ANANDA CHANDRA COLLEGE, JALPAIGURI

1.3.2: Percentage of students undertaking field work/internships(Data for the latest completed academic year)

Programme name	Fieldwork	Semester	Number of students participated	Page no.	
B.A. Honours in Bengali	Field Work	6 th	29	2	
B.Sc. Honours in Botany	Field Work- 2	2 nd , 4 th & 6 th	31	10	
B.A. Honours in Education	Field Work	4 th	30	40	
B.A. Honours in Geography	Field Work	5 th	20		
B.A. Honours in Geography	Field Work	4 th	41	57	
B.A. Honours in History	FieldWork	3 rd	41	204	
B.Sc. Honours & Programme in Physiology	Field Work	4 th & 6 th	48	245	
B.A. Honours in Sociology	Field Work	6 th	29	249	
B.Sc. Programme (General) in Zoology	Field Work	4 th & 6 th	21	262	
B.Sc. Honours in Zoology	Field Work	5 th	09	262	

ANANDA CHANDRA COLLEGE

(GOVERNMENT SPONSORED) AFFILIATED TO: UNIVERSITY OF NORTH BENGAL

Office of the Principal

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P.O. & Dist. JALPAIGURI West Bengal, INDIA, PIN Code - 735101 E-mail: principal/a accollege.org accjal@gmail.com Website. www.accollege.org

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Ref. No.- 2022-23/

Dated- 25.04.2023

TO WHOM IT MAY CONCERN

This is to certify that B students of 6th Semester B.A in Bengali Honours of the academic session 2022-23 along with Departmental guide Teachers of this college will participate in the Folk Field Survey on 26.4.2023 at Mongpo, Sitang and its vicinity under Karshiung Sub Divission, Dist. Darjeeling. The name of students and guide Teachers is enclosed herewith.

All concerned are requested to kindly co-operate with them whole heartedly so that they may works the survey smoothly.

Dr. Debashis

(Principal) Ananda Chandra College, Jalpaiguri Principal Ananda Chandra College Jalpaiguri

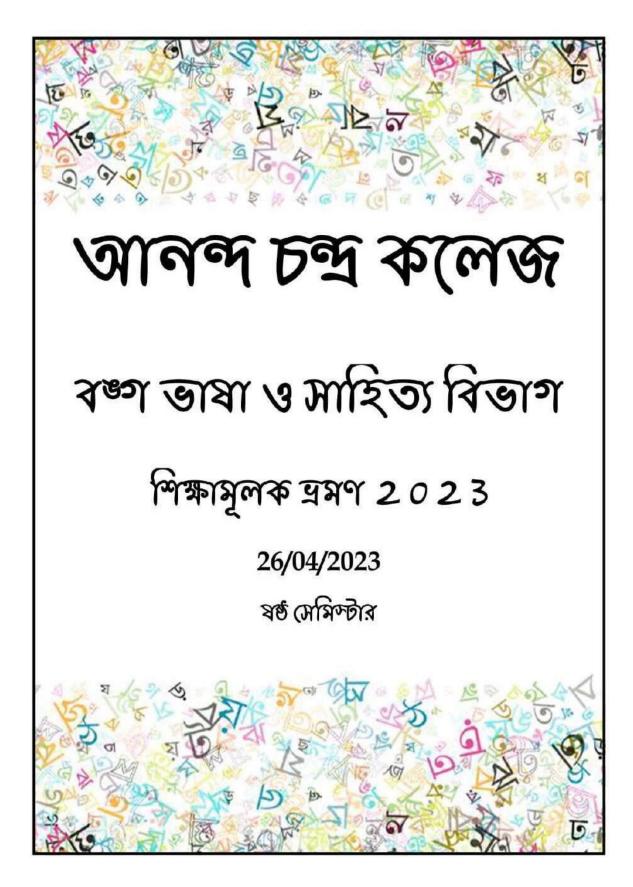
ANANDA CHANDRA COLLEGE DEPARTMENT OF BENGALI Field Work of BA 6th Semester Honours students: 2022-23

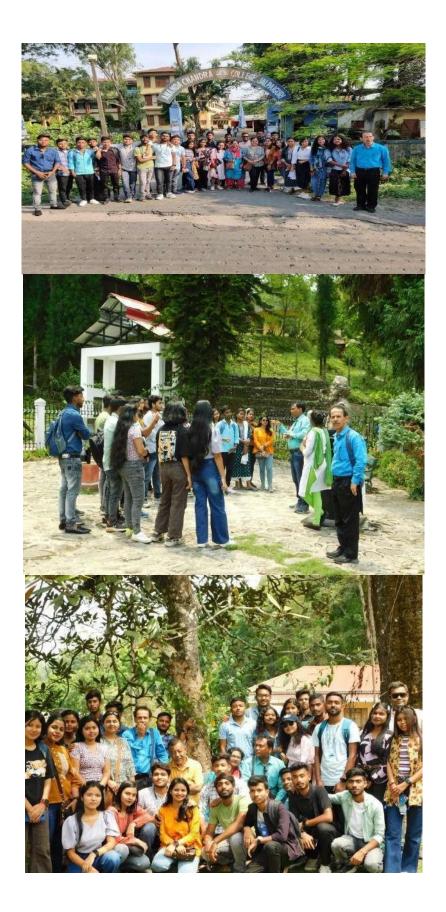
The Department of Bengali of Ananda Chandra college organized a One day field work programme on 26th April 2023. The field work team comprised 29 students of BA 6th Semester (academic year 2022-23) along with 5 teachers of the Bengali department. The title of the Field work was 'RABINDRANATH AND FOLKLORE'. Mongpoo of Kurseong sub-division of Darjeeling district were visited and surveyed under the programme.

The students acquired knowledge about Nepali villager's culture and folk, their taboos, their believes etc. and also about Rabindranath Tagore while he lived sometimes in this hilly village. Students also learned the feelings of local Nepali people about Rabindranath. After completion of the field work students are able to compare their knowledge acquired from books and from field work.

Programme code Project / Field Work Title Number of Students List of the students enrolled for Field work 2022-23 Folkloristic culture 29 GOURAB SEN On 26/4/2023 SOURAV BARMAN DITIPRIYA DEV ANUBHA CHAKRABORTY MAHIMA PRAMANIK ABDUL ALAM DEEPSIKHA ROY PUJA DAS VICTOR BISWAS KINJAL DAS PAYEL ROY PARANITA MANKI MUNDA POPI ROY NIKITA ROY MUNNEE SEN BULTI KUNDU MASUDAR ALAM JYOTIPRAKASH ROY SAIKAT BARMAN SHIKHA SINGH **BIJOY SARKAR** SAHAJAHAN ALI TUSHAR BARMAN BRISTI ROY ARGHATANU DEY SAYANI ROY SHUBHA DAS SUMANTA BISWAS ARINDAM SARKAR

The following students were participated the programme and perform their duties the said survey.





মঙ্গতামা ও মাহিত্য বিধান प्रातने हने कलिय - निममुः काम्यामूलक दमन नान्नः द्रगोर्व (मन, alachara 13: 0192001005013 र्मामप्रदे : मरे orfger: 24.08.2020

े संख्या किस्तास्लक उन्नत ?

7

साम अम्माक बलाए राल अर्थात मान्द्राए अबम्भिण युवीत्र अड्यू भामा अम्मार्क नेक्यू बला लाकान, खाग्र सभस युग्रेतार्रत वाहि रिज्तोन कार धाना भ्यानिक सेने महमेटि, ३६७१ साला नार्वन सिद्धाना गार्ड यह अप्युत्म निर्णाभ खाटन माछना मान, "मित्रमी लिबी, जामी मनसायन रामत नेइलिन जमात कार्मकडी कार्य भागवे हाला माथन राल्डा मिटन निम्न जाने बाटु ल्या, रुबोटमणा भागुरा हर हार ह (हास हर 08 66 कामा 7 4066 - रण भारत भारत १९४० माल जाम गावुँ मेण जन्ममित उलन्द्र अभात यामरे नेजनि बहता कार्तन ' जन्भति' कविराधि भव; अषि कलकारा हिण्णिए जगमीं द्वाराइ एता नेगत कार्यिः ्भाक रोहिमाणात कांग्राही जार्याखे कार्या

२८ अश्रिल २०२७ जनामारिइ वस्रुटामा तिहार हमामेल भाषा त्याद्याले कि हमामे हिंदाम थ माने हमामेल कि कि कि कि कि मिल में कि इाव- इावी, अंग्रानक अध्यानिक कि नित् जामन मान्हर, संज्ञानर्ट्रस् साना उट्टा अस्ति क्रमेल का जू प्राना कर्र्ट्रस् सिन्ह रहे, त्वीत अर्भ्रह्लाना क्रान्ट्रस् स्तिहि ह দেশ र्योत्रताभि रृव कांगवा दुर; र्ट्रात, कांगव इवि, र्याप्ति जाभि तता जागा (तर् जित्रिन, नापूर्तिन, जाद कार, था जालाकाचि, व्वीदे-नाभव निव्र स्वाद्य जाता अखि७ अस्व जाला निव्य जाप्ति निष्ट्र जाता अखि७ अस्व जाला किय जाप्ति जाहा स्वाप्ति, रुप्राद्य जात्व निव्य जाप्ति जादा का अप्ति कांग्र तक्या का जासवा का अप्ति कांग्र कांजा ७ अत्वन जान अत्व नार्य वाव्याहि कांग्र कांजा ७ अत्वन जान अत्व नार्य वाव्याहि कांग्र जाता भानूस-- व जार्यकाह जाव्याहरू।

முதும் வியூல் கியூக் கியூக் வியூல் குதும் வியூல் கியூக் கியூக் வியூல் கியூக் கியூல் தியூக் கியூக் கியூக் கியூக் கியூக் கியூக் விக்கு விக்கு மியிக் வியில் கியின் கிடையில் கியில் வியில் கியின் கியூக் கிய விடையில் கியில் கிடையில் விடு கியில் விடு வியில் கிடையில் விடு கியில் விடு வியில் கிடையில் கியில் விடு வியில் கியில் கிடையில் வியில் கியில் கிடையில் வியில் கியில் கியில் வியில் கியில் கியில் வியில் கியில் கியில் வியில் கியில் கியில் வியில் கியில் கியில்

अउँमर्ग अर्गामका ७ अर्गालिका उन

आमामि में में जे ने का मेड अस्मति की के उंधे मिलन अब्द लाहारि अद्भालि जिन्द्रीत की नाह अम्मति की नाह ज्या जामगा जामि के नियम आहे.

भार होणा- ठोरंप- विवंग- प्रमास सोस्ट्रि- म्यास.



REPORT ON BOTANICAL EXCURSION

2022-23

DEPARTMENT OF BOTANY

Enlistment of Plants observed in the field and submission of field Note, with field photography preservation

AC College Jalpaiguri Bsc in Botany Introduction : Excursions, fieldwork, field courses and other field elements are fundamental components of education in biology. The field education aims at offering students the opportunity to apply theoretical knowledge, methods and techniques, get knowledge of current research, develop observation skills, practicing both individual work and team work, experience unfamiliar places, make new discoveries, get new impressions, perspectives and ideas. - Experience is very powerful source of knowledge. It can be gain by interacting any living or non-living objects. The extension of knowledge is expanding day to day in the present era. Teaching is a form of interaction between two or more than two person for transmitting information by different ways. The way of transmitting information by the interaction between two or more people in a disciplined manner is known as teaching method. Excursion method is an impressive and important teaching method which can be used in many disciplines like as botany, geography, history, physics, chemistry, culture, political science, archeology, geophysics, genetics, literature, music, fine art, etc. Specially, this method is used in behavioral sciences. The word 'excursion' means a journey, trip, tour planned for social studies students in which the students actually visit places or site and has the first hand experience which excursion results in easy, interesting and effective learning.

Rationale: The Excursion is part of Syllabus for Undergraduate course under University of North Bengal for:

SEM 2 Botany hons(under CBCS)- paper Archegoniate

SEM 4 Botany hons(under CBCS)- paper Plant Ecology and Phytopathology(CC9) and Plant Systematics(CC10)

SEM 6 hons(under CBCS)- paper Research Methodoloy(DSE)

The location of Ravangla, Polok, Ralong, Namlong was selected keeping in mind the vegetational change the students may encounter at higher altitudes. Polok Borong village owing to drastic altitude and vegetational variation in a small area was chosen as area of focus.

Also study of micro flora of natural hotwater spring was also one of the obectives of the study during the excussion

Places of Interest: South Sikkim , Sikkim.

The village Polok Borongis located in Ravong Sub-Division of South District District in the State of Sikkim in India. It is governed by Borong Phamtam Gram Panchayat. It comes under Ravong Community Development Block. The nearest town is Namchi, which is about 41 kilometers away from Polok.

A brief summary of available data for Polok is given below:

Category	Resolution	Period
Precipitation - h	Half Hourly / 0.1 deg (11 kms) grid	2001 - 2023

Category	Resolution	Period
Precipitation - I	Daily / 0.25 deg (28 kms) grid	1901 - 2023
Temperature - h	Monthly / 0.5 deg (55 kms) grid	1901 - 2022
Temperature - I	Daily / 1 deg (111 kms) grid	1951 - 2023



Altitude:

Excursion Report : From 05/05/2023 till 07/05/2023.

Members:

Faculty

Professors: Dr P Ray; Shri K Majhi; Shri D Baraman

Students:

Material and Methods

The finds of algae, bryophytes, fungi and myxomycetes observed during the excursion are documented. The nomenclature of plants was done as per syllabus .The altitude values and geographic coordinates were taken from apps from google play.

Description:

Day 1:Onward :

Started at 7.30 am from Jalpaiguri Bus Depart via Siliguri Namchi Ravangla then Halt at Polok Village. Covering 89m(292ft) from Mean Sea Level at Jalpaiguri till 2058.46 meters (8100 ft).

The vegetation at the start were weeds and crops in the plains of temperate climate, but after Melli in Sikkim and mostly after the elevation climb from kitam phatak through kitam birds wildlife sanctuary there was Alpine trees to be observed .Damthang at 6000 ft there was observation of angiosperms, ferns and bryophytes.

The day was spend on travel by road by vehicle. Reached place of stay by 5 pm.

Day 2:

Started at 8.30 am from Polok and visited Ravangla . Many forms of Angiosperms were recorded in addition to various tree of varied canopy suitably adopted for high e;evation and cold climate. At Ralong *silaginela sp* a prehistoric pteridophyte was recorded along with other bryophyte, as group moved towards lower elevation in the hills paddy crop field were recorded and many small angiospermic plants were also observed.

The group were also able to observe occurrence of lichens during trekking indicative of a healthy environment.

Visit to hot water natural spring with sulphur provided a unique opportunity for students to understands the dynamics of study of ecology and its corelation with climate and changes due to temperature. Cash crops like cardamom were also seen.

The group returned to place of stay by 7.30 pm.

Day 3.

Started at 8.30 am and visit to an oramental flower garden was made to have first hand experice to see the use of organic manures used in floriculture. Varied forms of flowering plants domesticated by humans for commercial use was also recorded.

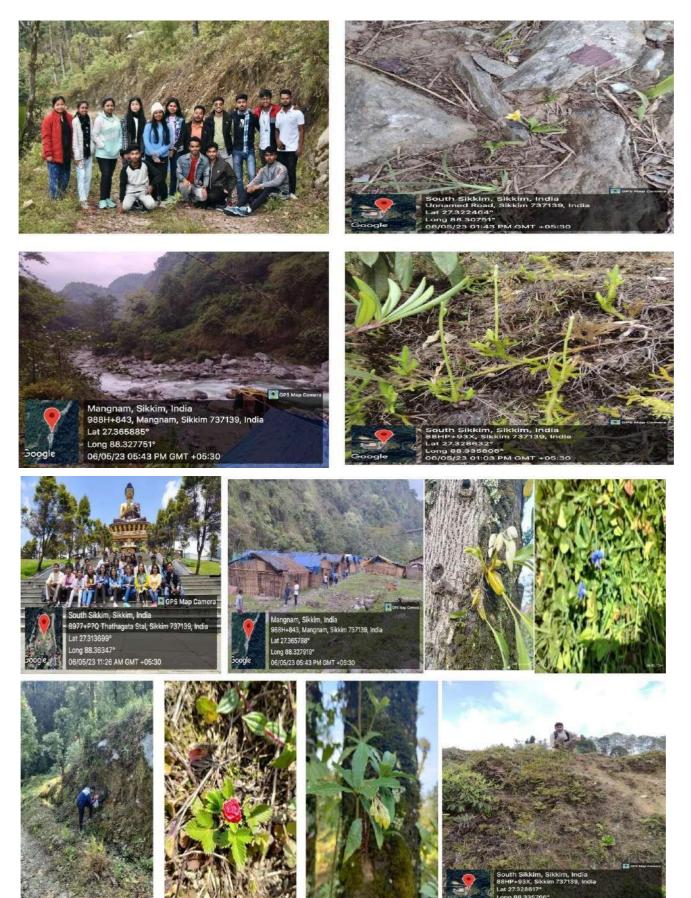
Reuturn to Head quarters by 8.30 pm.

LIST OF BOTANY HONOURS STUDENTS PARTICIPATED IN EXCURSION HELD

DURING 5/5/2023 TO 7/5/2023

1	TANMAY SAHA
2	REJAUL HAQUE
3	SARFARAJAL
4	SOURAV ROY
5	PUJA DEY
6	KABERI DEY SARKAR
7	ASHIF KARIM ISLAM
8	ASHIM MONDOL
9	RUBEL ALAM
10	AKASH PAUL
11	KANKANIKA ROY
12	PIYALI BOSE
13	PRIYALATA ROY
14	IPSHITA PAUL
15	ISHIKA KARMAKAR
16	SAHITYIKA NAG
17	AHANA SHOME
18	KOYENA PAL
19	SNEHA DAS

PHOTO GALLERY



3 PM GMT +05:30

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A. C. College Centre Jalpaiguri

EXCURSION FIELD REPORT TO SOUTH SIKKIM

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To: Educational excussion to south sikkion.

<u>Enom</u>: Depontment of Botany, Ananda Chandra (A.C) college.

Journey Duration: 05.05.23 - 07.05.23.

Starting time: 9:45 at silique.

Guided by: Prof. Pushpanjali Ray, Prof. Krishnende Majhi, Prof. Dipart Bournan.

Total Number of Students: 19. 999

Name of Participating students:

1. Rejawl Haque 2. Tanmay Saha 3. Sarfaraz Ali, 4. Puja Dey 5. Jouran Roy 6. Kaberi Dey Sarkar 7. Ipshita Pawl 8. Piyali Bose 9. Rubel Alam 10. AKash Pawl 11. Ashim Mandal 12. Ashif Karim Islam. 13. Kankanika Roy 14. Priyalata Roy. 15. Ashim Mandal 16. 15. Ishika Karmakar 16. Sneha Das 17. Ahana Shome 18. Koyena Pak 19. Sahityika Nag.



Group Photo at the Homestay, we stayed.

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prastice.

INTRODUCTION :

An educational town is a planned visit to enhance the knowledge of a student. The time when many students are dozing off at the back of their classrooms, education town is a mose interactive and practical approach towars teaching students. The towns are organized by the schools and colleges to interact with the students and understand them better.

These thips makes a student more confident and independent, which a good beginning for them as they got to learn a lot of things in fur experience. They get to learn new things about different cultures, local curtoms and get more oppositunity to explore. It is after an adjunct to a longer journey on visit to place, sometimes for other purposes. So, an excumion is a taip by a group of people, usually made for leaves, education, on physical purposes.

" inebut 2 participative . 10 enous

<u>Objectives</u>: ⁷ Develop critical thinking skills. ¹) To develop unity and team spishits among the participants.

- of the visiting place.
- of the visiting place : 14) Deepen social and historical and scientific knowledge.

y Promote interest in Aut & culture.

vi highlight career oppositionities.

NI) Helpe to develop appropriate attitude and also necessary skills in certain aspects; manipulate and practice.

ABOUT: South Sikkimo do & rad : ponsinged quel noise

South sikkim is a dutouet of the Indian state of sikkim. The capital is Namchi. It lies at an allitude of 400 to 2000 metues and has a temperate elimate for most of the year. Major unban centres include Namehi, Ravangla, Jorethang and Melli.

According to the 2011 cinux south sikkim district has a population of 146,742, noughly equal to the nation of saint lucia. This gives it a nanking of 600th in India. The district has a population density of 196 inhabitants per square kilometre. Its population growth reite over was 11.57%. South sikkim has a



Its population growth reite over the decade 2001-2011 was 11.57%. South Sikkim has a sex natio of 914 females for every 1000 males, and a literacy nate of 82.06%.



Titanic Niew Point

South sikkin is one of the least populated regions of the state. The propositions continue of Nepale descent instruction of groups include the leppha and Bhutia communities. Nepale is the most midely spoken language in the district. The distruct was under the occupation of the Nepalese for 30 years in the eighteenth and nineteenth cultures.

Excussion Toup Experience: DAY 1 [05.05.23] dual : 100,20

Own Jouth Sikkim journey began an the 5th of May, 2023 From shantipana Bus stand, Jacpaiquei at 08:00 pm with 19 students and 3 respected professors. We subacted Siliques sunction at 9 am. Then we got divided into 3 geneups with atleast 1 professors in each group and got on 3 subserved care. At around 9:45 am we started our journey to our distinction.

On over way to south sikkim we took a small break in the middle of the jovenney near sikkim etuck pat at 2'o clock, where we computed over which. Then again we continued our jovenney towards south sikkim and ecached at over distinction at around 5pm. We stayed in a homestay.

We found the homestay to be a clean and nice place. In the evening, we had tea and snacks and we went for a walk ahead and found many botanical specimens. Our professo--m imported sectures about the flora and found of the area. Then we returned back to own homestay and own Day-1 of excussion ended with a happy note.



Day-1.

Trianic view Point





Ranunculus flammula

when attraction

Bidens pilosa



alceifolius

MENDAN O'ELA abbud? Julo 12 WM02 epitado . And will be a g 2 1210 2 cm MARIN valo lano. KITASWAN heady 720110 ANNU! EXAMINE 217 A. C. College Centre lalpaigunt 0.0

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Filipic view Joint

Rubus ANDANOS

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fmor san anvo there a NUS thoir LAR Burt 2 Buebophyllum nutans Persicaria capitata



Day-1 specimen collections.

Day 2 [06.05.23]

Next day we all were excited to visit different sites of south likkim. We got up, completed own breakfast of around 8'0 clock and then got seady for the next anound so clock and then got seady for the next

awaited exciting part of own excussion. The first site that we visited is the Buddha park at Ravangla. We got ticket and entered inside. It had a mesmerizing view. It is abo known as "Tathagata Tral". It has a huge statue of Buddha, which was its main attraction We captured some botanical specimens.

Then we visited a monestry and along with come other places like -Ralang monastery, it is a Buddhist monastery. It has an extensive collection of paintings and thangkas.



an extensive ellection of A group photo at Buddha Park. Ne visited the Titanic View Point, which had a

great view site and then the not specing.



We found many plant specimentin the truckking but we were structly fossbidden to callest any plant so we clicked the pictures. Then we seturned to our homestays. It was own last night in the excussion. So, all the students and teachers gathered together and had let of fun.

a last of things, 23 We gathered together discussed about our experience, song, had an camp fire. That's now aur It was a beautiful cold night. day 2 ended.



Camp Fine [Day 2]

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EXAMINED A. C. College Centre Jalpaigun

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Fragaria Nelea

Bergenia varifolia



Deimun gratissimum

EXAMINED A. C. College Centra



Opuntia monacantha



Hydrocotyle sibthoapioide

Day 2 Specimen Photographi

Day 3 [07.05.23]

On Day 3, the last day of own journey...

The last day was filled with emptions and a lot of memories. We got up, packed own bags and had our breakfast. The owner of the nomestay nonoured the students with a yellow "uttariya" and the teachers with a green one. At anound 8:30 we uft the

homestay. On own way to home we even visited few more places. At first, we visited char sham, Nounche. It was such an indiedible place. This place is a complex of several kindu Gods, and was well maintained.



The central sanctum hosts Shiva temple and the rest all a replica of char-pham (4 - Holy places). It is a must visit place. Then we had ough hunch in a nearby sustainant. The next place that we visited is the Rose Garden A group photo at char Dham solophok. It is a popular tousuit attraction and a must-visit place for nature

25

lovers and photography enthusad. To enter the Rose Garden we need to take tickets. It was a beautiful place, all covered with many varietes of moses and many other plants including manigolds, dahlas. one can enjoy the beauty and fraquance of the subses while walking through the park.

That's now our excursion comes to an end. It mass memorrable excussion with a lot of fun and knowledges. We are greatly thankful to the professors for such an wonderful experience.

Longues



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Fuchsia magellanica Muchlenbeckia platyclada

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Acknowledgement:

I owe my sincere thanks to own powerwipal, prof. Debasis Das and professors of Botany Department, prof. Pushpanjali Ray, prof. Sri Krishnendu Magni and prof. Sri Dipak Barman for guiding us and providing us with an wonderful excursion.

Thanks to my senions, Junions and Friends.

<u>Conclusion</u>:

Field thip is an effective method for health promotion and education where we can learn through direct experience in such situation.

Hence efforts should be given by the educational institutions in proper planning, organizing to make excussion more interesting enjoyable. So that the predetermined goal can be achieved.

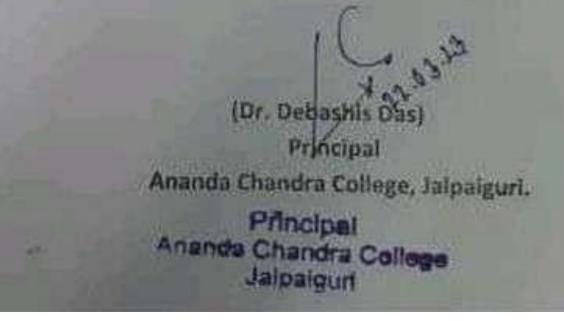
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EXAMINED A. C. College Centre Jalpaiguri

ANANDA CHANDRA COLLEGE (GOVT.SPONSORED):: JALPAIGURI

Notice: 22.03.2023

It is hereby notified that an educational trip to Central Plantation Crops Research Institute, Mohitnagar, Jalpaiguri will be organized by Botany Department, Ananda Chandra College for Botany Honours students, tentatively on 24.03.2023 (Friday). All Botany Honours students (2nd, 4th and 6th Semesters) are asked to contact the Department immediately.



Department of Botany

Report on Short Excursion for the academic year 2022-23

Date:	24/03/2023
1. Title of the field work:	Short Educational Excursion
2. Place and duration of the work:	One day Excursion at ICAR Central plantation Crops
	research Institute, Research Centre, Mohit Nagar
	Jalpaiguri
3. Semester and course:	Sem II Honours (CC4 Archegoniate)
	Sem IV Honours(CC10 Plant Systematics)
	Sem VI Honours (DSE4 Research Methodology)

3. Aims and objective of the work:

The field education aims at offering students the opportunity to apply theoretical knowledge, methods and techniques, get knowledge of current research, develop observation skills, practicing both individual work and team work, experience unfamiliar places, make new discoveries, get new impressions, perspectives and ideas.

List of students

Semester II

- 1. Koushik Roy
- 2. Subrata Roy
- 3. Koushik Adhikary
- 4. Subhamay Barman
- 5. Jasmin Aktar
- 6. Nandita Ray
- 7. Barun Kumar Ray
- 8. Deep Das
- 9. Sonali Mandal
- 10. Himangshu Barman

Semester IV

1. Sambhik Roy Pradhan

Semester VI

1. Partha Pratim Dam

Accompanying Teachers:

Sri Suman Sen, Dr. Pushpanjali Ray, Sri Krishnendu Majhi, Smt Srijoni Bhowmik, Sri Dipak Barman, Smt Ankita Biswas

Excursion Field Report

2nd Semester.

EXAMINED A. C. College Centra Jalpaigun

Registration no-

×

Excursion to ICAR-CPCRI Mohitnagaz EXAMINED A. C. College C .lalpain Excursion Guided By :-Prot. Spi^o Suman Sen Prof. Smt Rushpanjali Ray Poot. Smit Ankita Biswas Prot. Smt Snijani Bhowmik Prof. Sni Dipak Barman Prof. Sni Knishnendu Majhi Department of Botany, Ananda Chandra College, Jalpaiguri

To : Educational excussion to ICAR-CPCRI, Mohitnages From : Department of Botany, Ananda Chandra [A. (.] college [Jalpaiguri] Journey duration: 24th march, 2023 Guided by : Prof. Szi Suman Sen, Prof. Rushpanjali Ray, Prot, Krishnender Majhi, Prof. Dipak Barman, Prof. Srijani Bhowmik, apported Prot. Ankita Biswas stada quello Total no. of students: 29 noting to provide a Roy Koushik Adhikary, Subnata Roy, Deep Das, Shubhamay Barman, Himangshu Barman, Barun Kumaz Roy, Sahityika Nag, Ishika Karmakar, Koyena Pal, Sneha, Das, Ahana shome, Jasmine Akhtes, Nondita Ray, Sonali Mandal, Ipshita paul, Priyalata Roy, Piyali Bose, Kankanika Roy, Sambhik Roy Pradhan, Parthe Pratim Dam, Sourar Roy, Sastaraj Ali, Rejacul Haque, Ashim Mandal, Tanmoy Sahalt, Kabepi Dey Saskas, Akash Paul, Asitor Karim It Istamber iloisoz bus sensuros people, which proodens their penspective gazally.

1 . Educotional exercision to ICHE - CPC PI . Nationage 1 GINOUP photo at ICAR-CPCRI Mohitnagar Apple to an Introduction : educational tous offens students of all classes an appointunity for a rich emmension expessionce while an education four is great tun it differs from a vacation. Typically lead by a teacher and group chaperases such thips provide educational, involuable global learning. On an educational college thip students experience culture firsthand. Students come to appreciate parts of the woold on a much deepen level than they ever could in the class room. Statents converse and socialized with local people, which broadens their perspective greatly.

Objectives : i) To develop unity and team spinits among the pasticipants. ii) Develop critical thinking skills. and fauna of the visiting place. iv) Deepen social and historical and scientific knowledge. v) Highlight careas opportunities. Vi) Promote interest in art and culture and other considerations. is located at 260311/15 Saturde and 880 51/16 About in ICAR - CPCRE Mohitnagas MSL Mohitnager research centre was establi shed in the year 1958 as Regional Arecanut Research Station under Central Anecanut Research Central Station. Later the centre was merged with the Central Platation Crops Research Institute, Kasaragod in 1970 and designated as one of the important Research Centre top conducting location. specific and need based research on crop improvement, production, protection and extension on planation crops and spices, in particular to cater to the needs of the farming community of Sub Himalayan Verai regions and others parts of the country

34

Location : down spinits among To dever Sec postics i) Levelap allide 3 ab Treases about the Here faunt_ NO SES phece. YOU ARE HERE D. Lupon cal and scientific Control 2 6 3 C. The centre is located at Hohitnagas of Inpaiguri district of West Bengal. Geographically it is located at 26031 11N Latitude and 880 5/1E longitude with an altitude of 91.3 m above MSL. Mohitmagan research centre wis establ sted in the years 1953 as legional Account Research Station under Central Amerconit, and a Presently, the centre is having a total of 65 areas of and with Full Ocenpancy with areanut, coconut, oil polm, Cashewnut a and we buildings back boom sice primites on planation crops and spices in particular to cater to the needs of the farming commenits de sub tindayon Paris regions and others proto of the country.

Educational Trip Experience: 24th March 2023

It was a one-day thip to Hohitnagar Research Centre, ICAR - Central Plantation Crops Research Institute. We began our town thom College [A.C. College, Jolpaiguri] at 11:00 am with 29 students and 6 respected professors. We reached our destination at around 11:30 am by 3 reserved canse

Atter reaching there we met the scientist In charge - Dr. Anun Kuman sit. He gave us all the informations regarding plantation of and protection. There alter he took us to the plantations were involved. The took us to the high population of arecanut, Coconut, oil palm and casheumut theses. The Research Centre also tilled with of cocoa plants (Theobroma cacao), clove (Syzygium anomaticum) and many other plants along with Opchids (Dendrobium sp.)

Carpon Thee

EXAMINED A. C. Children L. .lotta

& Photographs of specimen:-It was an ane- toy taip to Hobitzinger Received Contra 19 Remarch Institute Lichen with 29 shallout the mached cal by 3 recenced Aller scientet In Anage. In Ann Runn St. He your 14 all the informations regarding plantation of 200 20000 Megasponophyll of <u>Cycas</u> Coconut, ail pal. unch Centric also (neosnorn carry and will prove prove Greek My (Drinkebings 59) Cocoa Thee

Cocos nacitena ((oconut thee) Ptenidophyte (silverbern) Cyathea dealbata hanks (1) Orchid [Dendrobium litui Flomen] 12.11.20 Himosa pudica

Finally after adventuring the area at noon we all sat together and had our snacks. AFbs having some snakes we left the place. Our journey ended safely and we reached our home. Cores marterne Prodeplate Patentian (and land) Acknowledgement: I owe my sincere thanks to our principle Prof. Debasis Das and respected teachens of Botany department of Ananda Ghandra College, Jalpaiguri for giving us an opportunity to go too an educational excussion to ICAR-CPCRI, Mohitnages. Thanks to my senions and Friends. EXAMINED A. C. College Centr Jalpaisun imosa pudria

ANANDA CHANDRA COLLEGE, JALPAIGURI DEPARTMENT OF EDUCATION

During the academic session 2022-23, a field work was conducted by 4th Semester Education Honours students under guidance of the teachers in the Department of Education. Based on the CBCS Syllabus, a Field work was conducted by the Department of Education for the students of 4th semester for execution of ten (10) Lesson Plans in different schools in Rural and Urban area of Jalpaiguri District during February to April, 2023. Students prepared a practical notebook on the basis of ten executed lesson plan.

Aims and objectives of the Field work

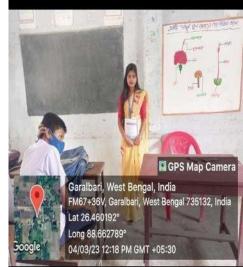
- Learners will be able to apply the knowledge gained through different areas of education in practical field.
- Learners will be able to solve for problems related to his course of study.
- To develop in the student's methodical approach towards teaching and train them as competent future teachers/ education facilitators.

In this field work, the students of 4th Semester visited different schools in Jalpaiguri districts and executed the lesson plans which enabled them to acquire knowledge through different areas of education in practical field.

The pictures of the field work with Google tag along with the names of students involved in it are attached below:

1. Name of the Student: Rima Mandal Registration No. 0192105010602 Roll No. 235019326890





2. Name of the Student: Debarati Sarkar Registration No. 0192105010603 Roll No. 235019326891





3. Name of the Student: Mostakima Begam Registration No. 0192105010604 Roll No. 235019326892



4. Name of the Student: Sunita Rabidas Registration No. 0192105010607 Roll No. 235019326893





5. Name of the Student: Nihar Roy Registration No. 0192105010608 Roll No. 235019326894





6. Name of the Students: Ruma Barman Registration No. 0192105010610 Roll No. 235019326895





7. Name of the Students: Jahanoor Parvin Registration No. 0192105010611 Roll No. 235019326896





8. Name of the Students: Pritha Debnath Registration No. 0192105010612 Roll No. 235019326897



9. Name of the Students: Susmita Talukdar Registration No. 0192105010613 Roll No. 235019326898



10. Name of the Students: Barnali Ghosh Registration No. 0192105010614 Roll No. 235019326899



11. Name of the Students: Aparajita Deb Registration No. 0192105010615 Roll No. 235019326900



12. Name of the Students: Anamika Barman Registration No. 0192105010616 Roll No. 235019326901



13. Name of the Students: Subham Paul Registration No. 0192105010617 Roll No. 235019326902



14. Name of the Students: Chayanika Roy Registration No. 0192105010619 Roll No. 235019326903 15. Name of the Students: Olivia Ghosh Registration No. 0192105010621 Roll No. 235019326904

16. Name of the Students: Aindrila Ghosh Registration No. 0192105010622 Roll No. 235019326905



17. Name of the Students: Sourav Routh Registration No. 0192105010623 Roll No. 235019326906



18. Name of the Students: Neha Biswas Registration No. 0192105010624 Roll No. 235019326907



19. Name of the Students: Labani Sarkar Registration No. 0192105010625 Roll No. 235019326908



Coogle

20. Name of the Students: Ratan Roy Registration No. 0192105010627 Roll No. 235019326909



21. Name of the Students: Kumar Dibyendu Narayan Registration No. 0192105010628 Roll No. 235019326910

22. Name of the Students: Ashique Hossain Registration No. 0192105010629 Roll No. 235019326911



23. Name of the Students: Ananya Sarkar Registration No. 0192105010630 Roll No. 235019326912



24. Name of the Students: Saheli Nandi Registration No. 0192105010631 Roll No. 235019326913



25. Name of the Students: Kaushik Dey Registration No. 0192105010633 Roll No. 235019326914



26. Name of the Students: Sekhar Das Registration No. 0192105010635 Roll No. 235019326915

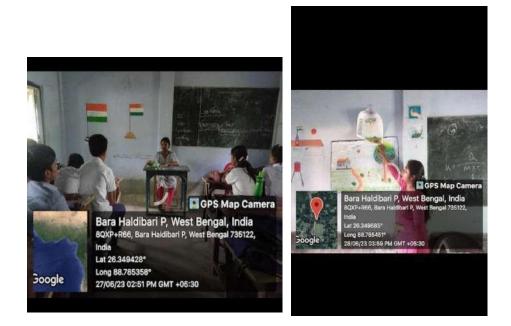




27. Name of the Students: Piyasi Bose Registration No. 0192105010636 Roll No. 235019326916



28. Name of the Students: Shreya Das Registration No. 0192105010638 Roll No. 235019326917



29. Name of the Students: Farid Jaman Registration No. 0192105010639 Roll No. 235019326918



30. Name of the Students: Sudipta Mandal Registration No. 0192105010641 Roll No. 235019326919

Name of the Student				
1. RIMA MANDAL				
2. DEBARATI SARKAR				
3. MOSTAKIMA BEGAM				
4. SUNITA RABIDAS				
5. NIHAR ROY				
6. RUMA BARMAN				
7. JAHANOOR PARVIN				
8. PRITHA DEBNATH				
9. SUSMITA TALUKDAR				
10. BARNALI GHOSH				
11. APARAJITA DEB				
12. ANAMIKA BARMAN				
13. SUBHAM PAUL				
14. CHAYANIKA ROY				
15. OLIVIA GHOSH				
16. AINDRILA GHOSH				
17. SOURAV ROUTH				
18. NEHA BISWAS				
19. LABANI SARKAR				
20. RATAN ROY				
21. KUMAR DIBENDU NARAYAN				
22. ASHIQUE HOSSAIN				
23. ANANYA SARKAR				
24. SAHELI NANDI				
25. KAUSHIK DEY				
26. SEKHAR DAS				
27. PIYASI BOSE				
28. SHREYA DAS				
29. FARID JAMAN				
30. SUDIPTA MANDAL				

4th Semester (H) Students who participated in field work

Gours Sundan Chom

HOD Department of Education

Educational Excursion: 2022-23, Department of Geography

5th Semester Honours

1.	Title of the field work	: An Overview on Solid Waste and Solid Waste Management;
		A Case Study of Darjeeling

- 2. Place & Duration of the work : Darjeeling Himalaya, 10.11.2022 to 13.11.2022
- 3. Semester & Course
- : Darjeeling Himalaya, 10.11.2022 to 13.11.2022 : 5th Semester Honours, GEO-H-DSC-5-11-PR (Environmental Geography)

4. Aims and objectives of the work:

- a) Field study on socio economic study is essential to know the environment and socio-economic perspectives. So, the objective of this study is to know the socio-economic condition of the people living there on.
- b) The objective of this study is to view the socio-economic conditions of the Darjeeling Himalayan Region.
- c) To gain knowledge on the solid waste management practices of the Darjeeling Himalayan region and its impact on the livelihood of the people.
- **5.** Geo-tagged Photograph



6. List of names of students

Sl.	Participants	Status
1	Suvankar Roy	Student
2	Utsa Islam	Student
3	Nimai Sarkar	Student
4	Somnath Banik	Student
5	Subrata Paul	Student
6	Debaditya Das	Student
7	Tithi Roy	Student
8	Ankita Paul	Student
9	Puja Barman	Student
10	Ankita Chakraborty	Student
11	Sayantani Das	Student
12	Sreya Saha	Student
13	Siva Roy	Student
14	Manirudh Jaman Ali	Student
15	Ajit Sarkar	Student
16	Sayan Biswas	Student
17	Samir Paul	Student
18	Mrinmoy Sutradhar	Student
19	Ashmita Roy	Student
20	Koushik Mandal	Student

7. Notice Seeking Permission from the Principal:

08/01/2020

ANANDA CHANDRA COLLEGE, JALPAIGURI

NOTICE- 01/11/2023

An educational excursion for 6th Semester Geography (H) will be held in Darjeeling Himalaya on and from 10.11.2022 to 13.11.2022 under the supervision of Mr. Milanmoy Roy. Participation in excursion and preparation of field report is mandatory as per the University Guidelines. Therefore, all concerned students are instructed to consult with Dr. Bipul Chandra Sarkar or Mr. Milanmoy Roy immediately.

[Dr. Debashis Das] Principal

Educational Excursion: 2022-23, Department of Geography

4th Semester Honours

- **1.** Title of the field work : Socio-Economic Study of Taltor Village, Bolpur
- **2.** Place & Duration of the work : Bolpur,
- **3.** Semester & Course
- rk : Bolpur, Birbhum, 15.102.2023 to 18.02.2023 : 4th Semester Honours, GEOH-CCHL-403

(Field Work and Research Methodology)

4. Aims and objectives of the work:

- d) Field study on socio economic study is essential to know the environment and socio-economic perspectives. So, the objective of this study is to know the socio-economic condition of the people living there on.
- e) The objective of this study is to view the socio-economic conditions of the Taltor village, a village located in the rural-urban fringe of Bolpur Municipality.
- f) To gain knowledge on the interaction of the inhabitants and the tourists who frequently visit this site as it is adjacent to the Visva-Bharati, the breading centre of culture influenced by Kabiguri R.N. Tagore.
- 5. Geo-tagged Photograph





6. List of names of students

Sl	Participants	sl	Participants
1	Biplab Roy	22	Tamalika Sarkar
2	Abhidip Dutta	23	Dharitri Barman
3	Ashis Roy	24	Arpita Roy
4	Biki Biswas	25	Arpita Sarkar
5	Nabajit Roy	26	Moumita Roy
6	Hannan Riyaz Ahmad	27	Nandita Biswas
7	Dipayan Ghosh	28	Nidhi Aind
8	Ranjit Roy	29	Nidhi Karmakar
9	Sayan Oraon	30	Pallabi Roy
10	Kuntal Dutta	31	Peuly Debnath
11	Puja Barman	32	Priya Kujur
12	Subham Roy	33	Priyanka Rakshit
13	Debojit Jha	34	Roshmi Roy
14	Kaushiki Barua	35	Sayani Dutta
15	Sumana Sarkar	36	Shreya Banik
16	Mainak Roy	37	Khalid Ahmed
17	Somyarup Bhowmik	38	Aniket Sil
18	Koushik Mandal	39	Srijita Bakshi
19	Saklin Mustak	40	Debjani Chakraborty
20	Aditi Sarkar	41	Ishita Lahiri
21	Sourita Dey		

7. Notice Seeking Permission from the Principal:

ANANDA CHANDRA COLLEGE, JALPAIGURI

NOTICE- 18/01/2023

An educational excursion for the 4th Semester Geography (H) will be held in Birbhum from 15.02.2023 to 18.02.2023 under the supervision of Dr. Bipul Chandra Sarkar. Participation in excursion and preparation of field report is mandatory as per the University Guidelines. Therefore, all concerned students are instructed to consult with Dr. Bipul Chandra Sarkar immediately.

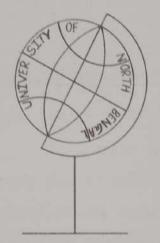
Dani 18/01/23

[Dr. Debashis Das] Principal

SAMPLE FIELD REPORT

62

SUCIU-ECUNUMIC STUDY ()F TALTOR VILLAGE, ISOLIPUR



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Department of Geograp CURI COLLEGE

DEPARTMENT OF GEOGRAPHY ANANDA CHANDRA COLLEGE (GOVERNMENT SPONSORED)

AFFILIATED TO: UNIVERSITY OF NORTH BENGAL

Head, Department of Geography P.O. & Dist. JALPAIGURI West Bengal, INDIA,



NAAC Acredited-B++ Website. www.accollege.in PIN Code - 735101

Ref. No.

Date: 24.07.2023

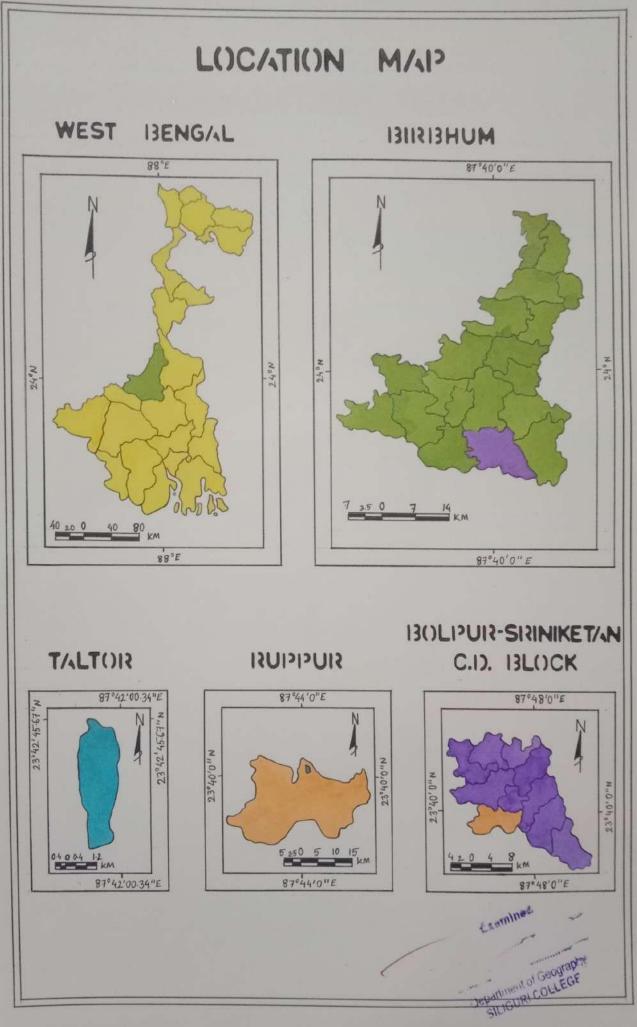
To whom it may concern

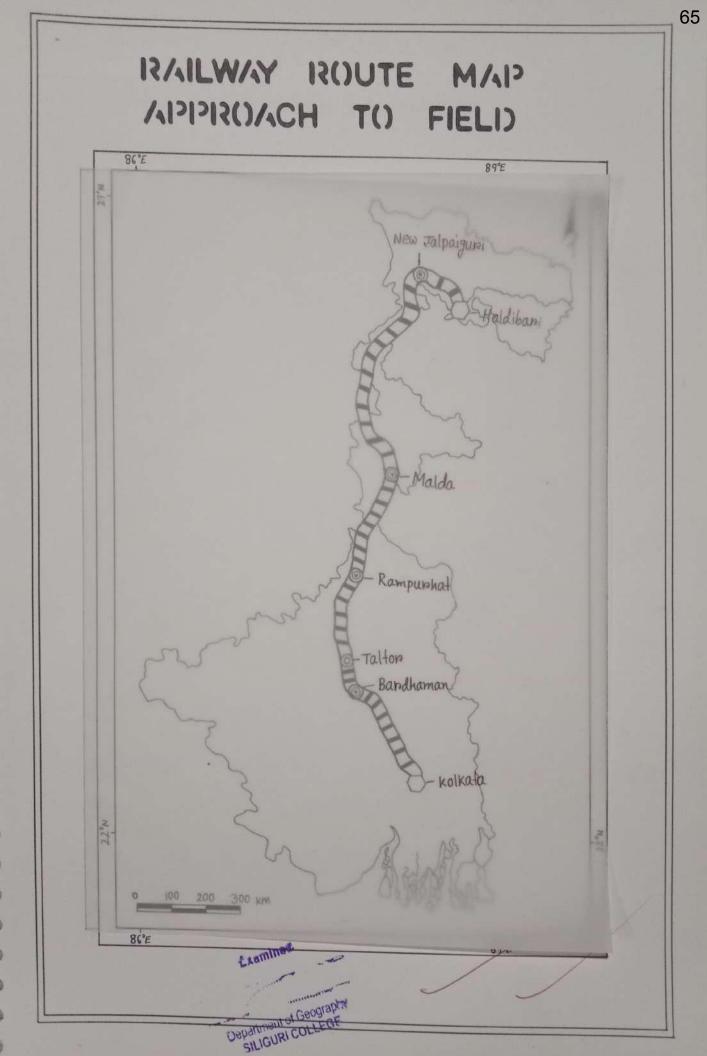
This is to certify that Sri/ Spnt. Hannan Riyaz Ahammed _______, Roll number 234019325102 ______, Registration number 0192105010545 _______ of B.A./B.Sc. 4th Semester Geography Honours student of Ananda Chandra College, Jalpaiguri took participate in the Fieldwork/ excursion held at Bolpur and its surrounding areas of Birbhum district in between 15th February to 18th February 2023. He/ She has prepared the field report entitled, *"Socio-Economic Study of Taltor Village, Bolpur"* based on primary and secondary data under my supervision.

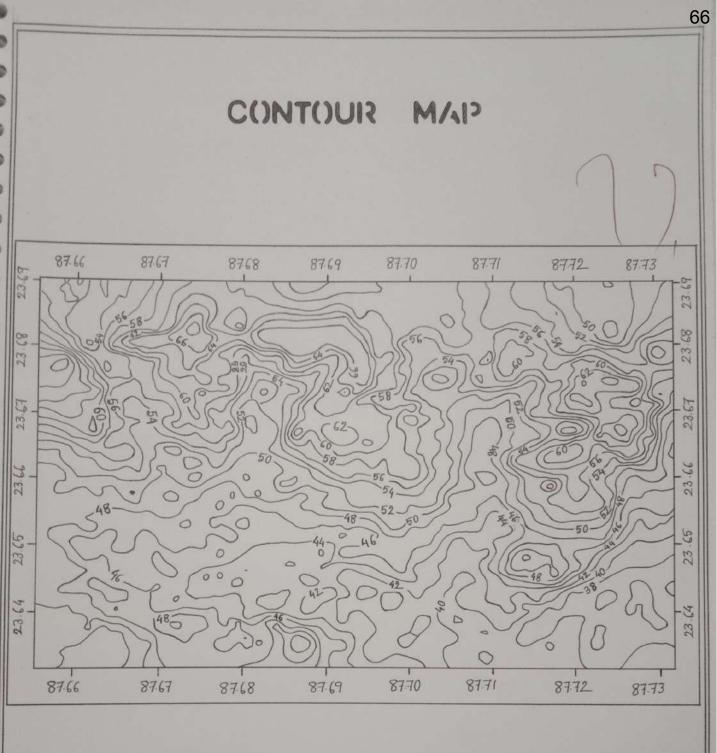
I wish him/ her every success in life.

24.07.2023

Dr. Bipul Chandra Sarkar Associate Professor Department of Geography Ananda Chandra College, Jalpaiguri







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1

I am presenting a field peport like on the social problems. In this field book i have tried to give all the important thing about the socio-economic problems of Talton Village.

In this field book contain about find out the distribution of Population in the study area examined the social status of the People, examined economic status of the People and find all the Problems in the study region ways to overcome the social issues and Problems.

I am thankful to my teacher who gave me monal support and guided me to complete this field book on time. He also guided me in nesearch work for the field book while doing this field book i can across many new things which improved my skills.

ACKNOWLEDGEMENT

2

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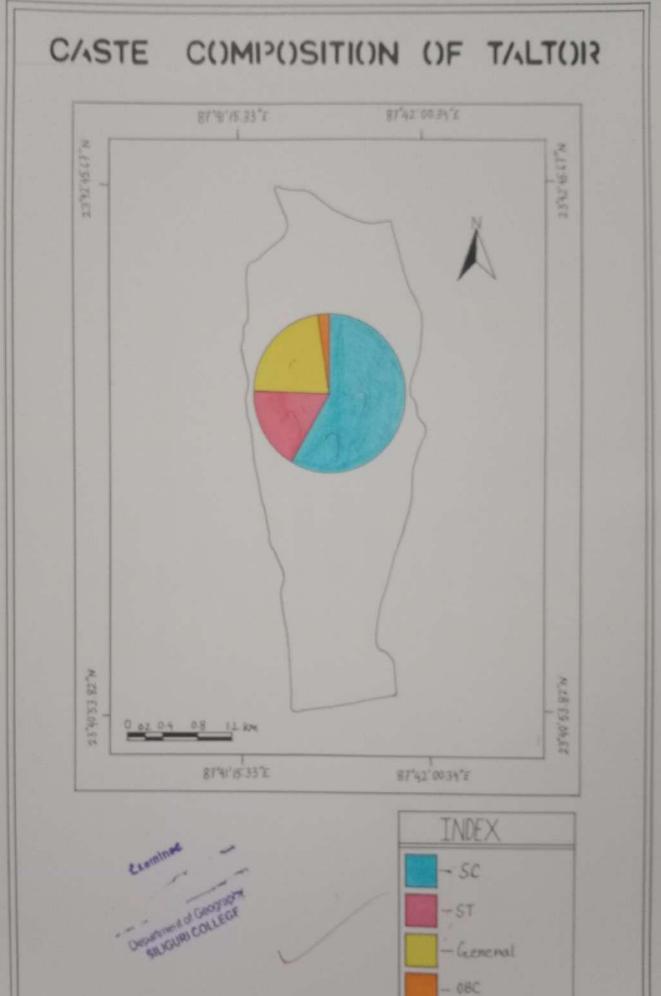
My Sincere efforts have made me to accomposible the task completing this Field Book. However it would not have been Possible without the Kind support and helps of many individuals.

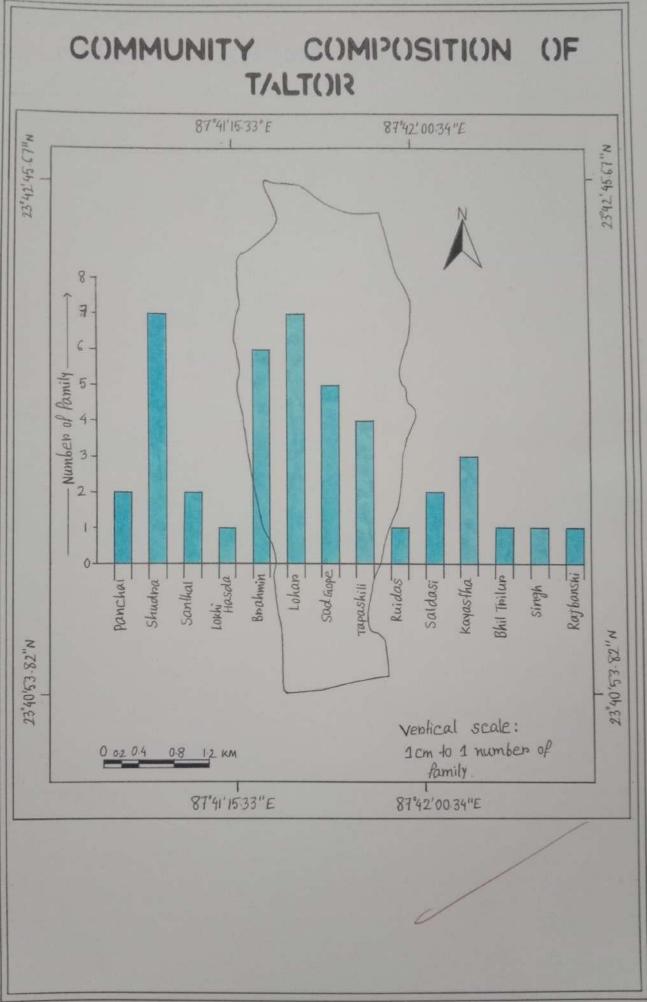
I would like to express my sincere gratitude to my teacher for his valuable guidance which has promoted my efforts in all the stages of this field work.

I would like to express my thanks and appreciation go to my classmates in completing my Field Book.

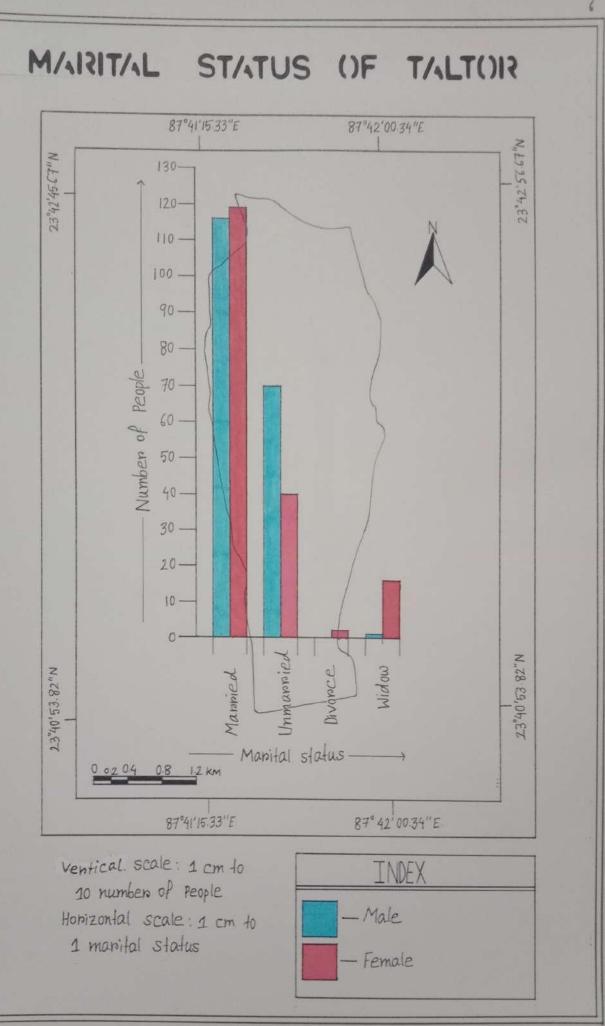
I would like to thank the people of "Talton" village who gave me their social and economic information of this area to completing the Field Book.

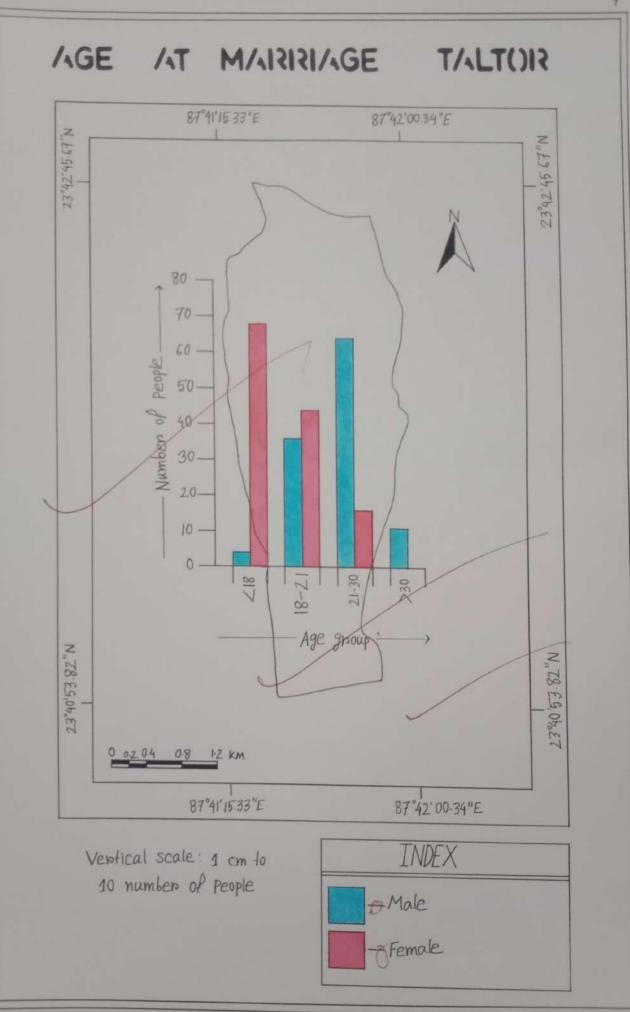
Finally wonds one not sufficient to express gnatitude my Chemished family members for supporting me without encouragement and support.

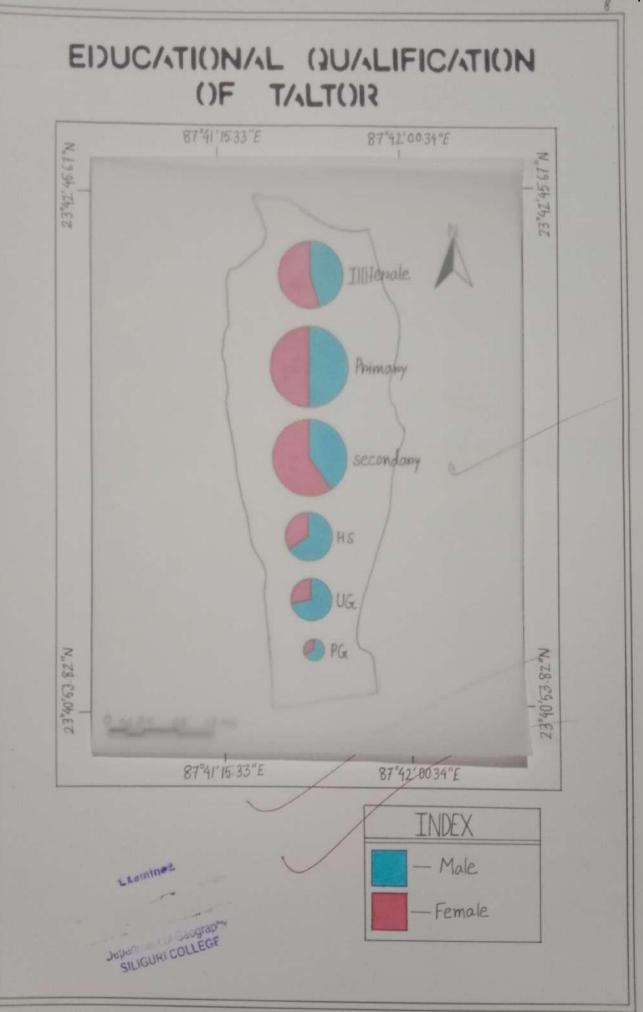


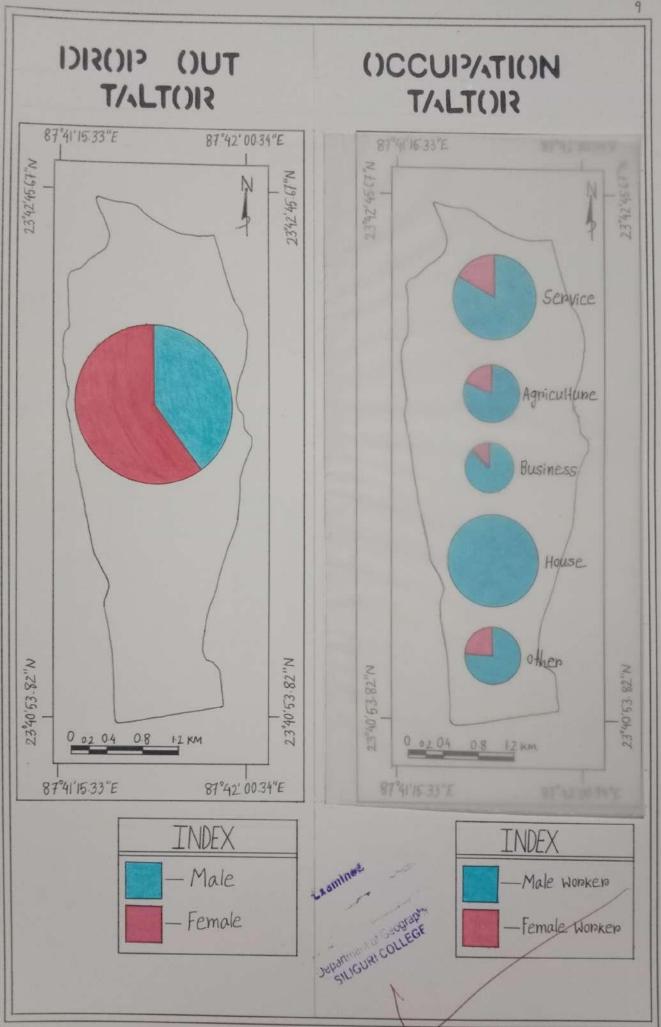


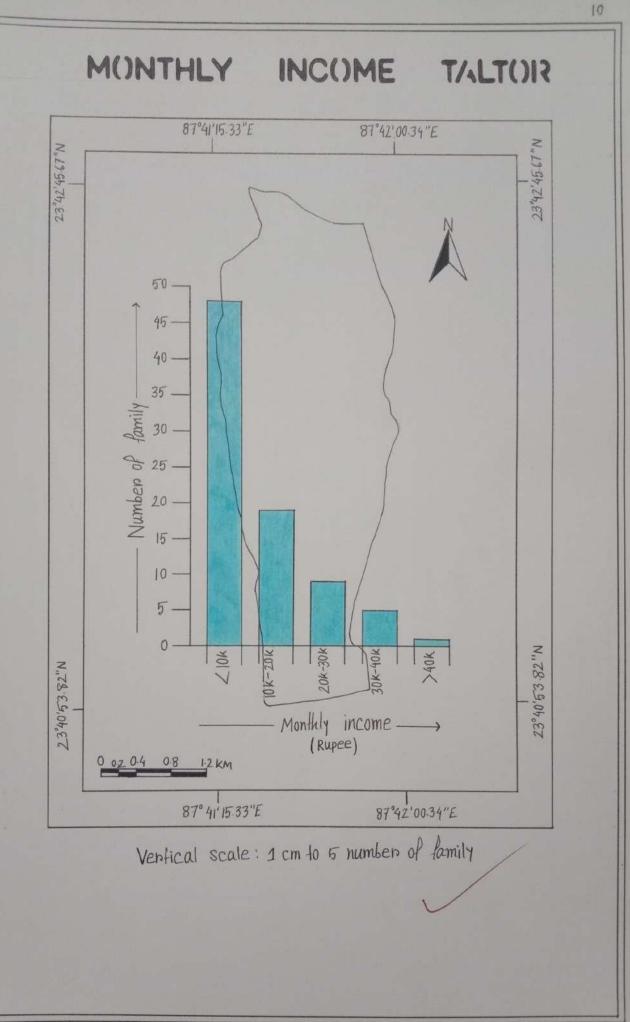




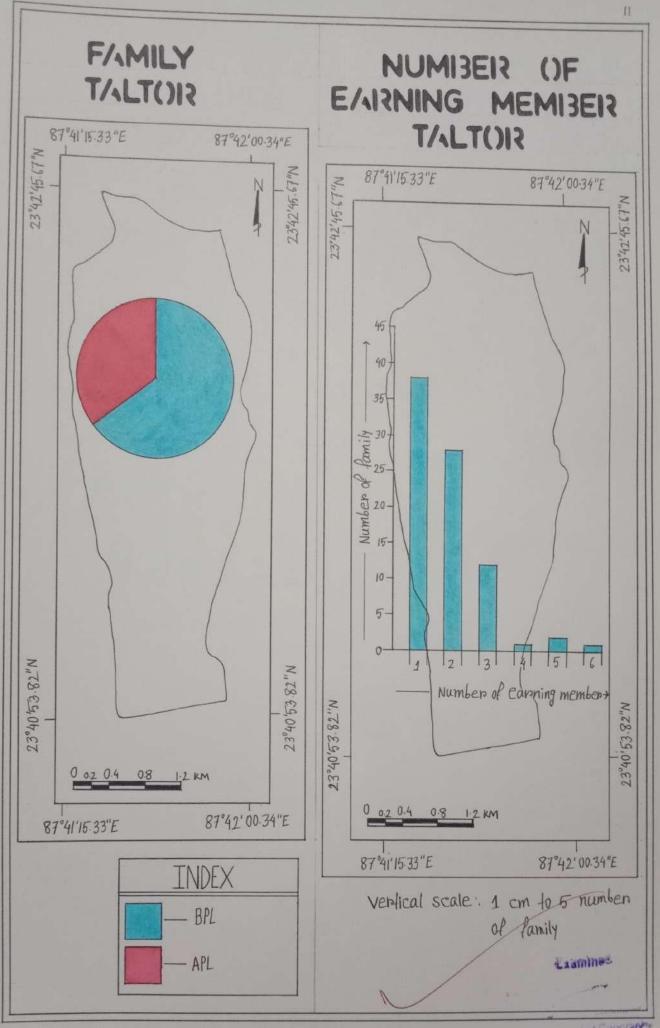




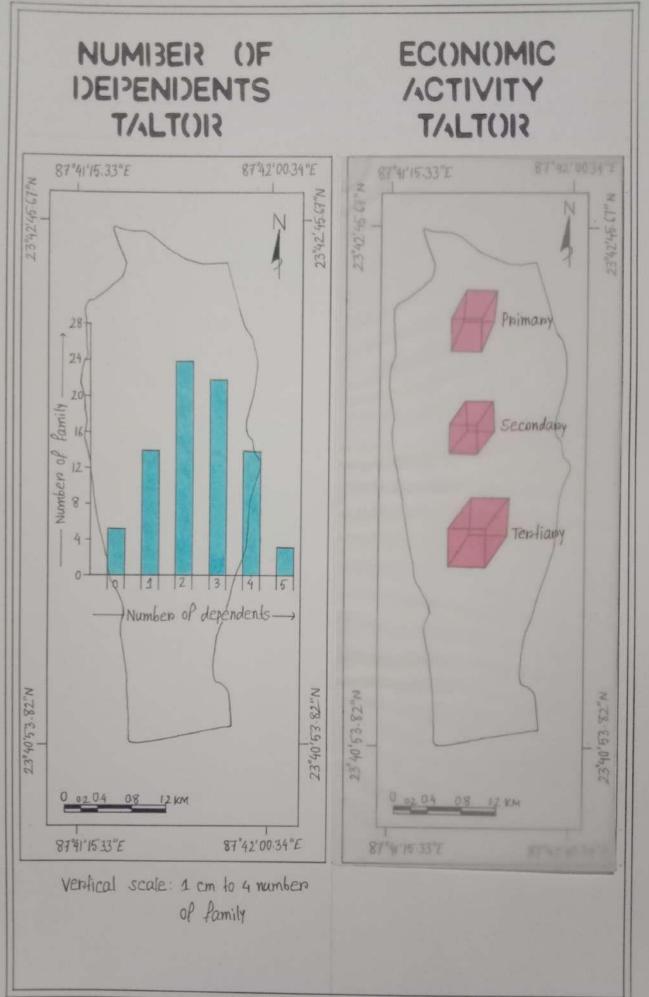


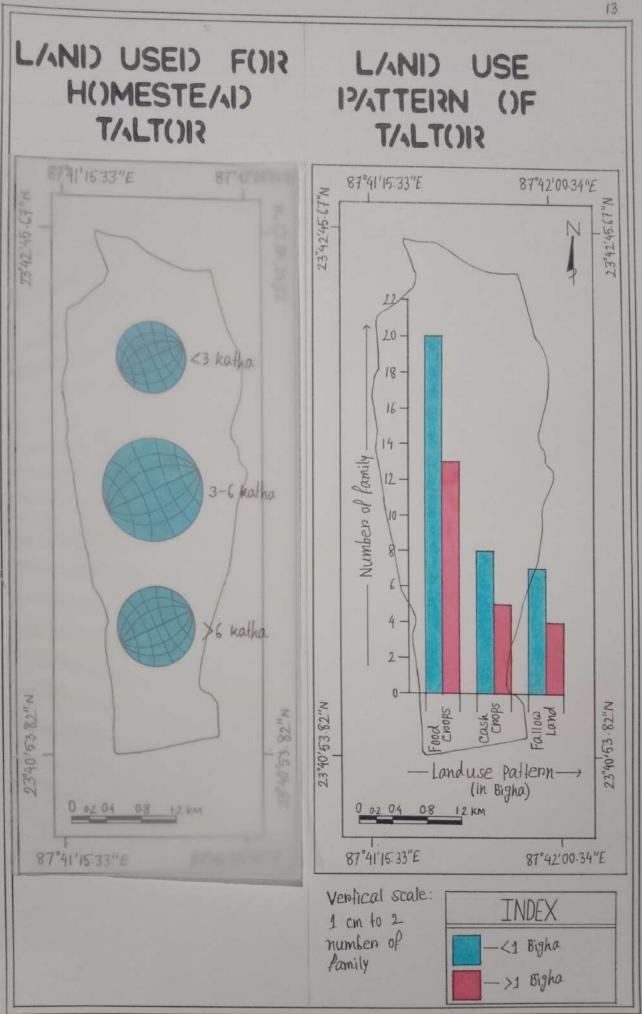


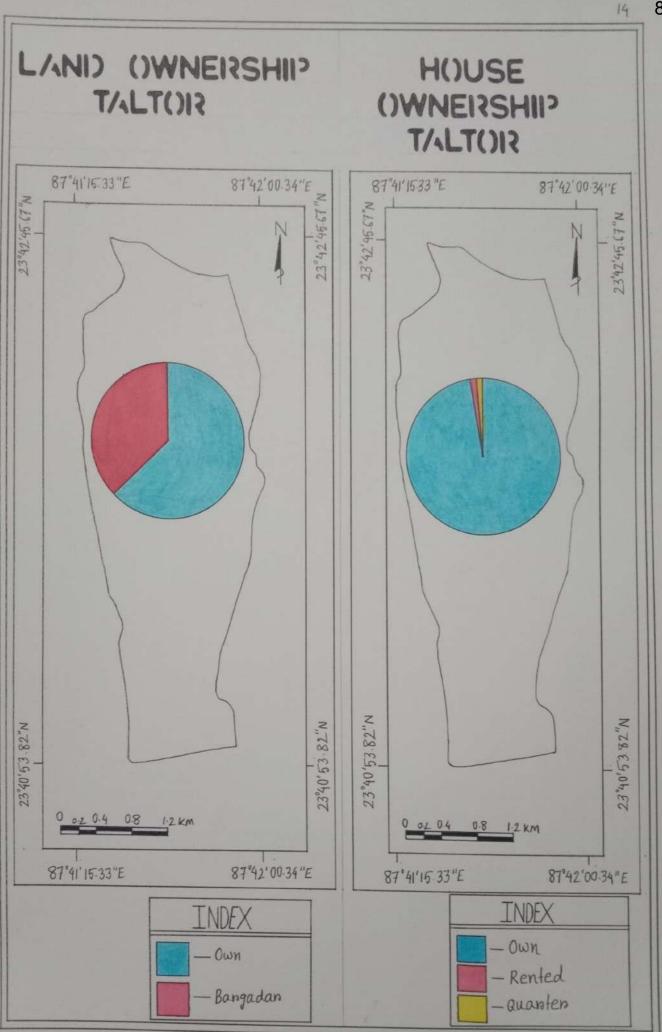
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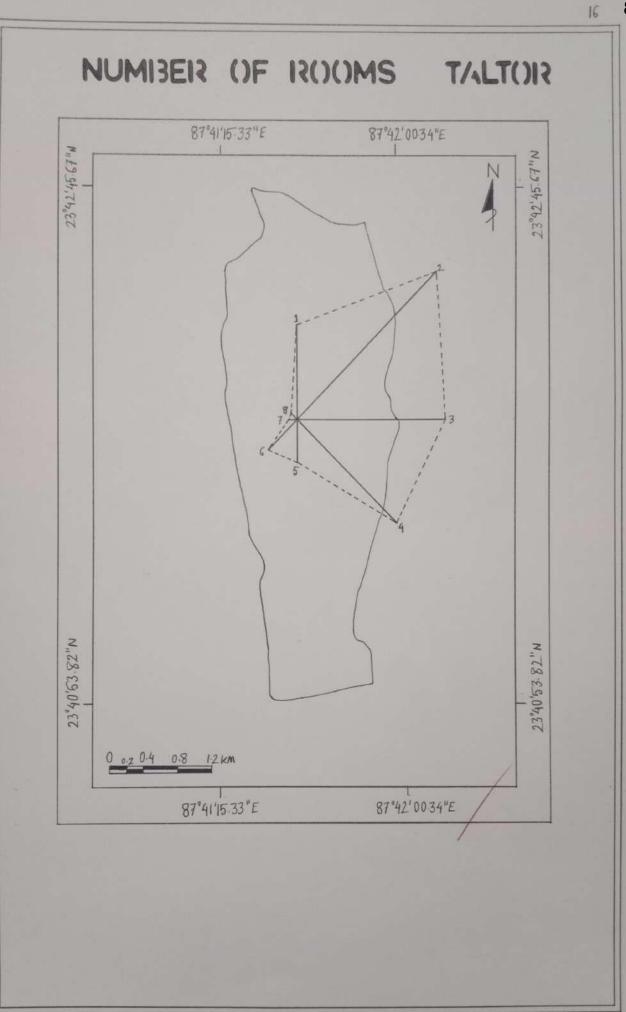


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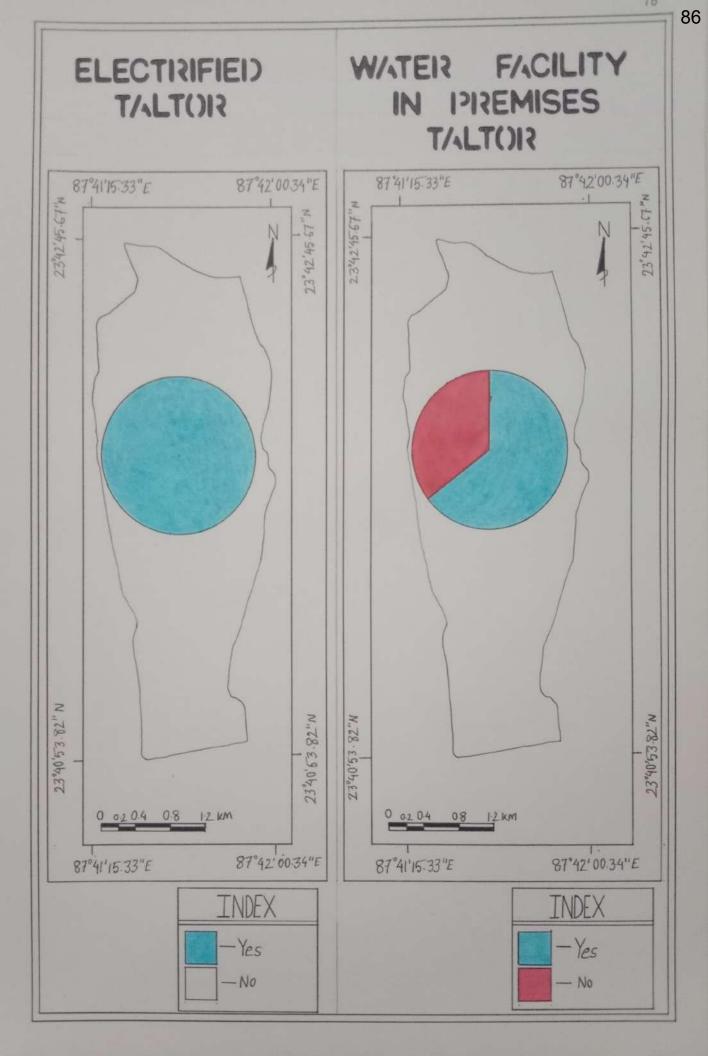


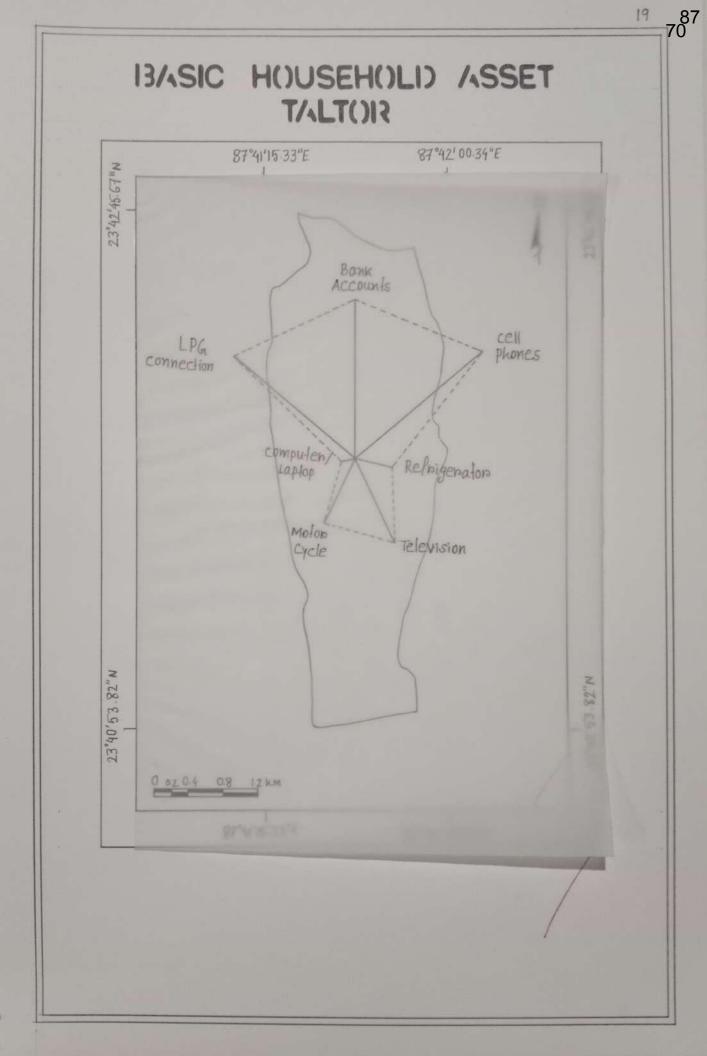


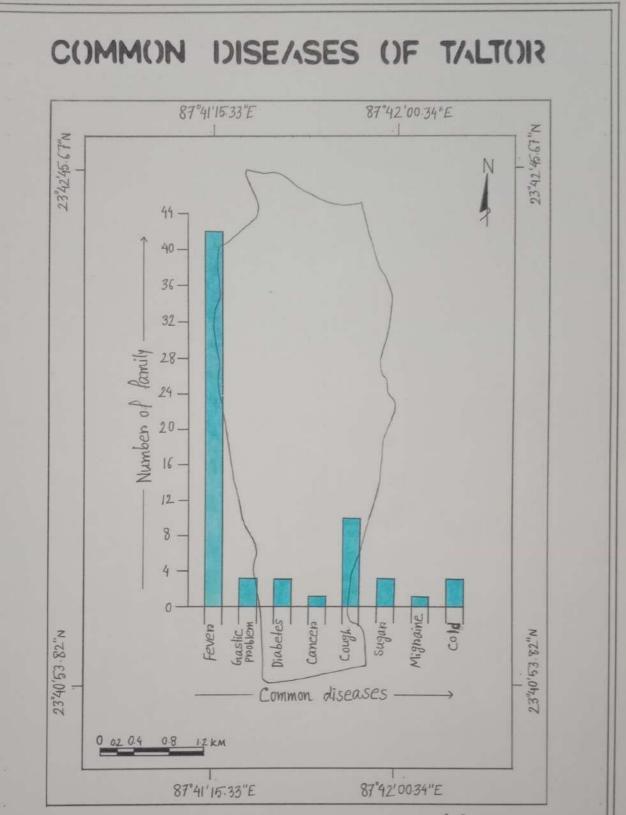




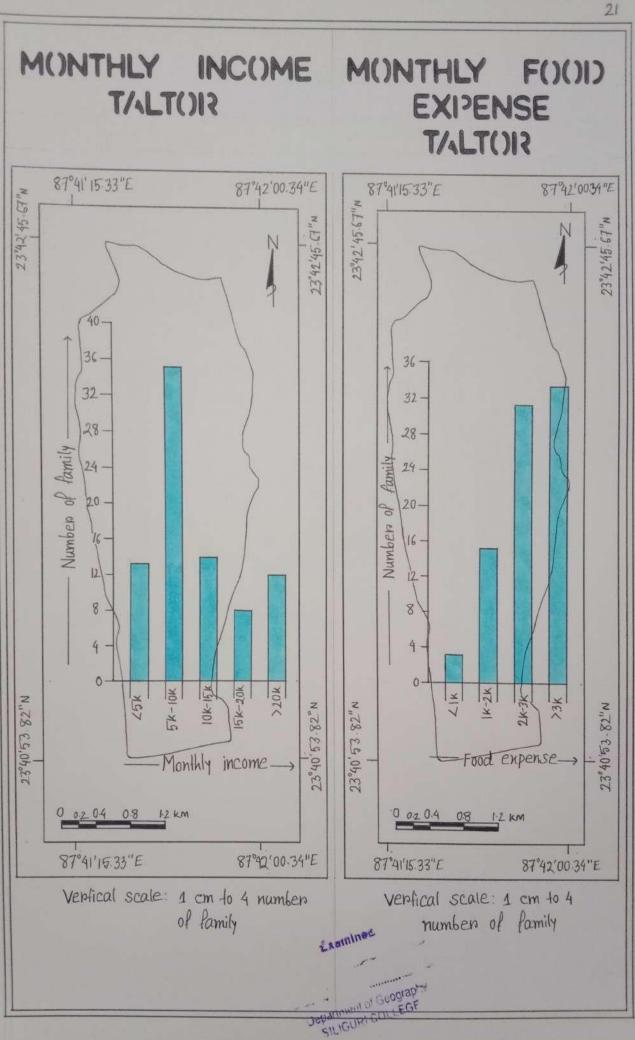


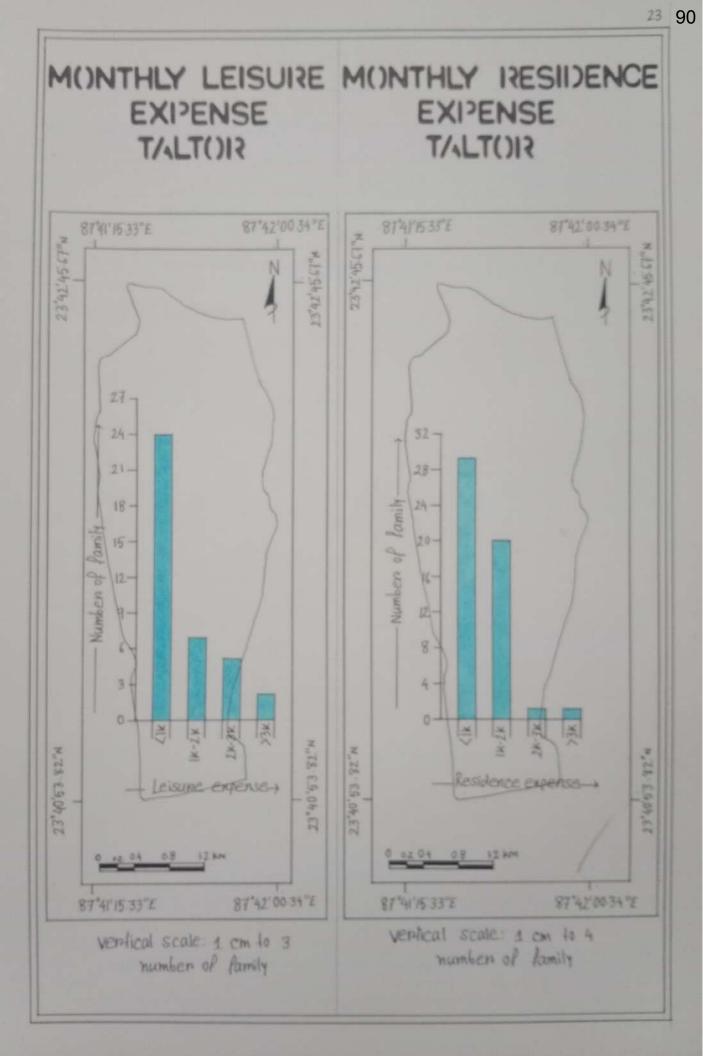






Veplical scale: 1 cm to 4 number of family Horizontal scale: 5 cm to 1 common diseases





1) Caste Composition:

Caste	SC	ST	Gen	OBC	Total
Number of family	48	14	18	02	82
Degnee	210° 44'	61° 28'	7901'	8°47′	360°

2.) Community Composition:

Community	Numbers of family
Panchal	2
Shudra	Ŧ
Santhal	2
Lokhi Hasda	1
Brahmin	6
Lohap	7
Sad Gope	5
Tapashili	4
Ruidas	1
Saldasi	2
kayastha	3
Bhil Thilup	1
Singh	1
Rajbanshi	1

3) Age-sex composition:

Age gnoup (Yean)	0-6	6-12	12-18	18-24	24-30	30-36	36-42	42-48	48-54	54-60	>60
Male	14	17	14	18	20	29	17	11	13	19	15
Female	F	11	IŦ	27	31	21	20	13	13	11	15

4) Marital :	status:
--------------	---------

status	S-latus Mannied		Divoncee	Widou	
Numbers for male	116	70	0	1	
Numbers for female	119	40	2	16	

5) Age at manniage:

Age group (year)	<18	18-21	21-30	>30
Male	4	36	64	H
Female	68	44	16	0

6) Educational qualification:

Educational qualification	Illitenate	Proimany	secondary	HS	UGL	PGL
Numbers of male	31	54	36	27	20	4
Number of female	38	53	54	И	8	2

7> Droop out:

Drop out	Male	Female	Total
NO. OF Drop out	6	9	15

8) occupation:

occupation	service	Agniculture	Business	House	other
Number of male workers	59	26	20	0	25
Numbers of female workers	12	6	3	87	8
Total wonken	FI	32	23	87	33

	Monthly income (RS.)	<10K	10K-2	OK :	20K-3	ok	30K-4	IOK	74
	Numbers of family	48	19		9		5		
							4		
10> Famil	y (BPL, APL):						1		
	Family		BPI	- F	IPL	Toł	al		
	Number of	Pamily	53		29	8	2		
11> Num	bes of earning mem	iben:							
	No. of earning n	nember	1 0	2	3	4	5	6	
	Numbers of far	nily	38	28	12	1	2	1	
3> Econ	Numbers of f	² amily	5	14 :	24 2	2	14 3		
	Economic adjuity	Pro	imapy	se	condo	uray	Tenfi	iany	1
	Numbers of people		48		28		73	3	
4> Lond	used for homestea	d (în	Kathaj):					
	Land used for hi	omeste	ad (in	kati	ha)	<3	3-6	>	>6
	Numbe	n of	family	1		14	46		19
							10-10-17-10-	-	-

15) Land use pattern:

Land use pattern	Numbers of family				
	<1 Bigha	>1 Bigha			
Land for food crops	20	13			
Land for cash chops	8	5			
Fallow land	7	4			

16) Land ownership:

Land ownership	own	Bangadan	Total
Numbers of family	32	19	51

17) House ownership:

House ownership	own	Rented	quanten	Total
Numbers of family	80	1	1	82

18> House Type:

House type	Pacca	semi-pacca	kachha	Total
Numbers of family	23	36	23	82

19> Numbers of Rooms:

Number of pooms	1	2	3	4	5	6	7	8
Numbers of family	11	24	18	17	5	5	1	1

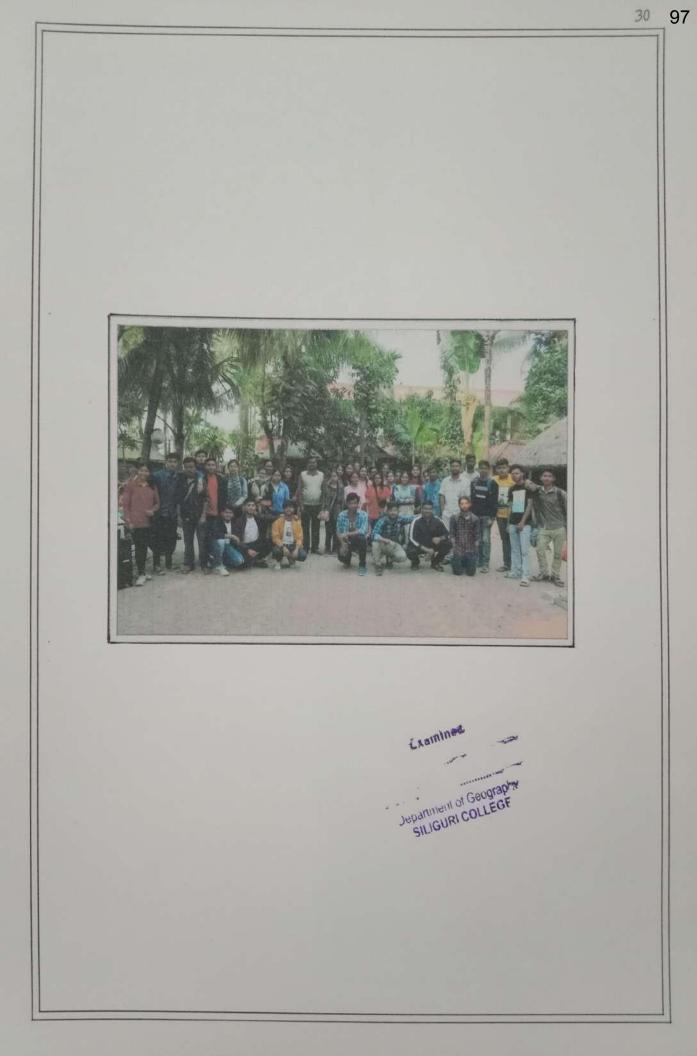
20> sepanate kitchen:

separate kitchen	Yes	NO	Total
numbers of family	63	19	82

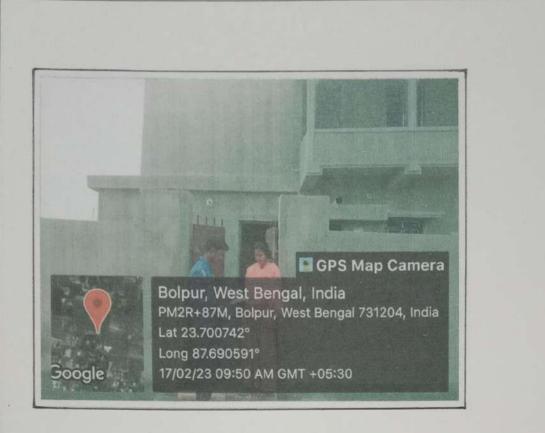
						28	
21> Latrine:							
	Latrine	Yes	NO	Total]		
	Number of Pamily	75	7	82			
22> Electrif	lied:						
	Electrified	Yes	No	Total	1		
	Numbers of family	82	0	82			
23) Uslon /	P attitu i a				_		
201 WUGEN F	Pacility in Proemises:			1			
	Water facility in pres		Ye		Total		
	Number of fam	ily	53	29	82		
24) Basic H	lousehold Assel:						
, to sic ii		Number	n ol	Pamilu			
	Bank Accounts						
		Accounts 77 11 phones 82					
	Refnigenation		19				
	Television		46				
	Moton cycle	Refnigenation19Television46Moton cycle35					
	Computers/Laptop		Ŧ				
	LPG connection		78				
25) Common	L Diseases:						
	Diseases	Numbe	p of	family			
	Feven		42				
	Gastpic Problem		3	1 P.P.			
	Diabetes		3				
	cancen		1	7-1-1			
	cough		10				
	Sugan		3				
	Migraine		1				

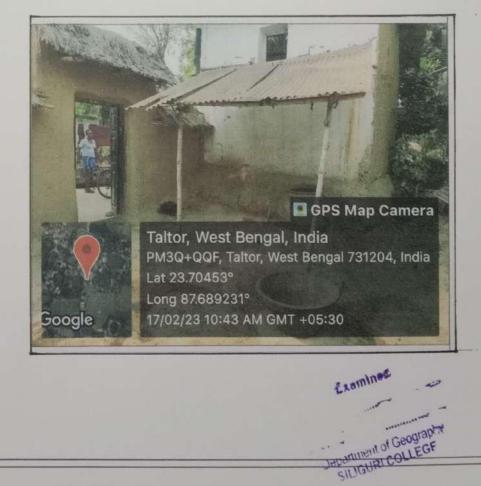
8.22	-	-
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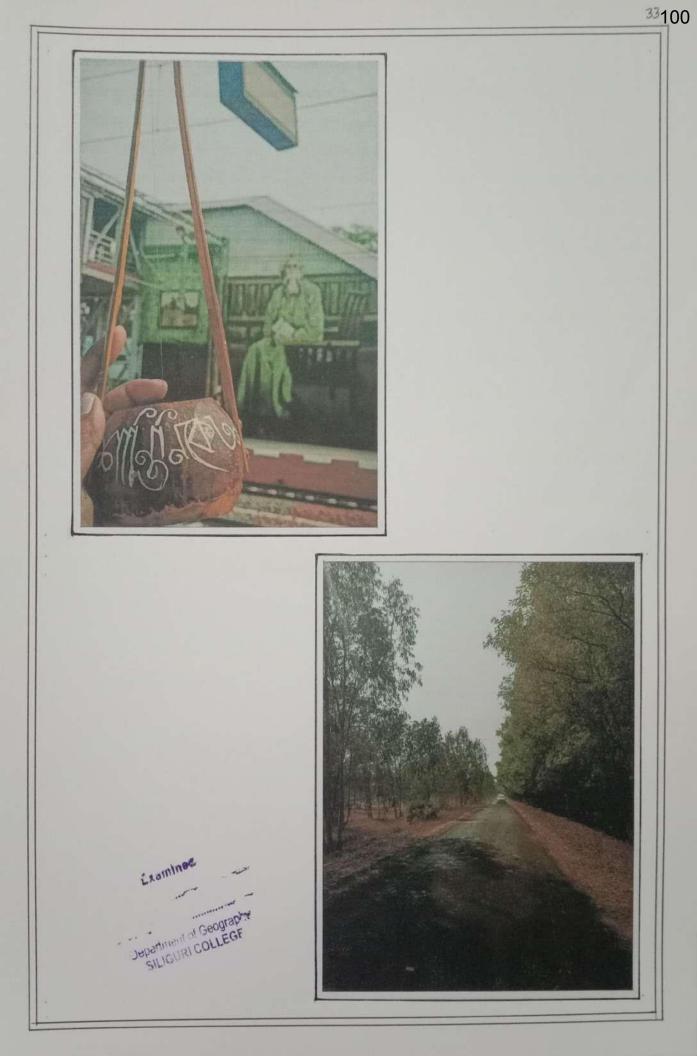
	Monthly	income (RS.)	25K	5K-	- 10K		10K-1	5K	15	K-	20K	>201
	Number	of family	13		35		14			8		12
											-	
23> M	onthly Fo	od Expense:										
		Food expe	ense (1	rs.)	<1k	1	K-2.K	2.K-	3K	>	3K	
		Number of	famil	Y	3	T	15	3	I	3	3	
28> Mi	onthly Ec	lucation Expe	nse:									
		Education e	kpens	E(RS.)) <1k		K-2K	2k	-3K	>	3K	
		Numbers of	famil	Y	27		21	1	2		4	
29) Mo	onthly cl	oth Expense:		->		1				1	_	
		Cloth expe	nse (r	5.)	<1k	Ik	-2K	2K-;	3K	>3	ĸ	
		Number of	family		37		30	13		2	-	
30> Mo	onthly Lei	sune Expense		6.2							_	
		Leisure exp			(1K	1k:	-2K	2K-:	3K	>3	K	
		Numbers of f	amily									
1) Mo	nthly Res	idence Exper	nse:									
	Re	esidence exp	ense ((RS.)	<1	K	1K-21	< 2	K-31	ĸ	>3K	
	N	umber of f	amily		29	1	20		1		1	
					_							1
32> MO	infhly sa	vings:										
32) MO	infhly sa	Monthly Savin	gs (RS))	(JK	IK	-2K	2.K-3	3K	>3	K	











CH/APTER:1, INTRODUCTION

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"Doubt is often better than over-- Confidence, for it leads to inquiry and inquiry leads to invention" - Hudson Maxim. The means of inquiry is associated with funda--mental research. Geography is a field base subject the prominent geographere Vidal de la Blache was a travellere who explore many Parts of the World and was a Pioneer in the field of regional geography. For better understanding the Jimension of geography he divided FRANCE in some small units called "Payas" Anistotle believed the phylosophy "Go and see." Alexander the great was influenced by this philosophy and roushed to India. He was the first european People who annived in India. Thus field work and visiting a place is a compulsion for every geographens. Entire work is the laboratory of a geography.

1.2 OBJECTIVE

1.1 INTRODUCTION

setting some objective is the preliminary task for stanting any work. The following objectives have been taken into consideration.

- i) To find out the nature of distribution of population in the study area.
- ii) To examine the social status of the people.
- iii) To examine the economic status of the people ?
- iv) To find out the problems in the study area.
- v) To find out the suggestive measures to solve the problems.

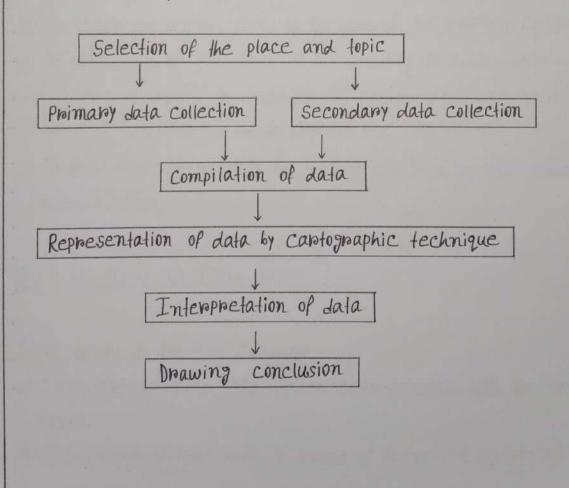
1.3 DATABASE AND METHODOLOGY 8

In order to carry out the study two types of database have been used. i) Proimary data:-

Primary data have been collected from the field. 82 households have been surveyed. ii) secondary data:---

So many secondary sources of data have been utilized. These includes district statistical handbook. district census book. district gazadded published and unpublished.

In our field study following methods were followed to complete the entire work.



1.4

NECESSITY OF FIELD WORK IN GEOGRAPHY

i) To obtain originally information or Jala about a geographical feature or aspects. Such information may not exists in a documented form.

ii) To obtain up to great information about an area. This is because the environment is always changing.

- iii) To gather first hand information thay may not be distorter in any way.
- iv) To relate what has been studied in class with real example in the field in order to understand than better.
- v) To obtain an occupe skills in pesearch methodology that is interviewing, observations and questionnaires etc.
- Vi) To obtain an occurre skills in the use of geographical equipment.
 vii) To obtain an occurre skills in map drawing on cartography.
 viii) To expose oneself to a vaniety of environment and socioeconomic condition so as to expend one experience.
 ix) To provide an opportunity top relaxation from noutine class

boom teaching.

1.5 PROBLEMS OF FIELD WORK

- i) It tends to be time consume.
- ii) Language bappiers may hinder communication with the local people.

iii) Field work is expensive in terms of transport equipment and

other experiences.

- iv> It may be hinder by bad weather conditions such as rain. fog. hot. sunshine. cold waves.
- >> There is a risk of accident and dengers from wild animals and insects.

vir some perspondents are non cooperative to give information.

1.6 CONCLUSION

In conclusion if may be said that a successful field report is the prime response of the survey when a surveyor is very skilled he or she may shought out every Problems or barriers.

CH/AIPTER: 2, GENER/AL 13/ACK GIR()UNID ()F THE STUDY /ARE/A

2.1 INTRODUCTION

Binbhum district is an administrative unit of west Bengal. The district head quater is in suri. The broad physiographic division Raph, the land of ped soil is the identity of the district. Shantiniketan, the cultural hub, the heritage of great Debendra--nath tagone, is located in this district. So, the land of red soil beaps great cultural heritage which is somewhat different from the other district of west Bengal.

2.2

PHYSIOGRAPHY

Geographically this area lies at the north eastern end of the chota Nagpun plateau. As it slope ground and menges with the alluvial plains of the Ganges. There is hilly area near dubrajpur town called marria bhagne pahars. The western part of the district is known as Bajpabhumi. It is an undulating upland that is generally Barrel. The comparatively fertile eastern part is manged with the Gangetic plain.

Average elevation is 70 meters M.S.L while minimum and maximum elevations are 9 meters and 477 meter respectively. A considerable part of the district is

Characterized by undulating by topography. The region is a dual bend of polling plateau made up of laterite and gangetic alluvial plain our study area is belongs to khoyai begion which is consider as one of the prominent badland topography so pills and gullies are prominant.

2.3 SOIL

The land of ned soil is mostly build up by latenite soil." The khoyai consists of 4 types of formation.

i) Recent alluvium.

ii) Newer alluvium.

iii) Olden alluvium.

iv) Latenite soil.

Alluvial is predominent in the southern and eastern part of the study area. The soil of kopai upland is generally lateritic mixed with alluvium. The southern badland part is covered by morram often covering the ground surface near the exposed areas of the hand crust. In our study area the soil is highly weathered, leached and enriched with oxides of inon and alluminium. As a result the area is affected by high soil erosion especially will and gully exposion.

2.4

CLIMATE

The study area experiences a mean annual temperature

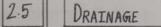
of 26°C and annual painfall peach as to neaply 150 cm. Manch to octoben tempenature pemains 26°C to 32°C. However absolute tempenature in the summer days exceeds 35°C. The tempenature decreases from november. During novembers to tebruary tempenature drops down to 6°C to 19°C. Maximum painfall of thus during the monsoon periods (June to september) and manimum intensity is experienced during the month of July amounting 100 cm. In shartiniketan month wise painfall and tempenature data is given below

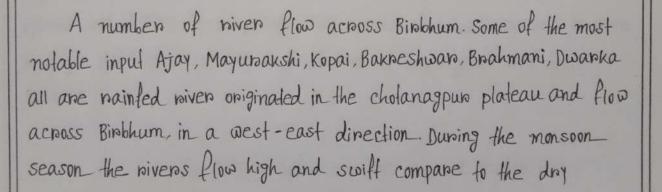
Month	Jan	Feb	Man	Apro	May	June	July	Aug	sep	oct	Nov	Dec
Temperature (°C)	18	22	27	30	31	30	28	28	28	26	23	20
Rainfall (mm)	10	20	20	50	140	270	320	270	230	100	10	5

on the average the climatic characters may be considered as hot and dry monsoon.

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Summer season pesulting in a cycle of class and droops. The Mayunakshi provides innigation for about 2500 sq. km. Our study area is located beside the niver kopai. It is a tributary niver of Bakneshwan, it flows along shanliniketan kinnahan and labour.

2.6 NATU

NATURAL VEGETATION

The natural vegetation of Binkhum district is dry deciduous type. Thees like Sal, Mahua. Palash grow to the western part. Thorny shrubs Palm and mango trees are present through out the district. Floating hygnophytes, namely water hyacinth, duckweeds, water lettuce are found above the water bodies. Dry climate and insufficient rainfall causes Scanty growth of nature vegetation. However some sal forest are found in many parts of the district mainly Bolpun and Dubrappun area. In the district of Binkhum there are some ecological Parks namely shayon Bithi Park, Ballavpun wildlife sanctuary. Sonajhuri forest, Mama Bhagne pahar and park, Amkhoi wood fossil Park etc.

The concept of sacred groves is found in some tenpitony of Binbhum district sacred groves are patches of natural vegetation dedicated by local communities by nature of ancestral spinits and deities. These groves may consist of a multi species or even a single old tree depending on the history of the vegetation of local culture.

In Bolpup there are few sacred groves like -

Kankalitala, Agantala, Fullanatala, kailash, shiv chanditala etc.

2.7 POPULATION

As Per 2011 census Birbhum as a Population of 3502404 estimated Population of 2022 is 4623174 out of total Population 449448 living in unban areas and remaining are in rural areas. In Bolpur shantiniketan block number of People living 202553 as per 2011 census of which 102722 are male and 99831 are female.

2.8 CULTURE

Binbhum beans great cultural heritage many poets belong in to the age of Naishnava Padabali and shakta padavali of bengali poetby were born here. Jayadeva the author of the Gita Giovinda and chandidas the author of shreeknishna kintana born here. The bauls of Birbhum is famous all over the world. The philosophy of sacrifice huminity and simplicity in life style are enchanted through bauls. Gunuder R.N. Tagone was inspined by the philosophy of bauls. The ancestons of tagone established Brahma samaj and later Rabindranath established visva bhapati as the center of higher education. Birkhum has also been home to famous kabiyals, kiptaniyas, and other folk culture goods. Birbhum has many old temples such as Jaydev Kenduli, supur, and Nanoop with deconative tiles made of tenpacotta.

2.9 ECONOMY

Bipbhum is Primarily an agricultural district with about 75%. of the population being dependent on agriculture. Principal industries of the distnict include cotton and steel hanvesting and weaving stone maining and cottany manufactuning Pero capita income in the agnicultural sector is 53122. Total cropped area is 586075 in hectanes and the fonest area is 183.55 in 52. KM. There are 5 bannage in the district Providing innigation facility with the help of affective innigation facilities. The district occupied notable Positions in agriculture main products are rise, wheat, Potato and sugarcane. There are agro based industries, textiles, foresty and crafts. However the economy of the district is backward as the ministry of Panchayati baj declarge Bipbhum as one of the countries 250 most backward district in 2006.

2.10 TOURISM

As Bipbhum is prominent cultural district so it is famous for tourists attraction Nature lovers enjoy Birbhum As a place of dry but warm welcome by the scenic beauties shantiniketan. Is the worold famous tourism destination as a place of Rabindra creation. It was Bhubandanga named after Bhubandakat and was owned by Mahanshi Debendranath Tagone in the year 1862. The ned soil and lush green paddy fields attracted him to set his home at shantiniketan. The about of Peace in 1863 he founded an ashnam there as the

initiators of the Brahma samaj.

Rabindranath Tagope established a school at Shantinikelan in 1901, named brahmachari ashram laten it was known as katha bhavan. The central Premise was the learning Center in a natural environment after receiving nobel Prize by Tagore a school was expended into a university after independence the University was granted by the union government as one of the Central university.

The shantiniketan is loved by the tourists as the memory of Gunudev. Besides shantiniketan there are many attraction in visit is Birbhum district like - khoai (bad land topography), Bakreshware (a place of hot spring). Tarapith (a place of 51 shaktipith), Labpur Pilgpimage place, Helampur rajbani, Mama bhagne pahan, Sona Jhuri Porest, Srijani shilpa gram, Amar kufir ecotourism park. Ballavpur wild life sanctuary.

2.11 CONCLUSION

You can said that Birbhum may be economically developed due to scanty rainfall, unfertile soil, but in beaps a great cultural heritage. There are scope of economic development by tourism industry.

Department of Geograph

CH/AIPTER:3, S()CI() EC()N()MIC STUDY OF TALTOR, A WARD ()F 13()LIPUR MUNICIPALITY

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3.1 INTRODUCTION

For Proper understanding about the socio economic condition of a village people we have thoroughly surveyed taltone village a village of Ruppan gram panchayat in Bolpun Shantiniketan block. Primany data were collected from 82 households. We have staied Ball Monn resort located within the village. It is a guest house, where 41 students were accumulated for 3 days to observ and study the socio economic condition of the inhabitance.

32 LOCATION

Taltone village is located in Bolpun spiniketan sub division of Binbhum district in west Bengal. It is situated 8.2 km away from sub division head quaters Spiniketan and 33.5 km away from the district head quaters Suni. The total geographical area of the village is 308.1 hectare. The geographical coordinate of the village is 23°40' 53.82"N to 23°42' 45.67"N and 87°41'15.33"E to 87°42'00.34"E. These are about 647 household survey isolated in the village.

3.3 DEMOGRAPHY

From our study data it is found that total population is 373, out

of which 58.54% SC, 17.07% ST, 21.95% General, and 2.44% OBC. Male lemale ratio is 1000:995. The age sen composition of the household survey tabulated below —

Age group	Male		Fema	le
(Yean)	absolute no.	%	absolute no.	%
0-6	14	7.49	7	3.76
6-12	17	9.09	[]	5.91
12-18	14	7.49	17	9.14
18-24	18	9.63	27	14.52
24 - 30	20	10.70	31	16.67
30-36	29	15.51	21	11-29
36-42	17	9.09	20	10.75
42-48	1	5.88	13	6.99
48-54	13	6.95	13	6.99
54-60	19	10.16	11	5.91
>60	15	8.02	15	8.06
Total	187	100	186	100

From the table it is found that 30 to 36 years age group is dominating in the male natio followed by 24 to 30 years age group. For female age group of 24 to 30 years is the dominating group followed by 18 to 24 years age group.

Manifal status is the state of an individual being mannied on unmannied. Normally there are 4 classes or components

of mapital status - mappied, Unmappied, Divopced (separated), and widow. The incident of divorce is very pape. However the concept of legal divorce is not popularized in Indian villages. SO, those who are Separated has not any legal separation rather has mutual separation established by society. Early age al manniage is a popular custom among the Villages. If we consider the manifal status of the people of Taltore village. It is found that ratio between mappied male and female is 116:119. so, female manifal status companatively higher than the male. Only 2 divorces is noted in the village and they are female. Numbers of unmappied male is 70 while unmappied lemale number is only 40. so. the patio of unmannied male and female is 7:4. only one widower is noted while the numbers of widow is 16. 50, numbers of widow are much more here than the numbers of widowers. There are 4 numbers of male People who got mannied before attaining the age of 18 years and for the female number is huge that is 68. In the age group of 18 to 21 years 36 male got mannied on the female number is 44. Age at manniage of Comparatively higher age group (more than 21 year) for the female is 60 and for the male the same is 75. Marriage at the 35 years at more in female age group. So, it can be calculated from the data of age at manniage that most of the females got mannied before allaining Prescribed age of the constitutional provision that is 18 years. same incident is notice also male group whose Prescribed age at mappiage is al Year but unfortunately 40 such incidents recorded in Taltore Village. so, under age marriage is very common phenomena in Indian Village.

3.4 ECONOMY

Economy is the ferm applied as means

of Process of livelihood though there are different measures to determine economic composition of Population. Economic activities are those efforts which are under taken by man to earn money by income for his life and to secure maximum satisfaction of words. There are different methods to the determine economically active Population like —

1) Chude Activity Rate - The proportion of economically active population to total population is generally known as chude activity nate Normally it is explained as %.

ii) General Activity Rale: The Proportion of economically active Population to the working age population is known as General activity rate. In our country the children below the 18 years of age have known legal section to work. so, the working age population are the Population above 18 years of age.

iii) Dependency Ratio — The Dependency patio is Jenerally the patio of the number of children pluse to the number of adults.

3.5 HOUSING CONDITION

Housing is a basic human need. In importance, it is third after food and clothing. The importance of housing was universally accepted from the dawn of history. Even the Neolithic man, who lived between 10.000 and 2000 B.C., built durable haditation (varghese, 1980). Primitive men

Sought some kind of Protection against wild animals and natural calamities. Housing Protection is also sought against enemies as well. Howeven, its functions increased manifold over the teans. with the development of knowledge and the advancement of civilization, people become Particular about sanitation, environment, Privacy, location of house etc. He becomes more conscious of better facilities, which make his life easy and very comfortable. with the invention of electricity and other facilities, the development of housing became more important. Empirical research has shown that room stress has a significante effect on households assessment on housing conditions. The required no. of nooms is calculated using a simple rule: two rooms for a Prime adult on a couple in a household, with an extra for additional adult age of above 18 years on for each Pair of Young age between 10 years and 17 years (canswell, 2012).

In the present study, different indicators are considered to identify tivable house like, no. of rooms in side, no. of room use for sleeping, kacha or Pacca house, separate kitchen, drinking water facilities within the house, ownership status of housing, household assets etc.

Basically the people of the area are associated with their own house on the basis of ownership status 80 houses of the total 82 households are occupied by them and 1 is mented house and 1 is quarter.

As per the definition of census data there are 3 types of

houses - katcha, Pacca and semi Pacca. Out of 82 surveyed household 23 are pacca house, 23 houses are katcha and 36 are semi pacca.

on the basis of dwelling unit there are 4 types of housesmain house, room, store and basement. In the Present study all the houses are main house.

Numbers of rooms Per person and Pen family Provides infor--mation on housing overcrowding, which has long been identified as a major housing Problem (Myers et al. 1996). Having sufficient room is essential for comfortable livelihood. Household crowding is a condition where the no. of occupants exceeds the capacity of the dwelling space available, whether measured as nooms, bedrooms on floor area resulfing in adverse physical and mental health outcomes (WHO, 2018). The level of crowsing relates to the size and design of the dwelling, including the size of the booms, and to the type, size and needs of the household, including any long-term visitors. whether a household is 'crowded' depends not only on the no. of people sharing the dwelling, but on their age, their relationship and their sex living in crowded housing conditions can create stress in the home and have negative consequences for its inhabitants. Children may be Particularly vulnerable to this type of poor housing quality because they use the space in the home to do homework, interact with family members and develop an identity. Practice skills, and sleep (claudia et al 2012). Numbers of pooms used for sleeping for the present study is insented below.

Number of pooms used for sleeping	1	2	3	4	≥5	Total
Numbers of households	23	37	10	10	2	82
Percentage of total household	28.05	45.12	12:20	12.20	2.43	100

single boom is used for sleeping purpose is only 28.05%, two booms for sleeping is used by 45.12% people, 3 booms is used by 12:20%. People, 4 nooms is by 12:20%. People and 5 nooms is by 243%. People. Considering the number of rooms used as sleeping it could be thought that in this indicator their situation bad rather moderately Jood but their room conditions are not up to the mark. As Per UN guideline, overcrowding occurs if there are more than three People Per habitable noom. On an average each household is occupied by 4-5 Pensons. As Pen Indian standards norms, there should be at least two living rooms, ample versanda space and the built up area should not excess one thind of total area. In 82 households there are 251 rooms, means 3.06 rooms Pen household. Health and sanifation are important aspects of quality houses. secured shelfer and basic sanitation are essential for living a healthy and stable life. However, thousands of Poor People in nupal areas ane still living straw huts without electricity, water on sanitation. They are exposed to the elements, dangenous animals like snakes and scoppions and to an unhealthy environment. People not only need a house to protect them, but also to bring up their families, to coock, work and simply to have a home to call their own In 2017, 45% of the global population (3.4 billion people) used a safely managed sanitation service. 317. of the global population (24 billion People) used privale sanitation facilities connected to sewers from which waste water was treated and 147. of the global Population (1.0 billion people) used toilets on latines where except a were disposed of insitu. As the international authority on Public health, who leads global efforts to prevent transmission of diseases, advising governments on health-based regulations. In the Present study, four major aspects are considered here, these are latine facilities, separate witchen and water facility within the premises. The result is fabulated below.

Indices	Latrine fa	icility	Waten	facility	sepanate kitchen		
	Yes	NO	Yes	NO	Yes	NO	
Number	75	7	53	29	63	19	
%	91.46	8.54	64.63	35.37	76.83	23.17	

Basic household assets are anything with monetary value which necessitates for smooth livelihood. Being working class the basic assets considered are electricity connections, cell phone or mobile facilities, television, bi-cycle, motor cycle, LPGL connections Refrigerator and banking facilities. The collected information is tabulated below.

Facilifies	Electrifi- -Cation	Mobile	TV	Motor Cycle	LPGL	Refnigena- - ton	computers/ Laptop
% occupied	100	100	56.10	42.68	95.12	23.17	8.54

3.6 EDUCATION

Education is considered as the backbone of Progression of society. It also helps to raise quality people and attain higher social status which farther advances to move forward a nation for development. Educational development is not only concern with a single factor rather than an assemblage of factors, which is an important qualitative indicator for the overall Progression of a society or region. It diminishes the regional imbalances in terms of economic and social-cuttural aspects of a region. In India the standard of educational facilities. and the quality of education are generally higher in Primary and secondary schools in richer states than poorer ones (Lall, 2005). The educational level of Tailore is tabulated below.

Level	Illiterate	Proimany	secondarry	HS	UGL	PGL
Male	31	54	36	27	20	4
Female	38	53	54	14	8	2
Avenage	34.5	53.5	45	20.5	14	3

The phenomenon of students discontinuing studies and nepeating grades before completing elemantary level of education is a major impediment in achieving Universalization of Elementary Education (UEE). In orders to assess its impact on achievement of UEE, it is necessary to estimate drop out and repetation rates at Primary and upper Primary stages as well as transition-rate from Primary to upper Primary. But incident of school drop out is a main problem to fulfil the target of education for all. In general sense dropout means a student who leaves school after enrolment without completing his on her studies. Dropout may be from school at Proimany, upper Proimany, and secondary level or from College on university level However, here the dropout is considered for those who left school before Promoting class eight standards at Primary or upper Primary school. In our study area 15 drop out cases have been spotted in 82 households where 6 boys and 9 girols left their studies before 8th standard class. Numbers of school going children is 91. so, the ratio between school going children and drop out is 6:1.

3.7 AMENITIES

Census 2011 illustrates that in terms of basic amenities such as housing conditions, availability of drinking water, sanitation facility. type of fuel used electricity, communication facilities and percentage of house holds processing bank account and few durable assets etc. The Talfone village has all these facilities ample in number. 64.63% of People opined that they have safe water facility within their Premises. 90%. People responded about good sanitation facilities within their house

3.8 TRANSPORT

Transport facility of the village is very good. The Eastern Railway joins Malda-seal daha connection through Bolpun-shantiniketan. Two important stations of Eastern Railway-Prantik and Bolpun shantiniketan is very nearer to the village. The subdivision headquarter spiniketan is well connected by surface roads. There are every facility of buses, autos. Totos etc. in the entire village.

3.9 HEALTH AND HYGIENE

Public health and nutrition is basic Problem in many villages in India. Before independence most of the diseases were concerned, they had to depend on the local process of treatment by other on kabinat, apart from this they had to depend on charlatan on quack, as because there was no qualified doctor, as a result, the Patients had to expire for the wrong treatment. In our questionnaine, we set Questions on health issues. In question of common diseases Prevailed in the village, it is learn that Fever, cold. Diabetes, acidity, cough, hypertension are some common diseases. In the Taltone village, 90 people prefer hospital for their treatment and remaining 10% people informed that they depend on thealth center. The concept of child immunization is well pronounced there; as a result 95% People have opined that their children have been immunized from the health center or hospitals.

3.10 RELIGION

In India, the peligious concepts, terminologies and practices are as varied as the hundreds of tribes, but members of these groups have one thing in common: they are under constant pressure from the major organized religions. The Talton Village represents 100%. Hindu People. No other religious beliefs have been identified in the Village.

3.11 CASTE

Caste composition is the social division of the People. Mainly Indian lindu society is divided in some caste and class gnoups. Again there are communities within the caste. The caste system in India is the Paradigmatic ethnographic instance of social classification based on castes. It has its onigins in ancient India, and was Inansformed by Vanious nuling elites in medieval, early-modern and modern. India, especially the Mughal Empine and the Britisk Raj. It is today the basis of affirmative action Programmes in India as enforced through its constitution. The caste system consists of two different concepts, Vanna and Jati, which may be negarided as different levels of analysis of this system. However, in the Present study it is found that scheduled troibe Population is maximum in the village followed by unpreserved Population and tribal Population. The figure is tabulated below.

Social group	SC	ST	Gien	OBC	Total
Number	48	14	18	02	82
% shape	58.54	17.07	21.95	2.44	100

main communities in the village are - Panchal, Santhal, Shudna, Lohan, Brahmin, sad Gope, Ruidas etc.

3.12 CONCLUSION

In conclusion it can be stated that the Taltone village has different dimension in social and economic structure. The main issue is that hapidly the cultural landscape has been changing. Many nesonts have been developed and still some constructions are going on. The nich People from kolkata are buying lands from the local People and developing guest houses in the Peripheny of shartiniketan as a result agricultural lands are gradually loosing.

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CH/AIPTER: 4, IPIR()IBLEMS /AND IPIR()SIPECTS

4.1

INTRODUCTION

Each Indian Village has some common Problems and some unique Problems. In general, a nural area or country side is a geographic apea that is located outside towns and cities with less numbers of facilities like services and amenities. The major Problems that have been identified by in many nunal areas are poverty, illiferacy. unemployment, homelessness, chime, social evils and lowen living standards, lack of facilities, services and health. From the past 20 Yeans in India, there is rapid growth and development in cities and unban but not in rounal apeas, this is the main factors for outmigration from rural areas to unban areas. The problems in rural development are mainly categorized as people related problems, agnicultural related problems, infrastructure related problems, economic Problems and leadenship related problems, administrative problems. These problems are intendepended and influence the complete pupial system, these challenges must be addressed for the development of the overall pupal system.

4.2 MAJOR PROBLEMS

The problems of the study area can be grouped as under -

4.2.1) Economic Problems

Avenage income of the People is not sufficient. Below Rs. 10000/ Pen month income is earned by 60 % household of the locality. In the Present content of Price index of commodities this is very little to meet the demand of their family. High dependency ratio is also noticed in Tallore village.

6) Another Problem is poverily. India is one of the rapidly growing economies in the woold, yet around 73 milion people are living in entheme Poventy (Brookings nepont). India's poventy is Primanily nunal it composes one-thind of the poventy-stricken individuals. scheduled caste, scheduled tribes, Landless laborers and casual wonkens are mostly prevailing in the conditions of Poventy. The conditions of poventy among pupal communities are characterized by a lack of financial pesoupces, land, assets, property and other pesounces. The majority of the Poventy-stricken People ane employed in the agniculture sector and other activities such as animal husbandary, fisheries and daily workers. Poverty is a complex phenomenon and it overlaps and is interlinked with political, social, economic systems. The poventy of individuals is also one of the main factors which lead to the growth of a shortage of assets, discrimination and incapability. Poventy-stricken individuals of nunal communities usually mighter to unban areas in search of better opportunities and facilities but many people due to the increased cost of living in the upban areas end up pesiding in unban slums

on homeless. In the Present study of Talton Village, 65% families belong to BPL categony and 35% is APL. So as per the response in the survey held, the majority of the Villagers are below the Poverty level.

c) The Problem of landless farmers: The dependency on agriculture of a considerable share of Population indicates that the amount of land for agriculture should be prime concern. 37% farmers do not Posses any agricultural land, who are depends on Barga land, i.e. land of other People.

d) Unemployment is a condition when a person is able and willing to work normally, dependent upon his earning to provide the necessities of life for himself and the family is unable to obtain gainful employment. The problem of unemployment and pseudo employment is active in Tatton village.

C) Problem of agniculture is the major source of income in rural areas, in most of India's agniculture system there is no Proper innigation and still depend on rainfall for innigating crops, in addition to innigation people of the rural area face several Problems that are related to agriculture like small landholdings, unavailability of inputs, lack of economic infrastructure, storage facilities and mechanization. 4.2.2 > Social Problems

as chime and violence :--

Chime and violence in nunal aneas are also increasing. All individuals inpespective of genden, age, Caste. race. ethnicity and socio-economic background have been the victims of chime and violence. The major cause behind these Crimes and violence are generally Poverty. The important types of violence that are identified in the nunal areas are verbal abuse, Physical abuse. Trafficking, Enploitation. Theft and Robbery, Senual Harassment, Dowry deaths, Domestic violence.

b> Illifenacy :-

Runal appears do not possess a dequate nessources nequined for their livelihood opportunities, lack of social infrastructure facilities such as schools, colleges are completely absent on banely available and alfordability of the people is also low in roural areas leading to fewer literacy routes. The living conditions of many individuals are in the deprived state, people tend to migrate to unban areas for social infrastructure facilities to meet their basic needs in unban areas but they prefer to make their children as bread earners-shartiniketan is the leading center of higher education in the country, but in meanby rouras areas illiteracy Problem is prominent. The marginalized group of People like scs, sts in the locality has a tendency towards illiteracy. C) Leadenship Problem :-

Local self government system on naya Panchats are less interested to solve the basic Problems of the People.

d) Domestic Violence :--

Domestic violence is violence Committed by Someone in the victim's domestic cincle. This includes Pantnews and en Pawtnews, immediate family members, other relatives and family finiends. The term 'domestic violence' is used when there is a close belationship between the offender and the victim. Some incidents of domestic violence are noticed in Talton village.

e) Change of cultural landscape :-

once the village was

2. Kömined

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dominated by agnicultural land, now the landuse Pattern is gradually shifting towards eco-tourism as so many guest houses are developing. The guest house owners are not the village People, rather coming from outside. The Profit of this guest houses are migrating to rich Peoples house.

4.2.3> Natural Problems

Some physical Problems of Talton Village ane - insufficient, nainfall, drought, infentile soil, encessive heat wave during the Pre-monsoon peniods etc. 4.3 PROSPECTS

After studying the socio-economic profile of the Talton village, following Prospects have been pointed out.

9 Geognaphical accessibility:-

The village is located in suitable geographic locations, where transport network is highly accessible. Good transportation and communication network is the Prospect of this village for future development.

6) Tentiany economic activities -

Many People of this village are directly engaged in tentiany economic activities. Dependency on agriculture is gradually decreasing, rather dependency on secondary and tentiany economic activities are gradually increasing. This is a Prospect of this village People to raise their income level and standard of living.

C) Social hapmony :-

Social hapmony is prevailed in the village. most of the People are happy and seems them quite safe from the nuisance.

d> cultural heritage :-

The influence of great cultural

heritage of shantineketan - Bolpup spreads nearby villages. The impact of community tourism falls on their livelihood.

4.4 SOLUTIONS

It is quite difficult to give solutions of the above problems. However, following suggestions can be made to solve some problems.

a) Raising income :-

The income of many People is not standard and marks to the Point. This Problem can be solved if agriculture and allied sectors are modernized.

b) Poventy enadication:-

Absolute Poventy can be enadicated if much of the People are engaged in financially gainful economic activities.

C> solution to landless labour Problem :-

Agnicultural landuse Pattern is shifting towards eco-tourism as a consequence land utilization statistics are gradually changing. Many Plots are occupied by rich man, landlords. These Plots are remain vacant for many years and lagging any Productions Local administration can stop these Processes of land acquisition by the landlords. d> Employment generation :-

Employment generation Process can be defined as the Processes to engage as many People as Possible to economic gainful activities. The cultural hub needs ungent to do some Posifive steps to open cottage industries.

e) Education :-

Education is the key component for any type of development. The literacy rate of the local people is to be increased

4.5 CONCLUSION

In conclusion if may be said that the Talton village has some Problems and some Prospects. The village enjoys the cultural heritage of the shantiniketan and nearness to the municipality. It's not such village located far away from the modern civilization. The village has scopes for development. We hope that in the days to come it will be incorporated to the Bolpur municipality.

CH/AIPTER:5, CONCLUSION

Socio-economic Profile of Tallon Village of Ruppun Gwam Panchayat has been elabornately described in the Previous chaptens. The village is Just beside the municipality area of Bolpun so. This is an unbanfninge on nunal unban fninge area. Being located in suitable geognaphic location, the village enjoys all types of modern facilities. But there are some Problems identified after our Primary survey. The main Problem is changing landuse Pattern of the village caused by ecolourism Processes and construction of guest houses occupied by the landlords in-places of fertile soil. The Process of society's transformation from a Pre-dominantly runal to a Predominantly unban Populations known as unbanization which is vividly found in the study area. At Present, above 65000 People live in Bolpun town. The Process of unbanization affects the nearby runal areas.

In conclusion following topics can be highlighted.

B) The increasing rate of urbanization has been generating lots of environmental Problems in Bolpun and adjoining regions. There has been found a changing Pattern of environmental quality and sustainability in recent years due to increasing urbanization. Rapid rate of increase in Population has been held responsible as one of the most significant factors of un-sustainable evironment of this area. b) During Perception study it has been come out after taking opinion from the resident of the study area that the Primary causes of Environmental Problems is due to heavy congestion of settlement, the problem is due to lack of Proper sewage system. The Talton Village got upban character but hinders modern urban facilities.

> Due to the Raph environment and having a lateritic soil environment, only the flat areas with loamy soils in the areas are anable and are used for agricultural purposes only 5% of the total area was under wated body which is too small for supplying adequate water supply for multipurpose uses. This area has an area under high and low drains which are not capabel of draining out the household liquid waste-waste water, and drain water overflows on the roads during heavy shower in monsoon.

d) The changing landuse pattern of Bolpun and adjoining areas causes transformation of occupations. Many People after selling their lands now turned to landless workers. Acres and actes of lands are occupied by the rich People to construct guest houses. Many guest houses have already been constructed and some are going to be constructed.

e) spinikelan, a center of pural peconstruction took so many initiatives for the socio-economic development of tribal people. Though santhal's of west Bengal are engaged mainly in agricultural work, labour in stone crasher but santhals of Birbhum district

have exceptional heritage of ant and craft, mainly in Pottenies, wood works and doess materials are remarkable. In shantiniketan they Practiced ant work as spiniketan gave training to them on the work of wood, terracotta, leather work, kantha stitch, batik through which they became self-sufficient in earning their livelihood which is the basic motto of Tagone's pupal peconstruction.

Finally, it can be concluded that the Talton Village has so many prospects to be incorporated in town area. The rapid landuse and land cover change of the locality may help to change the present situation.

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10 11 12 13 14	14-12-4		1111	1	121222				1	2 1 1 2	12	
15 16 17 18 19	1 2 3 2 2 4		1		2 2 3 2 2 1		1 1		1	1	2 3 1 2	
20 21 22 23 24	1 1		1		1 1 1 1		1 2_ 2_ 1	1		1	1	
25 26 27 28 29	11111		1				1 2 1	1 1		1	1 1	
30 31 32 33 33	1211		1		1211		1	1		1	1 1 1 1	
35 35 36 37 38	1 1 2 2 1		12		1 1 2 2 2				1		12331	
39 40 41 42 43	1 1 1 2		12231		1 122		1	1111		1	1 1 1	
41 42 43 44 45 44 45 46 7 48	2211		1 3		2 2 2 2 2 7 3		1	1		2 1 1 2	1	1
49 50 51 52	3 1 1 3 2 1		1		4434		1			1 1	112	1
22 54 55 56 56	111211		1		1122			*		1 1 1	1	1
61 62	2 1 1		1111		> コール ろん コール スート ろん ろん ろ ー ー ー ー ー ー ー ー ー ー ー ー ー ー ー ー	1	2	2		1 1 2	1111	
48 49 50 51 52 53 54 55 55 56 57 57 57 57 57 57 57 57 57 57	2 2 2 2 2 2 1		11 11		2211		1			1 1 1	11/1	1
8 10 11	1 1 2 1 1 1 1		1		3221		1 311 3	1		1	1	1
13 74 75 76	1-1-13-1-1		1 1 1		1100111		1	1	1	1	1	
17 18 19 80 81	~ ~ ~ ~ ~		2 1 2 1		2 1 1 1 3 2		2			1	1 2	1
82 TTL	1 116	0	70	1	2 119	2	40	16	4	36	64	11

										71
NO.	AGE	OF MARRI	ALE)	EDUCI	QUAL	UALIFICATION (MALE)				
	<18	18-21	21-30	>30	ILL	PRI	SEC	HS	UG	PG
1 2 3 4	1					2	2	1	1	
5			4			1	1			
7	1		1		1		1	1		1
9 10 11	1	1			4	1	1	1	1	
12	1	1			2	1	1	1	1	
14 16 16	2	1			2	1	1 2	1		
17	3		1				1	111	2	
20	0	2	1			1	1	1	1	
22	2					1	1			
25	1		1		1				1	
27 28	1	1					1		1 1 1	
29	1	2			1				1	
32		1	1		2					
34	111				1	1	1	1		
36		2	3			1	1	2	2	
39 40	2				1	3	1			
41 42	2				1	1 2	1			
43	1 1	1111			1	1 2 4				
46	1 1 2					1	1	1		
48	2	11			1	2		1		
51	2	12			1	1	121		1	1
53	1					1 2	1			
55	1	1			1	1				
58	1	1			1	1		1	1	
60			1		3	1 1 3		1		
62 63 64		1 2 2 1			1	1	1	1	1	
65	1				1	1		2		
67	1	2			1	1		1	1	
70 71	2		1			1	1		2	
72 73	1 1 2 1 1	111				1		3	1	
75	1	1			111	4				
77			1		1	1	1	1		1
17 18 19 20 22 22 22 22 22 22 22 22 22	1	3				10	1	1		
82 TTL	68	44	2 16	0	31	54	36	27	20	4

SL	EDUC	CATION		FTCAT	ION (FE	MALE)	DROP	OUT
NO.	ILL	PRI	SEC	HS	UG	PG	MALE	FEMALE
1		TN1		п5 1	002	101	1 11 166	
1234		1	1 1 1					
6			1 1	1				
7	1	2	1	2				
6 7 8 9 10 11	1			1				
12	1		1					
14	1	1	1				1	2
17		3	1	2	1			
18	1	2					1	1
2.0	2		1					
23		2	1	1	1			
25	1							
27		1 1	1	1	1			
$\begin{array}{c c} 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 31 \\ 32 \\ 33 \\ 34 \\ 35 \\ 36 \\ 37 \\ 38 \\ 39 \\ 40 \\ 41 \\ 42 \\ 44 \\ 45 \\ 46 \\ 47 \\ 48 \\ 48 \\ \end{array}$	1							
31 32		1	1		1	1		
33	1	1						
36		1	112					
38	2	1	L	1				
40	1 1		1	1				
42 43		1	1112					1
44 45	1 2 1		2_				1	1
46	1	1 3	1					
49		3		1				
51	1		2	1				
49 50 51 52 53 54 55 56 55 56 57 58 58 59 60		1	2				1	1
55	1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						1
57	1	1						
60	1	3	2				1	1
61 62 63 64 65 66 67 68 68 69	2				1			
64	1	1	1111					
66	1 1 1							
68	1	31	2		1			
70	1		2		1			
73	1	2	1		1	1		1
75	2	2 1 1 1 3 1					1	
77 78		3	1					
70 71 72 73 74 75 76 77 76 77 78 77 80 80 81 82			1 1 2					
		1 1		1				
TTL	38	53	54	14	8	2	6	9

SL		OCCUPATI	ON (MAI	E)		(DCCUPATION	(FEMAL	E)	
NQ 5	ERVICE	AGRICULTURE	BUSINESS	HOUSE	THER	SERVICE	AGRICULTURE	BUSINESS	HOUSE	OTHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 14 19 20 21 12 23 24 25 26 27 28 27 28 27 28 27 28 27 28 27 28 27 30 31 32 35 36 36 35 36	1		1			1		1	1	
5670	1 2		1			1		1	1 1 2	
9		1	1						1 1 1 2	
12 13 14 15	2 2 2	4							1 2 2 2	
16 17 18 19	1	1 1 3	1						2 1 2 2	
20 21 22		1	1 2			2		1	1	
23 24 25 26	1	1	1				1	1	1 2	
27 28 29 30	1	4			0				1	
31 32 33	1		1		2	1			1 1	1
35 36 37	12/10-1-1	1				*			1 2 3 2	
38 39 40 41	1 1 1		1			1			2	
37 38 39 40 41 42 43 44 45 44 45 46 47 48	1 2	1 2 4				1	3 2			
46 47 48 49	1 2 3	1				2			1 1 2 1	
50 51 52	2.				2				2	
53 54 55 56	2					1			2	
57 58 59 60	3	1	1			1			1	
61 62 63	1	1	12		2				2 1 2 1	1
65 66 67	1				2 2 1				1	
68 69 70 71	1		1 2		1 1 2				211	2
72 73 74 75	1				2 4 1 1				122	1 2 1
49 50 51 52 53 54 55 55 55 55 55 55 55 55 55 55 55 55	4		2		1				1	
80 81 82	1 1 2		1		1				244434	
TTL	59	26	20	0	25	12	6	3	87	8

INU. GOLNG CHTIDREN	NO. OF CHILDREN LEFT STUDIES BEFORE 8TH STD	M <10k	ONTHL 10K-20K	Y IN(20K-30K	COME (1 30K-40K	RS.) >40k
2 3 4 5 4 6						1
		त <u>त</u> तत्		1	1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	1 1 1	1	1		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		AN A AAA	1		1	
29 30 31 32 4 33 4 34 35	1	44	1			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			1			
		4 4 4	1			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 2 2	त्र त्र न न न न न न न न न न न न न न न न न न	1	1		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	संरात संर	1			
$\begin{array}{c} 62 & -2 \\ 65 & 1 \\ 65 & 1 \\ 66 \\ 67 \\ 68 & 1 \\ 69 & 1 \\ 70 & 3 \end{array}$		11111	1	1		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 1		1	1	1	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	*	1	1	

SL FAM NO. BPL	ILY APL	Carling and	Y TYPE NUCLEAR	NO. OF EARNING MEMBER	NUMBER OF DEPENDENTS
$ \begin{array}{c} 2 & 1 \\ 3 & 1 \\ 7 & 1 \\ 6 & 7 \\ 8 & 7 \\ 8 & 7 \\ 8 & 7 \\ 10 & 1 \\ 11 & 1 \\ 12 & 1 \\ 13 & 15 \\ 16 & 1 \\ 16 & 1 \\ 16 & 1 \\ 18 & 1 \\ 16 & 1 \\ 18 & 1 \\ 19 & 20 \\ 21 & 1 \\ 22 & 1 \\ 23 & 1 \\ 24 & 25 \\ 26 & 27 \\ 28 & 1 \\ 28 & 1 \\ 29 & 1 \\ 30 & 1 \\ 31 & 1 \\ \end{array} $	सन्न स्त स्त संसंत न	4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1			$ \begin{array}{r} 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 4 \\ 4 \\ 2 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 3 \\ 1 \\ 1 \\ 2 \\ 4 \\ 3 \\ 3 \\ 1 \\ 1 \\ 2 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 1 \\ 2 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1		। 	1 1 2 2 3 2 1 2 1 2 2 1 2 2 3 5 5 6 4 5 6 1 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
$\begin{array}{c} 52 & 1 \\ 53 & 1 \\ 54 & 1 \\ 55 \\ 56 & 1 \\ 57 & 1 \\ 57 & 1 \\ 58 & 1 \\ 58 & 1 \\ 57 & 1 \\ 58 & 1 \\ 57 & 1 \\ 58 & 1 \\ 56 & 1 \\ 56 & 1 \\ 60 & 1 \\ 61 & 1 \\ 63 & 1 \\ 63 & 1 \\ 63 & 1 \\ 65 & 1 \\ 63 & 1 \\ 64 & 1 \\ 65 & 1 \\ 64 & 1 \\ $	1		시 	$ \frac{4}{1} \frac{1}{1} \frac{1}{1} \frac{1}{1} \frac{1}{1} \frac{1}{2} \frac{1}{1} \frac{1}{2} \frac{1}{1} \frac{1}{2} \frac{1}{1} \frac{1}{2} \frac{1}{2} $	$ \begin{array}{r} 1 \\ 2 \\ 4 \\ 2 \\ 3 \\ 2 \\ 3 \\ 2 \\ 2 \\ 3 \\ 3 \\ 2 \\ 3 \\ 3 \\ 2 \\ 1 \\ 5 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 3 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 4 \\ 3 \\ 4 \\ 4 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 4 \\ 4 \\ 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 3 $
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 27	1 1 1 1 1 1 1 1 5 5	2 2 1 1 1 3 5 5 2 1 1 2 1 2 1 2 1 2 1 2 1 1 3 3 1 1 1 50	3 3 2 1 2 3 1 2 3 3 1 4 3 2 2 3 5 2 2 199

L NO. OF PEOPLE GOING FOR	NAME OF THE	ECO	NOMIC ACTI	VITY
ULEARNING OUTSIDE	PLACE	PRIMARY	SECONDARY	TERTIARY
				1 2
				1
				1
		1		1
		1		1 2
		1		2.
7 B		3		1
1 0 1				2
3		1		2
Z 3 3 4 5 5 G 7 3 4 9 2 3 4 5 6 7 7 8 6		1		1
7		4		1
0 <u>2</u> 1 2	KALAPUKUR SI YAN		2	
2	SIYAN		2	1
5				2
7 8 9		1		2 1 1
0		1	2	
2		1		1
5		6		
7				<u> </u>
9 0 1 2 3 4 5 6 7 8 9 0 1		1	0	
2		1 1	2	
5 6			2	
7 8				2
9		1	2	
2			2 2 1 2 2 2	
		1		1
7		1 2 1		
0		1	12	
			1	
		5		3
				1
				1
		1	1	3
1 4		48	28	73

₈₃150

	LAND USED F	OR HOMESTEAD	(IN KATHA)	LAND FOR FOOD CR	OPS (IN BIGHA)
0.	<3	3-6	>6	<1	>1
2			1		
3		1			
5		1			
-		1		1	
0		1	1	1	
1		1		1	
3		1	1	1	
5		1		1	
6	1				
8		1			
20					1
22		1		1	
24		1		1	1
26		1		1	
28		1	1	1	1
30	1	1		1	
31 32	1	1		1	
33 34	1				
35		1			
37	1		1		1
39		1			
41	1	2			
43			1		
45		1	11		
46	1				
48		1			4
50 51					
52_ 53	1	1			1
54	1				
6			1		
58		111		1	
0		1		1	
52_		1	1	1	×
34		1	1	1	1
66		1	1		
67	1		1	1	
69 70		1	1		1
Ŧ1 12		1			1
13			1		1
16	1		1		
17		1			
8	1	1			
2.3.4.5 6.17 2.22 2.2		1			
2		1		1	
L	14	46	19	20	13

₈₄151

						84
LL	and for cash	CROPS (IN BIGHA)	FALLOW	LAND (IN BIGHA)	LAND	OWNERSHIP
VO.	<1	>1	<1	>1	OWN	BARGLADAR
2						
3						
5						
7 8					1	
9	1		1		1	
12	1		1			1
13	1					1
15	1		1		1 1	
17					1	
19		1			1	
21		4			-	1
23		1			1	-
26	4					
10 11 12 13 14 15 16 17 20 22 22 22 22 22 22 22 22 22	Î		1		1	1
29					1	
31						1
33						*
35		4			4	
37		1			1	
39						1
41						
43						
45						1
44					-	2
49					1 1	
49 50 51 52					1	
53					1.	1
56					1	1
56 57 58						
59 60					1	
62	4					
63	1			1	111	
5						
F					1	1
9				1	1 1 1	
10					1	
13		1			1	
5						1
6						
8						
53 55 55 55 56 57 57 58 57 71 58 57 71 73 73 74 75 56 7 78 7 78 7 70						
	0	-		1	1	
L	8	5	7	4	32	19

SL				VERSHIP		HOUSE TYPE	
NO.		OWN	RENTED	QUARTER	PACCA	SEMI-PACCA	KACHHA
12	NIL NIL	Y				Y	
24	NIL NIL	Y					Y
6	NIL NIL	Y			Y		Y
8	VEGETABLE, PADDY PADDY	Y			Y		Y
10	PADDY, POTATO PADDY, POTATO PADDY	<u> </u>					Y Y
12	NTL- PADDY	Y				¥	Y
14	PADDY PADDY, MUSTARD	Y					Ý.
16	PADDY, POTATO, ONION PADDY, POTATO, MUSTARD	Y			Y Y V		
18 19 2.0	NTL NTL	Y			Y		
21	PADDY NIL PADDY, VEGETABLES, POTATO	Y		Y	Y	Y	
23	PADDY, VEGETABLES PADDY	Y			Y		Y
25	PADDY, POTATO	Y			Y		
27	PADDY POTATO MUSTARD PADDY	Y			Y		Y
29 30 31	PADDY	-Y					Y
32	PADDY NIL NIL	Ý	Y		Y		Y
35	NIL NIL	Y				Y Y	
36	PADDY PADDY, POTATO, MUSTARD	Y			Y	Y	
38 39 40	NIL PADDY PADDY	Ť					Y
40 41 42	PADDY POTATO ONION, PULSES	Y				Y	
43	PADDY, ONTON, WHEAT, PULSES	Y				Y Y	
45	PADDY, POTATO, ONION, WHEAT POTATO	Y				Ý	Y
47 48 49	NIL NIL PADDY, POTATO	Y				Ŷ	
50	PADDY PADDY	Y				Y	<u>Y</u>
52	PADDY PADDY	Y			Y.	Y	
53 54 55	NIL NIL	Y			Y		
56	NIL- NIL-	Y I			Y	Ý	
58	PADDY NII-	Ý			Y		Ŷ
61	NIL PADDY, POTATO	Ŷ			~	Y	Y
63	PADDY, ONTON PADDY, MUSTARD	Y			1	Y	
65	POTATO PADDY, POTATO MUSTARD	Y				Ý	Y
67 68 69	PADDY, POTATO PADDY, POTATO PADDY, ONTON	¥			Y		Ŷ
70	PADDY, POTATO.ONTON, MUSTARD	Y			Y		
72	NIL PADDY	Y			Y	Y	
74	PADDY, TOBAC.OO	Y				Y	
76 77	NIL NIL AIL	Y				Y	Y
77 78 79 80	NIL NIL NIL	Y				Y	
81 82	PADDY, POTATO, MUSTARD	X			Y	V	
TTL	THUS PUTATO MUSTARD	80	1	1	23	36	23

FIED WATER FACILITY

SL NO.	ROOMS	NO. OF ROOMS USED FOR SLEEPING	SEPARATE KITCHEN	LATRINE	ELECTRIFIED	WATER FACILITY IN PREMISES
2		2	- ¥	X V	¥	Y N
34	2	2	N	N	Y	Y
5	4	1	N	N	Y.	Y Y
6		4	N	N	J J	N
F	2	2	N N	- T	Y Y	
8	3	2	Y	Y	Ý	Ý
10	3	2	Ŷ	Y	Y	N
11	5	1	Y	Y	Y	Y
12	2	5	N N	- J	- Y	N N
13	4		1 V	Ý	Y	Y
14	5	5	Y	Ý	Ý	Y
15	4	2 5 2 3	Y	Y	Y	Y N
17	4	9 4	Y V	<u> </u>	Y	N
18	2	2	Ý	Y	Ý	Ŷ
19	4	2	Ý	Ý	Ý	Y Y
20	5	4 1 3	Y	X	X	Y
22	4	1	Y Y	<u> </u>		Y
	6	4	Y	Y	Y	Ý
23 24 25 26 27 28 29	3	2	Ý	Ŷ	Ŷ	Y
20	3	2	X	Y	Y	¥ ·····
27		4	X	Y	Y	Y
28	2		Ý	Ý	Ý	N
29	2	1	Ŷ	Ŷ	Ŷ	<u>N</u>
30	3	2	Y	Y	<u> </u>	<u> </u>
32	3	2	¥ I	V I	¥	Y
33	1	1	Y	Y	Ý	Ý
34	2.	2	Y	Y	Ŷ	¥.
35	4	2	N	y l	¥	- V
37	6	4	Y	Y	Y	Ý
38	2	4	Ŷ	Ŷ	Ŷ	Y
31 32 33 34 35 36 37 38 37 38 37 38 39 40	3	2	Y	Y	Y	N
41	3	2	N	Y I	Y	N
41 42 43	3	3	Y	Y	Ý	Ŷ
43	4	3	Y	Y	y	Y
44	4 3	<u>4</u> 3	Y	- X		Y
45	2	1	Ň	Y	Y	Y
47	2	2	N	N	Ý	Y
48	4	4	Y	Y	Y	Y
49 50	2	2	Ň	Y	Y	Y
51	2 8	2	Ŷ	Ý	Ŷ	Ŷ
52	8	3	X	Y	Y	Y
52 53 54	1	1	Ň	Y N		Y
55	1	Í	N	Y	Y	Y
55	3	1	8	Y	Ŷ	Y
57	2	1	¥ I	- X	- Y	Y
58	7	1		Y	¥ ·····	N N
60	2 6	4	Ý	Ý	Ŷ	Y
61	32	1 2	Y	Ŷ	Y	Ň
62	2	2	Y			N
4	2	4	Y I	- Y	Y	N
5	2	1 2	Y	Y	Ý	N
6	3	2	Y	Y	Y	N
7	2 3	2	N Y	- Y	Y	NN
9	4	4	Y		¥	Y
0	5	3	Y	Y	Ŷ	N
1	4	2	Y	Y	Y	N
21	4	2	X	Y	Y	N
1	4	2	N	Y	1	Y N
	1	1	Y N	Y	Y	N
	2	2	N	Y	Ý	Y
	2	1	N	Ý	Y	N
	2	1	N	Y		N
2	1	1	Y	N N	Y	Y
	4	3	Y	Y	Ŷ	N
21-	3	2	Ŷ	Y	Y	N
	251	177				

6/1
-04

-	BANK	CELL	BASIC HOUSE		MOTOR	COMPLITED (LPG
Je .	BANK ACCOUNTS	PHONES	REFRIGERATOR	TELEVISION	CYCLE	COMPUTER/ LAPTOP	CONNECTION
	X	Y	Y	Y	Y	N	Y
-	<u> </u>	Y	N	Y	N	N	Y
	Ý	- T	N	N	NN	N 10	Y Y
	Ŷ	Y	N	N	N	N	
_	Ŷ	Y	Ŷ	Y	Y	N	V
-	<u>Y</u>	Y	N	N	N	N	Y
	<u>Y</u>	-Y	N	Y Y	N	N	<u> </u>
	Y	<u> </u>	Ň	3	Y	N N	1 <u> </u>
	Ý	Ý	N N	V V	N	N	Ý
-	Y	Ý	N	N	Ŷ	N	Ý
	X	Y	N	N	М	N	Y
		<u>Y</u>	X	Y	Y	N	
	V	V	N	N	N	N	Ý
	Ý	Y	Ý	ý	Y	N	Y
		Y	Ý	Ý	Ý	N	Y
	<u> </u>	Y	Ň	N	Y	N	Y
0		Y	Y	Y	Y	N	1 V
2	Y	V	N	N	N	8	Y
3	Ý	Y	Y	Y	Y	Y	Ý
2 3 4	Ŷ	Ý	N	Ŷ	N	N	Y
2	<u> </u>	Y	N	Y	N	N	Y
a J	<u>Y</u>	<u> </u>	Y	Y	Y	Y	
6 7 8 9 0	N	<u>V</u>	NN	N	YN	N	Y Y
1	Y	Y	- N	N	N	N	Ŷ
Q	Y	Ý	N	Ň	N	Y	Y
L	Y	Y	N	Y	Y	N	Y
2	<u>Y</u>	<u> </u>	N	N	N	N	- V
3 4 6 6		- V	2 2	N	N	N	Y
5	Ý	Y	N	ÿ	N	N	Y
6	Ŷ	Ý	N	Ŷ	Y	N	Y
7	Y	Y	N	Y	Y	N	<u> </u>
0	<u>Y</u>	<u> </u>	2 2	N	N	NN	
5	Y	Y	N	- V	N	N	N
	Ý	Y	N	Ň	N	N	N
8 9 1 1 2 3	Y	Y	N	Y	N	N	Y
3 4	<u> </u>	Y	N	N	Y N	N	Y Y
5		1	N	N	N	N	Y Y
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AN OVERVIEW ON SOLID WASTE AND SOLID WASTE MANAGEMENT; A CASE STUDY OF DARJEELING

ÓN

A FIELD REPORT

SUBMITTED BY

NAME: Nimai Sarkar ROLL NO: 225019317946 REGISTRATION NO: 0192005010465 5th Semester, Geography (Honours)

Under the supervision

of Mr. Milanmoy Roy State Aided College Teacher Department of Geography Ananda Chandra College ANANDA CHANDRA COLLEGE

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DEPARTMENT OF GEOGRAPHY

Date: 16th December, 2022

To Whom It May Concern

This is to certify that Sri. / Smt. Nimal Sarkas Roll 2250193 No 17946 Reg.No 0192005010465 of 2020-2021 is a B.A./B.Sc. CBCS 5th Semester (Honours) student of the Department of Geography, Ananda Chandra College, Jalpaiguri. He / She has actively participated in the Geographical Excursion and completed his / her project report entitled "An Overview on Solid Waste and Solid Waste Management: A Case Study of Darjeeling Municipality" under my guidance. I wish him / her every success in life.

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(Mr. Milanmoy Roy) State Aided College Teacher Department of Geography Examined

Department of Geography SILIGURI COLLEGE

ACKNOWLEDGEMENT

The report on, **"AN OVERVIEW ON SOLID WASTE AND SOLID WASTE MANAGEMENT: A CASE STUDY OF DARJEELING MUNICIPALITY"** has been done for the partial fulfillment of B.A, Semester - V Examination, 2022

I would like to express my sincere thanks to Mr. Milanmoy Roy (State Aided College Teacher), Department of Geography, Ananda Chandra College for guiding me to complete my report.

I would like to express my deep sense of gratitude to him, as without his constant guidance, inspiration, encouragement and effort the report would not have been completed.

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I would like to extend my special thanks to my parents for their support and encouragement. I am equally grateful to my friends for their valuable support and help during the entire field

Work.

Last but not least I would like to thank all non-teaching staff of the Department of Geography, Ananda Chandra College, and Ananda Chandra College Library for providing thenecessary books and journals for the completion of my work.

.....Nimai Sarkar..... B.A, Semester- v Department of Geography Ananda Chandra College Jalpaiguri, West Bengal

PREFACE

The report entitled "AN OVERVIEW ON SOLID WASTE AND SOLID WASTE MANAGEMENT: A CASE STUDY OF DARJEELING MUNICIPALITY" has been

prepared as a part of our B.A. 5th Semester syllabus. The work in Geography has great importance not only to investigate the cultural aspects of any area but also to analyze the steps to be taken for the improvement of the area. Being a student of Geography, I have made a study of the Socio-Economic Conditions & solid waste management of Darjeeling municipality.

The report has been made to determine the Social, Cultural, Demographic, and Economic characteristics and Solid Waste Management of Darjeeling municipality. Hence, the entirereport has been divided into 7 chapters.

1st chapter is the introduction and location of the study area.

2nd chapter deals with the physical background of Darjeeling municipality.

3rd chapter is about the socio-economic condition of Darjeeling municipality.

4th chapter explains the perception of the livelihood problem of Darjeeling municipality.

5th chapter solid waste problems and management of Darjeeling municipality.

6th chapter Tourism and solid waste of Darjeeling municipality

7th chapter conclusion of the report.

Every chapter has been explained comprehensively with relevant maps and diagrams. If this report becomes useful for the reader, then my labor to prepare this report will be a small contribution.

.....Nimai Sarkar.....

B.A, Semester-V Department of Geography Ananda Chandra College Jalpaiguri, West Bengal

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CHAPTER - 1

INTRODUCTION

1.1. Introduction

The domain of the subject of geography precisely describes it as a natural science or as a regional science or as a field science. Any segment of the Earth's surface provides an open natural laboratory to a geographer who seeks to the identity and explain the spatial organization of the surface geographical features through a careful study of the pattern and process.

A field study gives a scope to share an experience of the geographic research and even to discover and a set of geographical facts of the unexperience. To a geographer, therefore, field study is of almost important. It involves the observation of the landscape as well as other geographical features in minute detail.

1.2. Objectives

The present field report has been done under the curriculum of 5th Sem CBCS BA(Hons) Geography of the university of NBU in Darjeeling, district- Darjeeling, state-West Bengal. The objectives of the present study are-

1) To study the nature of solid waste at the said area.

2) To study the solid waste management systems in Darjeeling Municipality.

3) To understand the behavioural response of the human beings in the man environment system in light of solid waste management.

4) To prevail the mutual interaction between the physical and cultural landscape.

1.3. Methodology

Field study requires certain processes and methods which should be systematically followed in orders to have organised report the 3 important stages include

i. Pre-field study.

ii. Field Study.

iii. Post-field study.

1.3.1. Pre-field

It comprises of having an idea about study area with respect to its location, topography, geology, socio and graphic and economic background before surveying it. It also involves the connection of base map and topographical sheet.

1.3.2. Field study

Field study involves the work that is done with the field. It involves the work of collecting primary and secondary data concluding socio economic, and perception survey about solid waste and 30 on

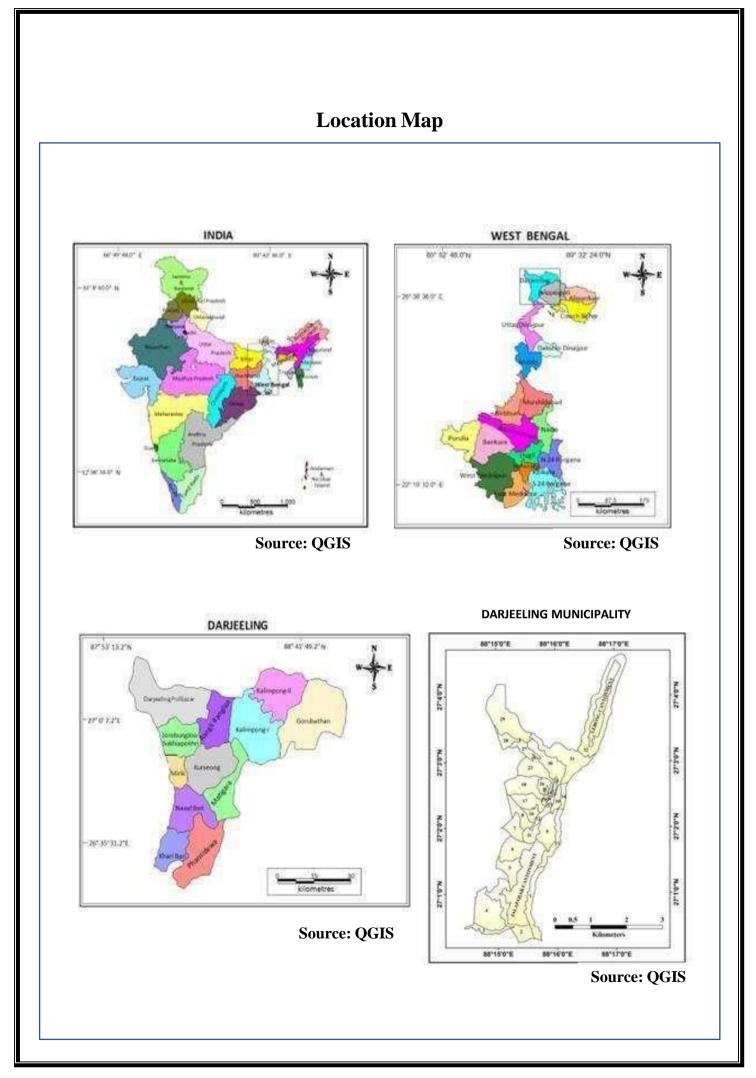
1.3.3 POST FIELD STUDY: Post field study is most vital part of any project. The huge collected data and information sorted, analysed and process using various techniques to arrive at a meaningful conclusion regarding the study area.

2.2 Choice of the Study Area: This study was conducted in the Darjeeling Municipal area, one of the oldest municipalities in West Bengal, India. The area was selected because:

- 1. Darjeeling is one of the most popular hill towns in the eastern part of India;
- 2. Solid waste management is emerging as a major problem.

2.3. Location And Area:

Darjeeling Municipal Town is located between 26' 31" and 27' 13" of North Latitude and between 87' 50" and 88' 53" East Longitude and elevation varying from 1981, 20 metres to 2286 metres above sea level. It is a ridge shaped like English letter 'Y' the base resting at Katapahar and Jalapahar while two arms diverge from the Mall, one dipping suddenly to the North West passes through the St. Joseph's College and finally ends in the valley near Tukver Tea Estate. In the beginning Darjeeling Municipality was to cover the entire area that was ceded by Rajah of Sikkim for Sanitorium. Now it covers an area of 10.60 sq. km.



CHAPTER-2

PHYSICAL BACKGROUND

2.1 INTRODUCTION:

In a developing country, the problems associated with solid waste management are more acute than in a developed country (Zerboc 2003). Lack of financial resources and infrastructure to deal with solid waste creates a vicious cycle; lack of resources leads to low quality of service provision which leads to fewer people willing to pay for said services, which in turn further erodes the resource base and so on (Kuniyal et al. 1998; Zerboc, 2003). The problem is further complicated by rapid growth in population and urbanization, which adds greatly to the volume of waste being generated and to the demand for waste retrieval service in municipal areas. However, more often than not, an increase in population is not matched with an equal increase in revenue for the local municipalities for waste management (Zerboc 2003). Besides this, rapid urbanization means rapid growth of shanty dwelling units that are largely unplanned for, and add to the waste, health, and hygiene problems.

Another significant factor that contributes to the problem of solid wastes in a developing country scenario is the lack of proper collection and transportation facilities. Improper planning coupled with rapid growth of population and urbanization serves to add congestion in streets, and as a result the waste collection vehicles cannot reach such places, thus allowing filth to build up over time. Lack of monetary resources, at times, results in improper or no transportation vehicles for waste disposal adding another dimension to the ever-rising cycle of problems (Jain 1994; Zerboc 2003).

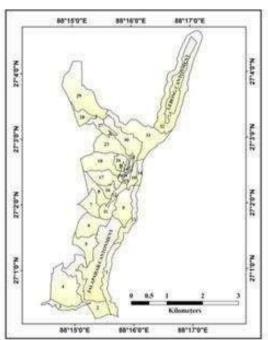
In any developing country, the threats posed by improper handling and disposal of solid wastes (though often ignored) contribute to the high level of 2 mortality and morbidity (Medina 2002). Human and ecosystem health is also threatened due to improper handling of solid wastes.

In addition to all the problems mentioned above, mountainous regions in developing countries face additional challenges in solid waste management, in terms of their highly fragile environment and difficult terrain. The problems associated with solid waste in the mountainous

region have serious cascading effects on the lower valley. Often solid waste is the number one threat to the fragile ecology of the mountainous environment (Jain 1994). Besides this, seasonal tourist inflow adds significantly to the demands on resource base and contributes considerably to the number of wastes generated. Lack of proper regulations fails to encapsulate the waste generated by the tourists and fees to be paid there of (Jain 1994; Kuniyal et al. 1998; Cole and Sinclair 2002).

2.2 Area:

Darjeeling municipality town covers an area of 10.70 sq. km and has 32 wards, and two mouzas; Darjeeling and Jorebunglow and has around 22,000 household units, over 350 hotels, 370 restaurants, 25 vegetable markets, 10 fish and meat markets and 89 institutional holdings (Darjeeling municipality 2006).



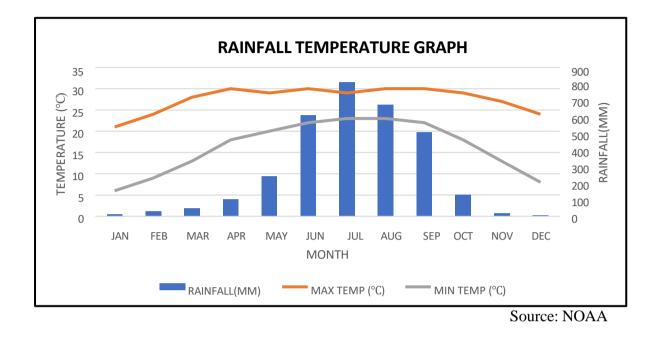
DARJEELING MUNICIPALITY

Source:https://www.researchgate.net

2.3 Climate and rainfall:

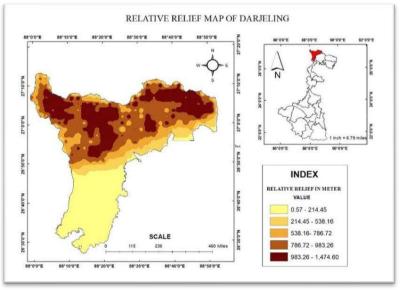
Darjeeling town falls under the sub-Himalayan region of West Bengal. There is a high level of humidity, with an average humidity of 32%. The annual rainfall averages approximately 2812 mm. The temperature varies between an average maximum of 16.7 °C and average minimum

of -0.9 °C. The town experiences all the seasons, however, monsoon (rainy) that lasts from seasons (Darjeeling municipality, 2007).

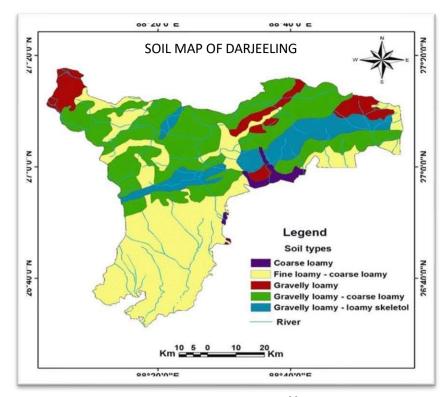


2.4 Topography and soil:

Darjeeling municipal town rests on the hills made up of sedimentary and metamorphic rocks of various kinds, which in turn are greatly affected by the complexities of geological movements. The terrain has an inbuilt instability, thus making it highly susceptible to landslides and earthquakes (Darjeeling municipality 2007).



Source:https://www.researchgate.ne



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CHAPTER - 3

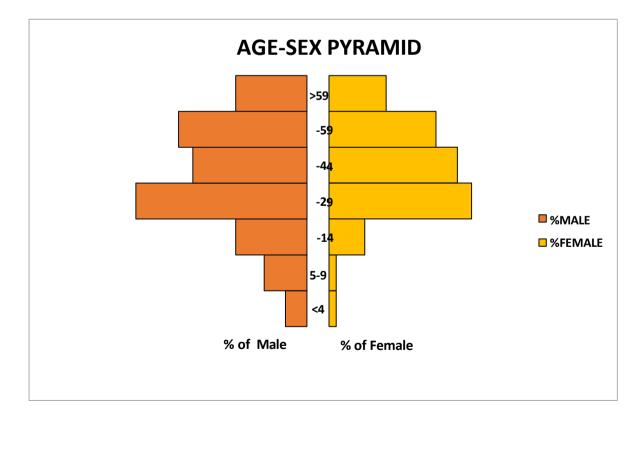
SOCIO-ECONOMIC CONDITION

3.1. DEMOGRAPHY:

Demographic characteristics of Darjeeling municipality has revealed after the arrangement of surveyed data of 40 families of this locality. Total 155 persons are under survey of which 56.13% is male & 43.87% is female with the result positive sex ratio. the sex ratio of the surveyed population is 1000:782 which is quite below than the national sexratio. According to census 2011 the sex ratio of Darjeeling municipality was 970:1000 in 2011 & the total population of Darjeeling municipality was 118805 in 2011, which was quite large for a hill station like Darjeeling.

The composition and characteristics of age sex structure of Darjeeling municipality shown the same nature of any developing countries. In case of caste composition most of the inhabitant belongs to ST category.

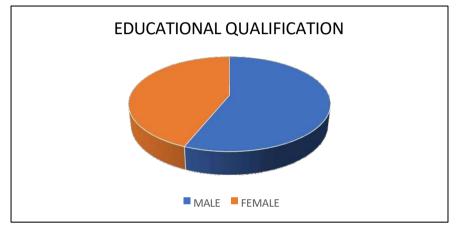
In case of religious belief Hindus are predominant (70%) in Darjeeling municipality and 22.5% of inhabitants belongs to Buddhism and 7.5% belongs to is Christian but all lives their lives with communal harmony.



3.2. EDUCATION:

Education is one of the most important indicators to measure human development. Educational status of the surveying locality is much higher than the national average. The literacy rate of the said area is 76.77 %. but the gender inequality is not so prominent in the case of education. Here about 73.52% of females are literate & for male, thisvolume is 79.31%. Gender wises out of 87, 69 males are literate & out of 68, 50 females are literate.

At Darjeeling municipality 40.22% male and 42.65 % female are studied in secondary level and 22.98% male & 17.65 % female is graduate and there are only 6.45% of total population who have post graduate degree in various discipline.



Source: Primary Survey

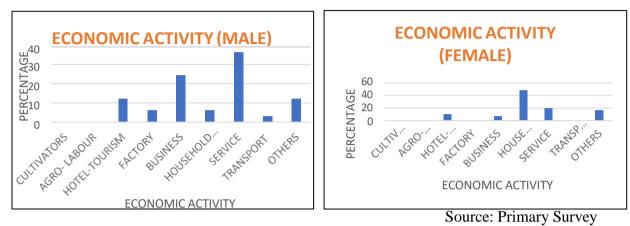
In Darjeeling municipality there are several renowned educational institutions offering various degrees from primary to post graduate level.

3.3. ECONOMY:

inhabitants of Darjeeling municipality are engaged in a variety of economic activities, but most of the people engaged in tertiary economic activities. The engagement rate in various economic activities for male & female populations are 21.29% & 20.00%. so, it is observed that a striking gender inequality is present in this sector. But the overall rate of engagement is quite satisfactory.

As the region is not suited for agriculture & it is an urban body, there is an absence of agricultural workers in this said region. 79.68 % of inhabitants are engaged in tertiary sector like business, service, hotel & tourism and others people are engaged in various sector except cultivation. It is also observed that most of the people (79.68%) are engaged with various tertiary sector. Not only male the female population are also involved in various

economic activities. Among them most of the female population engaged in various household industry and also in various retail businesses. The average income of the families ranges between 30000 rupees to 60000 per month. It is also observed that most of the families have more income than our national average.



3.4. TRANSPORTATION AND COMMUNICATION :

Transport is the backbone of all economic activities and the stages of development too. Though Darjeeling municipality in a very difficult terrain it has a quite good transport facilities as the main administrative center of the Darjeeling district most of the economic activities and almost all administrative activities are revolving around Darjeeling municipalities, as these city is known as QUEEN OF HILLS, so its attract many domestics and foreign tourists because of these various reasons Darjeeling municipality developed a well-connected network of private and public vehicles. Most of the local people shuttle services for day to day communed. Though due to the terrain local people tends to reach to their destination by walking.

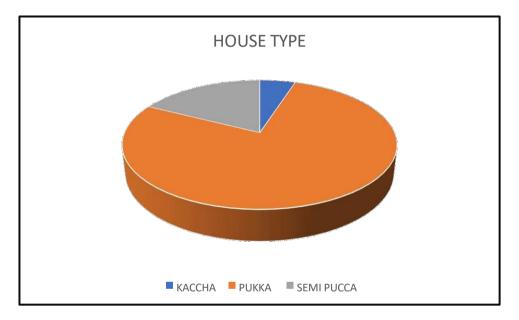
Due to the increasing tourism business the number of vehicles on the road is rising which results traffic congestion in important area like chowk bazar, mall chourasta, rail station etc. this problem of traffic congestion became worse in peak tourist season which creates various communication problems for local people of Darjeeling municipality.

3.5. HOUSING:

Being a municipal area, Darjeeling has quite uniform type of settlement. Due to the distinctive topography this area has very congested urban settlements, where most of the households have four or less than four rooms due to the lack of space. From the primary survey it has been found that most of households (64%) have 3-4 rooms and 23% of households have less than 3 rooms. And only 13% houses have more than 4 rooms in them. It

has been also found that the most of the households have only 1 story building (54%), whereas 39% households have 2 storied building and only 7% of households have 3 or more story in their house. It also observed that 78% of families are living in their own houses and 22% families are living in rented houses.

General type of houses in Darjeeling municipality is of pucca and semi-pucca and one storied. Out of 40 families surveyed 31 families have pucca houses and 7 families have semi-pucca houses, only 2 families have kachha houses. On the roof tin is the most commonly used material (47.5%), and about 42% houses have concrete roof and only 10% houses have asbestos in their roof.



Source: Primary Survey

Chapter - 4

Perception of Livelihood Problems

4.1 Natural Hazards:

A natural hazard is a phenomenon that might hurt humans and other animals, or the environment. From the primary survey, it has been observed that hazards like landslides, earthquakes, etc. are the predominant natural hazards in his region.

4.1.1. Land Slide:

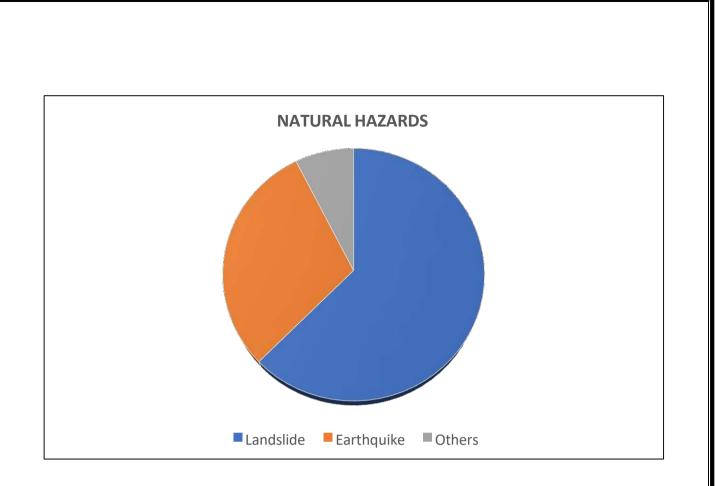
The upper portion of the Teesta Basin is mountainous and affected by landslides. Sikkim and Darjeeling Himalaya mainly cover the mountain portion of the basin. The region is highly prone to the landslide occurrences (Basu, et al., 2009). From the available literature on the history of landslides of the Teesta Basin, it is known that the mammoth ill-fated landslide occurred in September 1899 at Darjeeling, Tindharia, Kurseong, Kalimpong, and Ghum towns. The 1934 landslide in January was also significant and the affected areas were Ghum. Landslide is the most influential disaster of Darjeeling Municipality. After surveying the area, it is understood that more than 62% of landslides occur in this area. According to local people, they have to face this problem the most.

4.1.2. Earthquake:

The Teesta basin along with the Himalayas is a highly earthquake-prone area. There is a strong connection between earthquake events and landslides. Some of the major earthquakes are the Bengal earthquake in 1885, the Shillong earthquake in 1897, the Assam earthquake in 1918, the Bihar earthquake in1934, and the Assam earthquake in 1950 (Mukhopadhyay, 1982). After surveying the area in question, we concluded that the most frequent natural hazard in Darjeeling Municipality is Landslide and after that the most severe hazard is Earthquake. The probability of an earthquake problem is about 30% according to the locality.

4.1.3. Others:

In addition to landslides and earthquakes, there are several other hazards such as mudslides and floods due to heavy rainfall.



4.2 Socio-Economic Problems:

There are many socio-economic problems present in the study area but are perceived differently by the respondents. About 74% of the respondents have said that there are no problems present in their vicinity. Some of the respondents acknowledged that dowry, theft, traffic congestion, and availability of water are the common problems of Darjeeling Municipality.

4.2.1 <u>Dowry:</u>

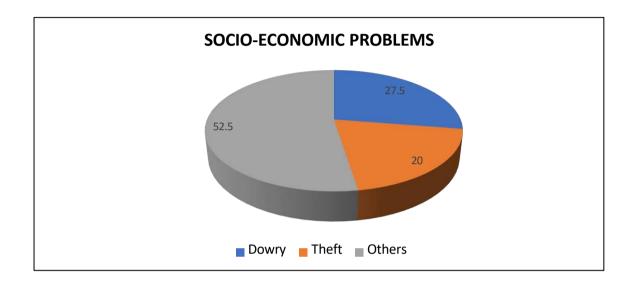
Dowry is one of the socioeconomic problems. This practice is very common in the society. Historically, this custom has been passed down from the ancestors. The prevalence of this practice in Darjeeling municipality is about 27.5%.

4.2.2 Theft:

Theft is one of the socioeconomic problems in Darjeeling municipality. Many tourists who go to hotels and guest houses are involved in this work. Also, many people of the society are also involved in this work. So, theft is another problem. In other words, this problem is about 20%.

4.2.3 <u>Others:</u>

Apart from these problems, there are many other problems in the society. Such as water pipe problems, drinking water problems, financial hardship, many families are deprived of the help of Municipality. Although most of the people get its help; Other problems are more common about 47.5%.



Chapter-5

SOLID WASTE AND MANAGEMENT

5.1. Introduction:

Solid Waste as defined under Resource Conservation and Recovery Act, is any solid, semisolid, liquid or contained gaseous materials, discarded from industrial, commercial, mining or agricultural operations and from community activities. It includes garbage, construction debris, commercial refuse, sludge from water supply or waste treatment plants or air pollution control facilities and other discarded materials. It consists of all the waste in the solid or semi solid form and is either biodegradable, nonbiodegradable or recyclable. Biodegradable or compostable waste comprises of organic waste which can be reduced or biodegraded into useful or less polluting products by action of micro-organisms and animals like earthworms and final product is used as organic manure.

Waste management is the collection, transport, processing or disposal of waste materials, usually ones produced by human activity, in an effort to reduce their effect on human health or local aesthetics or amenity. Waste management practices differ for developed and developing nations, for urban and rural areas and for residential, industrial and commercial producers. Waste management for non-hazardous residential and institutional waste in metropolitan areas is usually the responsibility of local government authorities, while management for non-hazardous commercial and industrial waste is the responsibility of the generator.

The municipality is given the responsibility off the solid waste management in the town. Municipalities additionally address urban environment issues related to solid waste management. Public concern and sensitivity to environmental issues is driving this expanded agenda. These include:

- Health and environmental impacts of accumulated uncollected waste and clandestine disposal sites.
- Health and environmental impacts of solid waste facilities including transfer, composting and landfill facilities.
- Air emissions from waste collection and transfer vehicles
- Special handling and disposal of hazardous wastes including healthcare and industrial hazardous waste.

5.2. Solid Waste management in Darjeeling Municipality:

Municipal Solid Waste consists of household wastes, market wastes, construction and demolition debris, sanitation residues, drain silt, waste from streets, etc. With rapid urbanization, rising population and changes in lifestyle as well as food habits, the amount of MSW has been increasing rapidly. Moreover, its composition ratio is also changing. Over the last few years, the consumer market has grown rapidly leading to products being packed in cans, aluminium foils, plastics and other such non-biodegradable items that cause incalculable harm to the environment. However Municipal waste production is related to levels of industrialization and income status. The wards near the market area, housing number of hotels as well as residential places generate

huge amount of solid waste. They also contribute in the liquid waste generation which has not been touched here. Though substantial amount of paper, rags, glass find ways to the refuse near its source, they are reclaimed enroot by rag pickers, before reaching the disposal point. The waste reaching the disposal point contains a large percentage of garbage and inorganic matter giving it a higher density low calorific value. The largest low moisture constituent of MSW is paper. Other low moisture combustible materials are plastics, textiles, rubber, leather and wood. These materials can be called —Dry Combustibles in distinction to the —Wet Combustibles of food, plant and other wastes, which contain 50-70% of water. —Non-Combustibles are metal, glasses and other inorganic compounds that have no heating value.

Amongst the various problems Darjeeling faces today, solid waste management is on top of the list. The severity of waste problem in Darjeeling can be assessed from the fact that currently, Darjeeling town produces about 50 metric tons of solid wastes every day. On an average around 62% of the waste is collected and disposed of by the municipality. Darjeeling municipality has demarcated about 1.4 acres of land, which is used as the dumping ground. The dumping ground is located in ward number 18, which is close to the town.

Some of the major causes of solid waste management problems in Darjeeling can be summarized under two major headings: **Rapid Growth** and **Urbanization**.

Darjeeling municipality currently consists of 32 wards and 1,18,805 population (Census of India, 2011). The numbers of registered households are occupied most of the municipal area. This makes it difficult to the municipal workers to implement solid waste management across all parts of Darjeeling town.

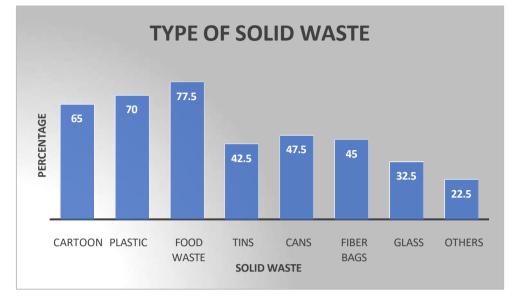
At municipal level of Darjeeling, the planning, implementation of management of solid waste is based on a hierarchical system. Decisions on solid waste management are undertaken by higher officials of Darjeeling Municipality like sanitary inspectors and sub assistance engineers. Under them, team of conservancy inspectors, sweepers and daily wage workers are appointed.

In Darjeeling, municipal workers are appointed under each ward by the municipal authority for collecting household waste. Therefore, household members hand over the waste whenever they come at their houses for collecting waste. Wastes from markets, hotels, restaurants, commercial areas are accumulated in community bin.

5.2.1. Nature and Types of Solid waste:

Darjeeling lies in fragile ecology zone. In recent years it has seen an increase in the natural calamities as landslides during monsoon. Most of the section of the people are of view that this increase can be attributed to the population increase as well as the unconsolidated solid waste management system in the town. Thus, it is an attempt to study the solid management system and give an insight to it. Generally, in developing countries, the health-related underpinnings of solid waste management still need to be addressed. Even the minimal Darjeeling is a hill station. That's why a large amount of tourist come Darjeeling to see the scenic beauty of nature. Darjeeling municipality have many types of solid waste like others places. Plastic and food

wastes are dominant in nature. Tin, can, fiber, glasses can also be found. Normally Darjeeling municipality has a good solid waste management but in peak season huge number of tourists comes to Darjeeling, they produce a huge amount of solid waste. As a result, the solid waste

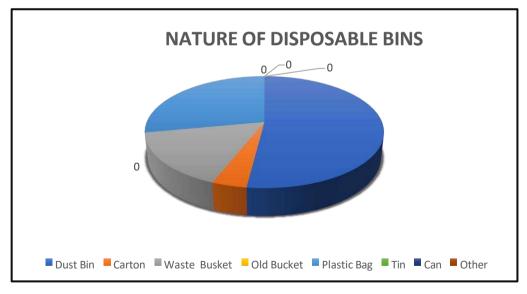


management of Darjeeling collapsed during peak tourist season.

Source: Primary Survey

5.2.2 Nature of Waste Bins:

Individual families, commercial establishments and institutions throw their solid waste in bins, streets, drains, jhoras(waterways, natural or reinforced), open spaces and nearby waterbodies. This has resulted in dirty streets and cloggeddrains.



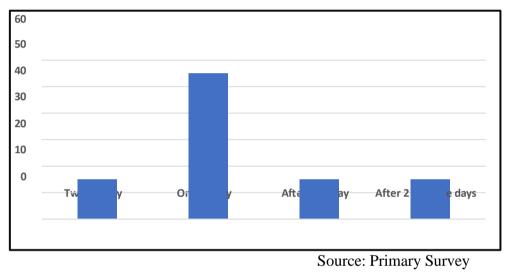
Source: Primary Survey

5.2.3 Nature of solid waste management:

Waste is collected through street sweeping in certain parts of central Darjeeling, which is inefficient and irregular. The waste collected through street sweeping contains all types of waste and the tools used are inefficient (brooms, etc.). The secondary storage of waste collected in open spaces, masonry bins and iron bins areunhygienic and inefficient.

5.2.3.1 Frequency of waste collection:

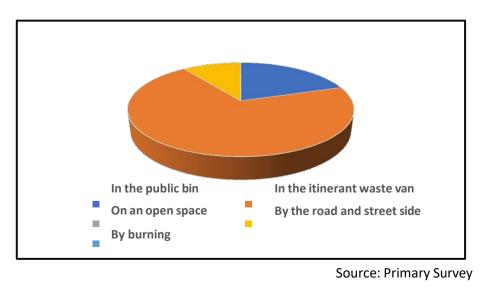
Inefficient and irregular transportation of waste is one of the major problems of solid waste management in Darjeeling municipality. Waste is transported in the trucks (1.5 to 2 tonnes capacity) and jeeps. Multiple handling becomes necessary and contaminated waste is also handled manually. The transport system can handle only 20 to 25 metric tons of solid waste, thus creating a backlog.



FREQUENCY OF WASTE COLLECTION

5.2.3.2 Place of waste Disposal: Individual families, commercial establishments and institutions throw their solid waste in bins, streets, drains, jhoras (waterways, natural or reinforced), open spaces and nearby water-bodies. This has resulted in dirty streets and clogged





drains. Darjeeling Municipality do not have any scientific waste disposal method, all the waste that have been collected from households and various hotels and business institutions are directly disposed on an open dumping ground. This Unscientific Disposal of Waste is another problem of Darjeeling municipality.

The waste is manually dumped in the disposal site, above the Hindu Burial Ground and there is no scientific treatment of the waste dumped. Hospital, construction, toxic and industrial waste are also dumped in the same dumping site. Partial Segregation and Collection of Recyclable Waste can be observed in Darjeeling Municipality. Some households keep aside newspapers, bottles and metal objects for sale to rag-pickers. They also pick recyclable material from waste thrown in the bins, street and horas. Some houses, at a distance from the town collect the vegetable waste and prepare manure to use for market gardening.

5.3. Problems Related to Solid Waste:

The hazardous component of health care waste may contain infectious agents, toxic and hazardous chemicals and pharmaceuticals, radioactive materials and sharps that can cause health hazards to hospital patients, healthcare workers and the general public at large. Poor waste management may cause the following diseases:

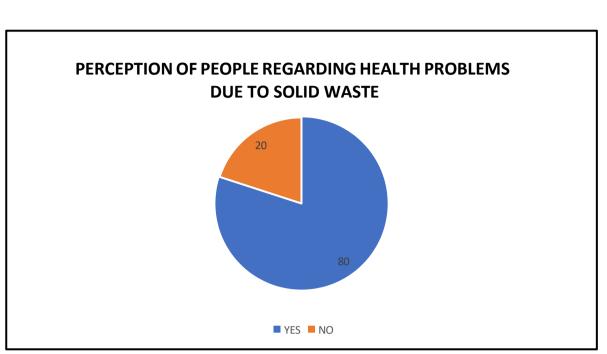
- Hepatitis B & C
- Blood stream infections
- Skin infections
- Health problem associated with air and water pollution.

Many people stated that pest infestation in the public bins causing various problems. Mosquitos, rats, fly etc. are the major pests can be observed in the vicinity of the public bins.

5.3.1 perception of people:

About 80% of respondent have acknowledged that there are several heath issues arising due to solid waste in the locality. Due to the pest infestation near the dumping site as well as in the public bins causing serious problems in the neighborhood.

These problems significantly increases During peak Tourist Season. The People Darjeeling municipality faces many problems during this peak season, because during this time the number of tourists surged in this city, which generates a huge amount of solid waste in a short period.



Source: Primary Survey

CHAPTER - 6

TOURISM AND SOLID WASTE

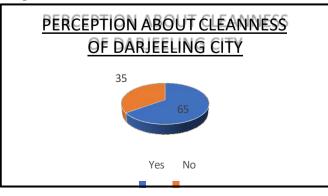
6.1 INTRODUCTION: The name Darjeeling came from the Tibetan word "Dorje" meaning thunderbolt and "ling" a place or land, hence the land of thunderbolt. In the early 19th century, during East India Company rule in India, Darjeeling was identified as a potential summer retreat for British officials, soldiers, and their families. Popularly known as the "QUEEN OF THE HILLS ", Darjeeling is a favored tourist destination among national and international tourists. Because of this Darjeeling receives huge amounts of tourists all throughout the year. Presently around 6 lacks Indian tourists and 30 thousand foreign nationals visit annually. Due to this huge amount of tourist influx, there is growing pressure of population on every infrastructure and service facility. Because of the increasing number of tourists in Darjeeling, this town facing challenges to cope with the increasing volume of solid waste coming from the tourism industry. This causes various problems in terms of solid waste management.

6.2 Nature of solid waste: Darjeeling is a hill station. That's why a large amount of tourists come to Darjeeling to see the scenic beauty of nature. Darjeeling municipality has many types of solid waste like other places. Plastic and food waste are dominant in nature. Tin, can, fiber, and glasses can also be found. Normally Darjeeling municipality has good solid waste management but in peak season huge number of tourists come to Darjeeling, and they produce a huge amount of solid waste. As a result, the solid waste management of Darjeeling collapsed.

6.3 Solid waste management: Solid waste management of Darjeeling municipality works normally throughout the year. They collect waste from public bins daily and keep up the environmental cleanliness. But in peak season the management collapsed due to huge numbers of tourists. In that time wastes are not collected from public bins. Sometimes it delays more than 3 days. As a result, environmental degradation has occurred. Not only environmental degradation but also some anti-social activities are occurring due to the collapse of the waste management system.

6.4 Perception of Hotel Manager:

Darjeeling is a renowned hill town. Many hotels are located in the Darjeeling municipality area and various types of waste are generated from these hotels. The amount of waste depends on different seasons, these are-



Off seasons: Due to a smaller number of travelers in dull seasons, the amount of waste is comparatively less. For the less amount travelers, waste bins take time to fill. That's why the waste collecting vans gets enough time to clean the surrounding environment.

Peak Seasons: In peak seasons huge number of tourists comes to Darjeeling and they produced a huge amount of solid waste in that time. The waste management system collapsed during that time. Due to huge pressure the waste collecting vans are not able to come regularly, sometimes it delays more than two days. As a result, wastes can see beside the roads and other areas which degrades the surrounding environment.

<u>Chapter - 7</u>

CONCLUSION

Nature sets a limit to the path of development, but sometimes the hard work of man can push this limit upto as per as possible. geomorphology of this place creates a barrier for the different aspects of development. Though the reach history as well as development of tea, timber and tourism industry in this region creates a perfect scenario for development.

Natural beauty of this area attracts many people as the economy is continuously rising as well as the infrastructure of this area like transport. Because of this continuous rising trend of tourists as well as population there is significant increase of solid waste in this city. Due to the topography dumping of solid waste creates a major problem. Collection of solid waste is another major problem of Darjeeling municipal. In holidays there is absence of waste collection vans for 3 or more days due to this public bins and other waste dumping area remains very dirty all through the year which further generates pastes problem as well as several health problems. In Darjeeling municipality there is absence of dumping of solid waste scientifically. Municipal corporation historically using an open dumping ground in nearby downhill region also known as the chuti which further create several environmental problems. Through Darjeeling municipality working hard to solve all the issues regarding solid waste and solid waste management as well as through various campaigns they are trying to educate residents about solid waste and solid waste management scientifically.

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Annexure<u>-I</u>

PHOTO PLATES































Annexure- II

LIST OF TABLES

	SEX RATIO	
CLASS	FREQUENCY	percentage
MALE	87	56.12903226
FEMALE	68	43.87096774

MOTHER TOUNGE				
CLASS	FREQUENCY	PERCENTAGE		
BENGALI	1	2.5		
NEPALI	31	77.5		
HINDI	5	12.5		
OTHERS	3	7.5		

RELIGION					
CLASS	FREQUENCY	percentage			
HINDUISM	28	70			
ISLAM	0	0			
BUDDHISM	9	22.5			
CHRISTIAN	3	7.5			
OTHERS	0	0			

CASTE COMPOSITION				
CLASS	FREQUENCY	PERCENTAGE		
GEN	9	22.5		
SC	11	27.5		
ST	12	30		
OBC	8	20		

AGE SEX STRUCTURE						
AGE GROUP	MALE	MALE PERCENTAGE	FEMALE	FEMALE PERCENTAGE		
<4	3	3.370786517	1	1.470588235		
5-9	6	6.741573034	1	1.470588235		
10-14	10	11.23595506	5	7.352941176		
15-29	24	26.96629213	20	29.41176471		
30-44	16	17.97752809	18	26.47058824		
45-59	18	20.2247191	15	22.05882353		
>59	10	11.23595506	8	11.76470588		

EDUCATIONAL STATUS			EDUCATI	ONAL QUALIFICA	TION
CLASS	FREQUENCY	PERCENTAGE	CLASS	FREQUENCY	PERCENTAGE
MALE LITERACY	69	57.98319328	MALE	87	56.12903226
FEMALE LITERACY	50	42.01680672	FEMALE	68	43.87096774

HOUSE TYPE			MATERIALS	MATERIALS USED IN ROOF		
CLASS	FREQUENCY	PERCENTAGE	CLASS	FREQUENCY	PERCENTAGE	
KSCCHA	2	5	CONCRETE	17	42.5	
Ρυκκά	31	77.5	TINS	19	47.5	
SEMI PUCCA	7	17.5	ASBESTOS	4	10	
	•		OTHERS	0	0	

MATERIALS USED FOR WALL					
CLASS	FREQUENCY	PERCENTAGE			
BRICKS	29	72.5			
TIN	2	5			
WOOD	4	10			
OTHERS	5	12.5			

MATERIALS USED FOR FLOOR					
CLASS	FREQUENCY	PERCENTAGE			
CONCRETE	21	52.5			
WOOD	5	12.5			
TILES	8	20			
OTHERS	6	15			

NATURE OF HOUSE OWNERSHIP					
CLASS FREQUENCY PERCENTAGE					
OWN	28	70			
RANTED	12	30			

NATURE OF LIVING				
CLASS	FREQUENCY	PERCENTAGE		
BY BIRTH	28	68.29		
MIGRATED	13	31.71		

	SOURCE OF DRINKING WATER					
	JOURCE OF DRINKING WATER		MODE OF WATER TREATMENT			
CL	ASS	FREQUENCY	PERCENTAGE	WODE OF WATER TREATMENT		
SPR	RING	3	7.5	CLASS	FREQUENCY	PERCENTAGE
				BOILING	29	72.5
PHE T	APEED	21	52.5	BOILING	25	72.5
				FILTER	2	5
PRIVET	VENDOR	16	40		2	5
				AQUAGUARD	6	15
				OTHERS	3	7.5

PERCENTAGE

47.5

45

7.5

ROOM HEATING IN WINTER				
CLASS		FREQUEN	CY	PERCENTAGE
ELECTRIC HEAT	ER	34		85
COAL		4		10
FUEL WOOD		2		5
OTHERS		0		0
MONTHLY EXPANDITUR			ON F	OOD
CLASS	FR	REQUENCY	F	PERCENTAGE
<10000		18		45
10000-20000		16		40
>20000		6		15

MONTHLY INCOME

FREQUENCY

19

18

3

CLASS

<40000

40000-80000

>80000

	STAPLE FOOD			
CLASS	FREQUENCY	PERCENTAGE		
RICE	38	95		
ROTI	1	2.5		
NOODLES	1	2.5		
OTHERS	0	0		

MON	MONTHLY EXPENDITURE		
CLASS	FREQUENCY	OTHERS	
<20000	19	47.5	
20000-	20	50	
40000			
>40000	1	2.5	

PERSON PER FAMILY		
CLASS	FREQUENCY	
<3	2	6.06
3-5	30	90.91
6-8	1	3.03
>8	0	0.00

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MODE OF	AWARENESS

KNOWLEDGE OF SOLID WASTE			
CLASS FREQUENCY PERCENTAGE			
YES	36	90	
NO	4	10	

WIDDE OF AWARENESS		
CLASS	FREQUENCY	PERCENTAGE
TELEVISION	6	15
SOCIAL MEDIA	23	57.5
NEWSPAPER	5	12.5
SCHOOL	2	5
NEIGHBOR	0	0
FROM GOVT.	4	10

TYPE OF SOLID WASTE			
CLASS	FREQUENCY	PERCENTAGE	
CARTOON	26	16.14906832	
PLASTIC	28	17.39130435	
FOOD WASTE	31	19.25465839	
TINS	17	10.55900621	
CANS	19	11.80124224	
FIBER BAGS	18	11.18012422	
GLASS	13	8.074534161	
OTHERS	9	5.590062112	

FREQUENCY OF WASTE DISPOSAL			
CLASS	FREQUENCY	PERCENTAGE	
ONCE IN A DAY	13	32.5	
ONCE IN 2 DAY	12	30	
ONCE IN 3 DAY	9	22.5	
ONCE IN A	6	15	
WEEK			
OTHERS	0	0	

PLACE OF WASTE DISPOSAL			
CLASS	FREQUENCY	PERCENTAGE	
PUBLIC BINS	17	42.5	
ITINERANT WASTE	9	22.5	
VAN			
BY THE VALLEY	7	17.5	
BURNING	1	2.5	
RIVER	0	0	
BY THE ROAD	1	2.5	
OPEN SPACE	0	0	
IN OWN	3	7.5	
COMPOUND			
OTHERS	0	0	

NATURE OF WASTE CONTAINER			
CLASS	FREQUENCY	PERCENTAGE	
CARTOON	5	8.064516129	
WASTE BASKET	21	33.87096774	
OLD BUCKET	10	16.12903226	
PLASTIC BAGS	17	27.41935484	
TINS	3	4.838709677	
CANS	2	3.225806452	
OTHERS	4	6.451612903	

FREQUENCY OF CLEANING PUBLIC BINS			
CLASS	FREQUENCY	PERCENTAGE	
ONCE A WEEK	6	15	
TWICE A	9	22.5	
WEEK			
THRICE A	10	25	
WEEK			
EVERYDAY	10	25	
DON'T KNOW	5	12.5	
OTHERS	0	0	

NATURE OF SOLID WASTE COLLECTION					
CLASS FREQUENCY PERCENTAGE					
GOOD	57.5				
MODERATE	35				
NOT GOOD	3	7.5			

	AWARE ABOUT IMPACT OF SOLID WASTE ON ENVIRONMENT					
(CLASS	FREQUENCY	PERCENTAGE			
`	/ES	25	62.5			
١	NO	15	37.5			
	PRES	SENT OF LITTER IN V	VATER BODIES			
	CLASS	TALLY MARKS	PERCENTAGE			
	YES	26	65			
	NO	14	35			

PERCENTAGE OF PUBLIC LITTERING					
CLASS	FREQUENCY	PERCENTAGE			
YES	12	30			
NO	28	70			

PRESENT OF WASTE DISPOSAL BY BURNING					
CLASS	FREQUENCY	PERCENTAGE			
YES	28	70			
NO	12	30			

HEALTH PROBLEMS DUE TO SOLID					
WASTE					
CLASS FREQUENCY PERCENTAGE					
32	80				
NO 8 20					
	FREQUENCY 32				

			EMPL	.OYM	ENT STATUS						
	MALE							EMALE			
CLASS		FREQ	UENCY	PER	CENTAGE	FRE	QUENCY	PERCEN	TAGE		
CULTIVATORS		0		0		0		0			
AGRO- LABOUR		0		0		0		0			
HOTEL-TOURISM		4		12.1	.2121212	3		9.67741	9355		
FACTORY		2		6.06	0606061	0		0			
BUSINESS		8		24.2	4242424	2		6.45161	2903		
HOUSEHOLD INDU	ISTRY	2		6.06	60606061	15		48.3870	9677		
SERVICE		12		36.3	6363636 6			19.3548	3871		
TRANSPORT		1		3.03	3030303 0			0			
OTHERS		4		12.1	12121212 5			16.1290	3226		
			EDUCATIO	ONAL	QUALIFICATIO	N					
MALE	FREQUE	NCY	PERCENT	AGE	FEMALE		FREQUENC	/ PERCI	ENTAGE		
PRIMARY	13		14.94252	874	PRIMARY		5	7.352	941176		
SECONDARY	18		20.68965	517	SECONDARY		14	20.58	823529		
HIGHER	17		19.54022	989	HIGHER	15		22.05	882353		
SECONDARY					SECONDARY	(
GRADUATE	20		22.98850	575	GRADUATE		12	17.64	705882		
POST GRADUATE	2		2.298850	575	POST GRADU	ATE	FE 6		529412		
OTHERS	17		19.54022	989	OTHERS		16	23.52	941176		

Department of Geography Ananda Chandra College, Jalpaiguri Questionnaire for perception survey on solid waste and socio-economic survey

• Name of the Responded:	
Sex:	

Age:

• Number of family member: Male: female:

• Religion:

• Age sex Structure:

Age Group	Male	Female	Age group	Male	Female
0-4			30-44		
5-9			45-59		
10-14			60&above		
15-29			Total		

Caste: Gen/SC/ST/OBC(A/B) Mother Tongue:

• Educational Status:

No of Literate- Male:	Female:	No of illiterate- Male:	: Female:
Qualification	Male	F	Female
Primary			
Secondary (10)			
Higher Secondary (12)			
Graduate			
Post-Graduate			
Others (technical)			

House Type: kachha/pacca/semi pacca	No. of stories:	No
• Materials used in – Roof:	Wall:	Flo

No. of Room: Floor:

• Nature of living: Own/Rented and by birth/Migrated How long have you lived in This Town:

- Source of drinking water: Spring/PHE tap/Private vendor
- Mode of water treatment: Boiling/Filter/Aquaguard/Other
- Fuel used for cooking: LPG/Kerosene/Fuel wood/Coal balls/Gobar gas/Others:
- Reason behind not using LPG: High cost/ risk of fire/availability of alternative/Others:
- Room heating in winter: Electric heater/ Coal/ Fuel wood/Others:

• Monthly expanses on fuel	:	Monthly expanse on water:			
• Staple food:		Monthly expanses on food:			
• Electricity connection: Pro	esent/Absent	Monthly expanse on electric:			
• Monthly income:	Monthly ex	penditure: Monthly saving	gs:		

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• Modern appliances used: Refrigerator, DTH/Cable, Fan, air Conditioner, Honda/Inverter, Generator connection, Radio, Motor Bike, Light Four-wheeler, Newspaper

•Employment Status:

No. of earning member: Male:]	Female:				
Туре	Cultivation	Agro	Hotel/	Factory	Business	Household	Service	Transport	Others
		Labour	Tourism			industry		-	
Male									
Female									
363 1	1			<i>a</i>					

• Major hazard:

Seasons:

· Major social problems: child labour/dowry/theft/others

Solid Waste Management

• Have you ever heard about solid waste management? Yes/No If Yes, In what Way? (one or more answer) Over TV/In social media/ News Paper/ In School/From neighbor/From Government/ Other

- Have you ever been educated on proper waste disposal by the municipality? Yes/No
- What type of solid waste comes out from your household? (*One or more answers*) Paper and carton/ Plastics(bags/bottles)/ Food waste/ Tins/cans/ Fiber bags/

Glass/ Other

• How often is the waste container emptied? Once a day/ Once in two days/ Once in three days/Once a week/ Other

• Where do you usually put away collected wastes? In the public bin/ In the itinerant waste van/ By the valley/ by burning/ river/by the road or street side/On an open space/In a hole in own compound/Other

• If there are public bins, how often are the nearest public bins emptied? Once a week/Twice a week/Thrice a week/Everyday/ Don't know/Other

• Do you think the waste disposal method is a problem in your neighborhood?	Yes/No
• How do you evaluate the state of solid waste collection in your house area?	Good/ Fair
/Not good/ Don't have	

Do you know if there is a waste management center in Darjeeling Municipality? Yes /No

• Have you ever heard about the importance of recycling? Yes/No

• If yes, do you agree the solid waste recycling? Yes /No/ Not sure

[•] In what type of container do you collect waste? (*One or more answers*) Carton/ Waste Basket/ Old bucket/ Plastic bag/ Tin/can/ Other

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• If a recycling program was set up, would you be willing to separate materials into separate bags for collection purposes? Yes/No/Don't know • Do you know about environmental impact of solid waste? Yes/No • Do you ever notice waste in the road, land and public area? Yes /No • Do you ever notice waste in water recourses such as the rivers, lakes, sea etc? Yes/No • Do you ever notice burning waste in public area? Yes/No • Do you ever think that solid waste causing health problems? Yes/No • Do you notice the presence of the following in and around public waste bin dumping land? Dark flowing water/Odour/Mosquitoes and cockroaches/Fire/Domestic animals/Rats/Scavengers/ Others • How concerned are you about environmental pollution in Darjeeling? Concerned/Not concerned • How concerned are you about the health impact of waste? Concerned/Not concerned · How concerned are you about solid waste management? Concerned/Not concerned • Please explain why the solid waste management is important to you? • What do you suggest Darjeeling Municipality Council to resolve Solid Waste problem?

Signature of the Surveyor

A.C. College, Jalpaiguri

Questionnaire for perception survey of hotels and tourists on solid waste

- Name of the Hotel:
- Name of the Respondent:
- Relation with the institution:
- Age of the hotel:
- Number of years of association with the said hotel:
- Average number of tourists per month: In peak season:
 In off season:
- Types of waste: Paper and carton/ Plastics(bags/bottles)/ Food waste/ Tins/cans/ Fiber bags/ Glass/ Other
- The place where all the collected solid wastes usually put away? In the public bin/In the itinerant waste van/On an open space/By the road and street side/by burning
- Nature of disposable bins: Dust bin/ Carton/ Waste Basket/ Old bucket/ Plastic bag/ Tin/can/ Other
- Is there any solid waste management system:

Yes/No

• Is there any solid waste collection system exclusive for hotels:

Yes/No

- Frequency of waste collection: (Twice a day/Once a day/after 1 day/after 2 or more days)
- Do you think solid waste is a problem for hotels in Darjeeling? Yes/No
- Do you think solid waste is a problem for tourism industry?

Yes/No

For tourists

• Is this your first time in Darjeeling?

Yes/No

If no, do you feel any changes in terms of solid waste and waste management? Yes/No

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•	If yes, then what are the differences?
•	Did you observe any open wastes in the roads? Yes/No
•	Do you consider Darjeeling Municipality a clean city? Yes/No
•	Have you ever faced any difficulties because of solid waste in Darjeeling? Yes/No
•	Any suggestion for solid waste management:

Signature of the Surveyor

ANANDA CHANDRA COLLEGE

(GOVERNMENT SPONSORED) AFFILIATED TO: UNIVERSITY OF NORTH BENGAL

Office of the Principal

P.O. & Dist. JALPAIGURI, WEST BENGAL, INDIA, PIN CODE - 735101 Phone: (03561) 255554 (Office);257947(Res)



E-mail: <u>accjal@gmail.com</u> Website. <u>www.accollege.org</u> Tele Fax: (03561) 257324 (O) 204

Ref. No.

Date-10/04/2023

TO WHOM IT MAY CONCERN

This is for the information of all concerned that students of B.A. Honours of the Department of History along with the teachers of Ananda Chandra College, Jalpaiguri are going to MONGPOO RABINDRA MUSEUM, Mongpoo, District Darjeeling on 11/4/2023 (Tuesday) for the fulfilment of their Bachelor Degree under the University of North Bengal.

Please allow them in your esteemed museum for the fulfilment of their course.

Your co-operation is highly solicited

(Dr.De Principal Ananda Chandra College Jalpaiguri, PIN-735101

Principal Ananda Chandra College Jalpaiguri

Report of the field survey and project work Department of History, Ananda Chandra College, Jalpaiguri

• TOPIC OF THE PROJECT WORK:

Generally the Department of History selects topics based on socio-economic and cultural history of northern part of West Bengal for field survey and project work. Keeping this in mind the faculty members select topics for project work to be done by the students of 3rd semester (CBCS course) and the field survey is arranged accordingly.

• B.A. 3rd semester students of the Department of History (Honours) prepare such projects which is an integral part of their course named Skill Enhancement Course or SEC.

• AIMS AND OBJECTIVES OF THE WORK:

In order to provide practical experience the field work together with the project work is to be done by the pupils. Thus the course aims to encourage the students to carry out research in their future life. In addition, the field survey followed by the preparation of the project work aims to enhance the research oriented knowledge of each and every students.

Regarding objectives of the study it can be stated with certainty that the field survey and the project work will train the students in dissertation writing. Besides, the field survey followed by project work set the objective in the manner to develop the skill for micro level study in selected topic(s).

In a word the study laid the foundation of the path through which a student may make a successful journey towards greater research world.

LIST OF STUDENTS OF #RD SEMESTER HISTORY HONOURS PARTICIPATED IN THE FIELD WORK AT

MONGPOO RABINDRA MUSEUM, DARJEELING

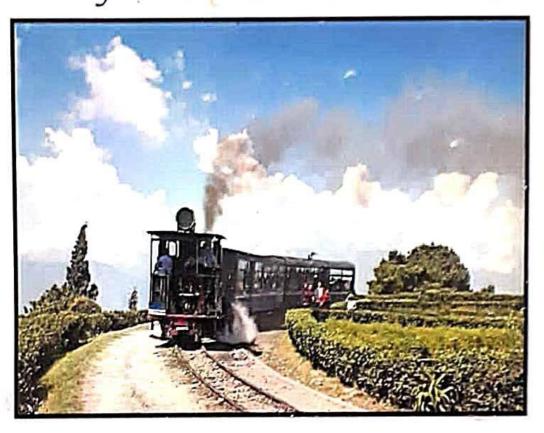
DATE: 11/04/2023

1	Kishmit Munda	22	KOUSHIK ROY
2	Jeet Haldar	23	SOURADIP DEY
3	Sanjib Oraon	24	SUDESHNA BHATTACHARYA
4	Arpita Majumdar	25	SANJIB ROY
5	Nilanjana Roy	26	JIBITESH ROY
6	Smita Dharamshala	27	HIMU ROY
7	Priyabrata Roy	28	NIRANJAN ROY
8	KUBER SARKAR	29	BUBAIROY
9	BHUMIKA ROY	30	RUPAK ROY
10	TANUSHREE ROY	31	PRASANTA SARKAR
11	DEBOSHREE ROY	32	BARNALI SEN
12	NILIMA ORAON	33	SHREYA UKIL
13	ANURADHA TIRKEY	34	MADAN ROY
14	SUDIP PAUL	35	DEBLEENA ROY
15	SAHELI MALLICK	36	SOUMYADIP RAHA
16	MOUMITA DAS	37	RAKESH ROSHAN
17	PRATIKSHA BARMAN	38	PARVEZ SAHARAJ
18	MADHURIMA SEN	39	RIFAN SINGH
19	AMIT SARKAR	40	WAHID AHMED
20	KAMPA ROY	41	ANINDITA ROY
21	UJJAWAL ROY		



ANANDA CHANDRA COLLEGE ESTD-1942

Darjeeling Himalayan Railway



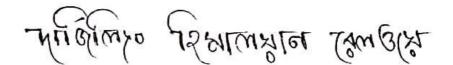
Submitted by

Sudeshna Bhattacharjee

COURSE: B.A. HISTORY (Hons) SEMESTER NO: 3RD SEMESTER PAPER CODE: SEC-I PAPER (History Hons) ROLL NO: 21DAH0165 REGISTRATION NO: 0192105010329

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NAME: SUDESHNA BHATTACHARJEE COURSE: B.A. HISTORY (HONS.) SEMESTER: 3RD SEMESTER PAPER CODE: SEC-I PAPER (HISTORY HONS) ROLL NO : 21DAHO165 REGISTRATION NO: 0192105010329

210 Page No. Date TABLE OF CONTENTS -: 32,6여고:-শ (INTRODUCTION) নঃ হিমালস্থান রেলড্মের ইডিয়াম (ORIGIN) , উনবিঃন্স অতাব্দীর ইডিয়াম (19th CENTURY) > DHR- র বৈশিষ্ট্র নির্মানে ব্যবহৃত সন্ত্রাণ্ডল <u>ভূ</u>র্হ্মিক দার্ডিলে ইয়ালমান মেশাল DHR- র মাজাশম বিৎক্ত অতাক্তর ইতিয়াম(20TH CENTURY) কর্তরান DHR- র মাজস্পম (PRESENT ROUTE) > DHR- র অন্দর্ন রুট ও মাজন্ব বিবরন DHR- র এল্লেস্বিমান্য বৈশ্বিষ্ট্র (NOTABLE FEATURE) > The Formation The Track and Speed The Z Reverses The Sperals (hoops) DHR- 7 NETSING JANST (PROBLEMS) • DHR- 7 235AT(JASSAT (MAITENANCE) • JOSATICA DHR-38 29 29 (TRAIN SERVICE) TAGE UNESCO WORLD HERJ SYMSTRAT (CONCLUSION) JOUGON GARNOWLEDGEMENTS) UNSOLA (SOURCES) Teacher's Signature

Page No. Date fallon h? बिराजरू দ্যাতি <u>କ</u>୍ଟ-ଅ 1828 21(m 1835 MGM3 রা মহ 2,2, মা বম 20 কর্মানবাবিদব বেগস্দ্রানিত্ব (খাবিম er AY माठकार उदम्भि দ্বাদ্ব্যালম বা 26 Sanat फ्तु अदिक विकिस hiblong গ্রুমা, 1839 আলে সুগ্মব্য ব্যস্থা পেকে मिलिजुरि नाद्वार्याएं , कार्मियाः अ h ज्यायन उ 20213 यामुक कर्षन ज्या अकरि सामादि राषा নির্মানির প্রবিক্রনান यालिन राषिड मार्टितनि अधार आर 30 দ্বেবন 20/ 20 15 m 1878 Mg ব্যাটু কিম্ফার্ মন্থান 560 QDB Franklen 620136 (Eastern Bengal Railway 20 বেধ্বল ন্দাৰ্গ্ব্ Prestage hilving Mary 3 Wargen? यर्गाद्रमाद्ये (ଶ୍ୱ स्वित्य जिल राज्यत्र प्रावन दिन जाद उद्ये मूदियन्मादि भी पर निडु-धिनरानड उर्ह्ममूड निण्ड सदम्प्राप्ती र जिर्तियाः Tokad do वन यादन দ্যান্ধের বিদ্ধার, লিনিত্রড়িতে রস্ত্রানির তলে নিদ্বে ন্যাওস্তা-61 1 र सुरुग्राफ निरुष, क्षेत्रात यानुहन्त्रात आग्रानाफ John Sana দ্রুর্ণু অবিয়লিয বিধিদু মড়ুকির অন্ত্রমন্ত বুবর কলের বির্বিক amy हराष्ट्राश्व, কথ্রিন छनि खनगढे खुछार्यनाट्र द्रमञ 262/601 বে লানাই ন The mar Crit (Grange) 2102 लिड अर्रेड 52 BA (A) আত্যানিৰ नेईग्रिने र क्रि र्यन् , यू र , दलया दिरहन ने जाएनर asra দেশা মেন্ডমা PY65, धेनुद्रारितउ राष्ट्रला यहकार्दुन কণ্ঠক 21000 উল্লেখ করে চিলেন 625 অ বিক লচালাম তি নি 90th দ্বা প্লি সাহিবহন भाज्यलेड खरु यहाण्ला বেলস্ম 2016 বগুরিব

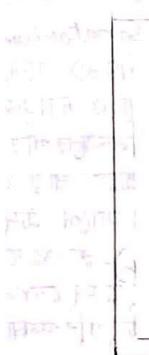
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213 Page No. Date यू श्रवी न्यरिव्इन आय वम्राष्ट्र नादि . उम्राइरन प्रक्रम-र्ट्रमुदि किनि ज्वरिष्ठ निकि यम 08 रिकाम 3 रिका, छिनि छित्दु निकिछ छिट দ্য ডি লি - এ তপ্ৰ Fren যা ि जिल्लन भारत 238 रिंका 50 নির্যানে ন্দো বেগরো টিণ্ড रु ग्रुत भाषा छर् (Locomative) Silver and Cace 3213 3013 বেল লাগ্যন 40 Storm Trancoay मन सदि 8 Darjeeling দ্বোমন্ডমে হিমাবে Co. Mon কর্ম স্কুম্বেছিল জ্ব্য त्रविहालना माजितीलाः दियालय दर्बाउदय 15 रे लिसे खर उक्समानि 188121673 নাম্ব প্ৰহল কাছ (Darfuling Hemalayan Raelway eo.)-করে, মা 194-8 আলের 20 আব্দের দ্রাষ্ঠান কর্তক নহিত না হাওম্ব সমন্ত্র কার্মকর ছিল। মাৰ কাপৰ Cra O হান্তমা সমন্ত্র 10 20 mga 2. anda Teacher's Signature



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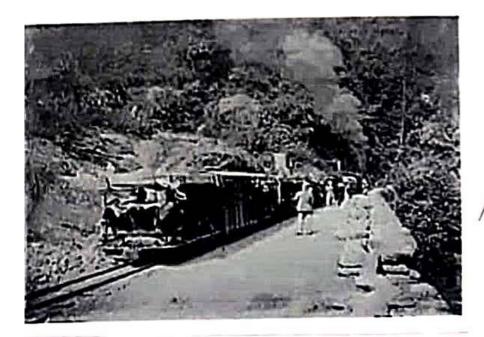
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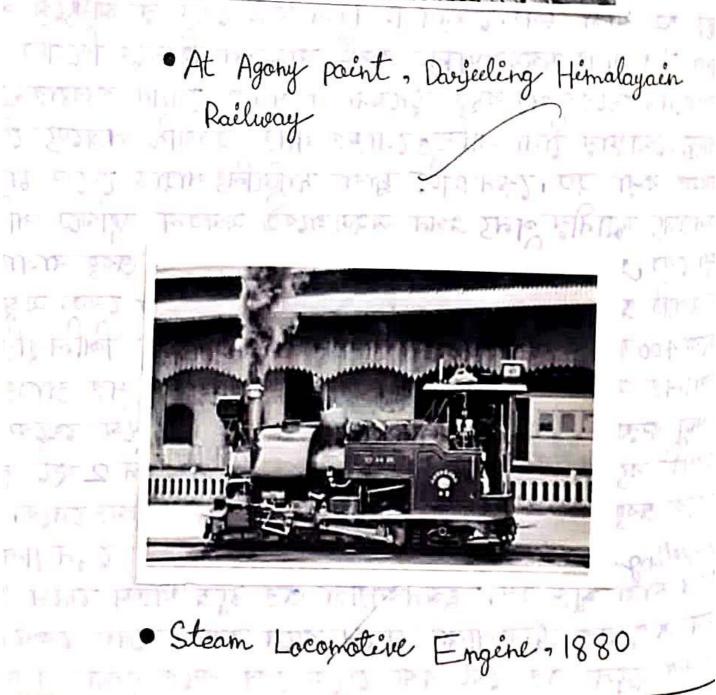
· The Dayelling Toy Train no Hooded Tralli in 1895

Page No. Date • DARJEELING HIMALYAN RAILWAY- 33 इछिश्रायः= माण्टिलिड - अ सोमालाइ एतड दिल, विंग्र ट्याहि, जुरुह जाहि अप्रक-यर विषित्त वारिवरत याश्रीय युवर्ष करा रुति शाकाय अवर वाँह हरू दिन প্রৱে জুই ন্যাক্স লেও। রেন্স্স্মাটি ব্লিল বস্ট রোড- র আধ্যমে সরিবহন मादा उम्पद्धायिए वास्त्राइण्जू निर् उकहिन्दास्त्रात हिल्युत वितिहि इद्युहिला र्यप्रतात , वह्दर्य धर वह्र दिराख्नार्य्य न्युरक त्याति वर्वयन् , स्रांद , मान्ति , रया एग्र होता जादि अ दार नाहि इंग्री जा अल्य साहिए र्युवश्चान के देता दिं सिर्ट मिर्द मार्ट्रा का कार्ट्र कि कि के कि के অন্যান্য আনীয় প্রন্য এখন অহতজেকেই অরতন ভ্রিতে পরিবহন कर्न (रेष्ठ , वरु वरु के के हार रे दि भिपतीर यह रहा के के के का जादन ह रा जुआछि खर्षु दुय्त याग्रम ग्राष नाशह कार्मित राष्ट्र, या घूठभूक त्भरक 400 यहें उँद्र दिसला रु भाग ए अ जिर्मेश्व किलि पुरिष , यकात्निङ साखीड़ा Gara Cohat द्याता दड़न राष्ट्राह यह आण्ड्रा अ यन्वत् राज्य , अरुर्वीष यात्रीर सिरिर दाप यिट्यूस ह्यूदन असन अकदि उदय्यार ज्यातातुरि इस टम्झात दरन जूलि 2 रहे दुरुष আকবে অবহু স্বরে নাজাটি জ্ঞান 24 রাই পুরু কারা অরাম নেবে, Darjeeling Himalayan Railway - इ जिम्बिटिश्वमुद्ध दिनजुलिछ उद्य हे रापका चुन्द्र दूस, दुझतकाश्रीहा छन् ब्यु अपूर्णन त्यद्ध जिल्ला रत उक् उन देंग्र जाता कार रात रर दयता टकाता भिलत दित- अङ र्यो ते की रिया रेवड़ कार्ड राष्ट्रा रेकिट्र

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Jalanda

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ा १६ १३ महिल इन्ह्रम्प्रा अपने व स्वयुक्ता क महिला महिल प्र इन्ह्रम्प्रा अपने हिल्ह

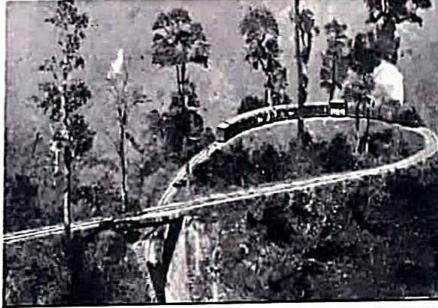


Page No. Date দেষস্থ হু হেন্দ্র, অনুত বিশিষিৎ মন্ত্রেও দাজিলিও হির্মানস্থান রেনডয়ে: মা দি দেন (10) Train) নাজেও পরিচিত চিল জুবা শ্রবিশালন বিদ্ধায়, অটি 1871 মেকে 1881 মালের রার্ধের নির্মিত হস্তেছিল। 1839 আলে স্কেল ইড়িয়নিয়ার্য- র লেফটেন্যেন নিশিমার- র রিপ্রীনে অরু হত হাওয়া ছিল কাটি রোদ নির্যানের আগ্র্যায় হিনু রেন-र याहतर रू. 1835 याल सार्य कि का य यिकिंश र्याफेट खिवस्ति हिल जा तिरिक लाद्विद खिल्का यद्भुखि दिल (येंग्रातर राज्य गात्र यात्र यात्र, Old eart Road या र्वजात Old Military Road arest 21/260 or argazos 21/33 213 433 1861 याल तपुन ald Cart बिन्द्यामन करू रू. किलि पुषि दयदक मारिटलिड - अन् याइत्रिजनमन्त्री अर्थे नषुन यम्बदि Darjeeting Hemalayon Raelway - इ स्वा ३८२ ७० यार उप्र कि राष्ट्र मिदर अर्ड दिन्मउदम् आहाद्रि यामदम्ब त्यादक छीटि हीहर स्वा दिरी कटर मार्टिला - अ लेर ए ए वि रिशिता अर्ये किया के प्यादर 28 [93] 27, 1878 aller Judia (asim canocia score Franklin Brestage मार्फिलिष्ट विश्वालस्तान दुल्लाउद्य निर्द्यालय अदियल्यना अदन करवने। 1879 आ(ल ७९कालीन नाइलाइ (लयगेर्डानाने जएतंड युड Ashley Eden - र Quarsin न लाएर भेर Davdeling Himalayan Railway-दिवृत्त लोक्सेनरि यस्तुराज दवुलाङदम्ए रहिःगण प्रमुतन् -

Teacher's Signature

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रेम्प्राइत जूलिः उद्धि अकरि त्रीयम 1879 आल सिधिए कईक माफिलिड पिस दीराष्ट्र दक्म झ्याति जण्ठ यम अग्र अकहि यहाता किए दुछिड लार्धानू मरी जिनि नार्छनहित्य युकीन दलपर लारेन् (2ft.610mm) नामिद्र जिलन ए राम्र राम, 1881 MGM Cartout fair and algoba args Darjeling Hemaloyon Raelway 00. राष्ट्रा २२ अग्र 1048 जातन नपून आर्थीन एपरणेर राष्ट्रिर मंडल त्वरुप्तर मर उम्रे आदि नराल राष्ट्रा २२, 1880 মালের আিনল্ট রামের রার্থ্যে লিলিন্তুড়ি ঝেকে কার্লিয়ায় সর্মন্ত 32 আইল মাজী ও স্থন্য স্থারিব্যন্তর তলের লাইনটি জোলা স্থ্যেছিল মা মন্থ্যস্থি থেকে 4864 মুটি উদ্বাস্থেতা আবলোলে তিবলোগে 1881 মালের জুলাই, আমে দাজিলির সকলের সর্মন্ত 52 আইল দীর্ম স্থরের রেলস্য िकि कर रेरा · Darjeeling Himalayon Railway - 3 23/20 3 Gratict 05020 युषाुड्व :-Davjeeleng Hemalayan Railway निर्झाल ट्रमी उरु प्रराहिन आरु 31, 96,000 भिष्म आग्र, 00.40 भिष्म खुछि आग्रेल भाषा राष्ट्र, दरमझ्मानिष्ट अक्त स्मार्क निर्वहित ट्याप निष्मिष कर्ष् एत्र, स्मासाइड़ रात्र अभाकं आय प्रायत्र बित्र राज्या अरत करू राष्ट्रित. > नाग्रतान ८ मुफिर्यने जुब्लाक देनुष यहा इत्यहिन या ए नाग्रत देह क्रुक्राण यह्यता प्रेफिशनजूनि यापर यहा मारहा Teacher's Signature

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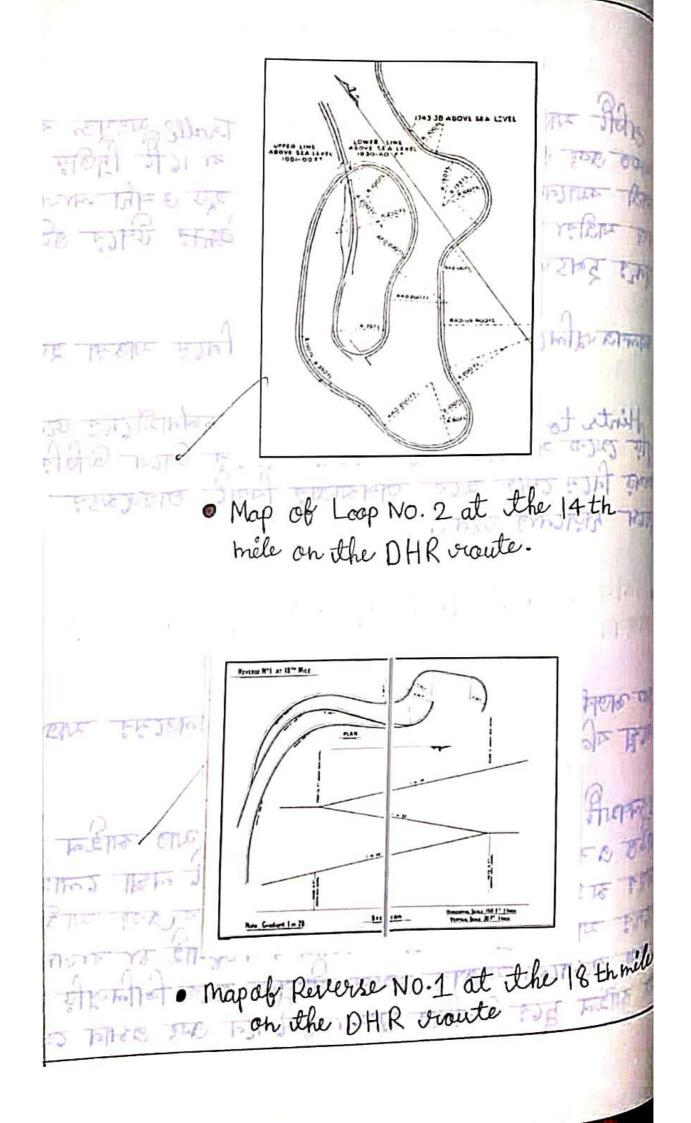
220 6 Page No. Date > कार्यन सिमादन् अमन करिन रेप्साएन दनन विहातन र र हिन अन्द्र Messmer, Sharpe & Company of Crlasgow प्रिय Locomatère रेपिछन पुलि दिन्नी कहा र र रहिन. > माण्टिलि९ विद्यालू सात दरलपुरु उतर इश्वरत रत्ना व्यासारिए र्यायर कर इस्प्रिल, खकदिन अपन आर 12 रेने म आए तरलन उठ रेन क्राइजिज्ञ अन्द्र कि आर 14 रेन उफरतन হুয়জান্দালী রেকমায় 50 देन ওতানে । একটি ট্রেনিক জীরুয় মেল ভাগত মঞ্চম, > २१४७ िलद्वाइतन आए स्ट्राक् जतु सह न्युरु स्ट्रायन हिन कार्वन-प्राप् आपराष्ट्रा प्रत्र पन्ट टक्स कार्यकर्ति 100p Spinals सुरु ज्याप्ट्रा निर्ज्ञान कार्यु इर्यहेला. > दिनिष्ठि विदिन त्अनीय माठीय करता विदिन कर्ज किरिण करा इट्यूफिल, स्वाग्रज्ञ त्लुनीय माठीयारि आफि जूलि 13 यूरे लखा उवड़ द यूरे दुछ हा फिल ख्रवड अजूलि निम्नुणला यह दिर्दलय अदि 7.5 युर्द <u>दि</u> छिला > र्यानजूलिए 10.5 इकि जिया लागाता हिन उउड़ रूटि रमझड़ार 1003 Bai > বজিজুলির অর্বেদ্ধ রুর্বে রঙ্গর্জ ছিল 12 তনে মারী, মদিও ওই দার্দু নিশ্ব বর্ষার ও্যাবহুণওমার তনের উশযুজ্ঞ ছিল তবে তা দর্ভনীয় দ্ব্যান জুলি দেখ্যার তনের জ্বর বেন্সী সুম্বেল দেয়নি। Teacher's Signature

Page No. Date अधिरि माजीमारी दिलिन आश Open Tralle 237330 ব্যব্বা भारत अन्य अछ 6 दि समझ टल्ली र गांधी का 6 दि प्रिणिस रखनी र भाषी नयाति भारत छ द्वित जू लिए रूप अ स्ती ला जा ता हिन अगु यात्रीना साराएन मार्रिक श्रिक केंद्र उमाद उत्तर यहर यूक् इब्हजूलि पुर्त कर्ष आरण न्ह्यालमञ्ज जूलिक दित्त कार्य निरम आषम २७। Hints to Visitors, तार्यक माप्ताद्ध रही रही कार्या प्रदेश कार्त्र কাষড় নিমি মেতৃ হাতে অশব্যাজার যিয়ালৈ তারত্বিয়ের বিরুদ্ধে কুড়ে দাজুরেশই তবেঁ, . Faligor alla Darjeeling Hemalayon Roelway -? মাজামগ := জুক ভাঙাকী আনে দার্ডিলেঃ হিমালয়ান বেরলন্তমের মাড্রপ্রমা নির্দ্ধে বরিত গ্রন্থেচ্ছে -्रत्मनभरि अभस्त जिलि सुपि स्थरक आर आठ कार्डन लिखन जारेन अगर्क जूरू करन दिन्दि +00 स्टेनचा ल्ला शन War 2 25 hay signah woosa arganger molera णहरु याखाद अभन्न हिन् कालान , सहहताई हू कालात र खक यानक हर्राता, याखपुर्व अध्य जेत्मुफ इति किनियुषि आक आर আত আইল দুবে অবদ্যিত অুকন দেই জনে ওবং জনান থেকে-

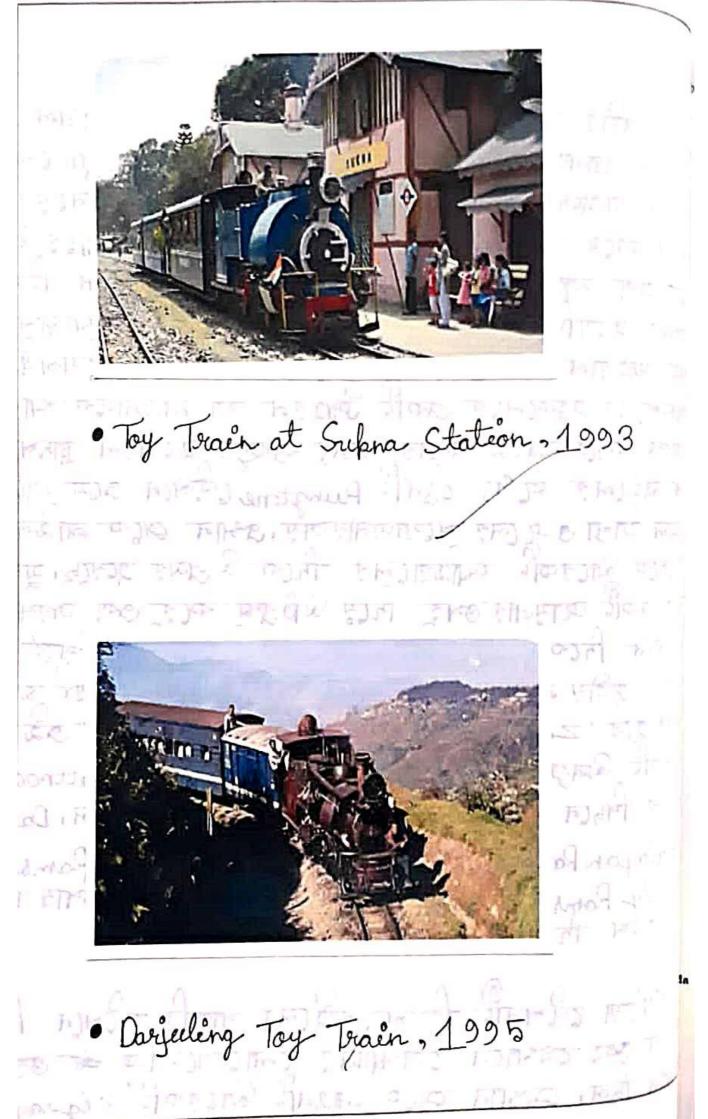
Teacher's Signature ...

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223 Page No. Date আহাড়ে ওচার মাজ অরু হবে প্রধান থেকে মন তার্দ্রাল দ্রুরন-কাহীদের স্থানত ত্যানাত স্বহু কণ্ঠনন্ত কণ্ঠনন্ত হাটি দেছুল তেওঁ নগৰ ह्याइट्रिल याडीक्ट्र लाइट्रिवर स्रथम आस्राला यसरमास निरम् कियावन निर्झाल काए निरमण्डि धितूक खुद्दिक डाप्रालकिम प्रदु ध्यकात इत्र आहा याष्ट्रसुर अडे खानहिं खराहे आहाष्ट्रार खानन हियादन रिंदाछि अदमुहिल गादिए अभादम आद्रेल मुहिमहो सुद्धा सुहि २६० -सुध्रम ज्याध्रेशन या न्यूभ, गू न्यूध्रिक्ट प्रकृति युष् हू रियोम देर, न्यूमरि सुद्रगेषालुन आय्हलुद अकरि जिन्नू रा लाइन्हिन आर्म हल ভিতিব্ৰুহ্ন কৰুত আক্ৰাৱ কৰাৰ তদেও ব্যব্হ ত হু হেছিল দ্বামন ও এন্যো-मेन आग्ने लिए अद्भि दिनदि Rungtone जिन्त अत्य आह्य -भेजिष्ट्रन मिरा उज्दलर स्राज्यनीय ज्य, अश्वान ब्याय नाम्नि मक्रि-न मित्र ब्रिटिय्वी प्यायेश्वाले मित्र बिज्यर राष्ट्र यूरद्य आए अकदि जामुनार अयर निरम छिि क्रम करन अवर अरमर उछर 3 फब्रिन मिटन द्वादन्यदि प्यार्थनात्मन मिटन एउन् उन्हर्व द्वाएक আহলে স্তীয় লুশের দিবে হারে মায়, মারে মাওরে আহলে आरुषा द्व र दे दे मिल्ला दे मार्थ दे में के कार्य के नार्य बिगदत्रकरि बिनुकुर्द्ध देवनिग्वेड, अग्रे दृट्टgzag' b Battroom damcé-ng - र मिह्त छ आग्नातन आदा प्रायन यहा यहा हिना Darjeeling Hemalayan Railway - र स्थान विकामात्र Henry Ramsoy - र खी Lily Romsoy 6 अपिट्युनिट् त्निध्यारिए कर्ष् स्थाय विद्यार अर यहाझक मिट्यु हिल्लन दिनर्धरिय दिलानि - विषु का जार्यालय आशारि द्वीकात मिणिय याग्रान प्रयु दयधादन द्वास्मानिय द्वनाद्वाद्वि कि अयार्वस्र दिन जिन्छान हिला व्याक्षान त्याक लार्यनहिं जिनदर्कहिं Zegzag' अग्



Teacher's Signature

हु के न्यूम Agony Point - ? मिर्क बिजयह ३ दन, रण्डेम आई-(न जर्भनाएं (War GAZS ple Zegzag Gog a Taga, अग्रिमाद्भाष्ट्र का Mad Tovent' & अट्य अर्रु कि जिन्ना মামার धेर्धिक ज्यह द्वायाया छटा त्यों हाद्वा दिनी कार्वि सुर क्राइटर स्राय 5000 रही देहज़र श्रास्त्र की देख लीतर दाता , (552 रही उहंणरु त्याता हा त्येकानदि भूरुवर्ष येत्मण्ट यहन्त दिनदि एश्वन 7407 यहुटे उँहणग्र लाइनिटि अन्वण राद्याह निन्दू द्वर (uchum) (भारक रिष्ठि आयादन, दर्ग्यान त्यारक दिनहि माणिति काशदन न मित्क सार्व, 1919 साल सूच त्यदक मार्टिलि अर्यन आरू 1400 মুহু সতনের ভীব অিথনমন স্রিহিত করার তনের কাজামিস্ন লুশ চালু করা হুমৃ, অিবনোমে ট্রেনটি দ্যাতিলেও গৈ মির্নামে এমে भाह्य उरु माजीत्तर सदमाजतीय प्रसि स्रात करन. रिश्व लाजान्ती := निश्व लाणदनः अदन्य जरु दरगननगणमू অন্দে টেন্নুণ্ড মোনামোনের ব্যুবদ্ধা বৃহর দার্চিলিয় দিমালমান বেলাওয়ে নত্বন কিছু জোঁতাৰ আত্মহী रस् अर्षः 1914 त्यद्ग 1915 यात्नर राष्ट्री रूटि आक्षा एक्षाना वृष्ट, याद राष्ट्र कि नि गुषि शिर्क मकिरा मिरक विश्वान्यए भर्यन्न अरु ितिरुटि उँवूर-यूर भिर्ते विश्वा उँमण्डकारू कानिस्मे द्राप् अर्यनु, अर्धे आश्वादि ८८ झाँग्रेल (106 K·m) विषुष हिल अवर् मार्जिलु-खुर स्त नायता दिए खितक त्वसी मीये खुरे आधारि रार्थितिषु अर्यन साम्रमु यहादर प्राइन तत्न अव्यु श्रॉहाला मेंक जूलिन हार्रित्तव आत्यरक्ष नम रतन छन् मरितननार छन्द 516 Beefie र्धसिङ दिंसुरि टक्ना अध्यदिन यार ज्यार द्रादे 0-4-0 रेंगर्फ रेखित सदमाज्यन किला 1911 आदन Gravuat दांग्रेंभ जाज्यीय देखित

Page No. 11 Date किलिप्रीय उड़े (Selegevie North) 76? नाम वरिरर्णन कर? इल्झा 27 Talan you visala (Sélégure Juncteon). धिवह्नात्म 1,962, खुरु, 1971 यालि उद्य राष्ट्रि कलगाण उ निर पूल जू almy राइटमज (किलिजूषित्र भविक्रत) - अर प्रतु, प्रेंट्रे कान हिंदिक उकी ने मुकून नर्रारे दे प कि दिरिकर . আপ্যিকো মিলিজুড়ি বিউন থেকে নিউ দেলসাই জুড়ির নতুন এেই লব দেশের স্বিস্থ সুআরিও কর্ হস্টেল। 1962 আলে ওই নতুন লাইনি ব্বিহার ন্দাই নার্ট ব্যবহার कार DHR स्वाडिंगी रेग्रत का का का कि कार ते अग्र नाइन उपल पर মাজীবাহী টেন চালু হাওয়ার আয়ে আয়ে 1964 আল থেকে Darjeeling Hémalayan Railway 2931927 213683 ठालू २२। আচ্চুঠিক বছরুনুনিডে জেরতীম DHR-র তনের তিগরত নিরেমিত ব্যবদ্বাধন ভন্তা হোষান এবর আন্দ্রন উৎমার্জ করেছে, 1999 আলে UNESCO- & Otherstoges 2003 Comprehensive Conservation Management plan 26028- & QIZEBO 83 Standar QIZED 2128 2063, STATEMENTER Store Months And Standar QIZED এবদ্ধাকে चेक्ति ब्युकार ब्रिटिंड्यू देप्रकाल DHR-अर एविसप्रुर ই খাত 6201 বিষ্ট অতাকীর মাজীরা আেঁজুনের বিষম মে छडे सुदर्गेवन रिफ्डान 60 ि अरिंधा 63180063 विश्वाना landa Teacher's Signature

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Page No. Date এবত 1020s 31040s আলের কিছু রেল দোড়ির শ্বরীয়া নিরীয়া याखु 3,2000 याल NDM6 द्वनी? एएल की याद की ज अर्य व · कि ल्लुनी अश्वान लोग्रेल काण्छ कट्दा 1947 आल आश्रीनज जिन्ति खरु सूर्व आरिंग्सन (वर्षझातन र्वाडला (ए. कि) युदिर याल युदे दक्लाए ज मार्टितिड (इक्राल स्त থেনাওমে- বে র্যান্থাপ্রবি প্রটোবিত করে, কলকাতার আর্থে এর अश्वान दिन द्र्याणात्याल हिल-आर्वछीश्वर इत्र स्टूर्वर इति छार इदे या अक्षन दिल्ल किर्वाद्यान स्टलप्रकृत माफिलिंड (अग्र किराम्र) खरु आश्र छकदि दिल याः रिमन सूनः आमनरु क्रता आमास (उन अइर्यान स्वकलय हानू कड़ा इस मा अझ्वत एन्ड्र हिन. 1949 ग्राटलाइ हार्थ्य किमानजेप्य आधार द्वकिरएग्रेन सिंदेरेर दनएएट कुमातुरिं ग्रेम, अयर जारमहर उडकानीन ट्युल किरान कियास दरनउद रिमध्यानिः लाग्नेन जूलिः याह्य सार्यां प्रहा का अरु जरमा নধার এবে রাশিয়ারী আর্টের আপ্লে অৎযুক্ত অরু জটির 1. बिडनाण य छीदन येले, येलिया दिलउदिन लायेलन आत्य अवनी यहत्याब्य न धितू ज्यामन दम्म, किसानजण्ड लाहनीट क्रम्न जुकटि नएक्ष् दनज दरनम्भ रिव्यद यह र्षिल जग्द अदि आस्त्रे जिसा उमण्डका लाम्रेन प्रारं धेनुसर्न कर प्रदर्शाईल, या 1950 या लिन एम्राक वनपुर खुय जिस्रिहिन, किलियुरिन नषून सिरिन् जिप्ट इस्ट्रिंड आश्र देंछिन स्पूर्वनतु आम् । फ झार्रेन (2.4 K.m) Wag ary the art Call agas Dorieling Himpleyou বিদ্যমান ক্লুটের কাছাকাছি DHR- , আয 900 200 Raelwayg-নিৰ্মান হয়েছিল সহায়ে নাম ছল येंगेरहाफ्य टिपलन নথুন

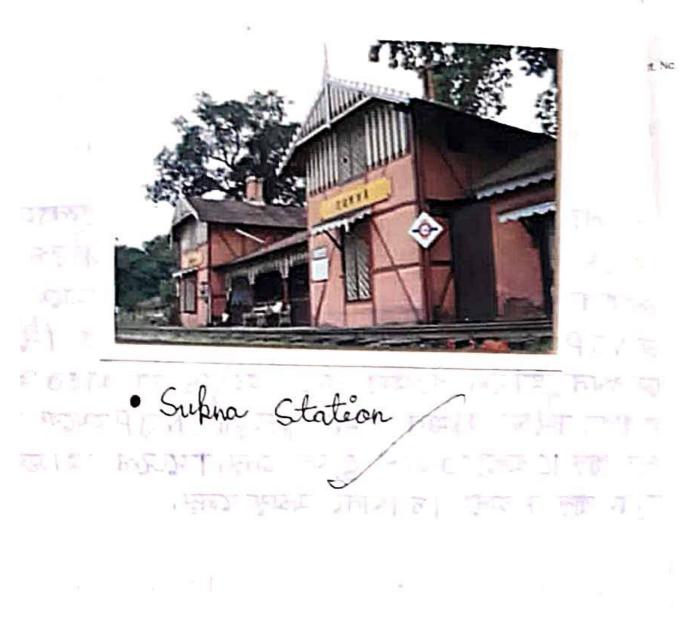
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THE JOHNELE EDER OHUM SMAN FOLD OTHER 1. 11 BONADA RELIN THE P WE THE W. MILLING 1 17 TINDHARIA RANGTONG TITE (762 F. 7. 4-31 (3) - A Th SUKNA 212 SAL ME Frank P 157 12 15 R. Co APRO NOM ATTENT TOTAL J ld Present Route of Darjeling Himalayon Rai उड्रकानीम ट्रियेन अलाज बालाफ THE FROM THE WILL THE SAME SHIP 1200 2012 7- 11 = 117 TELC TT PAL DAR . N NEPAL 12 13132 11 10) 5 . 1122 1.3 JEDI (JA. H · System map ab Darjeeling Himalayan Railus

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Page No. Date • বর্তমানে দ্রাডিলিও হিমালম্যন বেরলও দেব যাজাশম ?= (Present Route of Darjeeling Hemalayon Railway) मार्टिलिइ- अर दिम्दुबि निरे जलमा के भुषि दर्लछदम दयेवान (2) (2) 3/30 2(2, h) (2 (m) 2) (3) 88 Km S 239 (2) (3) 31 30 (3) ट्ठेबिरुषान खिड्ब दरनम्भाहे दिल्लको दिराहण्ड याह्य यसातु राल 66m, NJP ह्यद्र मार्टिलिङ कुरिड फलु अहलकाई यिय 2 पिछलाः यम्बन क्रुसन मार्ग्रिस्न यख्यान कर्न राष्ट्रहे या धारा कार्यकालीय फ्रूछ जाहिर, पिंझ इंग्रिवन तालिए हिंग्रे दिनी NJP ह्यादय भार्षि लिंग ट्मोइए आर 10 राम्रेड दामी दासर तार, फिर्फल सेफिल तानि रियुद्धिनी आरु 7 रामा 15 सिनिट यसर दनस्र, ►DHR रियुद्धिन - र अष्ठ्यूर्त द्वरे खरु माजार रियरना = ■NEW JALPAIGURI OR NJP:= अरि उट्ट Gradens ant अर्थान दर्नाउदि पटु कान অবহ দৈর্ট্রনের মাজার य, 6 नाष्ट्राल, अर्ड दयेष्ट्रनाटि 1964 याल ठालू यहा रू. NJP किनियुरि अलाकाक तात्नात्र विषित् यहातीत् यादा युक्त कदन अरि अभरम निषे किलिजू दि त्विकत् नास्त्र महिषि हिल उठर त्रद अदि एलमाछेजू दि दिएलार दिर्वाजूष प्रषमार ताख्यक्त कहा रद्धित, ■SILIGURI JUNCTION:= अर्ध त्यिमन्दि 1949 आल तानू कर्म मुग्न, अहि अक आम्र एरि एन উত্তর-সূর্ব প্রজনিদ রাজদের লির জনের চেল্লে আন্তম্ব তেরের

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· Rongtong Station

Page No. 13 Expl. No. Date त्पिकन हिला अरि एन १७३ अयम्माउ ट्येकन टण्झाटन टलए बिर्णांड सप्टलफ, सिरिङ टलफ ऊर्यड नडार्ड्य टलफ सुष्णत दिये दिश्वि । ■ SUKNA:= भूकना अकरि द्वारे प्राप्तः 1880 जालिर जिजये जात्म दिप्रेजनारि तानू करेन इसे, भूकनार Darjuling-Hémalayan Raélway-Museum जिवस्त्रिष्ठ उत्प्रदेव, ट्यम्आदन विरुल उद्यु 5 जुरु द्वी या अधिग्रहनानी दिर्द्युतर इण्डिया पूटन धदर, ■TINDHARIA:= जिनश्चनिस्म खकरि टिइाउँ आझ अरु नाझ नम्हन जिनटि टिंगलाका ने उत्तर आतीस्फर अश्विकाइ-कोई लिमालिन, अई टिवलन्टि 1880 आल्नर जिजन्दि आत्म टालू कहा २४, 1910 आहम अआदा खरगर DHR अम्मकेलय प्राय्तन नग्न इस, ■ RANGE TO NGE := 1880 आदिन द जिल्लि दावी उद्येकान स्तू कड़ा इस, ■ KANUE IO IVUE := 1880 ~~~ दुद्रेनीदिक मदिर द्र विकान दिन श्रीरस अक्षान त्यादक दुद्रेनीदिक मदिर विकान दिन श्रीरस स्नोहाएक आज 12 Km ज 1400 मटे- र द्रविका देमदर देण्छ मादर, कोस्रिक नाफ्रेनी, निक्रेन निद्र ज्यादि नीर्ज ज्यादर मरिनेल क्रेस, जिल्हा हुन्छ 137 रूरि रेडू आफ्र अणनाइल कन्नन फनड अझात अकरि यमिन ar Double Loop dois an 2 Crite ■GLAYABARI:= अरि आदरकी दिया अग्न अवर टयोब्लारि झाखार आदर, टयेब्लारि निर्झालर भर ट्यरक जर आत alanda বাসির্জন বজ্যম বৃথেছে।

STOP E geal wid-33333 10 Dire sal all Désent Hydronic Locomotèves (NDM6

भाषित उन्दी टप्टेबन्दि (इड्डा व्याप्त) का द्वार्थ उप्र आह भाषित उन्दी टप्टेबन्दि (इड्डा व्याप्त) न हा ता द्वारीहरून एस जनाइन उन्होंने DHR इडाव्यन जारमा कर द्वार न र

· B class Steam Locomotèves

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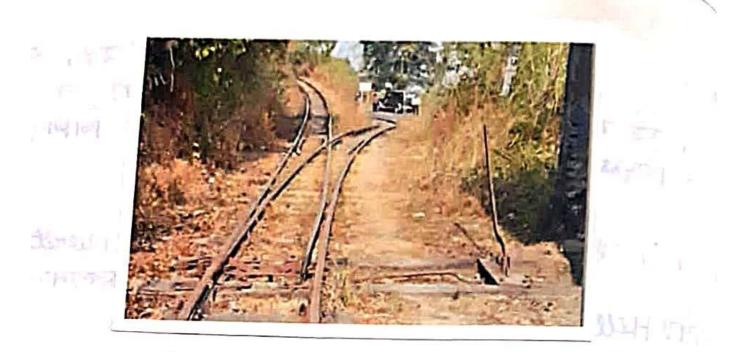
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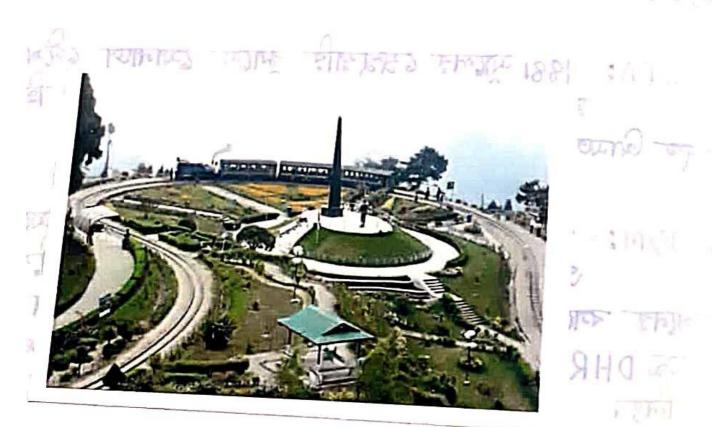
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Teacher's Signature .

Page No. Date ■ MAHANANDI:= 1989 21167 2020 - 16 2011/20 27,-वूसिर्फा 50 में दर्मनी एला के या रेड्य, अर्च नमीक्षेच्च द्रिन मासार स्रथम मिद्रक कानगुर ছাড়ার কিছুরুচনের রাপ্পের্ট্র সায় ■ KURSEONG:= 1880 Inen 690016 ginter 23, wete Orchid अन साहर्यणन् एति काश्वियार नाह्यकन्त अदि अकदि UEAR Hell Town & CALA >A Tobo , জুক ি দে ব্যিয়ন্ত আরা । ৪৪ মালের ও বিল আয়ে UNG := टिपोबानी हान् राजा रू. प्रस्त नाइति अर्याहा 334 পাছ, মেকে মা প্রদানে সমুর সরিরানে সান্তমা মাম, ■SONADA:= 1881 আলের ধ্রেস্বার্থ রুপথে অ্যেনাডা ভেটনন নলু কর মুম, বাযিন্যর্থ ড্যানান, জহা জন্সাক্ষম স্তর্ব হিমালস্থান analo. Engra ■GEHUM:= এটি সাদিলে - হিমালমান / বেন্দাডমের আর্বার 600 अवरु अस्रज अमिसार यादाह दरनाखरू देये कान, सुर ट्येन्नलिङ काट्य ट्रालाई हार्डा व्युप्टि द्विदिक, ट्येन्नन 36262 DHR Gohum Museum, 33 2633 303 Goon Guarate 201 morting . रिश्मिनाल टप्पेलन खन्ड अरि 4 th July 1881 एस्नावर एस्निकह्मिइ स्लूल स्लूल माफिलिइ Darifelling :=

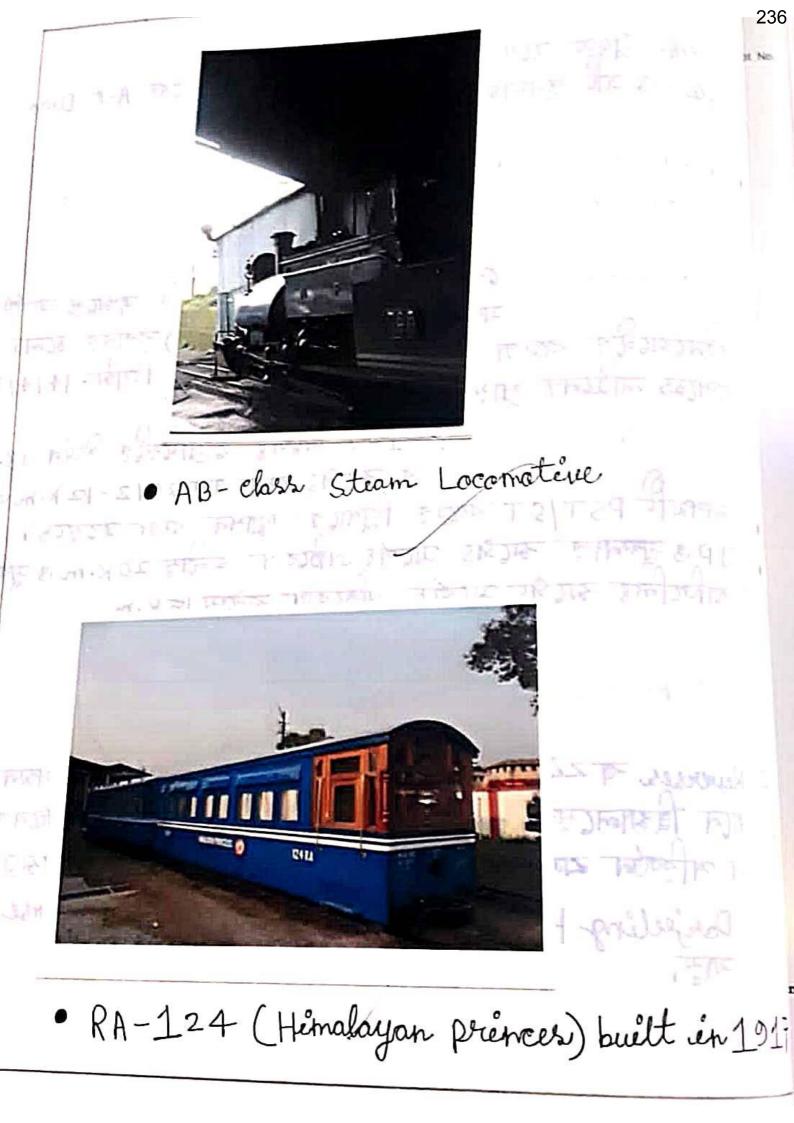


• The Z- Reverses on DHR Route



· Bataséa Loop between Darjeeling and behun (spirals)

235 Expt. No. Page No. Date टजेकनी द्रिय इत्र गाम, नदा 1044 पालना मिटन Art Dico Style - & St स्तिर्मनिर्माल राजा इस, • দ্যুদিনিঃ হিন্ধালম্বান রেনস্তুদের উল্লেখ্যম্বেন্য কৈলিই:= (Notable Features of DHR) := > The Formation := दडलम्थारि दर्गला राषा भी आशाहि एआहर गाणिर আতুক – 55 (दिल कार द्याप) বর্ষবর 6 লে। ওলাইনরেরের বহ্নজা 874 (আর্বেছ বহ্নজা 115 कि कि 14/4/15/) মহতপঞ্জে নার্টনের প্রায় 74% ব্রুরেমায় রয়েছে > The Track and Speed := 1-3 21618 6 3623 - anter 18.6-र राषिड राजा रेम 2812-12 K.m. May, • दुलामधरि PST/ST वमहिइ विभूमादुइ ध्याभन कर २८२८२। DNJP & प्रकार अधिड आर्जि जिल्ला रान्त्रेय 20K.m. & प्रकार अगु राजितिर राषिड यद्वार न्याविदय राग्रीय क्रि.m. • The Z-Reverses := 'Z' Reverses ज Zigzag न जूर्यायराज दिनीरेन अक अकान जासन आर्मि रम्भान विद्यालरुन आमार्ग्रस्तन पूर्णांस जिल्काल उहा छाउँदातन ज्याह लार्यन अन्निर्वर्धन सारह, रिअन्नीणस्थली रू खरड र ट्राए रान्द्रमती अणित 212 Darjeeling Hémalayan Railway - 3 5276 Z' Reverse Mas কন্ধু মাম, and protogramme in



Teacher's Signature

• The Sperals (Loops) := Spiral (Spiral loop ना Loop) आएम आशादर अणेत ज्वाद दत्रमाखरू फ्राहा उद्राष्ट्र अगदि दगोबाल , अयरि दह्रनायुद्ध प्याह्रेहाल अयरि प्रिह दरनारि अ करि आ भाषा का का बितुए कि का मुद्द देन का दिहु or Guten A(31 • Davjæling Himalayon Bailway - 3 26th Edora 201 33 (7407 ft. above), arence & 2016 Heretage Granden 2015 Photo gallery -Museum 218/60 262 36265, · जगकिशिष्ठ अवर युकनाम आहर मुटि प्राम्य क Museum रुद्य का • দাচিলিৎ হিন্দালস্থান ব্রেলড্ডের অন্ধ্রুচিত অর্মমান := > Lardslide मा एति श्र := DHR- ? अणिआ एति श्र अमेरि जिनएक अन्नयान कुट्म विदर्गाण अन्द्र दिर्लार खिर्ग्राष्ठ कार्यस्टार एत्र कालर मिर्डा कीला उकरि रुष कार्या > दर्शनार जे Rolling Stock = रेजिएन छ दर्शनार पीक 100 उद्दर्शन राहा किनु NF Railway जान यहाल हेविर्ड बिर्ड दिइट्स DHR उठ्यार रुप्सा रेखिर् वि Jh.

aye nu

Date

11 Page No. Date - দ্যতিলেও হিমানস্থান রেনজ্বের রহ্যনাবেয়্যন := > पिरिस ब्लाका छट्डालिड् येगजूनिङ उक्का विक्वादि एतर किन्द्र दिस ন্তমাৰ্ক ভাষকে তেনে আন্তি অভিনিয়ন অবহু উন্নুড অহুতন্তাৰ্য অহুবহুত্ব কলু 262621 > - पिंग रेफिद्दनुर रेडमामन रता भागता छारा किर्झान उप्राण বড্যামু ব্যুপ্নচে > यस्मु जिन् जिन्दि नम्लान किरियुद्ध, > किलिजूछि, काकिशा छुरु मारिट्लि - अ जहरू किनटि 6011672 टकाए रुद्य 621 > जरू नूद्याता सेषिय्युमरी दिया दिया र A124 (1917 आला ?) अरु रेन्स्ट्रिश्चन जाएं FH-14(1943 आल्नर) अरु 7 दि सुद्राता रमनमारी जाएि दियित्र कारहा. • বর্তমানে - খ্রিমানা ফান রেনেও দের - সাই মেবা = N:= 11/02/07 (21(7) > JOY-RIDE SPECIAL মুরু সম্ব্র স্রেডিশিন जिल्त दिय क्रम अग्र 10 क्रिनिटिंग प्रतु जाणयिक्ष नूत्य रिदछ घूर, अदि ज़कूदि द्वादन अन्द्र ह्यूडा हिस्टिफियाडा व्यक्तिर्ज्ञातन प्टनड माय विरुषि उदि, अरे माया दि বাদ্ধীমূ ट्युम्नल ३० मिनिटिः निकलालिन आहम 22, する

VO.

No.

18

Page No. Date

239

Train NO. Téméngs Type Fare (per head vupees 52546 Déesel 08:00 A-m 630 25255 Steam 10:30 A.m 1100 52548 Steam 10:40 A.m 1100 52574 Diesel 11.40 A.m. 630 25256 Steam 01:10 A.m. 1100 52549 Steam 01:20A.m 1100 52575 Déesel 01:30 P.m. 630 52547 Steam 04:05 P.m 1100 25257 Steam 04:10 p.m. 1100 and my ly पिश्रेल्वन द्याद्र न्यूनोट्ड स्पेन्न होरे सु > Jungle Sabare := दिला र राश्चर मिटर सिंधिमन अग्रे लानिए दिन पिएल्न र राश्तनक छिएरर द्विर โกเส র্মপ্নি ম্বয় य कि দ্রেন স স্রেষ্ঠিমস্ত্রাহ্রে বাত্দাচালিত > Red Panda Steam := वन ক্সমিস্থায় ম ha riticans 625(23 ল্পেনীৰ ক্ষয়ত্ব আহিত প্রথায় reper 40 41 > Hémalayon on wheels := alterna 3 3tora antaling cuca उारात ही अर्य अकरि जारेल दिन उ fors-as oras Netaje Bose Museum ans জিদ্ধা সাম্বান্দে 6122011 যাজার 2 [20] एम्

1 1 D 1 4.1 Dierch M-A00:80 630 Steam (0:30 A. h. 0011 team ĨШ ŝ UNITED MATIONS EDUCATIONAL SCIENTIFIC AND CULIUGAL OF GANIZATION asel steam CONVENTION CONCERNING 20 THE PROTECTION OF THE WORLD Steam CUITURAL AND NATURAL TERITAGE Diesel Steam The World Heritage Committee has inscribed team C the Darjeeling Himalayan Railway on the World Heritage List Inscription on this list confirms the exceptional and universal value of a cultural or natural site which requires protection for the benefit of all humanity 2.1. DATE OF INSCRIPTION . DIRECTOR GENERAL OF UNDACO 5 December 1999 Darfeeling émalayon Raéli vay = SCO reard beco me en 30 DISIE uM A.P 5R N 1052

Date ·UNESCO रिष्ट्र अधिया गति ज्याभावन जानिकास দ্রাতিলেণ্ড হির্মালম্যান ৫ বলাও মে:= एनइन यहकार 1008 प्राप्त प्राण्टिलिंड हिस्तानस्त्रान दुरुल् खुद्भुख एन १७३ দিনিনারেঙ্গা প্রিমাবে ওর আন্ধাডিকে আছদ্দুত্তিক জিয়নিতিক জবহু বিজ্ঞ জিলম ন্দুলেৎর দ্বীকৃতি হিুমাবে বিজ্ঞ জেনিকায় জিন্তুৎজ করার দেনৎ UNESCO-3 बगढ़, 9 कहि जित्कत करन्द्री गा UNESCO- 7 world Heretage Commity 1000 भारता 5th December उन्दर आह जाहारका अधात किए 23RD दाधिरकाल निद्धालिशिए कप्रुनजूलिह स्ट्लिस करह DHR কে বিষ্ণু উভিয়ন্তৰাহী আলের জলিবসম অনুর্ধৃক্ত কর্মার মিদ্ধান 6 ताखरुष यस्। न्द्र आर्युष्ट्रिक जिल्लान आसाफिक उपिर्श्वां देव्रस्तन् উদ্ধন্থ केन्त्रवती अदिन्छन उपक्राद सुप्रादात अवगीं किया भारतन टेंग्राइ रने, AAR मा विस्त्रुत खितक खिडला द्रित् क्रम धेनुम्दन र एनड जक्षी साएन ব্নিমেৰে হিৰেডি -ुर्वूलमह्यू देत्वरू तन् जातर विख्यू वित्तक खेड्र का • 19 নি নি বি আন্ধার্টকে ভ অগ্রনৈতিক देन्नरुतिरु अखीरु खुलन 620 Contom, Oz अफिसारि DHR प्राज र फिकडी (3 6 को लिय दिग्यादन days. 262621

Page No

14 ło Page No Date · 3.0000 - Altria (Acknowledgements):= एत्रिसाश्च बिश्चियाया अवष्ट किम् मिक्टिक सावनीय किनतु हरूवर्ष सहावम् अश्विम्न रामादि स्वयन् अर्य द गोरास् हम् राम रुग्छा खम्र का रगरन जिश्वादार याद्यानिक द्वार के जुन्हानिक अनम्मवरि याद्यव কৰ্ম Qाआद यहार इ.ए तर, णहार क्रिंग इण्डिए परानाहि, क्रिंगारर बिन्दान्द्र किन्द्रिय दा तुनीदय मादा अण्डा अत्र अत्र कि उग्ने सरक्त्री क्रमाम्तर कार्ड ब्रिजा का मार्ग्य का रहन , कुर्ड का का ना के আ্যের লেপ্তর জিলিসিকানের মানের বিছিল্ল স্থাক ওনগ্নিস অগ আৰু बिहतक आश्रायड काइहर, बिर्नि अवगूलनुर কাচ্চ Orrara 30033 यद्रव्यासी दीणकाष्ट्री यद्रमणितन् यातन আহমদেহ ভগার अकन्मदि य रे लिद यहमामन कर हो? জাব

Sucleshina Bhattacharjee.

Page No. Date ভয্যসূত্র (Sources):= " দ্যার্ডিলের বির্মালস্থান ৫ র লাভেরে" প্রবালয়টি অন্ধার বার্তে জিল্লোকে বেন্ধ কিছু বহু ও ইন্টার্নেটের আহাম্য २८२५५ - ७१८२४ निद्ध अम्छ := নিত • मार्फिलिङ खुषि जन्नाप्त द्वेषिद्याय - मरिग्रन एप्राहार्य · A History of Derjeeling - Hurry Maham Sanyal Train to Darjeeling - Sanjay Mukherijee
District Grozetters - militians · Indianculture.gov. in dhe .in. net · wehipedea . in · gagle.com

ANANDA CHANDRA COLLEGE

(GOVERNMENT SPONSORED) AFFILIATED TO: UNIVERSITY OF NORTH BENGAL

Office of the Principal P.O. & Dist. JALPAIGURI, WEST BENGAL, INDIA, PIN CODE – 735101



E-mail: <u>accjal@gmail.com</u> Website. www.accollege.in

PROJECT COMPLETION CERTIFICATE

This is to certify that 5 mile Shar
a student of Semester 3.2. of B.A./B.Sc History. Honours Programme/
Programme (General) Course of Ananda Chandra College, Jalpaiguri, bearing
Registration No
under guidance of Dr./Smt/Srifournanga Chandra Ray.of Department ofHistary and submitted the project report during the Academic Year 20.22-23

Parimal Br

Head, Department of ...f. h.h. Ananda Chandra College, Jalpaiguri Date: 19-05-2023 Head

Department of History Ananda Chandra College Jalpaiguri



Epidemiological survey to evaluate the health status of the population around Ambeok Tea Garden, located in Gorubathan subdivision of Darjeeling district in West Bengal, India

Epidemiological Survey And Population Study (Physiological) Unit, Division of Community Health & Social Physiology, Department of Physiology, Ananda Chandra College, Jalpaiguri

> Date : 23.05.2023 Location : Ambeok Tea Garden



https://maps.app.goo.gl/GSHt8diEXGsXjmN67

- > To get through idea by the family health survey
- > To assess family health needs, demographic data at these area
- > To identify morbidity and mortality rate of the area

Objectives of Home Visit

- > To identify the problems of family members
- > To provide health education regarding health need of family members
- > To know environmental condition of the family members
- > To increase their knowledge regarding health care system
- To provide basic care to community people

Activities during the Survey

- Students provided health education on the topics of
- ➤ Hypertensive diet
- ➢ Diabetic diet
- > Arthritis
- Menstrual hygiene
- ➤ Family planning methods
- Range of motion exercises
- ➤ Anaemia
- Balanced Diet

Outcomes

There were many families who did not consent to, participate in the family survey. There was no place to gather people and to give them health education. Community people and community health nursing is related with each other. All the persons in the survey population were assessed for their personal habits. Among the females the most prevalent personal habit was chewing (14.4%) and among males 8.4% were chewers and 17.8% were smokers. Nearly 20% males were consuming alcohol.

LIST OF STUDENTS PARTICIPATED:

1	Eshita Chakraborty	25	Dhruba Sekhar Roy
2	Debranjan Roy	26	Suhana Prodhan
3	Shreyasee Dey	27	Debjani Roy
4	Souvik Chakraborty	28	Subhorup Bhattacharjee
5	Soumyajit Datta	29	Abdul Alif Miah
6	Debojit Roy	30	Kritartha Debnath
7	Gitu Roy	31	Gopal Chandra Das
8	Adilur Rahaman	32	Shampa sarkar
9	Bandita Ray Pramanik	33	Amit Das
10	Supriti Roy	34	Riya khatun
11	Jesmina Parvin	35	Debosmit Roy
12	Sunayana Datta	36	Soyel Hasan
13	Nayan Kumar Basak	37	Kaushik das
14	Pritika Das	38	Debasish Ray singha
15	Arjak Saha	39	Rohit Karmakar
16	Arisha Sultana	40	Tanfisha Firdoushi
17	Rumpa Ganguly	41	Tridisha Roy Sarkar
18	Biplab Pramanik	42	Sima Roy
19	Geetika Baidya	43	Mousumi Biswas
20	Partha Das	44	Prantik Sarkar
21	Taslima Begam	45	Bipasha Roy
22	Tithi Tarafdar	46	Bikram singha roy
23	Banasmita Ghosh	47	Manisha Roy
24	Roshan mandal	48	Taniya Dey



<u>Department of Sociology</u> Duration (30/03/23 – 08/04/23)

1. Topic of the Project work

The topic of the project or research work is based on the socio-cultural and economic condition of the selected field. Generally a rural community is selected for field work. Different students select different research topic. Each students are asked to do the research work on the individual research topic.

2. Mention semester and course

B. A. 6th semester of Sociology Honours do their research work.

3. Aims and objective of the work

The students go to the field in order to fulfill the practical knowledge in the field of research as a compulsory part of their syllabus. It basically aims to enhance the research oriented knowledge of the respective students.

Objectives

Every year we organize a field work programme for the last semester students of sociology department. It is purposely prepare themselves for dissertation writing in sociology. Students do a field visit of neighboring village, for 10 (Ten) days. By This field survey the students collect data by interview schedule after that the data analysis and content writing based on individual research topic. The interview schedule is prepared under the supervision of departmental faculty. They choose various individual topics like social issues and problems e. g. Domestic violence, child marriage, working women, education, poverty, women unemployment, etc. Students conduct survey at least 30 households and collect sample through interview schedule and observation for individual research topic. The dissertation would be approximately 30 pages. The same pattern of writing dissertation is followed by every students of the department. This practice actually helps the students for preparing the foundation of research.

The following students of 6th Semester of Sociology Honours have participated in the field work

1SANDHYA ROY DAKUA2.BHUPESH ROY3TANUSHREE BARMAN4KEYA SARKAR5ABHIJIT GOSWAMI6ANIRUDHYA MANDAL7NISHA SAHA8ARPAN INDWAR9GOUTAM DEB10DEBJANI BHUIMALI11SHARMISTHA GHOSH12SHREYASI ROY13PAYEL KUNDU14ASTHA BARMAN15JAYA MINJ16ALIPRIYA BANERJEE17NANDITA ADHIKARY18ASHA ROY
3 TANUSHREE BARMAN 4 KEYA SARKAR 5 ABHIJIT GOSWAMI 6 ANIRUDHYA MANDAL 7 NISHA SAHA 8 ARPAN INDWAR 9 GOUTAM DEB 10 DEBJANI BHUIMALI 11 SHREYASI ROY 12 SHREYASI ROY 13 PAYEL KUNDU 14 ASTHA BARMAN 15 JAYA MINJ 16 ALIPRIYA BANERJEE 17 NANDITA ADHIKARY
4 KEYA SARKAR 5 ABHIJIT GOSWAMI 6 ANIRUDHYA MANDAL 7 NISHA SAHA 8 ARPAN INDWAR 9 GOUTAM DEB 10 DEBJANI BHUIMALI 11 SHARMISTHA GHOSH 12 SHREYASI ROY 13 PAYEL KUNDU 14 ASTHA BARMAN 15 JAYA MINJ 16 ALIPRIYA BANERJEE 17 NANDITA ADHIKARY
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16 ALIPRIYA BANERJEE 17 NANDITA ADHIKARY
17 NANDITA ADHIKARY
18 ASHA ROY
19 SUPRIYA GHOSH
20 SUDESNA GHOSH
21 TAMANNA PARVIN
22 TOMOGHNO SARKAR
23 PRITAM DUTTA
24 TANIMA BISWAS
25 SAYANI BASAK
26 HRISHIKA SHARMA
27 SUSHMITA DAS
28 ARANYA MITRA
29 AKRITI MINJ



CHANGING DIMENTIONS OF RAJBANSHI CULTURE ; A CASE STUDY AT KUMLAI VILLAGE , JALPAIGURI

SUBMITTED BY SANKHASUVRA RAY B.A DSE 3 REGISTRATION NO- 0192005010496 ROLL NO- 2360193-17311

UNDER SUPERVISION OF PROF. DR. RANJIT BARMAN

DEPARTMENT OF SOCIOLOGY ANANDA CHANDRA COLLEGE JALPAIGURI

ACNOWLEDGEMENT

This project is the product of a life long process of learning, which still continues. I would like to thank the various sources published from panchayet office, specially the head of the panchayet of Kumlai village. I took help from village yearly magazine, book, journals, other media and individuals,too numerous to list that day have drown on and been inspired by our respected head of the department of sociology **Dr. Sri Ranjit Barman** .In particular would like to thank publishers and institutes whose books, publications and websites have been mentioned in various chapters.

Our respected sir also helped me in our field survey. Sampling to make a good survey schedule and other various information which help me to improve my sociological dissertation.

I would like to thank all of my friends who helped me to collect magazines, journals and they also gave me some useful websites from where I take some important informations about my dissertation.

Finally I want too express my heartly gratitude and thanks to the persons who gave a honest labour for this dissertation in typing and binding. At last I want to express my gratefulness about the above people and their moral support.

Sancha Suran (mg

SANKHASUVRA RAY

6th SEM

DEPARTMENT OF SOCIOLOGY

ANANDA CHANDRA COLLGE

JALPAIGURI

CERTIFICATE

254

This is to certify that SANKHASUVRA RAY a student of sociology department has completed his dissertation work entitled "CHANGING DIMENTIONS OF RAJBANSHI CULTURE" under my supervision for the full period prescribed in Bachelors Degree. This dissertation embodies the result of his investigation conducted during the period he worked as a under graduate student. I commend him for his exceptional dedication, rigorous research and contribution through this dissertation. I recommended the dissertation for evaluation.

math

(Signature of supervisor)

Department of Sociology,

Ananda Chandra College, Jalpaiguri

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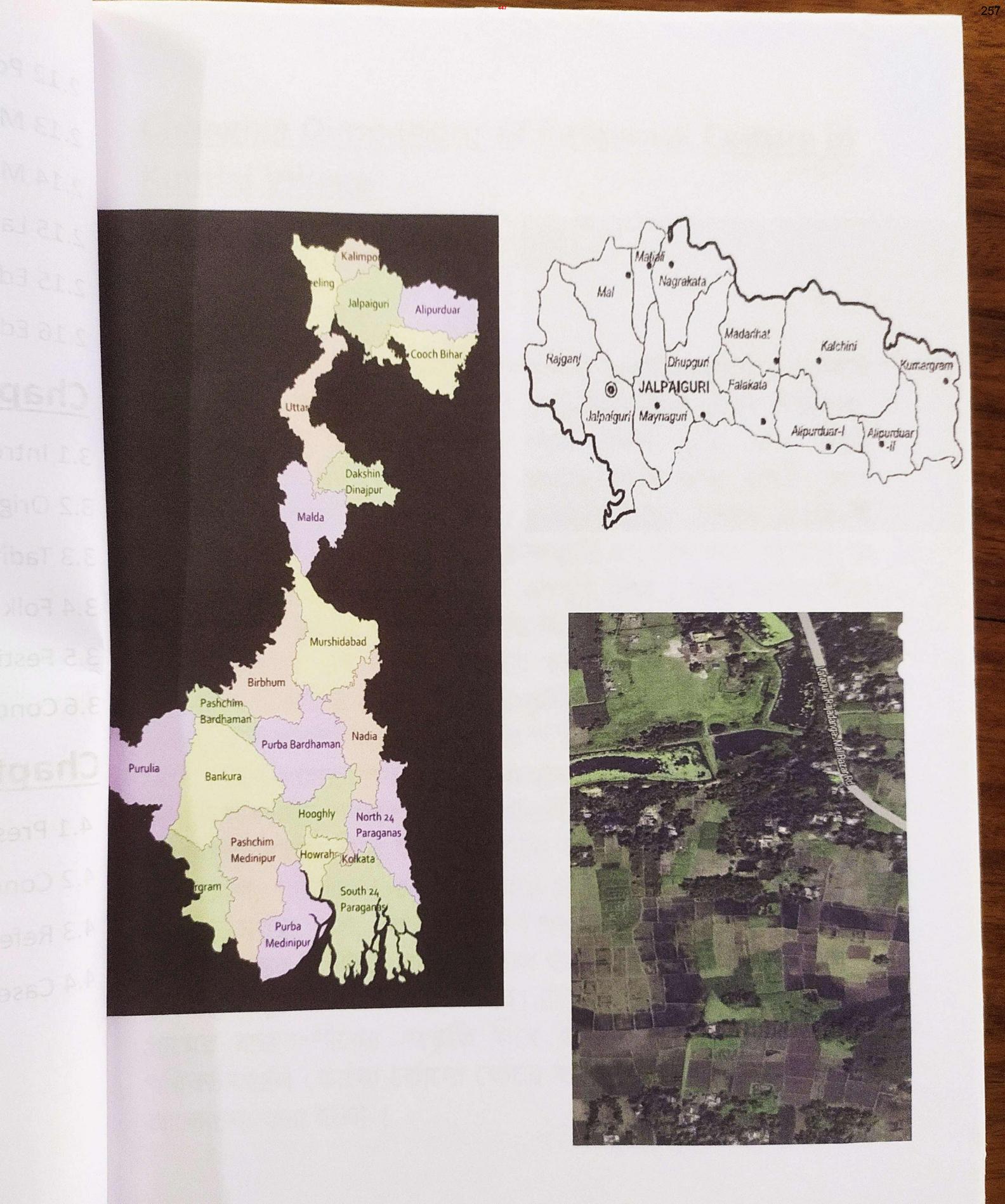
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Location of Kumlai village

Changing Dimentions of Rajbanshi Culture in Kumlai Village

CHAPTER-I

Introduction:

সমাজ হলো এমন একটি গোষ্ঠী যার সদস্যরা একটি নির্দিষ্ট সংস্কৃতির উপর ভিত্তি করে গড়ে ওঠে যাদের চিন্তাধারা, আচার-আচরণ, রীতিনীতি, জীবনধরা একই ভূমি এবং একই আর্থসামাজিক ও ধর্মীয় পরিবেশে রাজবংশীদের মধ্যে একটি পৃথক জাতি ও সম্প্রদায় গড়ে উঠেছে। কুমলাই গ্রামে এভাবে রাজবংশী জনগণের দারা একটি পৃথক সমাজ সংস্কৃতি ও স্বদেশ গড়ে উঠেছে। যা অন্য সম্প্রদায়ের সংস্কৃতি থেকে সম্পূর্ণ ভিন্ন | তবে রাজবংশীরা আঞ্চলিক সংস্কৃতির ভিত্তিতে তাদের নিজস্ব সমাজ গড়ে তুলেছে ওই গ্রামে। এছাড়া এই সমাজে আদিম সংস্কৃতির উপস্থিতি যেমন আর্য সংস্কৃতির উপস্থিতি যেমন আর্য সংস্কৃতির উপস্থিতি লক্ষ করা যায়। একটি ঐতিহ্যবাহী সংস্কৃতি হিসাবেও পরিচিত রাজবংশী সংস্কৃতি। 1947 সালে দেশভাগের পর থেকে আধুনিক শিক্ষা, সংস্কৃতি তারপর আধুনিকীকরণ, পাশ্চাত্যকরণ প্রভৃতির কারণে কুমলাই গ্রামের রাজবংশী সমাজ ধীরে ধীরে পরিবর্তন হয়েছে। এছাড়া পার্শবর্তী দেশ বাংলাদেশ, পাকিস্তান, নেপাল থেকে প্রচুর উদবাস্তু নেপালি, ভুটিয়া, নমসুদ্র, মথুয়া, দাস, ঘোষ, সদগোপ প্রভৃতি সম্প্রদায়ের মানুষ এদেশে এসে সমন্তের পার্শবর্তী গ্রামে বসবাস শুরু করে। কুমলাই গ্রামেও এই উদবাস্তু মানুষেরা বসবাস শুরু করে। এইসব কারণগুলির জন্য কুমলাই গ্রামের রাজবংশীদের সংস্কৃতি ধীরে ধীরে পরিবর্তন হয়েছে, এই পরিবর্তনগুলি কোনো কোনো ক্ষেত্রে হয়েছে সেগুলি বিস্তারিত ভাবে আলোচনা করা হলো |

CHAPTER -2 (Part-A)

<u>Village Profile</u>:-

কুমলাই চা বাগান গ্রাম টি Jalpaiguri District – এর Malbazar Sub-division এ অবস্থিত। এই গ্রাম টি Malbazar S.D.O office থেকে 1.5কি.মি দূরে অবস্থিত। Jalpaiguri D.M office থেকে 57.6কি.মি দূরে অবস্থিত।

• Location, Boundary & Area:-

কুমলাই গ্রাম টি পুরোটাই 606.98হেন্টর এলাকা জুড়ে অবস্থিত। গ্রামের total population হল 4299জন। এর মধ্যে পুরুষের সংখ্যা হল 2144 এবং নারীদের সংখ্যা হল 2155জন। এই গ্রামে মোট 936টি বাড়ি

আছে। কুমলাই গ্রামের Pin Code হলো 735206। মালবাজার হল কুমলাই গ্রামের পাশের শহর এটি গ্রাম থেকে প্রায় 12কি.মি দূরে অবস্থিত।

<u>School</u>:-

প্রাথমিক জ্ঞান বা সমাজের সঙ্গে তাল মিলিয়ে চলার জন্য যেসব জ্ঞান, যোগ্যতা, শিক্ষা আমাদের প্রয়োজন তার বেশিরভাগ টাই আমরা পেয়ে থাকি বিদ্যালয় গুলি থেকে। একটি গ্রামের শিশুদের শিক্ষার জন্য প্রথম প্রয়োজন হল প্রাথমিক বিদ্যালয় (primary school)। কুমলাই গ্রামেও সেইরকম ছোট ছোট ছেলমেয়েদের পড়াশোনার জন্য দুটি প্রাথমিক বিদ্যালয় আছে। একটি হল সরকার পাড়া প্রাথমিক বিদ্যালয়_ যা কুমলাই গ্রাম থেকে 1কি.মি দূরে অবস্থিত।

Chapter – III CHANGING DIMENTIONS OF RAJBANSHI CULTURE

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Introduction :-

সবাই জানে পশ্চিমবঙ্গ তুলনামূলকভাবে ভারতীয় ইউনিয়নের মধ্যে একটি সুশাসিত রাজ্য, কিন্তু বর্তমানে সরকার কিছু সম্প্রদায়ের কাষ্ট্রিত অগ্রগতি আনতে ব্যর্থ হয়েছে যা তাদের মধ্যে অসন্তোষ সৃষ্টি করছে। ধীরে ধীরে সেই সামাজিক-সাংস্কৃতিক গতিবিধিতে অংশ নিয়েছিল যেখান থেকে পশ্চিমবঙ্গের উত্তরাঞ্চলে বর্জনের বীজ গজিয়েছে। গোর্খা, রাজবংশী, কামতাপুরী ইত্যাদির সামাজিক-সাংস্কৃতিক পার্থক্যের ভিত্তিতে ভারত সরকার এবং পশ্চিমবঙ্গ সরকার ধীরে ধীরে কিছু ধরণের প্রয়োজনীয় ব্যবস্থা নিচ্ছে। সামাজিক-সাংস্কৃতিক ও অর্থনৈতিকভাবে সমাজের অন্যান্য সম্প্রদায়ের দ্বারা দীর্ঘ সময়ের জন্য, যাদের জাতীয় মূলধারায় অন্তর্ভুক্তি প্রয়োজন।

Origin of the Rajbanshis :

রাজবংশী সম্প্রদায়ের উৎপত্তির ইতিহাস সম্পূর্ণ একটি ধাঁধা। তাদের উৎপত্তি সম্পর্কে ঐক্যমতের কোনো মতামত নেই। কথিত আছে যে তারা সেই মহান বোড়ো পরিবারের অন্তর্ভুক্ত যারা খ্রিস্টপূর্ব 10 শতকে পূর্ব থেকে ভারতে প্রবেশ করেছিল এবং রহ্মপুত্রের তীরে বসতি স্থাপন থেকে ভারতে প্রবেশ করেছিল এবং রহ্মপুত্রের তীরে বসতি স্থাপন থেকে ভারতে প্রবেশ করেছিল এবং রহ্মপুত্রের গাশাপাশি পূর্ববঙ্গ করেছিল এবং ধীরে ধীরে আসাম এবং সমগ্র উত্তরের পাশাপাশি পূর্ববঙ্গ করেছিল এবং ধীরে ধীরে আসাম এবং সমগ্র উত্তরের পাশাপাশি পূর্ববঙ্গ এখন বাংলাদেশে ছড়িয়ে পড়েছিল। কিন্তু এই রাজবংশী সম্প্রদায়ের এখন বাংলাদেশে ছড়িয়ে পড়েছিল। কিন্তু এই রাজবংশী সম্প্রদায়ের কিছু পণ্ডিত যুক্তি দিয়েছিলেন যে তারা বোড়ো সম্প্রদায়ের অন্তর্ভুক্ত নয়। তাদের মতে উত্তরবঙ্গের রাজবংশীরা কামরূপের রাজা পৃথুর বংশের।

<u>Chapter – IV</u>

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Presenting the Report :-

আমি আমার সমীক্ষার কাজে গৃহীত রাজবংশী সম্প্রদায়ের মাধ্যমে যে সমস্ত তথ্যগুলি পেলাম নিম্নে তার প্রতিবেদন বিষয়ঙ্গ প্রতিবেদন আকারে উল্লেখিত প্রকাশ করলাম।

জলপাইগুড়ি জেলার অন্তর্গত কুমলাই গ্রামের রাজবংশী সমাজে রাজবংশী লোকাচার সম্পর্কে জানতে গিয়ে যে সমস্ত তথ্যাবলি সংগ্রহ করেছি তা উপরে সারণী বিশ্লেষণের মাধ্যমে প্রদান করেছি।

সমন্ত বিষয়ে পর্যালোচনা করে দেখতে পেয়েছি যে জলপাইগুড়ি জেলার অন্তর্গত কুমলাই গ্রামে রাজবংশী সমাজের প্রায় সকল জনসাধারণের জীবনে রাজবংশী লোকাচারের প্রভাব লক্ষ্য করা গিয়েছিল। এক্ষেত্রে বলা যায়, এই গ্রামের মানুষেরা রাজবংশী লোকাচারের সাথে যুক্ত রয়েছে।

ANANDA CHANDRA COLLEGE (GOVERNMENT SPONSORED)

AFFILIATED TO: UNIVERSITY OF NORTH BENGAL

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accjal@gmail.com

Website. www.accollege.org

Ref. No.- 2022-23/____

Dated- 26.04.2023

TO WHOM IT MAY CONCERN

This is to certify that 21 students of 4th and 6th semester B.Sc. Programme Course, accompanied by Dr. Sushmika Pradhan, Sri. Zareth Rongong and Smt. Nupur Mondal of Zoology Department, Ananda Chandra College, Jalpaiguri, has organized an educational tour to Mahananda Wildlife Sanctuary on Thursday, 27th April 2023.

Any assistance provided for the smooth conductance of the said tour will be highly appreciated.

A. Charadants Teacher-in-Charge 26/04/2023

Ananda Chandra College

Jalpaiguri. Teacher-in-charge Ananda Chandra College Jalpaiguri

Trainer Aparna Iyer, AMI Primary Austianu

ANANDA CHANDRA COLLEGE (GOVT. SPONSORED) JALPAIGURI

Date: 16.11.2022

To, The Director North Bengal Wild Animals Park Siliguri

This is to certify that the 5th semester Zoology Honours students of my college will visit North Bengal Wild Animals Park on the 19th of November 2022 for an educational tour as part of their curriculum. Mr. Zareth Rongong will supervise the students for this educational tour and will be accompanied by a few other teachers.

All possible help and concession from your end will be highly appreciated.

The names of the students are attached with this letter.

I hope that the educational tour will be a success with your cooperation and guidance.

16-11-M

Principal, Ananda Chandra College, Jalpaiguri Principal Ananda Chandra College Jalpaiguri

Department of Zoology

Study tour to Mahananda Wildlife Sanctuary

Date of Excursion: 27th April 2023

Introduction:

In accordance with the curriculum outlined in DSEpaper4, the students embarked on an educational excursion to the Mahananda Wildlife Sanctuary. On 27th April 2023, a group of 21 students from the Zoology Department(sem4 and sem 6 program course) embarked on an educational excursion to Mahananda Wildlife Sanctuary. The students were accompanied by Dr. Sushmika Pradhan, along with other teachers from the Zoology Department.

Objectives:

- 1. Visit to a nature interpretation centre
- 2. Biodiversity Exploration: The primary objective of the excursion was to explore the rich biodiversity of Mahananda Wildlife Sanctuary. Students were expected to observe and identify various species of flora and fauna in their natural habitat.
- 3. Wildlife Conservation Awareness: Another objective was to raise awareness among students about the importance of wildlife conservation and the threats faced by biodiversity. Through firsthand experience, students were expected to gain insights into the significance of preserving natural habitats and endangered species.

Outcomes:

During the excursion, students participated in a variety of activities aimed at achieving the objectives mentioned above. These activities included:

A lecture session by the in charge of the wildlife sanctuary.

Guided tour in a bus through different habitats within the sanctuary.

The excursion provided students with firsthand knowledge and experience of biodiversity, ecosystem dynamics, and wildlife conservation practices. They gained insights beyond classroom learning, deepening their understanding of zoology and ecology.

Through interactions with experts and immersive experiences in nature, students developed a greater appreciation for wildlife and natural habitats. They gained awareness of the importance of conservation efforts and their role in safeguarding biodiversity.

List of students of 4th and 6th Semester Programme Course (General) participated in the Field work

conducted by Zoology Department held on:

Date: 27.04.2023

Place: Educational Tour/Field work at Mahananda Wildlife Sanctuary

Programme Name	Students participated
B.Sc Pogramme (General)	Rakshit Ranjan Ray
B.Sc Pogramme (General)	Rupankar Das
B.Sc Pogramme (General)	Dipanwita Adhikary
B.Sc Pogramme (General)	Subrata barman
B.Sc Pogramme (General)	Riju Ghosh
B.Sc Pogramme (General)	Bishal basak
B.Sc Pogramme (General)	Biswajit Saha
B.Sc Pogramme (General)	Soyel Hasan
B.Sc Pogramme (General)	Koushik Biswas
B.Sc Pogramme (General)	Subhorup bhattacharya
B.Sc Pogramme (General)	Koushik Das
B.Sc Pogramme (General)	Priyanka Singh
B.Sc Pogramme (General)	Angshi das
B.Sc Pogramme (General)	Souvik chakraborty
B.Sc Pogramme (General)	Ayan bhoumik
B.Sc Pogramme (General)	Pritika das
B.Sc Pogramme (General)	Raj sen
B.Sc Pogramme (General)	Raja sen
B.Sc Pogramme (General)	MD Siraj
B.Sc Pogramme (General)	Варра Коу
B.Sc Pogramme (General)	Gitika Baiddya

List of students of 5th Semester Zoology Honours participated in the Field work held on:

Date: 19.11.2022

Place: Educational Tour/Field work at North Bengal wild Animals Park, Siliguri

1	Rajeeshwari Das
2	Avik Dey Sarkar
3	Tushar Barua
4	Sonali Karmakar
5	Tiyasa Barman
6	Debasmita Barman
7	Anirban Sen
8	Golap Rahaman
9	Sudipta Ghosh





Mohanadi Forest, West Bengal, India Unnamed Road, Mohanadi Forest, West Bengal 734007, India Lat 26.796869° Long 88.370029° 27/04/23 10:57 AM GMT +05:30

📓 GPS Map Camera

GPS Map Camera

Google

Google

Sukna Forest, West Bengal, India Q9W7+27R, Hill Cart Rd, Sukna Forest, West Bengal 734007, India Lat 26.795544° Long 88.362733° 27/04/23 12:56 PM GMT +05:30

🔝 GPS Map Camera

Mohanadi Forest, West Bengal, India R9CP+9GM, Mohanadi Forest, West Bengal 734007, India Lat 26.82102° Long 88.386238° 27/04/23 11:18 AM GMT +05:30



Acknowledgement

I take this apportunity to express my sincere gratitude to energy and in making are excursion to Mahananda Wildlife Sanctuary a mumarable and envicting experience.

Eiest and lovemost, I would like to evetend my heartfult thanks to the officials and staff of the Mahananda Wildlife Sanctivery for their waren hospitality and for providing us with an opportunity to everlace the beauty of this pristine sanctivery.

I am deeply indebted to ever teachers and quides who accompanied us throughout the teip. Their knowledge, expective and passion for wildlife conservation made the excession both educational and envisyable.

I would also like to thank my fellow classmates and beinds for their camavaderie and the isyaw moments we shared during the trip. Your company and enthusism added immerse value to the overall experience.

Eventuemen, I extend my heartfelt appreciation to the local community for their cooperation and for sharing their insights into the biodiversity and cultural heritage of the region.

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Thank you all has being part of this incredible adverture.

With geatitude, Rupankap Das.

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Introduction

Mahananda Wildlike Sanctuary, nestled in the earteen Himalayor, is a mesmerizing gen of natureal beauly and biodisecrity located in the Indian state of West Bengal. Established in 1976, this sanctuary covers an expansive area of appendimately 159 square Icilometers, making it a significant haven for wildlike and nature enthusiasts alike.

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The sanctuary decives its name from the Mahananda River, which flows through its heart, further enhancing the scenic splendor of the segion. Rich with diverse floca and favora, the sanctuary provides a threiving habitat for a wide variety of wildlife species, including elephants, tigeres, leapards, deep and various origin species.

The Landscape of Mahananda Wildlike Sonctwary ranges from dense Recests of sal, teak and bamboo to Jush geosslands and picturesque meadows. As visitors venture through its winding trails, they are treated to panoramic views of snow-capped peaks, gushing waterfalls and the evergenen charm of the Himalayan Rosthills.

Beyond its sumareleable nativeal offerings, the sanctuary also boarts a vibrant array of plant life, including orchids, ferns and rare medicinal herbs. The diverse vegetation serves as an essencial resource for the local communities and contributes to the consumation of valuable plant species.

Mahananda Wildlike Cancturacy not only provides a sancturacy for wildlike but also offices opportunities for a co-toucism and invinonmental advication. Adventiseous treebbing treails, wildlike solaries and birdwatching

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excuesions provide visitors with an immussive experience, allowing them to connect with nature's wonders while hostering an understanding of the need Pap consumption.

Recovering its ecological balance and nucturing its unique biodiments, Mahananda Wildlike Sancturary stands as a tastoment to the importance of protecting our natural huritage. It beckens treavelees and explorers to immerse themselves in its natural splender, leaving them with an indelible appreciation for the wonders of the wild and the leagility of our plant.

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· With Popust officiens, teachers and classmates at Mahananda Wildlife Sanctuary.

Tour diapy

On 27th Apeil, 2023, our group inbacked on an exciting excisesion to the Mahananda Wildlike Sanctwary located near Siliguri in West Bengal. The sanctwary, known for its diverse flore and fama, officed as a unique opportunity to expresence the beauty of nature and witness the richness of wildlike in their natured habitats.

Our primary obsistive of our excrection was to explane the sanctuary's biodimensity, understand its ecological significance and learn about the conservation offsets in place to protect the region's natural heritage.

Our teip began with a scenic deive through lush landscapes and pictureusque villages, gradually ascending into the sanctuary's boothills. The breathtaking views of snow-capped peaks and vardant valleys set the perfect tone doo are villdlike ascendition.

Upon intering the sanctuary, we were greated by the melodious songs of various bird species, creating a symphony of nature's sound. The air was filled with the fragrance of blooming klowers and the earthy scent of dense foreests.

Sanctuary's knowledgeable officers and guides, with their possion for wildlike consciention, led or through winding teails, painting out different plant species and sharing lascinating anecdates about the Sanctuary's inhabitants. We war hotward to spot several species of dear, gracefully graving in clearings and the accational glimpse of a macientic Indian elephant, which helt us in ave of its sheer size and presence. The theill of the escencion peaked during our wildlife satari. As we vertweed deeper into the dorest, we kept our eyes peaked for the elusive Bengal tiger and the elusive leopard. Although they remained hidden, the excitement of being in three was palpable.

Our joueney also included visits to charming waterfalls, where we dipped our feet into cool, crystal clear vatures, redecoring our spicitus amidet the natural beauty that succounded us.

The exclusion was not only about wildlike but also about leavening and understanding the delicate balance of the ecosystem. Our guides educated us about the importance of conservation and the need to predict these habitats for liture generations.

As we bid lacusell to Maharanda Vildlik Sanctuary, we let a preshound sense of gratitude for the opportunity to immerse overdues in such an extra ordinary environment. The excression had let an indelible mark on our hearts, hosturing a deeper appriciation for the importance of safeguarding our natural huritage.

With newlound knowledge, checished memories and a commitment to preserving the biodiversity we encountered, we departed from the sancturery, locuser carcying the spirit of this remarkable adventure with us.

(A)

Biodiversity

Mahananda Wildlike Sanctivary is home to a remarkable array of biodimensity, owing to its diverse topography and Eawonable climatic conditions. The sanctuary's rich ecosystems provide a habitat for a vide range of plant and animal species, making it a vital hotspot for conservation offerets. Here are some highlights of the biodimensity found in Mahananda Wildlike Sanctuary.

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V Flocal diversity

<u>Dense Sal docests</u>? The sanctuary is known for its lush Sal forests, dominated by the maxiestic Sal treves (<u>Shorea redusta</u>). These locusts create a vital habitat for serveal wildlife species.

<u>Teak and bamboo groves</u>? Teak (<u>Tectona grandis</u>) and bamboo (<u>Bambusa acundinacara</u>) are also prominent in the sanctwary, contributing to the overall biodimentity and ecological balance.

Orechide: Mahananda Wildlik sanctuary is home to a variety of orechid species, including rearer and exotic ones that add to the sanctuary's charm.





Himalayan leageant orchid <u>Crymnadania</u> orchides

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African tulip tere Spathodea companylata

Long-stalked prashereb Caragana bravispina





- Fextail orchid <u>Rhynchostylis</u> <u>vertusa</u>

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Indian Elephant (Elephas maximus)? One of the preminent in habitants, the Indian elephant nearns breely in the ranctuary's lovests.

<u>Bangal Tigue (Parthuca tigeis tigeis)</u> Though Ilusive, the sanctuary is known to harbor a significant population of Bangal tigues, a symbol of strength and beauty.

Indian Grave (Bos gavens): Also bonown as the Indian bison, this marinetic creature can be spatial granding in the grasslands.

Indian Leopard (<u>Ranthana pardus Easca</u>): The sanctuary is home to Leopards, which are skilled climburs and stalkers of pray.

Banking Deup (Muntiacus muntriak): These small and timid deun are commonly sighted in the sanctuary.

Marious bird species? Mahananda Wildlike Sanctuary is a noven ton birdwatchines, offering sightings of numeroos avian species, including Himalyan pied norrbills, preasants and colonful parabuts.

Reptiles and amphibians: The sanctuacy also hosts various reptiles and amphibians, such as pythens, cobcas and different species of leags.

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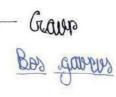


Bangal tiger Panthura tigris tigris

Indian Leopard Parthuca pardies Rusca















Sloth bear Melvesus vesinus

Indian elephant Elephas maximus indices





Indian pangalin Maris crassicandata

Malayan giant squiecel Ratula bicolop

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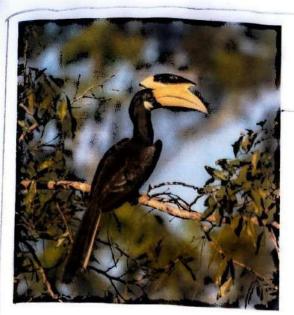


iii) Awan diversity

More than 300 species of birds have been reacouded in the sonctuary, making it a paradise for birdwatchers and crenithologists

The discusse assian life includes migralary birds that visit the sancturary during winter, adding to the bioliversity during specific seasons.

Recovering the blodewesty of Mahananda Wildlik Sancturary is crewial loss the ecological bolance of the region and the consumation of numerous species. The santurary's wright bland of flores and lawna offices whitees an opportunity to witness national sources as a numinder of the importance of protecting these natural tenasures has fisture generations.



Indian pied harnbill Anthracoceros coronatus

Indian peaboul Pour cristatus





- Creey Econcolin Econcolinus pondecucianus

Opennge-headed ground threesh -Guskichla citrina





Rad tungle faul Ccallus gallus

Common bluebottle butterfly Greaphium sacpedon





Ceinson cose butterly Pachlippta hector

Striped tique butturly Danaus genetia

(13)



Conclusion

In conclusion, the excutation to Mahananda Wildlife Sancturary was a twely transformative inverses, immoresing us in the wondows of natures bounty and instilling a deep surveyonce for the delicate balance of life that theirs within these sancturary walls. The sancturary's lush forests, marinetic wildlife and second landscapes captivated own hearts and minds, leaving us with chereished memories that will become hold a special place in own souls.

Theory this permarkable experience, we learned not only about the laxinating biodeversity that flowerships in the sancturary but also about the critical role we play as sturaded of the environment. Witnessing the maxinity of the indian elephant, the grace of deer in their natural habitat and the exclusive presence of patential periodators reminded us of the leagility of these eco-systems and the upgercy of conservation efforts.

The exception kindled a prolound sense of responsibility within us to protect and persueve these persitive environments, ensuring the continuity of lifes interate dance that theires within these sanctuary boundaries. The importance of sustainable practices, wildlife consumation and habital protection. resonated deeply, veging us to be advocates for nature's preservation.

As we bid adiev to Mahananda Wildlike Sometracy, we cavery with us not only the lond memories of the isovency but also a commitment to spaced associations about the sanctroacy's ecological significance. Our especiences have become a beacon, quiding us to embeace a harmonisors co-existence with the natural world.

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Let this excuession be a seeminder of the beauty that supposed is, unging us to peopled, checked and pratick the delicte topestay of life that graces this planet. May we continue to be costadians of nations gibts, ensuring that listure generations inhereit the same wonders that now touched our hearts and enciched our souls during this extra predinary adventure.

With gratitude for the lessons learned and the connections forged, we depart from Mahananda Wildlike Sancturey, carrying the spicit of this comackable experience with us, forever bound to the call of the wild and the reverence for life's diverse splendor.

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