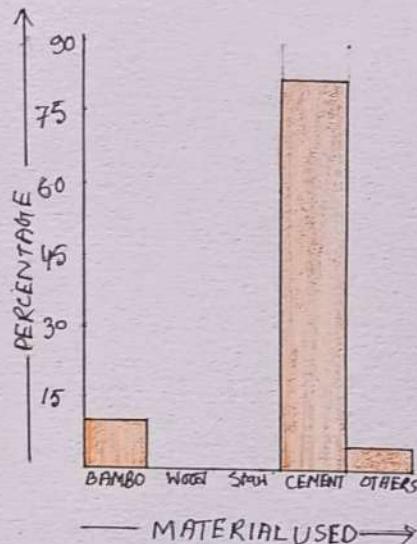
— MATERIAL USED →

SCALE
1cm to 15%.
Material used.

SOURCE OF DRINKING WATER

PERCENTAGE (Y-axis: 10, 20, 30, 40, 50, 60, 70)

P3 TUBE WELL WELL TUBE WELL OTHER

— SOURCE OF DRINKING WATER →
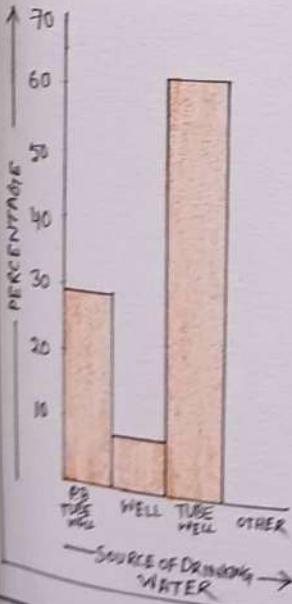
SCALE
1cm to 10%. Source of
Drinking Water.

SOURCE OF FUEL

PERCENTAGE (Y-axis: 10, 20, 30, 40, 50, 60)

WOOD COW DANK CAK LPG OTHERS
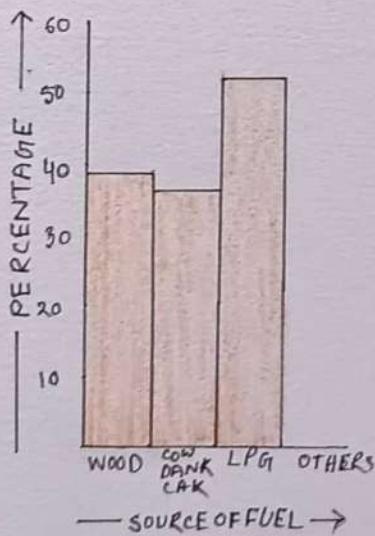
— SOURCE OF FUEL →

SCALE
1cm to 10% source
of FUEL.

Table 3.5 :- calculation for pie (Electric Facility)

Electricity	No of family	in degree	Redius of pie	Scale
yes	121	308° 56′	$r = \sqrt{\frac{Total}{D_2}}$ $= \sqrt{\frac{141}{9}}$ $= 3.77 = 1.88$	1cm to 2unit
NO	20	51° 04′		

Our study area of Uttar chare Majhare Diare mouza's people consuming electricfacility 85.81 % family has been used in life. Above the table 14.18 % family has no electric facilities.

Table 3:6 calculation for Bar graph (Mode of communication)

Mode of communication	No of family	Percentage	Scale
Private	36	25.53	1cm to 12%
Public Transport	103	73.04	
other	2	1.41	

The availability of safe communication in the study area on house and social life style very simple. Mostly population use 73.04 % public transport and few population 25.52% use private transport.

Table 3.7:- calculation for Bare graph (Type of Diseases)

type of Diseases	No of family	Percentage	Scale
viral Fiver	67	47.51	1cm to
Diarrea	20	14.18	
cholera	10	7.09	10%
other	44	31.20	

The village of Uttare chare Majhardiar mouxa mostly 47.57 % family faces viral fiver and 14.18 % diarrhea. In this area madical facility are poor quality.

Table 3:8 - calculation for Bar graph (Medical facility)

Medical Facility	No of family	Percentage	scale
Homeopathy	28	19.85	1cm to
Alopathy	95	67.87	15%
Ayurvedic	18	12.76	

The study area of Uttare chare Majhar diar in Raninagar -II block in Murshidabad district. This area's is madical facility is provide the family in primary health centre and private doctor Mostly people 67.37 % people used Alopathy medicine and 19.85 % of total population used Homeopathy medicine.

ELECTRICITY FACILITY
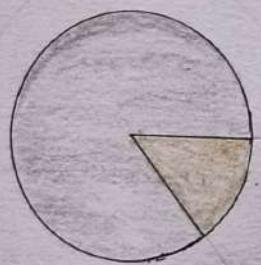
LEGEND
YES
NO

MODE OF COMMUNICATION

PERCENTAGE

84
72
60
48
36
24
12
0

PRIVATE   PUBLIC   OTHERS
          TRANS
          PORT

MODE OF
COMMUNICATION
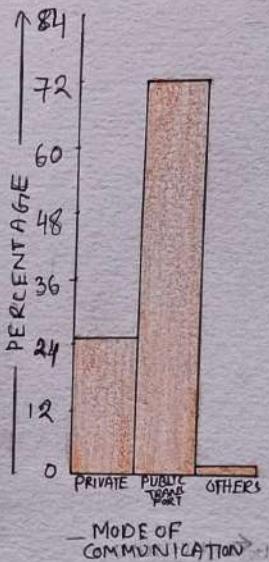
SCALE
Scale
1cm to 12% MODE
COMMUNICATION

TYPE OF DISEASE

PERCENTAGE

50
40
30
20
10
0

VIRAL   DIARR   CHOLERA   OTHERS
FIVER   HEA
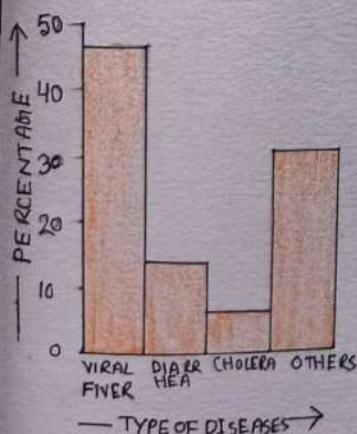
TYPE OF DISEASES →

Scale
1cm to
10% Type
of Disease

MEDICAL FACILITY
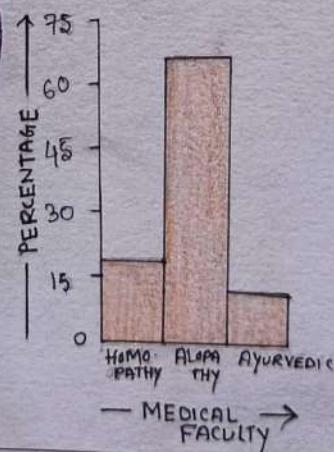
PERCENTAGE

75
60
48
30
15
0

HOMO   ALOPA   AYURVEDIC
PATHY   THY

MEDICAL
FACULTY →

SCALE
SCALE
1cm to 15% Medical
Faculty

DEPT. OF
GEOGRAPHY
S. R. FATEPURIA COLLEGE

Social Status of Uttar char Majhardiar Mouza.

44
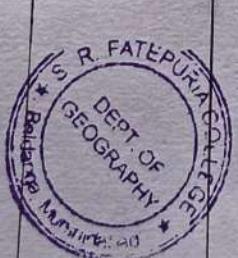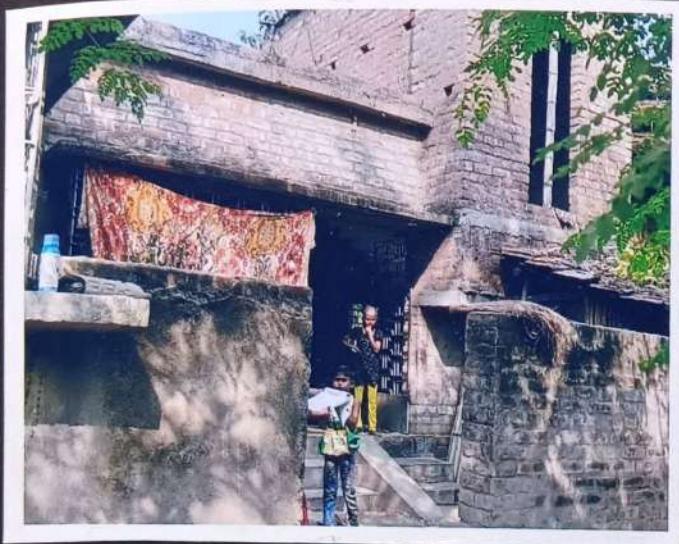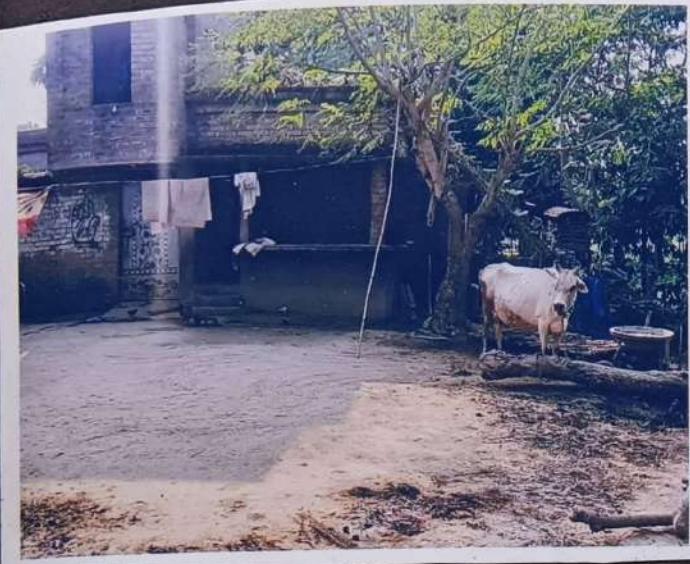
CHAPTER-04

LANDUSE CHARACTERISTICS

What is land use :- Landuse refer to the Naturilaisation for Socio-Economic benifit of the people. In a different way we may define landuse as the heighest possible used of the land cover with least hampering of its sustainability.

Present landuse Condition of the study area :- A through survey of land use following in the Uttarchar Majhardiar mouza of a area produces the following land use pattern —

(i) Agricultural purpose :- Agricultural purpose about area is under the use of agricultural purpose about work, it can tribute about 55.47% of the total landuse area. The agriculture and area used through of the year and most of the land use for multirop production. The crop include winter season.

(ii) Forest area :- It includes on chinds of banana, garden and few area nesanve for bamboo, It can cover amount of land area with contribute 10.92% of the total mouza.

(iii) Bamboo groves :- 15.45% of land area are used for then purpose. The lacation of such groves is many abineanl to the settlement area zone.

(iv) settlement area :- According to the land use survey amount to the total land area 59.91% of area which is second in position followed by the agricultural purpose land area. The settlement have been set up mainly following beside the local water body and matali road is covered by settlement is following both the sides.

(v) Transportation purpose :- The presence of metal and non-metal may have been observed in the mouza, it covered about 10.22% amount of land area.

LANDUSE MAP OF UTTAR CHAR MAJHARDIAR MOUZA
POLICE STATION – RANINAGAR–II
DISTRICT – MURSHIDABAD

SCALE 16" = 1 MILE

MILE 5 4 3 2 1 0   5   10 MILE

BANSGARA – 4

BANSGARA – 2

DAKSHIN CHAR MAJHARDIAR – 02

DAKSHIN CHAR MAJHARDIAR – 01
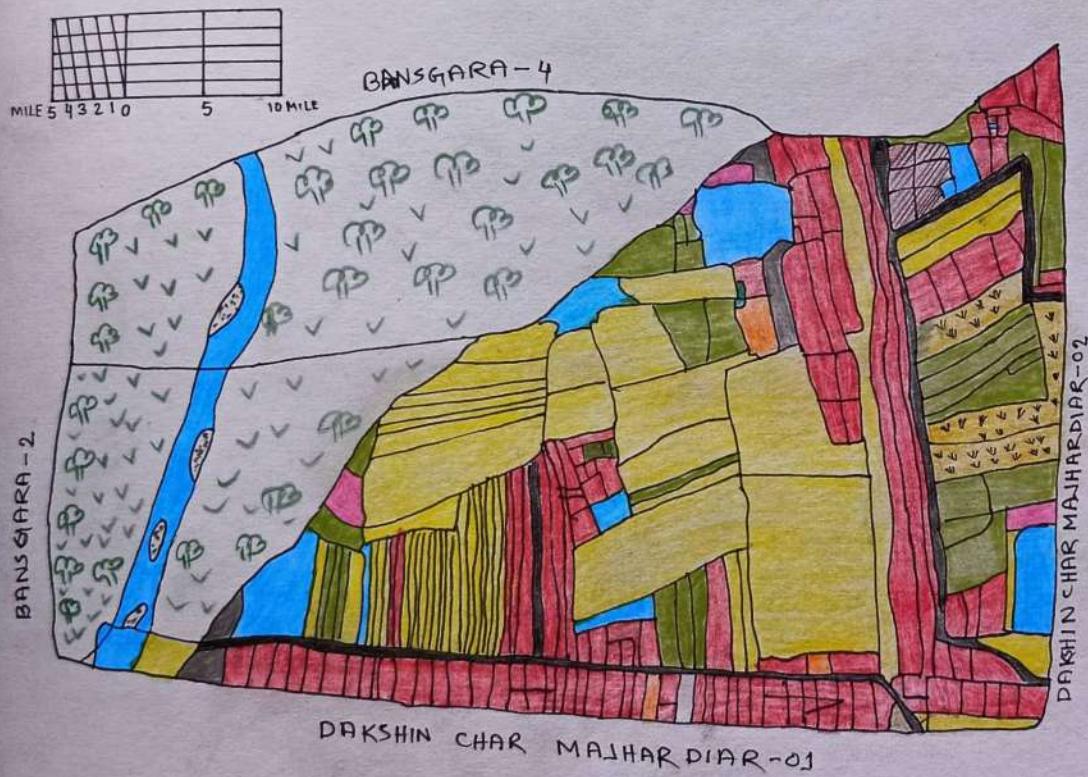
LEGEND

- SETTLEMENT
- FOREST
- AGRICULTURAL LAND
- ROAD
- TEMPLE
- GROVE YEARD
- WATER BODIES
- RIVER
- MOSQUE
- BSF CAMP
- WASTE LAND
- BAMBOO TREE
- BAR

SOURCE– BL.RO OFFICE RANINAGAR–II FIELD SURVEY

47

PROBLEM RELATED TO LAND USE

The problem would have been identified its quite common for the villages situated over paddma —

(i) The problem are sumarised as flows the use of agriculture land through out the year. To crops Which growing population of the country like in any othe villages here the farmers are also faces of the difficulty in rainy season for heavy rainfall causes of the maximum agriculture land use are drowning. Main Problem of the stuay area are River bank erosion ana flood.

(ii) Population of the water body :- Through the water body is to the local people but they cise the water body is such away that continious population is degnading its water quality its water quality. Fertilizers that are used in the fields become contaminated with water durring rainly season it causes majon damage to water quality.

(iii) The problem of Soil Erosion :— The continious used of the field for agricultural purpose not anly affecting the concentoation of organic matter, PH unbalance of soil, N2 soil are balanced. But also causing the soil errosion specially by channal flow water durring wet season and wind flow suring dry season.

Very types of landuse in Study area
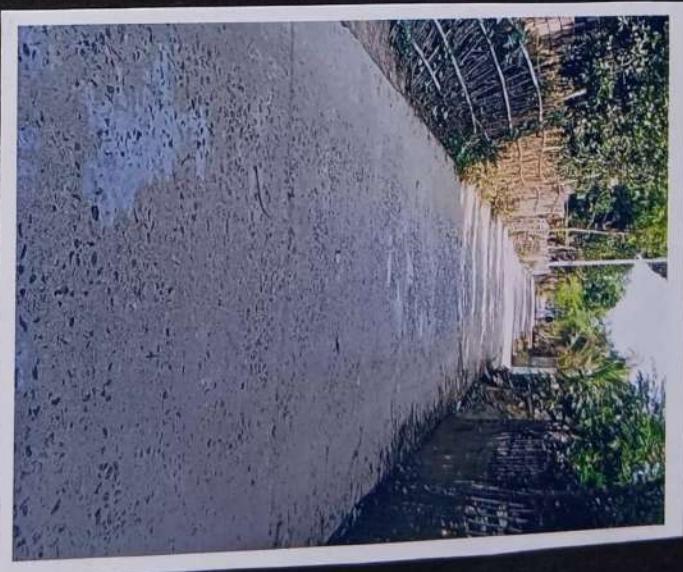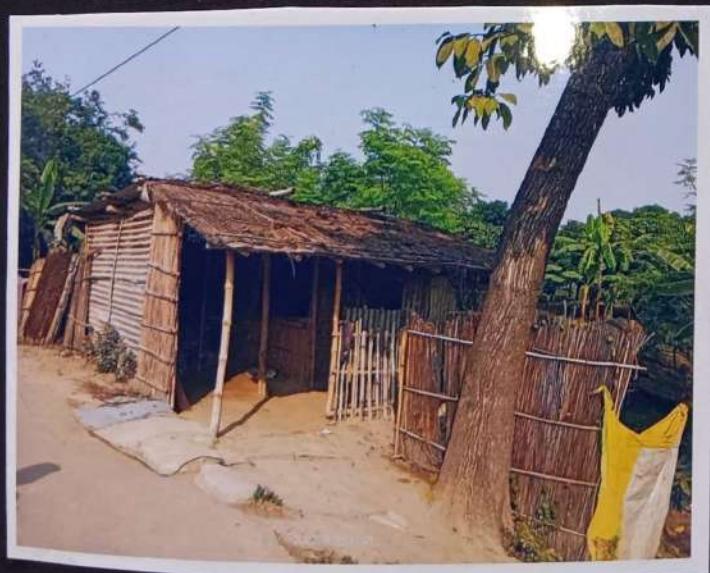
CHAPTER- 5

RIVERBANKEROSION&HAZARD STUDY

A hazard is a situation that poses a level of threat to life, health, property, or environment. Most hazards are dormant or potential, with only a theoritical risk of harm, however once a hazard becomes "active" it can create an emergency situation. A hazards situation that has come to pass is called an incident. Hazard and possibility interact together to create risk.

       Identification of hazard risks is the first step in performing a risk assessment.

       River Bank erosion hazards are physical phenomena that expose a bank area to risk of property damage loss of life and environmental degradation.

River Bank Erosion & Hazard Study

HAZARD & RIVERBANK EROSION IN UTTARCHAR MAJHARDIAR MOUZA

Table 4.1 calculation for pie (Experienced about Hazard)

Experience about Hazard	No of family	in degree	Redius of the pie (n)	Scale
Yes	89	227°14'	$n = \sqrt{\frac{Total}{\pi}}$	1cm to
No	52	132°46'	$= \sqrt{\frac{141}{\pi}}$ $= 3.77$ $= 1.88$	2 unit

The area of Uttarchar Majhardiar mouza in Murshidabad district. This area's maximum population face many problem for natural Hazard. Mostly 63.12% people experience about Natural Hzard.

Table 4.2 calculation for Bar (Type of Hazard)

Type of Hazard	No of family	Percentage(%)	scale
Flood	68	51.90	1cm to 10%
River Bank Erosion	43	32.82	
others	20	10.68	

Our study area is faces many natural Hazard like flood, river bank erosion, cyclone etc. Above the table 51.90% family told that we difficult situation about Flood and 32.82% family asked suffer about River bank erosion.

Table 4.3 calculation for Bar (Causes of Flood Hazard)

Causes of Flood	No of family	Percentage(%)	scale
Destruction of dam	48	36.64	1cm to 10%
High rainfall	69	52.67	
others	14	10.68	

Both the sample of survey and secondary data available, maximum people 52.67% asked about causes of Flood for High rainfall and 36.64% family asked causes of Flood for destruction of dam.

HAZARD & RIVER BANK EROSION STATUS OF UTTARCHARMAJHARDIAR MOUZA

EXPERIENCE ABOUT HAZARD

LEGEND
- YES
- NO

TYPE OF HAZARD

PERCENTAGE vs TYPE OF HAZARD

FLOOD | RIVER BANK EROSION | OTHERS
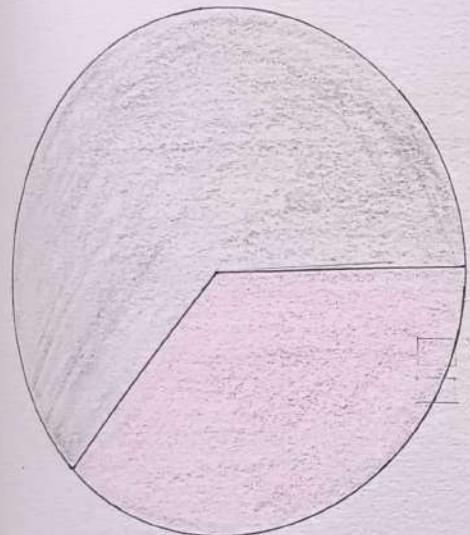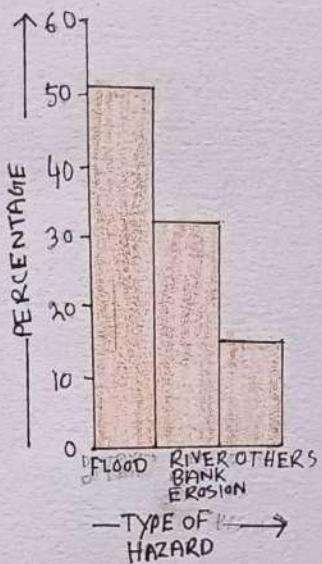
SCALE
1 cm to 10% TYPE OF HAZARD

CAUSES OF FLOOD HAZARD

PERCENTAGE vs CAUSES OF FLOOD HAZARD

DESTRUCTION OF DAM | HIGH RAIN FALL | OTHERS
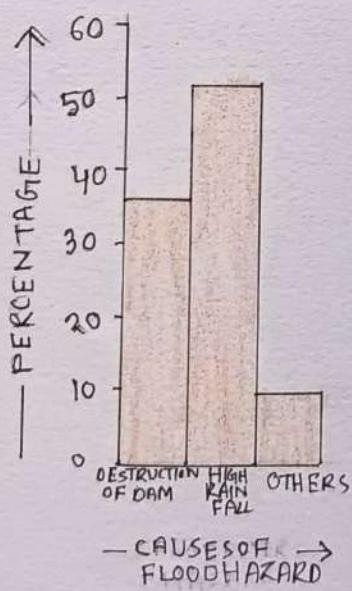
SCALE
Horizontal
1 cm to 10% causes of Flood Hazard

Table 4.4 calculation for Bar (change after Hazard)

change After Hazard	No of family	Percentage	scale
Destruction of embankment	10	7.51	
Loss of agriculture land	60	45.11	1 cm to
Description of River Bank	32	24.06	10%
Residential destruction	22	16.54	
Loss of local soin	9	6.76	

The study area Uttar char Majhardiar mouza is a natural hazardic area. According to the people in the area 45.11% loss of agricultural land for Hazard. Natural Hazard are bad affect on the agriculture land and 24.06% of total population asked affect the destruction of river bank erosion in the area.

Table 4.5 calculation for Bar (most problem of the village)

most problem of the village	No of family	Percentage(%)	scale
River Bank Erosion	45	31.91	1 cm to
cyclone	20	14.18	
Flood	40	28.36	10%
others	36	25.53	

Most critical problem of the Uttarchar Majhardiar village is 31.91%. total population asked River Bank Erosion is the most problem in the area. Above the table 28.36% people said faces for Flood.

Table 4.6 calculation for Pie (shifted house due to Hazard)

Shifted House	No of family	in degree	Radious of the pie $r = \sqrt{\frac{Total}{\pi}}$	scale
Yes	45	115°00'	$= \sqrt{\frac{141}{\pi}}$	1 cm to
No	96	245°	$= 3.74 = 1.86$	2 unit

Our study area is Uttarchar Majhardiar mouza's 31.91% people shifted our house due to river bank erosion and 68.08% people asked we area not shifted our house due to river bank erosion

CHANGE AFTER HAZARD

Y-axis: PERCENTAGE (0, 10, 20, 30, 40, 50)

X-axis categories: DESTRUCTION OF EMBANKMENT A·L, LOSS OF R·B, DESTRUCTION R·B, RESIDENTIAL DESTRUCTION, LOSS OF LOCAL SOIL

CHANGE AFTER HAZARD →

SCALE
1 cm to 10% Change after Hazard

MOST CRITICAL PROBLEM OF THE VILLAGE

Y-axis: PERCENTAGE (0, 10, 20, 30, 40)

X-axis categories: RIVER BANK EROSION, CYCLONE, FLOOD, OTHERS

MOST PROBLEM OF THE VILLAGE →

SCALE
Horizontal
SCALE
1 cm to 10% MOST
V Problem of the village
1 cm to 10% Most Problem at the village

SHIFTED HOUSE DUE TO HAZARD

LEGEND
YES
NO
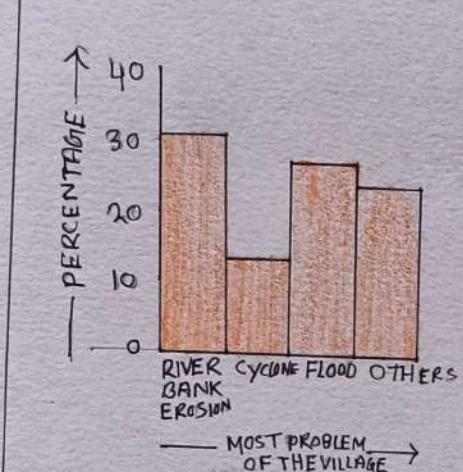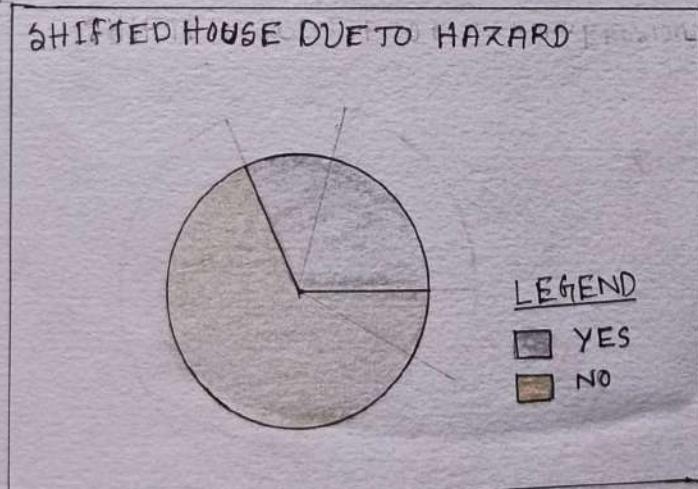
Table 4.7 calculation for bar (shifted house too River Bank erosion)
of next few month

Shifted house in next few month	No of family	percentage	Scale
very likely	11	7.80	
likely	20	14.18	1cm to
Not sure	39	27.65	
unlikely	40	28.36	10%
very unlikely	31	21.98	

In indicates the concentration of shifted house due to river bank erosion in next few month 27.65% of total population not sure about shifted their house in Natural Hazard.

Table 4.8 calculation of pie (Intension to leave the village)

Intension to leave the village	No of family	In degree	Redious of pie	Sale
Yes	42	107°14'	$r = \sqrt{\frac{Total}{\pi}}$	1cm to
No	99	252°46'	$= \sqrt{\frac{141}{\pi}}$ $= 3.77 = 1.88$	2 unit

our study area is Uttarchar Majhardiar in Raninagar-2 block on Murshidabad district. Above the table 70.21% total of population said about not interested intension due to leave the village and 29.78% family imagined about intension to leave the village.
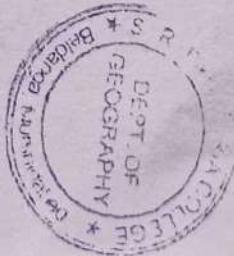
Table 4.9 calculation of pie (Lost all or part of agriculture land)

| Lost all or part of agriculture	No of family	In degree	Radious of pie	Scale
All agriculture land	49	125°	$r = \sqrt{\frac{Total}{\pi}}$ $= \sqrt{\frac{141}{\pi}}$ $= 3.77$ $= 1.88$	1cm to 2unit
Part of agriculture land	92	235°		

Indicates the concentration of lost all or part of agriculture land in Nature Hazards. Above the table 65.24 % peoples lost part of agricultural land and 29.78 % people losted over all agricultural land. Mostly populated faces many problem in the uttarchar Majhardiar Mouza.

Table 4.10 calculation of bar (Lots of assets due to river Bank Erosion)

Lots of assets due to R.B.E	No of family	Percentage	Scale
house	36	25.53	1cm to 10%
cattle	45	31.19	
others	60	42.55	

The study area is uttar char Majhardiar mouza at living in the village mostly suffer on the other damages for lots of assets due to river bank erosion and 25.53% of total due to river bank erosion.

SHIFTED HOUSE DUE TO RIVER BANK EROSION IN NEXT FEW MONTH

Bar chart with x-axis labeled SHIFTED HOUSE and y-axis labeled PERCENTAGE (scale 10 to 60).

Categories: VERY LIKELY, LIKELY, NOT SURE, UNLIKELY, VERY UNLIKELY

SCALE
1 CM to 10% SHifted
House due to
river bank Erosion
in next few month
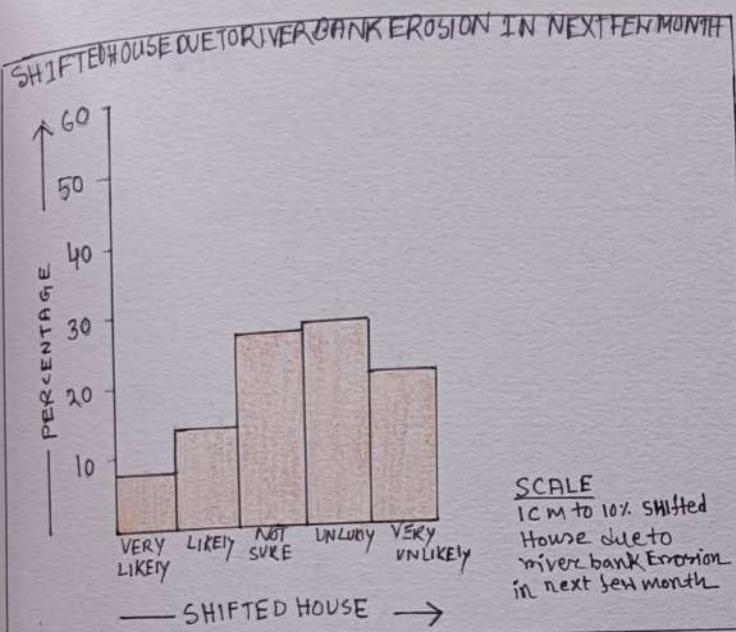
INTENSION TO LEAVE THE VILLAGE

LEGEND
☐ YES
☐ NO

LOST ALL OR PART OF AGRICULTURE LAND
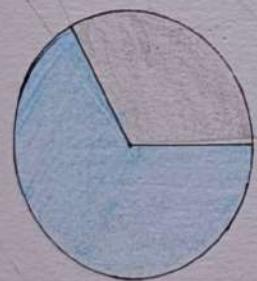
LEGEND

☐ ALL AGRICULTURE LAND
☐ PART OF AGRICULTURAL LAND

LOTS OF ASSETS DUE TO RIVER BANK EROSION

Bar chart with y-axis labeled PERCENTAGE (scale 10 to 50) and x-axis categories: HOUSE, CATTLE, OTHERS

LOTS OF ASSETS
DUE TO RIVER BANK
EROSION
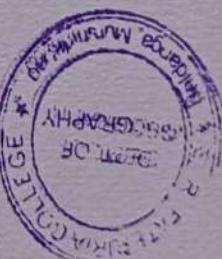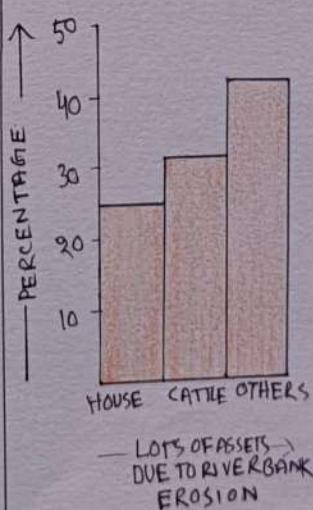
SCALE
1 Cm to 10% Lots
of Assets due to
River Bank Erosion

Table calculation for pie (change proofession due river bank errosion)

Chose proofession	No of family	in degree	Redio of pie $p=\sqrt{\frac{Total}{\pi}}$ $=\sqrt{\frac{141}{\pi}}$ $=3.77=1.88$	Scale
Yes	38	97°1		1cm to
No	102	262°59'		2 unit

Both the sample and secondary data available data in the above table 73.04% of total population not change their proofession due to river bank errosion.

Table calculation for Bare (type of proofession change due river bank errosion)

| Type of Proofession	No of family	Percentage	Scale
Fishing	42	29.78	
Daily wage worker	60	42.55	1cm 10%
Shop	22	15.60	
Other	17	12.05	

In the area's mostly population 42.55% have change their proofession due to river bank errosion in daily wage worker and 29.78% family change their proofession in fishing due to river bank errosion.

Table calculation for pie (Time of Agriculture land faces maximum problem)

Time of agriculture land faces problem	No of family	Percentage in degree	Redius of pie $r=\sqrt{\frac{Total}{\pi}}$ $=\sqrt{\frac{138}{\pi}}$ $=3.77=2.03$	Scale
Pre-monsoon	30	78°15'		1cm to
Monsoon	98	255°39'		2 unit
Post monsoon	10	26°6'		

Our study area is uttarchar Majhardiar mouza in Raninagar block-2 on Murshidabad district. Maximum families are faces the problem of Natural Hazard for causes of loss of agriculture land in monsoon 71.01% and 21.73% family said for their problem on pre-monsoon season.

CHANGE PROFESSION FOR RIVER BANK EROSION
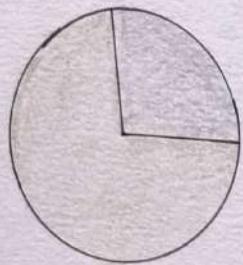
LEGEND

☐ YES
☐ NO

TYPE OF PROFESSION CHANGE

PERCENTAGE →

50
40
30
20
10

FISHING | DAILY WAGE WORKER | SHOP | OTHERS

— TYPE OF PROFESSION →
CHANGE AFTER R.B EROSION
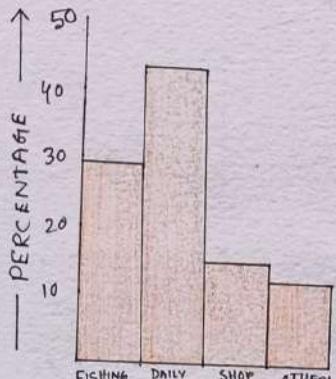
Scale
1CM to 10%.
people type of
profession change
After R.B. Erosion

TIME OF AGRICULTURE LAND
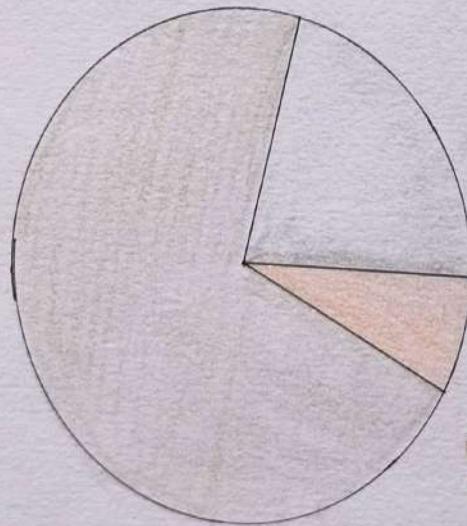
LEGEND

☐ PRE. MOONSOON
☐ MONSOON
☐ POST MONSOON

Hazard status of the study area Uttarcharmajhardiar
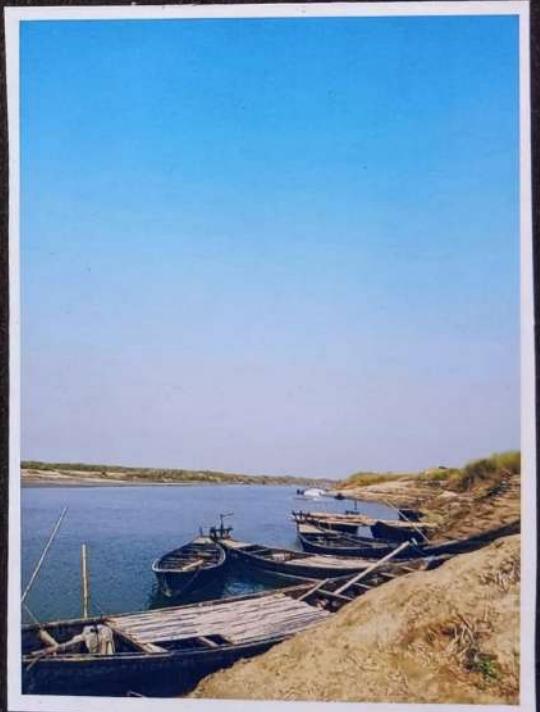
CHAPTER-6

FINDING AND CONCLUSION

Finding:- Uttar chare Majhardiar is the most important part of Kasinagar block. This area situated in the eastheron part of Murshidabad district. In socio - economic status this stuay area has been considered as background Region. Throoug my micro level research woork I have found the following points:

1. Uttarchar Majhardiar is losing it large parts of agricultural land due to maximum river bank erosion of the stuay area.

2. The stuay area is considered as a river bank erosion poron zone. So the soil of that area is alluvial in nature, enclosed with recent alluvial type.

3. Uttarchar Majhardiar is a lass economically area. Most of the people are join with primary activities. So other income is very don and they belong to BPL category. But some people are join with the pisiculture.

4. Poor health facilities have been found in the stuay area. Only one sub health centre of the area. Most doctors are untrained in this area. As a result huye numbers of patients do notget proper treatment. Trast port system is still poor in the stuay area. Only a terminating bus boute is considered as the life line of the stuay area.

Conclusion :- Uttar char Majhare diar is a river Bank erosion area, here maximum time local people are greatly affected by the river bank erosion, here is need construction, stop river bank erosion, construction of embankment, hospital in the stuay area. But now the present condition of the stuay area is very worost to dead the daily life for the local people. There local people are engaged by primary sector like to Agriculture, fishing etc. different caste and religions are found in the stuay area. We survey at there, be swevey about their socio - economic condition and Hazard perception of this area. We find their man ana environment relationship for their livelihood. Thus the main focus of the social condition is to stuay the size of population, distribution ana density of population, level of education, economic behaviour, civic amenities etc. We survey at there be survey about their socio economic condition ana hazard perception of the stuay area. We find there man ana environment relationship for their livelihood.

From our surveyed statement, there are many problems to protect the uttar char majhar diar immediately the goverment must be taken some steps or investment.

64

APPENDIX

S.R.FATEPURIA COLLEGE

BELDANGA, MURSHIDABAD

QUESTIONNAIRE SURVEY FOR STUDY OF

LIVELIHOOD STATUS OF GEOMORPHIC HAZARD-PRONE COMMUNITIES

A CASE STUDY OF RANINAGAR-2 BLOCK, MURSHIDABAD, WESTBENGAL

1. Name of the village:
2. Name of the respondent:
3. Head of the family:
4. Age:
5. Gender: Male ☐ Female ☐
6. Religion: Hindu ☐ Muslim ☐ Christian ☐ Others ☐
7. Caste: GEN ☐ SC ☐ ST OBC ☐
8. Migrated people: Yes ☐ No ☐
   A) If yes, from where did they migrate?
   B) How long?
   C) How Many years?
9. Type of family: Joint ☐ nuclear ☐
10. Size of family: below 4 ☐ 5-8 ☐ above 8 ☐

No of family member		AGE SEX COMPOSITION												
M	F	Below-6		6-15		16-30		31-45		46-60		Above60	
		M	F	M	F	M	F	M	F	M	F	M	F

11. LITERACY:

Literate		Illiterate		Below-IV		IV		VIII		X		XII		U.G.		P.G.		OTHERS	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

12. INSTITUTIONAL DETAILS:

Item	Anganwari	Primary School	Madhyamik School	H.S. School	College	University	others

13. OCCUPATION :

Workers		Non Workers		Central Govt. Service		State Govt. Service		Business		Cultivation		Fishing		Daily labour in Agriculture		Daily labour		Others	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

14. Size of land holding: landless/marginal/below 1 bigha/large/above 1 bigha
15. Land use: residential/ commercial/orchard/others

16. Distance the agricultural land from their habitat:
17. Cropping pattern: single/double/multiple
18. Name of the crop seasonally:

SUMMER:

WINTE:

RAINY:

19. Irrigation system:
20. Use of agricultural products: personal /commercial
21. Approx monthly /seasonally income from agriculture:
22. If they are involve in fishing :
23. Season of fishing:
24. Sources of fishing: river/pond/both
25. Distance the sources from their habitat:
26. Use of the products : personal/commercial
27. Availability of the fish market: yes/No
28. Distance of the market:
29. Total monthly income of the family: below 3000/3000-6000/6000-8000/abover8000
30. Type of house: kachha/pacca/semi pacca
31. Material used: bamboo/wood/straw/cement/others
32. Source of drinking water: public place/well/tube-well/others(name)
33. Source of fuel:wood/cow- dank cake/L.P.G/others
34. Electric facility: yes/No
35. What kind of electric device are used: mobile/television/computer/internate/AC/others
36. Mode of communication : private /public transport/others

37. TYPE OF DISEASES:

Name	Viral Fever	Diarrhea	Cholera	Checken pox	others
Seasons					

38. MEDICAL FACILITY:

MEDICAL FACILITY	HEALTH CENTRE	HEALTH ATTENDENT
HOMEO/ALLOPATHIC/AYURVEDIC/OTHERS	PHE/POSTIAL/N.H/OTHERS	UNTRAINED DOCTOR/ TRAINE DOCTOR/QRACK DOCTOR/OTHERS

39. NO OF ANNENITIES:

Item	PHE	HOSPITAL	NH	BANK	MARKET	TEMPLE	MOSQUE	CHARCH	PLAY GRPUND
Name									
distance									

40. AWARNESS OF GOVT FACILITIES:

A) Education purpose
B) Shelter purpose
C) Sanitation purpose
D) Future planning purpose

HAZARAD PERCEPTION SURVEY

1. Do you any experienced in your area? Yes/No
2. What type of hazard you have experienced in your area? Flood/river bank erosion/any other
3. Do you know about main causes of repeated flooding/river bank erosion
4. What are the main causes of these hazards?

Flood	Destruction of dam	High rainfall	others	
River bank erosion	Tidal effect	cyclone	others	
cyclone	Tidal effect	Lack of shade/big trees	others	

5. What are the changes observed due to hazards?

Flood	Destruction of embankment	Loss of agricultural fields	Loss of local soil cover	others	
River bank erosion	Destruction of embankment	Loss of agricultural fields	Residential area destruction	others	
Cyclone	Destruction of river coast	Loss of agricultural fields	Residential area destruction	others	
others					

6. What is the most critical problem being faced by the village
A. River bank erosion
B. Dune encroachment
C. Cyclone
D. Flood
E. Others

7. Which are the most hazardous month of the year and why

8. Have shifted your house due to river bank erosion yes/No

9. Do you think you will have to shift your house within next few years from now:

A. Very likely
B. Likely
C. Not sure
D. Unlikely
E. Very unlikely

10. Do you intend to leave your village because of the problem you are facing: yes/No
11. Have you lost all or part of your land due to riverbank erosion
    A. All agricultural land
    B. Part of agricultural land
12. Have you lost any other assets due to natural hazards
A. HOUSE
B. CATTLE
C. OTHERS
13. Have you changed your profession from farming due to river bank erosion:yes/No
A. Fishing
B. Daily wage worker
C. Shop
D. Others
14. In which time of the year your agricultural land faces maximum proble:
A. Pre-monsoon
B. Monsoon
C. Post monsoon
15. Are you satisfied with the embankments constructed to prevent river bank erosion: yes/No
16. Which agency maintains the embankment in your village:panchyeat/irrigation and water way/not sure/other
17. Do you think the embankment will collapse under heavy rainfall:

Very likely/likely /not sure/unlikely

18. Do you know any family who have lost their houses and land due to breaching of marginal embankments:

19. Have they received any compensation from government:
20. Do you think plantation along the marginal embankment can reduce erosion problem: yes/no

Monira yasmin

Student Signature with date

Prepared by
Dr. Abdus Sattar Shaikh
Head
Department of Geography
S.R.F.College, Beldanga, Murshidabad
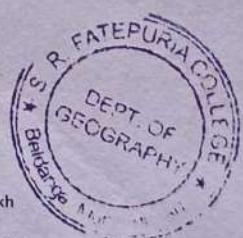
BIBLIOGRAPHY

1. District statistical hand book 2019

2. Murshidabad district gazetter as pefound in the website.

3. Open sources from website.

Examined by
07.02.2023