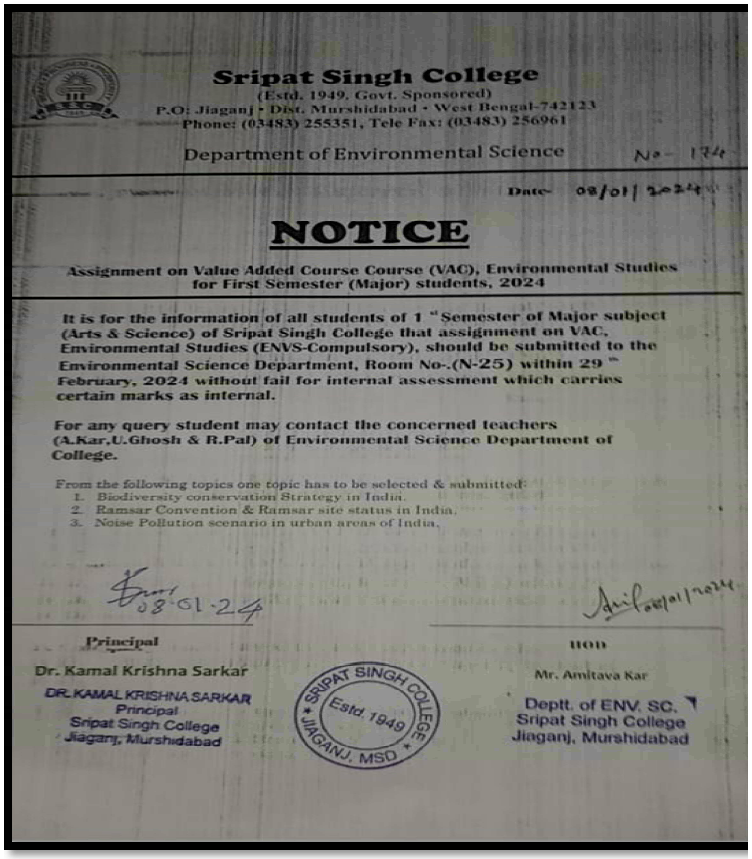
Sripat Singh College

Department of Environmental Science

REPORT: - ENVS-VA-1 (VALUE ADDED COURSE for 1ST SEMESTER)

SESSION-2023-2024

NOTICE CIRCULATION & G-LINK SHARING FOR VAC PROJECT ASSIGNMNT SUBMISSION



Sripat Singh College
(Estd. 1949, Govt. Sponsored)
P.O: Jiaganj • Dist. Murshidabad • West Bengal-742123
Phone: (03483) 255351, Tele Fax: (03483) 256961

Department of Environmental Science No- 174

Date- 08/01/2024

NOTICE

Assignment on Value Added Course Course (VAC), Environmental Studies for First Semester (Major) students, 2024

It is for the information of all students of 1 st Semester of Major subject (Arts & Science) of Sripat Singh College that assignment on VAC, Environmental Studies (ENVS-Compulsory), should be submitted to the Environmental Science Department, Room No-.(N-25) within 29 th February, 2024 without fail for internal assessment which carries certain marks as internal.

For any query student may contact the concerned teachers (A.Kar,U.Ghosh & R.Pal) of Environmental Science Department of College.

From the following topics one topic has to be selected & submitted:
1. Biodiversity conservation Strategy in India.
2. Ramsar Convention & Ramsar site status in India.
3. Noise Pollution scenario in urban areas of India.

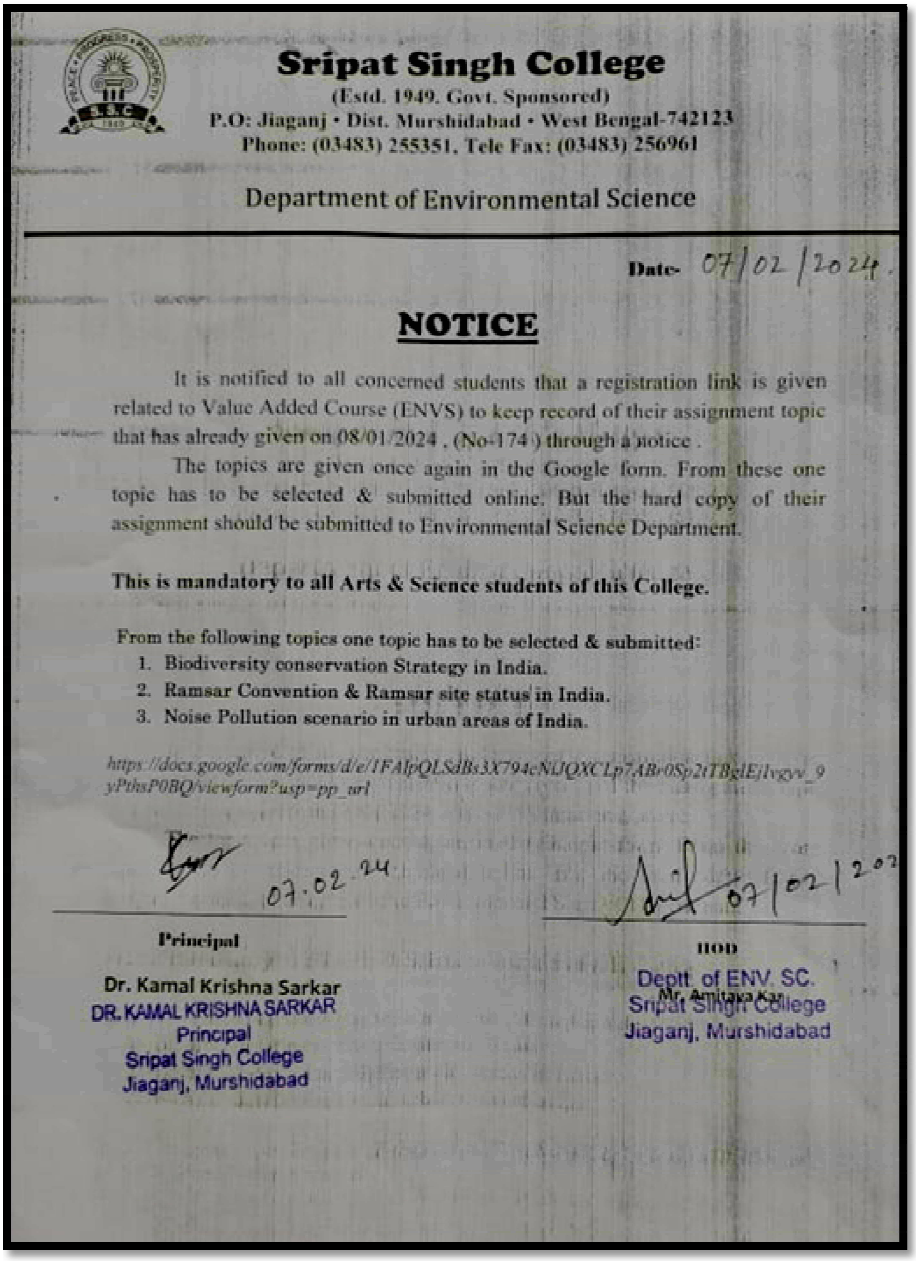
08.01.24

08/01/2024

Principal
Dr. Kamal Krishna Sarkar
DR. KAMAL KRISHNA SARKAR
Principal
Sripat Singh College
Jiaganj, Murshidabad

SRIPAT SINGH COLLEGE Estd. 1949 JIAGANJ, MSD

HOD
Mr. Amitava Kar
Deptt. of ENV. SC.
Sripat Singh College
Jiaganj, Murshidabad



Sripat Singh College
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Phone: (03483) 255351, Tele Fax: (03483) 256961

Department of Environmental Science

Date- 07/02/2024.

NOTICE

It is notified to all concerned students that a registration link is given related to Value Added Course (ENVS) to keep record of their assignment topic that has already given on 08/01/2024 . (No-174) through a notice .

The topics are given once again in the Google form. From these one topic has to be selected & submitted online. But the hard copy of their assignment should be submitted to Environmental Science Department.

This is mandatory to all Arts & Science students of this College.

From the following topics one topic has to be selected & submitted:

1. Biodiversity conservation Strategy in India.
2. Ramsar Convention & Ramsar site status in India.
3. Noise Pollution scenario in urban areas of India.

https://docs.google.com/forms/d/e/1FAIpQLSdBs3X794eNJQXCLp7ABr0Sp2tTBglEj1vgyv_9yPthsP0BQ/viewform?usp=pp_url

07.02.24

Principal
Dr. Kamal Krishna Sarkar
DR. KAMAL KRISHNA SARKAR
Principal
Sripat Singh College
Jiaganj, Murshidabad

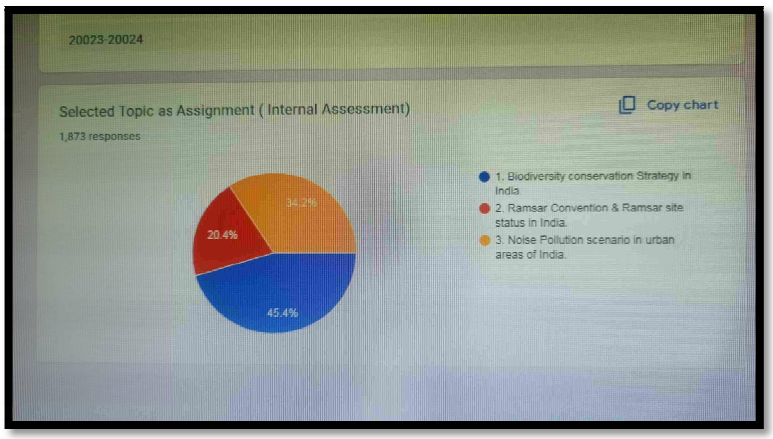
07/02/2024

HOD
Deptt. of ENV. SC.
Mr. Amitava Kar
Sripat Singh College
Jiaganj, Murshidabad

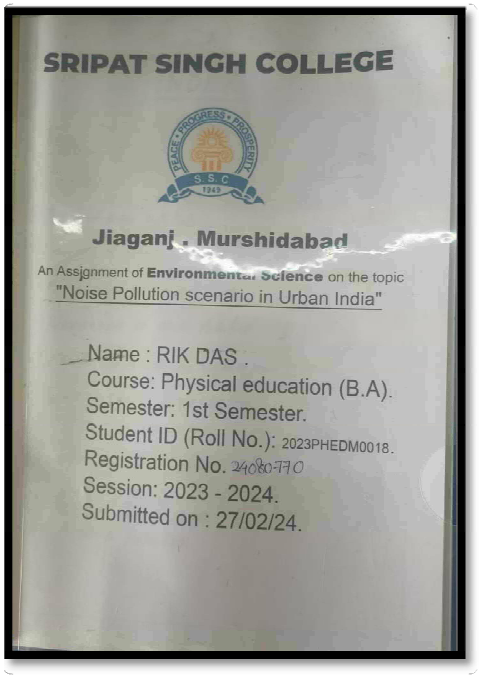
Regitration Link: - https://docs.google.com/spreadsheets/d/1rd47YEGwp6Uw5HTHzHUxn6Kav-GFXvF88EX3DBX7QVs/edit?usp=sharing

Total no. students registered: - 1873

Pie Chart of different topics taken by students for project assignment (2023-2024)



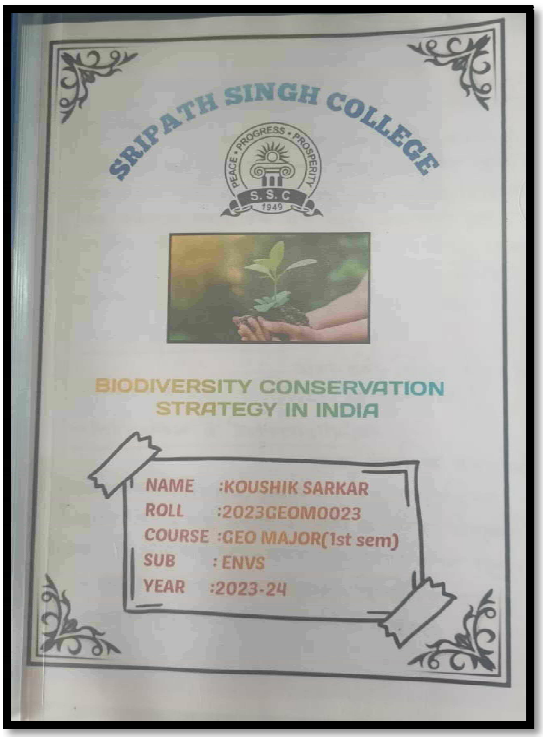
Few Pictures of student's assignment topics


SRIPAT SINGH COLLEGE

Jiaganj . Murshidabad

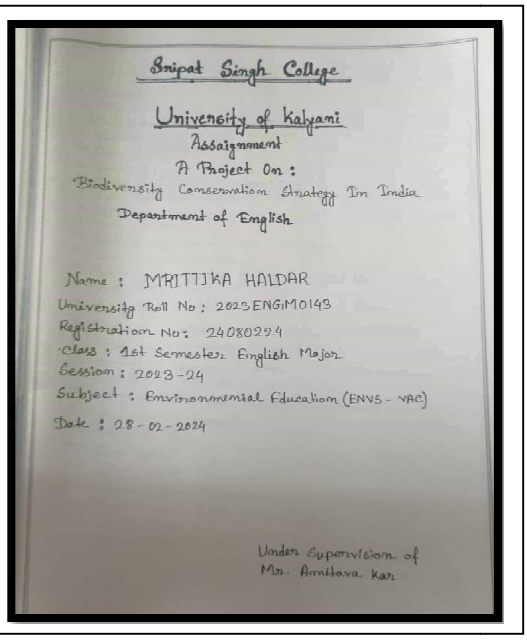
An Assignment of Environmental Science on the topic
"Noise Pollution scenario in Urban India"

Name : RIK DAS .
Course: Physical education (B.A).
Semester: 1st Semester.
Student ID (Roll No.): 2023PHEDM0018.
Registration No. 24080770
Session: 2023 - 2024.
Submitted on : 27/02/24.


SRIPATH SINGH COLLEGE

BIODIVERSITY CONSERVATION STRATEGY IN INDIA

NAME :KOUSHIK SARKAR
ROLL :2023GEOM0023
COURSE :GEO MAJOR(1st sem)
SUB : ENVS
YEAR :2023-24


Sripat Singh College

University of Kalyani

Assignment

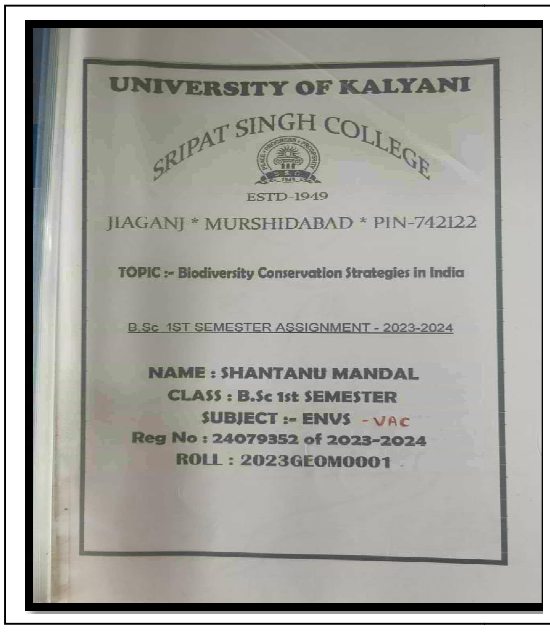
A Project On :

Biodiversity Conservation Strategy In India

Department of English

Name : MRITTIKA HALDAR
University Roll No : 2023ENGM0143
Registration No: 24080224
Class : 1st Semester English Major
Session : 2023-24
Subject : Environmental Education (ENVS - VAC)
Date : 28-02-2024

Under Supervision of
Mr. Amitava Kar


UNIVERSITY OF KALYANI

SRIPAT SINGH COLLEGE

ESTD-1949

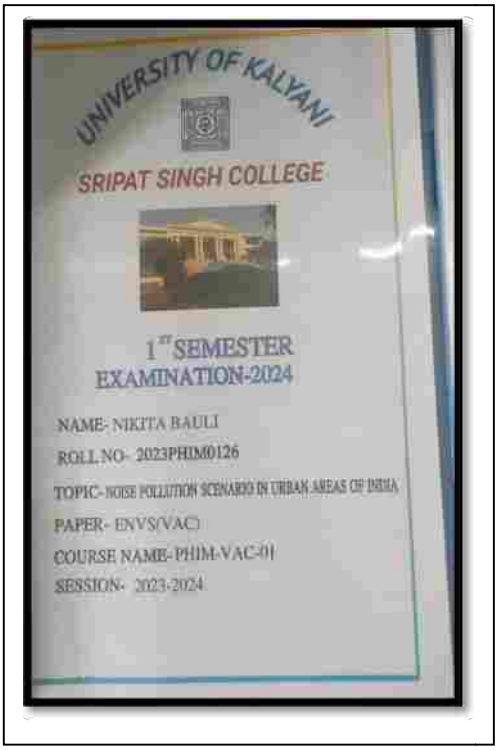
JIAGANJ * MURSHIDABAD * PIN-742122

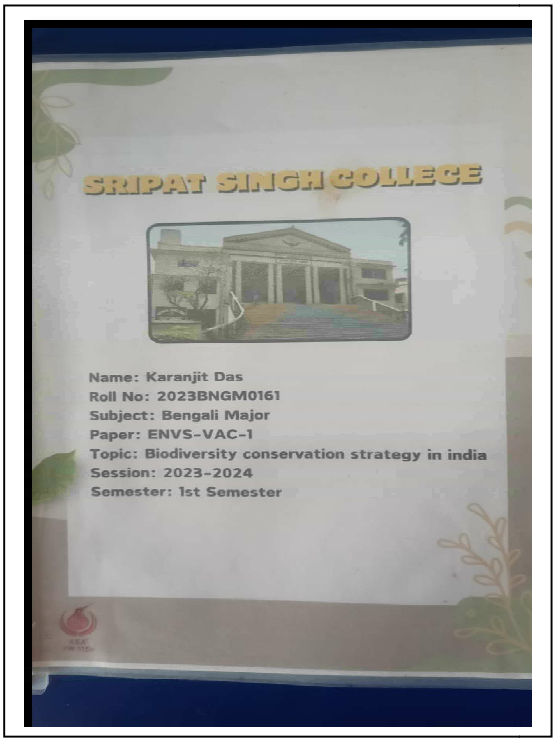
TOPIC :- Biodiversity Conservation Strategies in India

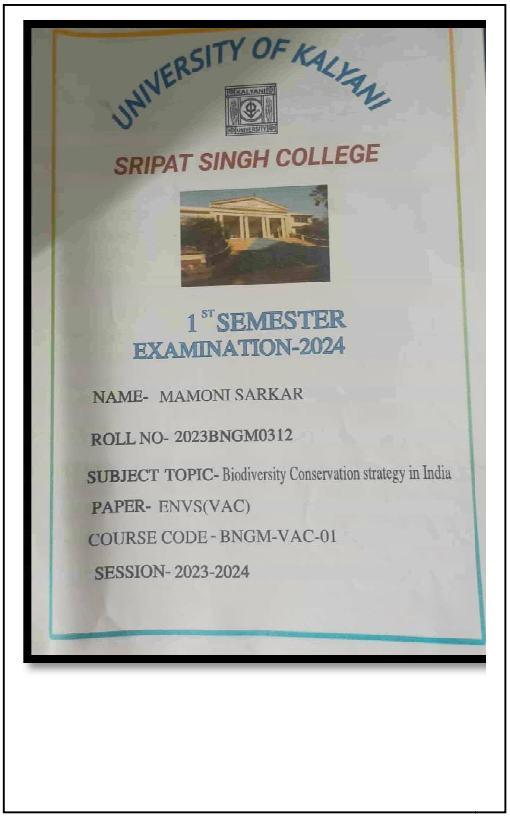
B.Sc 1ST SEMESTER ASSIGNMENT - 2023-2024

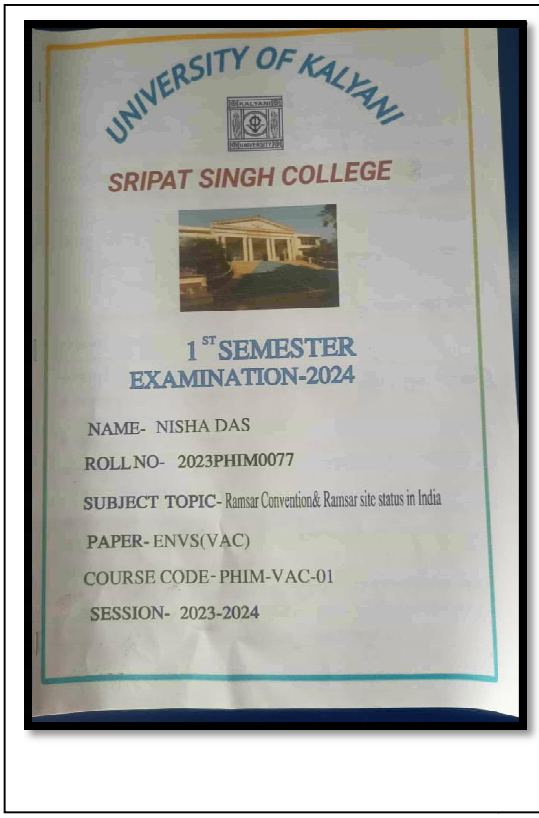
NAME : SHANTANU MANDAL
CLASS : B.Sc 1st SEMESTER
SUBJECT :- ENVS - VAC
Reg No : 24079352 of 2023-2024
ROLL : 2023GEOM0001

Few Pictures of student's assignment topics









DEPARTMENT OF BOTANY

PROJECT REPORT (2nd semester NEP)

SYLLABUS

1. Randhawa, G.S. and Mukhopadhyay, A. (1986). Floriculture in India. Allied Publishers.

COURSE TITLE B: MEDICINAL BOTANY

COURSE OBJECTIVES

After completion of the course the learners will be able to:

- discuss the history, scope and importance of plants as sources of medicines;
- describe methods for sustainable utilization of plant herbal resources;
- apply the knowledge gained in utilizing plants used as traditional/ folk medicines and strategize their conservation.

COURSE CONTENT (THEORY)
UG-H-BOT-SEC-T-02-B

Unit 1: **(8)**

History, Scope and Importance of Medicinal Plants. Indigenous Medicinal Sciences: Definition and Scope – Ayurveda: History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments. Siddha: Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. Unani: History, concept: Umoor-e- tabiya, tumors treatments/ therapy, polyherbal formulations.

Unit 2: **(8)**

Conservation of endangered and endemic medicinal plants: Definition: endemic and endangered medicinal plants; Red list criteria; *in situ* conservation: Biosphere reserves, sacred groves; National Parks; *ex situ* conservation: Botanic Gardens, Ethnomedicinal plant Gardens. Propagation of Medicinal Plants: Objectives of the nursery, its classification, important components of a nursery, sowing, pricking, use of green house for nursery production, propagation through cuttings, layering, grafting and budding.

Unit 3: **(9)**

Ethnobotany and Folk medicines: Definition; Ethnobotany in India. Methods to study ethnobotany; Application of Ethnobotany; National interests, Paleo-ethnobotany. Folk medicines of ethnobotany, ethnomedicine, ethnozoology, ethnic communities of India. Applications of natural products to certain diseases: Jaundice, cardiac, infertility, diabetics, blood pressure and skin disease.

COURSE CONTENT (PRACTICAL)
UG-H-BOT-SEC-P-02-B

1. Make a field report on the important medicinal plants (at least 10) used by local inhabitants.

SUGGESTED READINGS/ REFERENCES:

STUDENT NAME, ROLL. NO. & SIGNATURE

U.G.2ND SEMESTER EXAMINATION, 2024
DEPARTMENT OF BOTANY
PRACTICAL [BOTANY MAJOR]
BOT-SEC-P-02 II

DATE:-03.10.2024

SL. NO	REGN. NO.	SESSION	ROLL NO.	SIGNATURE
1	080122	2023-2024	8121247-2379266	Ayshi Adhikari
2	080138		8121247-2379282	Antara Dutta
3	080151		8121247-2379295	Somsha Ghosh
4	080156		8121247-2379300	Bitish Amina
5	080164		8121247-2379313	Devlina Roy
6	080169		8121247-2379319	Devlina Roy
7	080192		8121247-2379336	Jahida Khatun
8	080196		8121247-2379340	Jahan Neha
9	080199		8121247-2379343	Jasmina Khatun
10	080222		8121247-2379366	Manisha Mandal
11	080241		8121247-2379385	Nahida Parvin
12	080247		8121247-2379391	Nargish Sultana Hasan
13	080275		8121247-2379413	Pritya Bose
14	080280		8121247-2379424	Riya Mandal
15	080297		8121247-2379441	Rita Khatun
16	080360		8121247-2379504	Soumita Bhakat
17	080367		8121247-2379511	Sujata mandal
18	080372		8121247-2379516	Sumita Mondal
19	080390		8121247-2379534	Tumpa Khatun.
20	080397		8121247-2379541	Abdulla Sufati

21	080399		8121247-2379543	Abdur Rahaman SK
22	080402		8121247-2379546	Akhera Iyob Khan
23	080418		8121247-2379562	Aliul Molla
24	080419		8121247-2379563	Alim Islam
25	080495		8121247-2379639	Biku Mondal
26	080509		8121247-2379653	Dipsikha
27	080515		8121247-2379659	Dwip Mondal
28	080520		8121247-2379664	Faizal Sarkar
29	080531		8121247-2379675	Gourab Ghosh
30	080533		8121247-2379677	Gourango Das
31	080545		8121247-2379689	Ikbal Ali
32	080574		8121247-2379718	Kazi Rahul
33	080583		8121247-2379727	Kuresh Sarkar
34	080585		8121247-2379729	Lokesh Biswas

U.G.2ND SEMESTER EXAMINATION, 2024
DEPARTMENT OF BOTANY
PRACTICAL [BOTANY MAJOR]
BOT-SEC-P-02 B

DATE:03.10.2024

SL. NO	REGN. NO.	SESSION	ROLL NO.	SIGNATURE
35	080620	2023-2024	8122247-2379964	Md. Mehbub Hasan
36	080628		8122247-2380772	Md. Rohomuddin Sk
37	080631			
38	080635		8122247-2379982	Mehedi Hossain.
39	080654			
40	080672		8122247-2379816	Ali Mohammad
41	080682		8122247-2379826	Pratyush Biswas
42	080685			
43	080686		8122247-2379830	Pritam Mitra
44	080703		8122247-2379847	Raydip Mondal
45	080713			
46	080732		8122247-2379876	Rocky Das
47	080742		8122247-2379896	Sabbir Reza
48	080753		8122247-2379897	Sahid Hossain
49	080758		8122247-2379902	Sahinsa Alam
50	080759		8122247-2379903	Said Amin
51	080773		8122247-2379917	Samik Biswas
52	080781		8122247-2379925	Santanu Dey
53	080788		8122247-2379932	Sarfaraj Ansari
54	080795		8122247-237[illegible]	Sayan Deb
55	080796		8122247-2379940	Sayan Mondal

SL. NO	REGN. NO.	SESSION	ROLL NO.	SIGNATURE
56	[illegible]		8122247-[illegible]	Sayon Sarkar
57	[illegible]		8122247-2379950	Shahjamal Raza
58	[illegible]			
59	[illegible]			
60	[illegible]			
61	[illegible]			
62	[illegible]		88122247-2379983	Subayan Mistry
63	[illegible]		8122247-2379985	Subham Mallick
64	[illegible]		8122247-2379987	Subham Mondal
65	[illegible]		8122247-2379999	Sudip Mondal
66	[illegible]			
67	[illegible]		8122247-2380028	Susanta Mondal
68	[illegible]		8122247-2380031	Toufik Rahaman
69	[illegible]		8122247-2380036	Tushar SK
70	[illegible]			
71	080338	2023-2024	8122247-2379482	Shilpa Khatun
72	080755	2023-2024	8122247-2379899	Sahil Ali
73	080641	2023-2024	8122247-2379785	Mijan Ali

GPS PICTURE

6JWC+F3G, Balligram,
Bhrigurambati P, Jiaganj,
West Bengal 742122, India
10 Sept 2024 01:02 pm
overcast clouds
34.0°C
Google

67V9+VM4, Baligram, Jiaganj, Jiaganj Azimganj, West Bengal 742122, India
10 Sept 2024 01:03 pm
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34.0 °C
Google

67V9+VM4, Baligram, Jiaganj, Jiaganj Azimganj, West Bengal 742122, India
10 Sept 2024 01:20 pm
overcast clouds
34.0 °C
Google

SRIPAT SINGH COLLEGE

Department of Botany

Jiaganj, Murshidabad, West Bengal, PIN- 742123

☎: 03483 – 255351 (Office); 03483 – 256961, Tele Fax: 03483 - 256961

E-mail: sscollege2009@gmail.com, Website: www.sripatsinghcollege.org

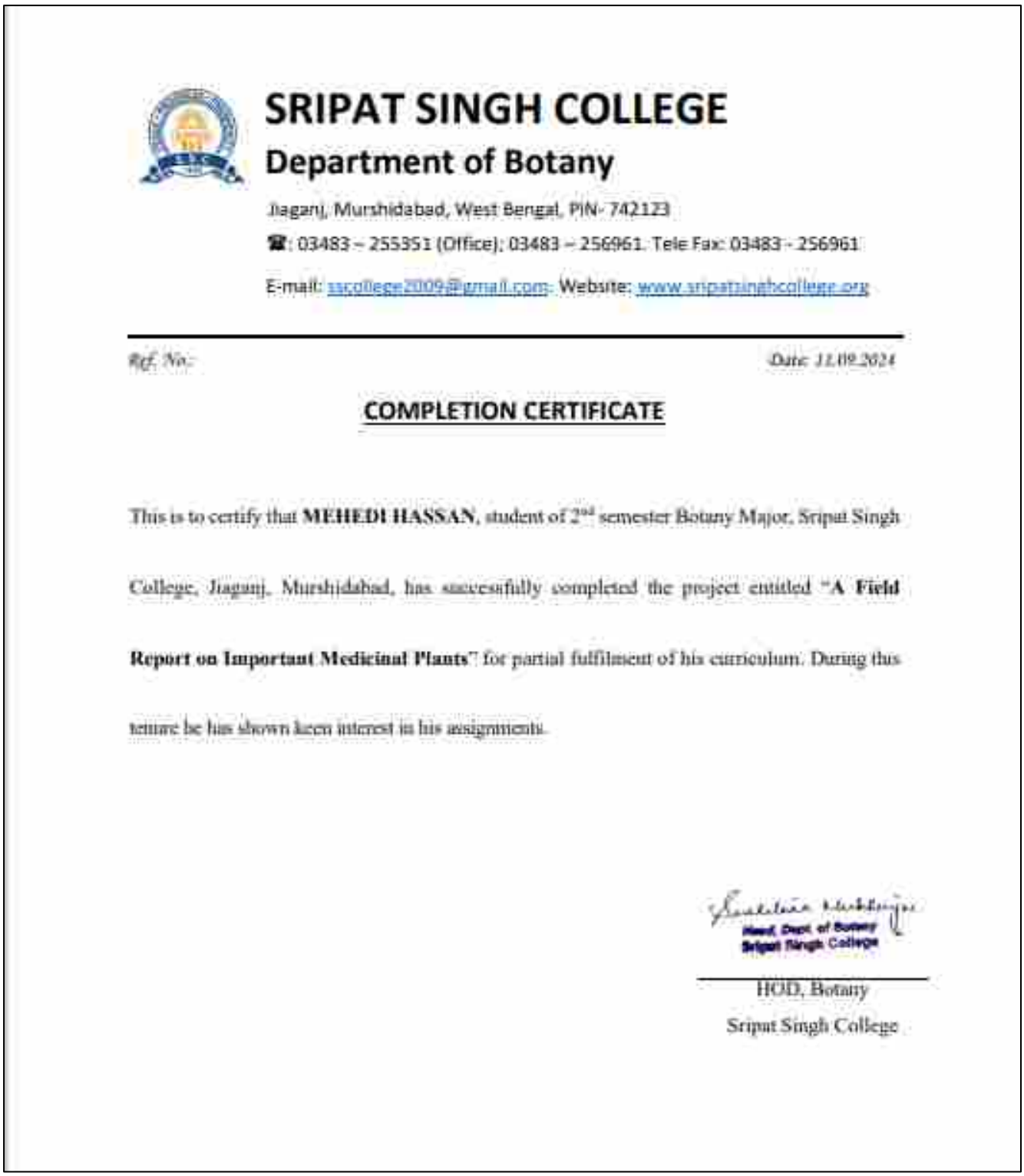
Ref. No.: Date: 11.09.2024

COMPLETION CERTIFICATE

This is to certify that **AISHI ADHIKARY**, student of 2nd semester Botany Major, Sripat Singh College, Jiaganj, Murshidabad, has successfully completed the project entitled "**A Field Report on Important Medicinal Plants**" for partial fulfilment of his curriculum. During this tenure he has shown keen interest in his assignments.

Head, Dept. of Botany
Sripat Singh College

HOD, Botany
Sripat Singh College



SRIPAT SINGH COLLEGE

Department of Botany

Jiaganj, Murshidabad, West Bengal, PIN- 742123

☎: 03483 – 255351 (Office); 03483 – 256961. Tele Fax: 03483 - 256961

E-mail: ssccollege2009@gmail.com; Website: www.sripatsinghcollege.org

Ref. No.: Date: 11.09.2024

COMPLETION CERTIFICATE

This is to certify that **MEHEDI HASSAN**, student of 2nd semester Botany Major, Sripat Singh College, Jiaganj, Murshidabad, has successfully completed the project entitled "**A Field Report on Important Medicinal Plants**" for partial fulfilment of his curriculum. During this tenure he has shown keen interest in his assignments.

Head, Dept. of Botany
Sripat Singh College

HOD, Botany
Sripat Singh College

OUTCOME

As mentioned in the syllabus students were asked to make a field report on the medicinal plants normally found in the locality. Their report included photographs of the plant, a brief description of the plants and their medicinal uses. However, the task was also extended by assigning them to plant any important medicinal plant in the medicinal plant garden of the college. Thus, through this project they not only completed the curriculum but was also aware of the importance of the medicinal

plants of the locality. It also helped the students to develop various skills like Critical thinking, Problem solving and Curiosity which inculcates a lifelong interest in the world around them

DEPARTMENT OF BOTANY

PROJECT REPORT (6th semester)

According to University of Kalyani Botany Honours syllabus (CBCS) all 6th semester students in their DSE 4 paper have to choose any one course from Research Methodology or Dissertation/Project. As students were interested in undergoing projects the same was assigned to them. For this purpose, students were chosen through lottery in three groups and were assigned to three mentor Dr. Suchetana Mukherjee, Dr. Roushan Islam, Mr. Debraj Roy. Students performed the task given by their mentors individually and completed their work in given time.

SYLLABUS

University of Kalyani CBCS Curriculum of B.Sc. in Botany (Honours) effective from 2018-19

SEMESTER-V			
COURSE CODE	**COURSE TITLE**	**COURSE WISE CLASS**	**CREDIT**
UG-H-BOT-CC-T-11	Plant Physiology	Core (60L)	4
UG-H-BOT-CC-P-11		Core (60P)	2
UG-H-BOT-CC-T-12	Plant Metabolism	Core (60L)	4
UG-H-BOT-CC-P-12		Core (60P)	2
UG-H-BOT-DSE-T-01	A. Analytical Techniques in Plant Science **OR**	Discipline Specific Elective (60L+60P)	6 (4T+2P)
UG-H-BOT-DSE-P-01	B. Industrial and Environmental Microbiology		
UG-H-BOT-DSE-T-02	A. Stress Biology **OR**	Discipline Specific Elective (60L+60P)	6 (4T+2P)
UG-H-BOT-DSE-P-02	B. Plant Breeding and Biometry		
TOTAL FOUR (4) COURSES			**24**
SEMESTER-VI			
COURSE CODE	**COURSE TITLE**	**COURSE WISE CLASS**	**CREDIT**
UG-H -BOT-CC-T-13	Genetics	Core (60L)	4
UG-H -BOT-CC-P-13		Core (60P)	2
UG-H -BOT-CC-T-14	Plant Molecular Biology and Biotechnology	Core (60L)	4
UG-H -BOT-CC-P-14		Core (60P)	2
UG-H -BOT-DSE-T-03	A. Biodiversity and Conservation **OR**	Discipline Specific Elective (60L+60P)	6 (4T+2P)
UG-H -BOT-DSE-P-03	B. Coastal Biology		
UG-H -BOT-DSE-T-04	A. Research Methodology	Discipline Specific Elective (60L+60P)	6 A:4T+2P B:6P
UG-H -BOT-DSE-P-04	**OR**		
UG-H -BOT-DSE-P-04	B. Dissertation/ Project	Discipline Specific Elective (180P)	
TOTAL FOUR (4) Courses			**24**
GRAND TOTAL (ALL SEMESTERS): TWENTY SIX (26) COURSES			**140**

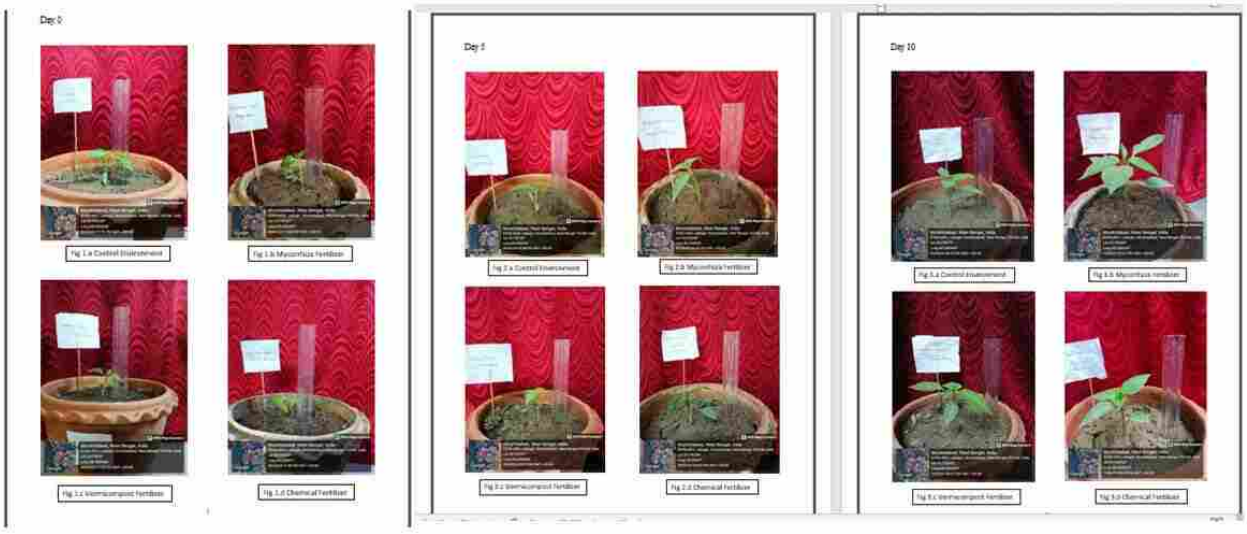
STUDENT NAME, ROLL.NO. & SIGNATURE

UG 6TH SEMESTER EXAMINATION-2024
BOTANY
[HONOURS]
BOTANY-DSE-BOTHDS - P-04

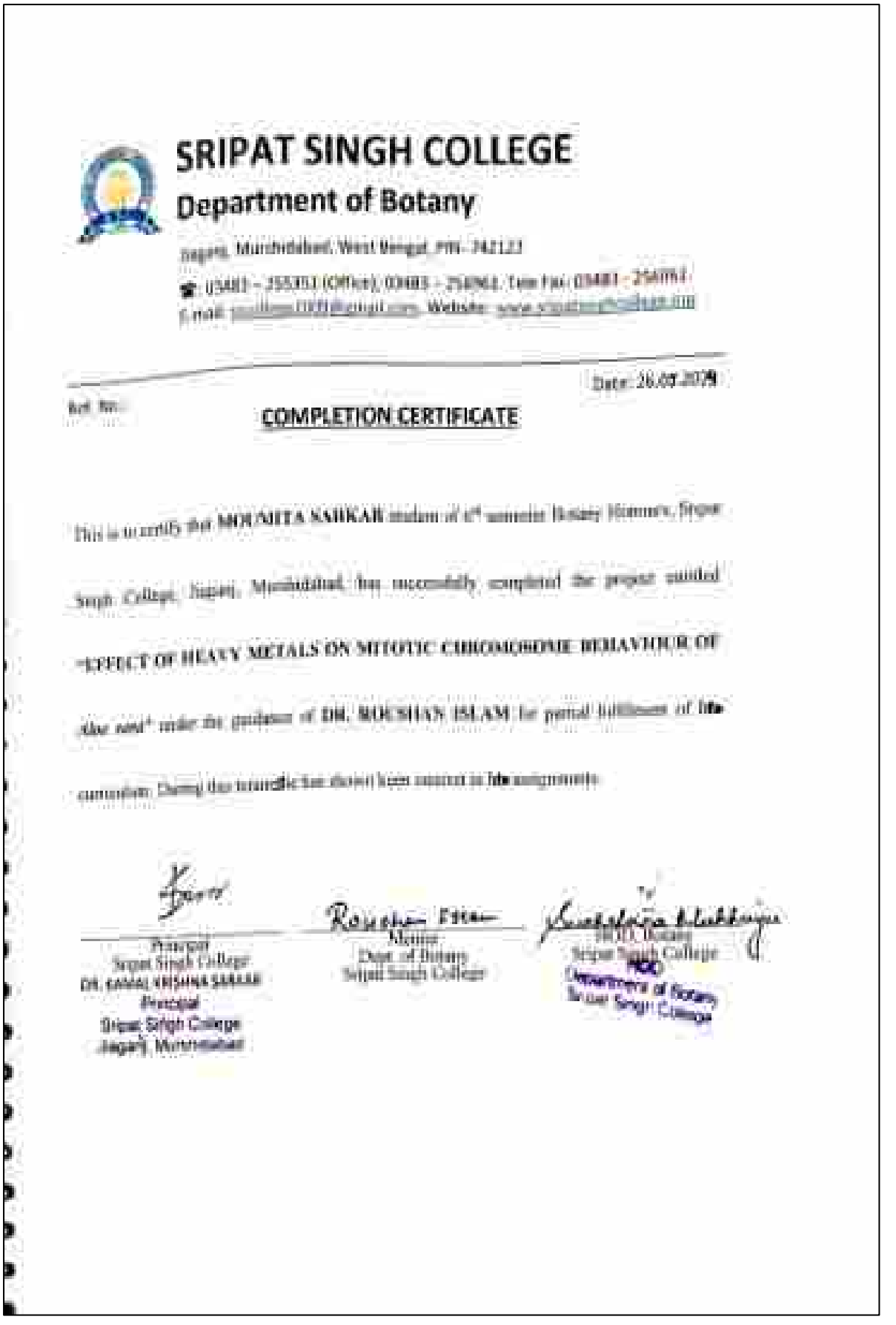
DATE: 10-08-2024 **FM-20**

SL NO	NAME	REGN NO.	SESSSION	ROLL NO	SIGNATURE
1	KANIKA DAS	077428	2020-2021	2116247-2077837	Kanika Das.
2	JAINAB KHATUN	091427	2021-2022	2116247-2188958	Jainab khatun
3	JESMIN SULTANA	091428	2021-2022	2116247-2188961	Jesmin Sultana
4	MOUMITA SARKAR	091431	2021-2022	2166247-2188970-	Moumita Sarkar
5	PUBALI PANDE	091435	2021-2022	2116247-2188981	Pubali Pande
6	SAMIMA AKTAR	091437	2021-2022	2116247-2188988	Samima Aktar
7	SANGEETA DAS	091438	2021-2022	2116247-2188991	Sangeeta Das
8	SHUILI MITRA	091440	2021-2022	2116247-2188999	Shuili Mitra
9	SRIJITA SINGHA ROY	091442	2021-2022	2116247-2189007	Srijita Singha Roy.
10	APARUP KARMAKAR	091446	2021-2022	2116247-2189029	Aparup Karmakar
11	ARIT DHAR	091447	2021-2022	2116247-2189032	Arit Dhar
12	ATANU GHOSH	091448	2021-2022	2116247-2189044	Atanu Ghosh
13	DEBJYOTI MUKHERJEE	091449	2021-2022	2116247-2189056	Debjyoti Mukherjee
14	MUSUIR RAHAMAN	091451	2021-2022	2116247-2189103	Musuir Rahaman.
15	PRIYATOSH SARKAR	091453	2021-2022	2116247-2189121	Priyatosh Sarkar
16	SAYAN SAHA	091454	2021-2022	2116247-2189151	Sayan Saha
17	SWARAJ MANDAL	091457	2021-2022	2116247-2189177	Swaraj Mandal

GPS PICTURE



COMPLETION CERTIFICATE



SRIPAT SINGH COLLEGE

Department of Botany

Jiaganj, Murshidabad, West Bengal, PIN- 742123

☎: 03483 – 255353 (Office); 03483 – 256963, Tele Fax: 03483 – 256963

E-mail: [illegible] Website: [illegible]

Ref. No.: Date: 26.07.2019

COMPLETION CERTIFICATE

This is to certify that MOUMITA SARKAR student of 6th semester Botany Honours, Sripat Singh College, Jiaganj, Murshidabad, has successfully completed the project entitled "EFFECT OF HEAVY METALS ON MITOTIC CHROMOSOME BEHAVIOUR OF Allium sativum" under the guidance of DR. MOUSHAN ISLAM for partial fulfilment of the curriculum. During this tenure she has shown keen interest in the assignments.

Principal
Sripat Singh College
DR. KAMAL KRISHNA SARKAR
Principal
Sripat Singh College
Jiaganj, Murshidabad

Mentor
Dept. of Botany
Sripat Singh College

HOD, Botany
Sripat Singh College
HOD
Department of Botany
Sripat Singh College

SRIPAT SINGH COLLEGE

Department of Botany

Jiaganj, Murshidabad, West Bengal, PIN- 742123

☎ [illegible] (Office) [illegible] Tele Fax [illegible]

E-mail: [illegible] Website: [illegible]

Ref. No. [illegible] Date: [illegible]

COMPLETION CERTIFICATE

This is to certify that **SWARAJ MANDAL**, student of 6th semester Botany (Honours), Sripat Singh College, Jiaganj, Murshidabad, has successfully completed the project entitled **"IMPACT OF HIGH TEMPERATURE ON GERMINATION AND SEEDLING GROWTH OF GRAM** *(Cicer arietinum L.)*" under the guidance of **DR. SUCHETANA MUKHERJEE**, for partial fulfillment of his curriculum. During this tenure he has shown keen interest in his assignments.

Principal	Mentor	HOD, Botany
Sripat Singh College	Dept. of Botany	Sripat Singh College
DR. KAMAL KRISHNA SARKAR Principal Sripat Singh College Jiaganj, Murshidabad	Sripat Singh College	HOD Department of Botany Sripat Singh College

CONCLUSION

The projects assigned to the students helped them to develop various skills like Critical thinking, Problem solving and Curiosity which inculcates a lifelong interest in the world around them. Unlike theoretical knowledge they learn through hands-on experience and are able to explore topics of interest related to their studies but not directly included in their syllabus.

Sripat Singh College

Jiaganj, Murshidabad

Department of Political Science

Dissertation Paper/ Project Work

Session : 2023-24

In accordance with the CBCS syllabus, students in the 6th semester, session: 2023-2024, of the Political Science department, Sripat Singh College, have completed their dissertations covering a range of topics, with individual guidance provided by their respective instructors. Below are the details of the students alongside the names of their designated guiding teachers.

Guide Teacher: Dr. Abdul Kader Ahmmed, Associate Professor, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Suman Das	089644	2023-24	3116247-2189404	45	BIMSTEC an Overview
2.	Sumita Mandal	089624	2023-24	3116247-2189309	37	Border Dispute Between India and China (1962)
3.	Suroj Sardar	089645	2023-24	3116247-2189409	39	Election Commission of India

Guide Teacher: Dr. Shibu Paul, Assistant Professor, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Nikita Das	089620	2023-24	3116247-2189240	41	A Brief History of Indian Honorary Literary System
2.	Ummar Sk	089647	2023-24	3116247-2189416	39	Present and Future state of India's Foreign Policy
3.	Achinta Mondal	089627	2023-24	3116247-2189324	36	Current and Future Challenges of India's Foreign Policy

Guide Teacher: Dilip Sarkar, Assistant Professor, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Namita Mondal	089618	2023-24	3116247-2189235	39	Nationalism in Rabindranath's Thought and its Current Practice
2.	Sukumar Mandal	089643	2023-24	3116247-2189403	40	Religious Genetics in India: A political Interpretation of Recent Hijab Movement
3.	Alamin Sk	089628	2023-24	3116247-2189329	36	India's Cooperation with Ukraine

Guide Teacher: Neha Tamang, Assistant Professor, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Asima Mandal	089616	2023-24	3116247-2189192	38	India's Foreign Policy: Cold War Period
2.	Suparna Sardar	089626	2023-24	3116247-2189312	38	SAARC: Problems and Prospects
3.	Aniket Mukherjee	089629	2023-24	3116247-2189332	37	Thoughts of Mary Wollstonecraft on Feminism
4.	Sudip Mondal	089642	2023-24	3116247-2189401	40	India- Bangladesh Relation
5.	Subhojit Mondal	089641	2023-24	3116247-2189400	38	Justice for India's Neglected Untouchables and Oppressed Classes and their Present Status

Guide Teacher: Ismail Shaikh, SACT, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Anamika Pramanik	089615	2023-24	3116247-2189189	44	Women's Participation in Post-Independence Indian Politics
2.	Sohel Sk	089639	2023-24	3116247-2189395	38	Judicial Administration System of Parliament (India and Bangladesh)

Guide Teacher: Nijamuddin Sarkar, SACT, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Naim Islam	089636	2023-24	3116247-2189374	39	Social Reformer and Politician Ram Mohan Roy
2.	Tukajjiban Sekh	089646	2023-24	3116247-2189415	45	Monotheistic Critique of Female Character: An analysis of a Bengali Serial
3.	Betabuddin Sk	089630	2023-24	3116247-2189339	45	Indian Foreign Policy: Evolution and Cause
4.	Md Kaif Sk	089633	2023-24	3116247-2189364	36	Relations between India and its Neighboring Countries

Guide Teacher: Tohida Khatun, SACT, Department of Political Science

Details of the students:

S.L NO.	NAME OF THE STUDENTS	REGN. NO.	SESSION	ROLL NO.	MARK	TOPIC
1.	Shilpa Mandal	089623	2023-24	3116247-2189288	38	Future of Indian Democracy

Certificate

This is to certify that the following students of 6th semester participated in dissertation/ project work under the guidance of the teachers mentioned above and the submitted their dissertations/project works successfully in time.

Dilip Sarkar
HOD
Department of Pol. Science
Sripat Singh College

HoD, Dept of Political Science

Sripat Singh College

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Fax: (03483)256961

Department of Geography

Notice

Date: 08/07/2023

Geographical excursion will be on Namchi Village, Sikkim from 2nd to 7th October 2023.

It is notified for all 5th Semester Honours Students of department of Geography that a geographical excursion will be on Namchi Village, Sikkim from **2nd to 7th October 2023**, West Bengal under Semester – V, Paper- GEO/H/CC/P11. All the students may contact the undersigned for the participation.

Sakti Mandal

Head of The Department of Geography
Dr. SAKTI MANDAL
Head, Assistant Professor
Department of Geography
Sripat Singh College, Jiaganj

DR. KAMAL KRISHNA SARKAR
Principal
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To,
The Principal
Sripat Singh College, Jiaganj, Murshidabad

Date: 08/07/2023

Subject: Request for Permission for Geographical Excursion for Honors Students

Dear Sir/Madam,

I am writing to request permission to organize a geographical excursion for the Honors students of Semester - V. This excursion will serve as an important part of our academic curriculum, allowing students to gain practical experience and a deeper understanding of various geographical concepts studied in class.

We propose to visit Namchi Village, Sikkim from 2nd to 7th October 2023. The visit will offer an opportunity for the students to study socio-economic as well as geographical features, such as landforms, climate, ecosystems, etc., which are highly relevant to their ongoing studies. The trip will be accompanied by faculty members Dr. Ajoy Debnath and Mr. Biswajit Chowdhury, who will guide and supervise the students during the excursion.

We assure you that all necessary safety measures will be taken, and a detailed itinerary, including transportation and accommodation arrangements, will be submitted for your review prior to the excursion.

We kindly request your approval and support for organizing this academic excursion, as it will significantly enhance the learning experience of the students.

Thank you for considering our request. We look forward to your positive response.

Yours sincerely,

Sakti Mandal

Dr. SAKTI MANDAL
Head, Assistant Professor
Department of Geography
Sripat Singh College, Jiaganj

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Web: www.ss-college.org

DEPARTMENT OF GEOGRAPHY **Date: 20/09/2023**

To,
The Principal
Sripat Singh College,
Jiaganj, Murshidabad, Pin- 742123

Sub: Prayer for withdrawal of 25,000.00 (fifteen thousand only) for (expenditure funds)

Geographical excursion from 2nd to 7th October 2023.

Respected Sir,

I would like to inform you that, the Department of Geography, Sripat Singh College, is going to arrange a Geographical Excursion is Namchi Village, Sikkim from **2nd to 7th October 2023** taking B.Sc. 5th Semester Honours students guided by two respected teachers of the Department.

So, I request you to allow me to draw the above-mentioned rupees as an expenditure purpose for the said educational tour and obliged.

Thanking You

Sakti mandal

Head of the Department of Geography

Dr. SAKTI MANDAL
Head, Assistant Professor
Department of Geography
Sripat Singh College, Jiaganj

List of Students of Semester - V (Hons)
for Geographical Excursion Namchi Village, Sikkim from 2nd to 7th October 2023

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ARGHA GHOSH	20	M
SUPRIYA MONDAL	19	F
SIMRAN SARKAR	20	F
SOUMYAJIT PAL	20	M
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NUR AMIN	20	M
MD ALAMIN	20	M

Photographs of Geographical Excursion Namchi Village, Sikkim from 2nd to 7th October 2023

UNIVERSITY OF KALYANI

FIELD WORK BOOK

SOCIO-ECONOMIC STRUCTURE OF
TATHANGCHEN AREA OF GANGTOK
DISTRICT OF SIKKIM

BY ARGHA GHOSH

ROLL :- 2115247 NO:- 2189030

REGN NO: - 091523 SESSION:- 2021-2022

SEMESTER :- BSC GEOGRAPHY 5th SEMESTER


GPS Map Camera
Azimganj, West Bengal, India
Station Rd, 87J5+8R2, Azimganj Station Rd, Azimganj, Jiaganj Azimganj, West Bengal 742104, India
Lat 24.230798°
Long 88.269555°
02/10/23 08:50 PM GMT +05:30
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Department of Geography

This is to certify that ARGHA GHOSH

Roll 2116247 No. 2189030 and

Registration No 091523 of 2021-22 of B.Sc. Hons

Semester – V Examination of 2024 in Geography under Kalyani University has completed his/ her project work on Socio-Economic Structure of Tathangchen Area of Gangtok District of Sikkim.

under our supervision and guidance.

He/she is permitted to submit the same as partial fulfillment of B.Sc. Hons Semester – V Examination 2024 in Geography (SEC/ Practical) paper CC/P-11

Sakti mandal
Signature

Head of the Department of Geography
Dr. SAKTI MANDAL
Head, Assistant Professor
Department of Geography
Sripat Singh College, Jiaganj

Ajay Debnath
Signature

Field Supervisors

Outcome Report: Geographical Excursion

Date of Excursion:	2nd to 7th October 2023,
Location:	Namchi Village, Sikkim
Participants:	35
Organized By:	Department of Geography,
Name of Field Supervisor:	Dr. Ajoy Debnath and Mr. Biswajit Chowdhury

Introduction:

The geographical excursion to Namchi Village, Sikkim was organized as part of the academic curriculum for the Honors students of Semester- V (Hons) in the Geography Department. The aim of this excursion was to provide students with practical exposure to geographical features and processes, supplementing their theoretical understanding.

Learning Objectives Achieved:

During the excursion, students were able to achieve the following key objectives:

1. **Observation of Geographical Features:**

Students had the opportunity to observe mountain ranges, rivers, coastal areas, soil types, etc., which helped them understand concepts related to geomorphology, hydrology, etc.. This hands-on observation solidified their understanding of the formation and impact of these features.

2. **Practical Data Collection:**

Students conducted various field activities, including Socio-economic data and soil sampling, topographical mapping, climate measurement, etc.. This allowed them to learn how to collect and analyze data in a real-world context, a vital skill for geographical research.

3. **Interaction with Local Communities:**

Students interacted with local communities to understand the relationship between human activities and the environment. This included understanding how geographical features impact agriculture, industry, and daily life in the region.

4. **Environmental Awareness:**

The excursion heightened students' awareness of environmental issues such as deforestation, soil erosion, climate change, etc.. The exposure to real-world environmental challenges reinforced the importance of sustainable development and environmental management.

5. **Group Collaboration and Problem Solving:**

Working in groups, students collaborated on field assignments and data analysis. They also encountered unexpected challenges, such as weather conditions or navigation issues, which helped them develop problem-solving and teamwork skills.

6. **Impact on Academic Learning:**

This excursion directly contributed to the students' understanding of topics covered in their coursework. Concepts such as [specific geographical concepts like erosion, tectonic activity, or human-environment interaction] were experienced first-hand, making them easier to comprehend and retain.

Conclusion:

The geographical excursion to Namchi Village, Sikkim was a successful and enriching experience for the students. It bridged the gap between theoretical study and practical application, enhancing both academic learning and personal development. We recommend continuing such excursions for future batches, as they play a crucial role in a holistic geographical education.

Recommendations:

- More frequent field trips should be organized to diverse locations to cover a broader range of geographical phenomena.
- Future excursions could include more interdisciplinary approaches, involving collaboration with students from environmental science or sociology departments to widen perspectives.

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Long 88.259555°
02/10/23 06:50 PM GMT +05:30
Google

ACKNOWLEDGEMENT :-

A field Report is a partial fulfilment of B.Sc. HONOURS 5th SEMESTER of Kalyani University. In the very worth the physical and and socio-economic aspect of Tathangchen Area, in Gangtok, Sikkim - 737101, India has been represended almost all minute details.

Firstly, I expressed gratitude to head of the Dept. Dr. Sakti Mandal sir and professor Dr. Ajay Debnath sir to make our field study successful in short duration with their appropiate and convenient planning and by providing their valuable advice to us.

Lastly, I am thankful to all of my good wishers, teachers, parents and classmates for spending their time in helping and giving support whenever I need it in fabricating my project.

CONTENTS

CHAPTER-1

A BRIEF HISTORY OF SIKKIM STATE

INTRODUCTION

Sikkim is a small mountainous state in the Eastern Himalaya Region in India. It covers an area of 7,096 km², extending approximately 114 km from North to South and 64 km from East to West. The state is situated between 88°00'58" East longitude to 88°55'25" East longitude and 27°04' and 28°07'48" North latitudes. It is surrounded by vast stretches of Tibetan plateau in North, Chumbi Valley & Kingdom of Nepal in the west with nine sub-divisions and eight towns the state has four district namely East, West, North and South.

The state being part of inner ranges of mountains of Himalayas has no open valley and no plains but varied elevations ranging from 300 to 8583 m. above mean sea and snow bound land.

The Himalayas is our country's pride and is a symbol of value system. They are in almost every way superlative. They are the highest mountain range on Earth with just about all the highest mountains in them. They form one of the greatest physical and cultural barriers and they are stupendously beautiful, still relatively unspoilt and full of fascianting human and

and natural life. A comprehensive study on the environmental and social changes in the entire Himalayas maybe the need of time to identify and justify the methodology of change, which is consisted with preservation of Himalayan values, heritage, natural resources of the area.

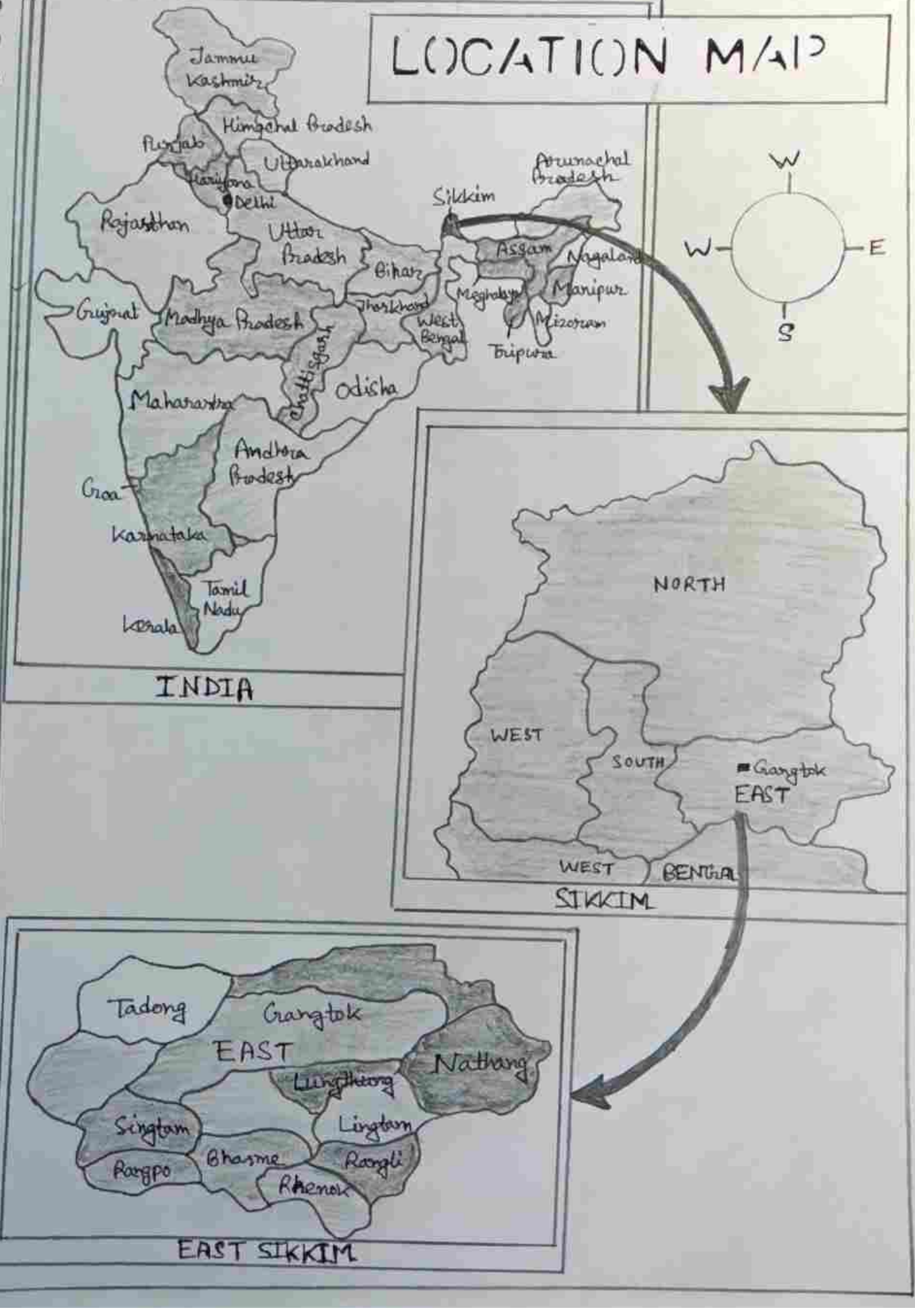
▶ AREA INTRODUCTION :-

The total geographical area of the state is 7096 sq km, but according to 1958-60 survey operation and the Gazetter of sikkim, the land area under different utilization catagories in 7299 sq km. Detailed break up isasfollows :-

Table for land Area Utilization		
Land Use pattern	Area in '000 ha	Area in %
Baroren Land	209.01	28.28
Land put to Non-agricultural use	69.96	9.58
Permanent pastures and grazing land including cultivable waste	102.49	14.40
Land under miscellaneous tree crops and grasses	4.17	0.57
Forest land	265.21	36.34
Land under operational holdings	79.06	10.83
Total	729.90	100.00

Source : Internet

LOCATION MAP



NATURAL RESOURCES :-

The Sikkim Himalayas has excellent scope for value added eco-tourism and traditions, unique in Art, Culture, and folks dances live in perfect harmony and it is one of the most peaceful states in the country. There is strong sense of community living with district commitment in the people to serve the society. They have the strong sense of volunteerism.

The state is bestowed with abundant natural resources. Covering just 0.2% of the geographical area of the country, it is timendous biodiversity and has been identified as one of the Hot spot for biodiversity. The Sikkim Himalayas that spread over Sikkim and the hill region of Darjeeling harbors more than 26% of the flowering plants reported in the country and known to be an important phyto-geographical reserve of the country. Species wise, it has about 4500 Flowering plants, 550 orchids, 227 High altitude lakes and watelands and over 104 rivers and streams.

Table: Wild Biodiversity at a Glance
Flowering plants : 4500
Mammals : 144+
Buttorflies : 600+
Birds : 550
Fishes : 48
Rivers and Streams : over 104
Lakes and Wetlands : 227

Source : Internet

The abrupt telescoping of the terrain from the hot steamy foothill valleys to the artic cold of the snow capped peaks, which has produced the marked altitudinal zonation in the rainfall, humidity, climate and vegetation is also responsible for the great variety and numerical abundance of the resident bird life, making sikkim perhaps the richest area of its size any where in the world.

Forestry is the major land use in the state and nearly 82% of the total geographical area of the state is under the administrative control of the state forest department. This proportion is one of the largest in the country. The forest cover of the state is 46% of the total geographical area of the state.

This figure is one of the largest in the country. There is one high altitude National park and Six Wildlife Sanctuaries, which together constitute over 31% of the total geographical area of the state.

Table: Sikkim Forest	Recorded Area
Reserve Forest	5452 Sq km
Protected Forest	389 Sq km
Total	5841 Sq km
very Dense	458 Sq km
Moderately Dense	1904 Sq km
Total	3262 Sq km
Total Forest and tree Cover	3284 Sq km

Source: Internet

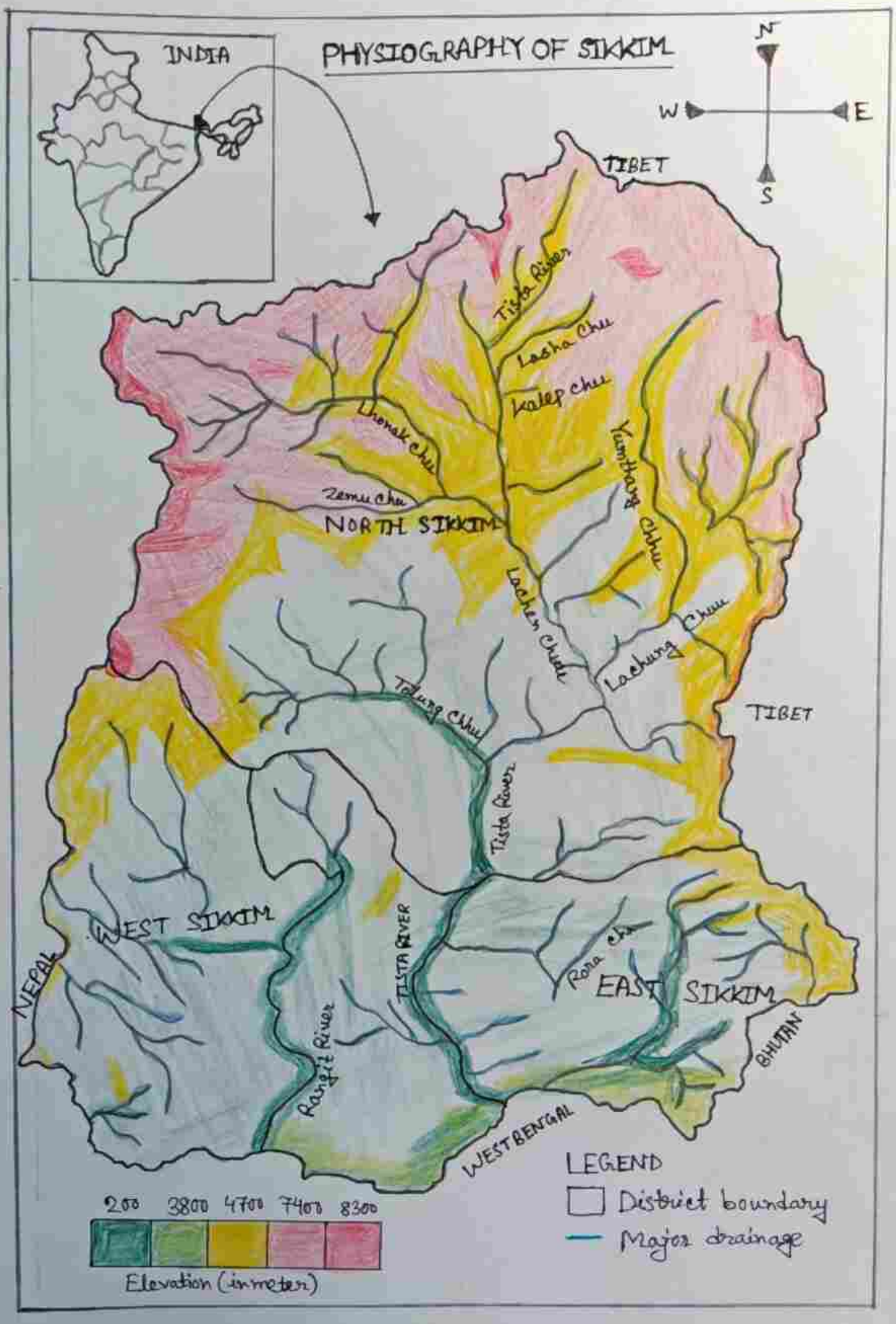
A BRIEF PAST HISTORY :-

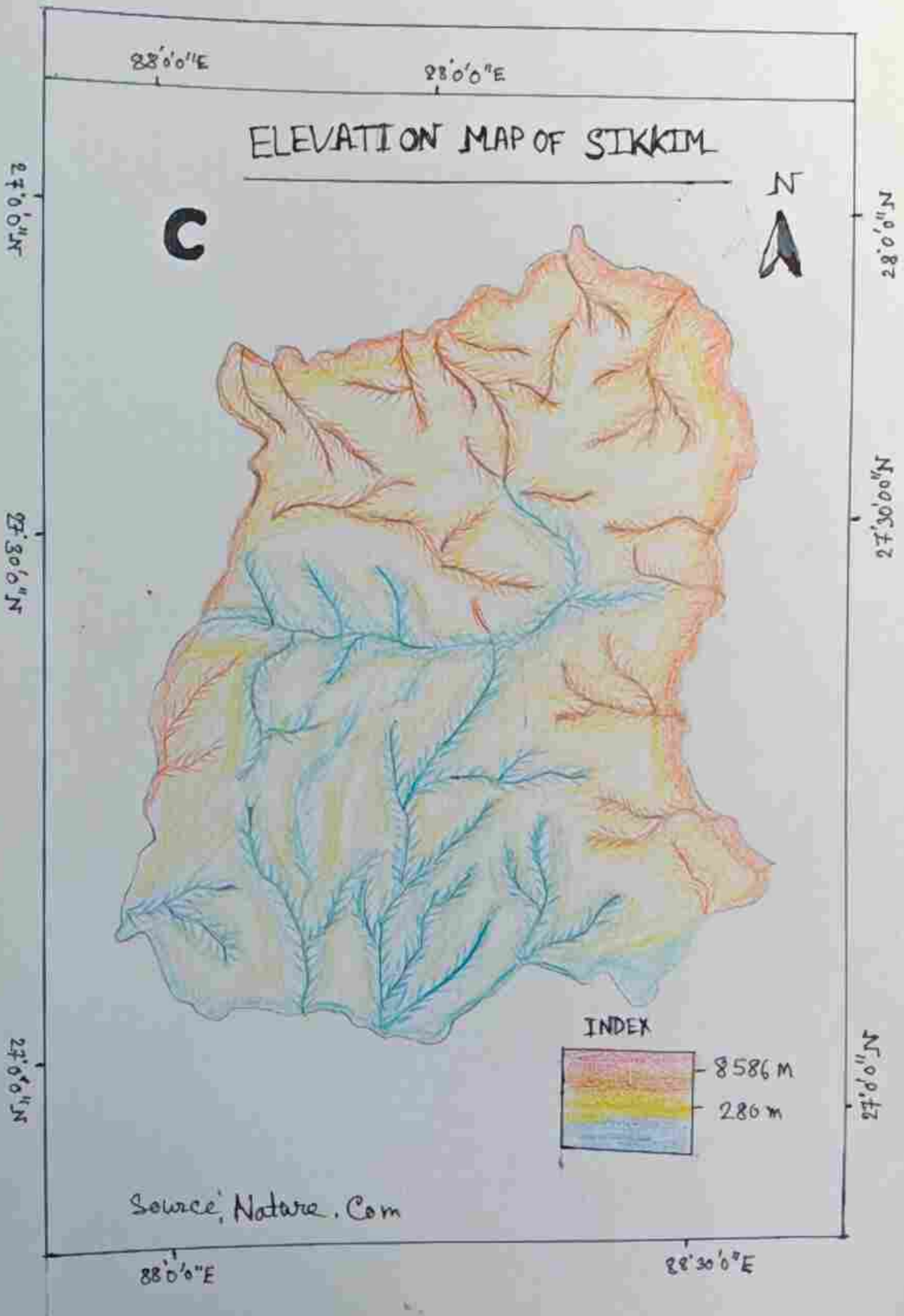
The Tenth enogyal (Maharajah) of Sikkim after completing his studies in oxford university in 1888 was given the charge of Forests, Monasteries and and Schools. The forest Department was Constituded in 1909. As per notification dated 15.05.1911 (F.D). The Maharajah of Sikkim was declearred a "Forest officer". In 1909 the then demarcation of the forest areas of the than support system and required full protection were set. A Part as Reserve forests. These forests were to be left in their natural state and heavy penalties were imposed for illegal activities in these areas. Other forest areas that could be worked on a small scale in order to meet the timber and fuel wood requirements of the local populace were curved out in the vicinity of village. Those forest that were set a part in this manner to meet the wood requirment of the lacal people were called Kharmal forests and those that were set a part of grazing grounds for the village cattle were called Goucharan Forests. Forest rule and regulation were first of all instituded during thes period.

PHYSIOGRAPHY:-

Physiographically, Sikkim can be said to have its feet in the ocean and its head in the sky. The altitudes vary from 300 meters to 8500 meters above mean sea level. The entire state is a young mountain system with highly folded and faulted rock strata at many places. It encompasses the lesser Himalayas, Central Himalayas and the Tethys Himalayas. Great Mountain running from 3000 meters to 8500 meters in height separates the state from surroundings. In fact, it has no flat piece of land good size and where. Major portion is covered by the pre-cambrain rock and is much younger in age. The rock type consists of phyllites and schist's and therefore, the slopes are highly susceptible to weathering and prone to erosion and landslides. The trend of the mountain system is in general east-west direction. The mountains rise in elevation northward. The norther portion of the state is in general east-west direction. The mountains rise in elevation northward.

Soil of the region being the nutrient medium, is indispensable in vegetations.


PHYSIOGRAPHY OF SIKKIM
INDIA
N
W
E
S
TIBET
Tista River
Lasha Chu
Kalep chu
Dhomak chu
Yumthang Chhu
Zemu Cha
NORTH SIKKIM
Lachen Chuu
Lachung Chuu
Talung Chhu
TIBET
Tista River
WEST SIKKIM
NEPAL
TISTA RIVER
Rora Chu
EAST SIKKIM
BHUTAN
Ranjit River
WESTBENGAL
LEGEND
District boundary
Major drainage
200
3800
4700
7400
8300
Elevation (in meter)


88°0'0"E
88°0'0"E
ELEVATION MAP OF SIKKIM
C
N
28°0'0"N
27°30'0"N
27°0'0"N
INDEX
8586 M
280 m
Source: Nature.Com
88°0'0"E
88°30'0"E

GEOLOGY OF SIKKIM

General Description:

Sikkim or Sikkim Himalaya is mostly covered by Precambrian metapelites of low to medium grade and Baxa carbonate-quartzite association, high genisses with deformed granite gneiss. The Palaeozoic - Mesozoic rocks include Gondawana - equivalent Rishi group and Tethyan rocks. Each of these stocks ranging in age mostly from proterozoic to Mesozoic has distinct tectono-sedimentary, maymatic, metamorphic and structural characteristics.

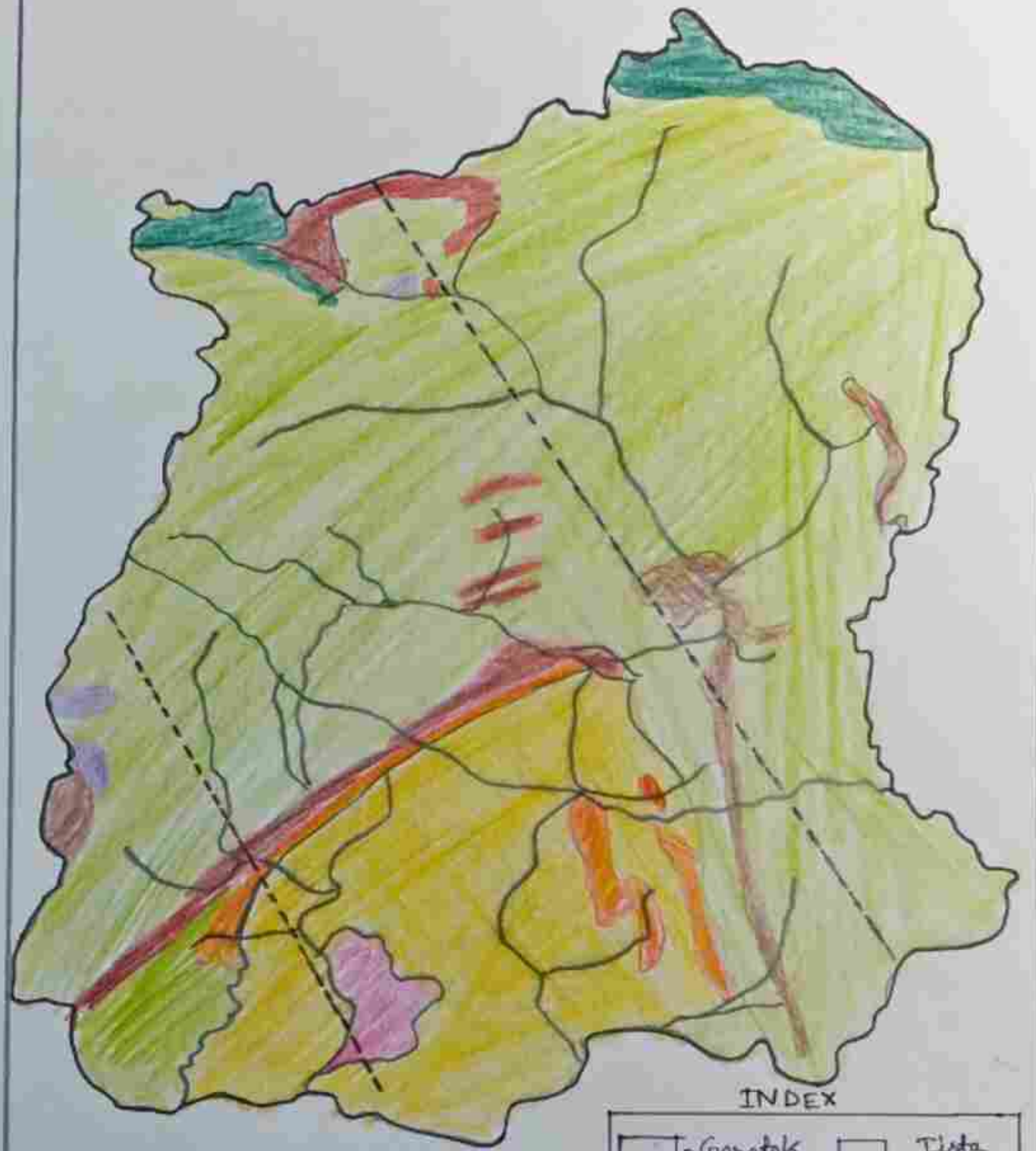
The major lithotypes of Sikkim region belong to the eastward extension of rock types of Nepal Himalaya which complex fold - thrust tectonostratigraphic sequences forming nappes, windows klippen etc.

the phenomenon of Inverted Metamorphism seen in the Sikkim Himalaya, problem also pertains to the mechanism by which Tethyan phanerozoic sequence escaped regional metamorphism.

Southern Part or Gangtok Division:-

Different types of rocks and minerals have been found in South district. Some of them are quartzite, coal, granite etc. which are not useful for the agricultural purpose. the hard rocks in agricultural fields are difficult to break and remove. The soft rock strata, after breaking of materials like phylites conglomerates, Pebbles / soil etc. are to some extent useful for agricultural field. In general, the Buxa formation is better suitable for cultivation compared to the Daling.

GEOLOGY OF SIKKIM



INDEX

- = Gangtok Lineament
- = Tista Lineament
- Chungthang Formation
- Granulo-Gneiss Formation
- Igneous Intrusive
- Rangit Window
- Lingtse Gneiss
- Tethyan Sediment
- Darjeeling Gneiss

Source: Sciencedirect.com

SOIL OF SIKKIM

General Definition :-

Sikkim enjoys a wide range of climate, physiography, geology and vegetation that influence the formation of different kinds of soil. Soil occuring in different landforms are studied in respect of their morphology physical and chemical characteristics.

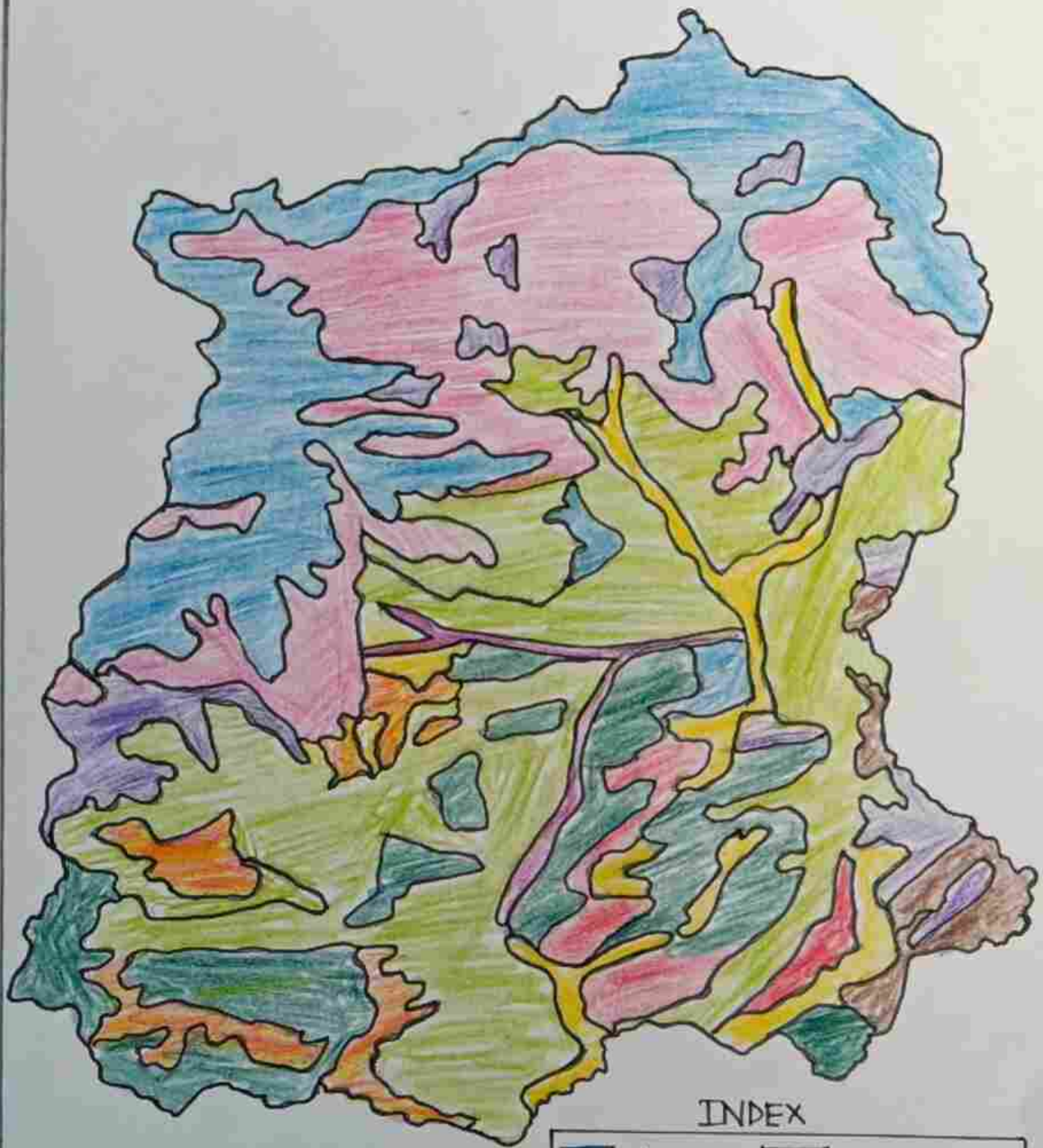
The soil of Sikkim belong to 3 orders, 7 suborders, 12 groups and 26 subgroups. It is observed that inceptisols are dominant (42.84%). Followed by Entisols and Mollisols occupied 42.52% and 14.64%, respectively. The soil of the south district in general have been derived from parent rocks such as sandstone, phyllite, schist, Gneisses are most dominant among them. The soil are generally acidic to very acidic in reaction having soil pH between 5.0 and 6.0.

Soil Fertility :-

Based on the soil tested by Sikkim state Soil Testing Laboratory, fertility status of soil are prepared following the standard ratings into low, medium and high soil fertility classes in respect of each nutrient, The nutrient indices was calculated by using the formula —

Soil nutrient index = (% low x 1 + % Medium 2 + % High x 3)

SOIL MAP OF SIKKIM



INDEX

- Loamy skeletal
- Fine loamy soil
- Coarse weak
- Loamy shallow soil
- Coarse rocky
- Coarse loamy soil
- Skeletal rocky
- Fine loamy soil
- Shallow depth
- Loamy rocky soil

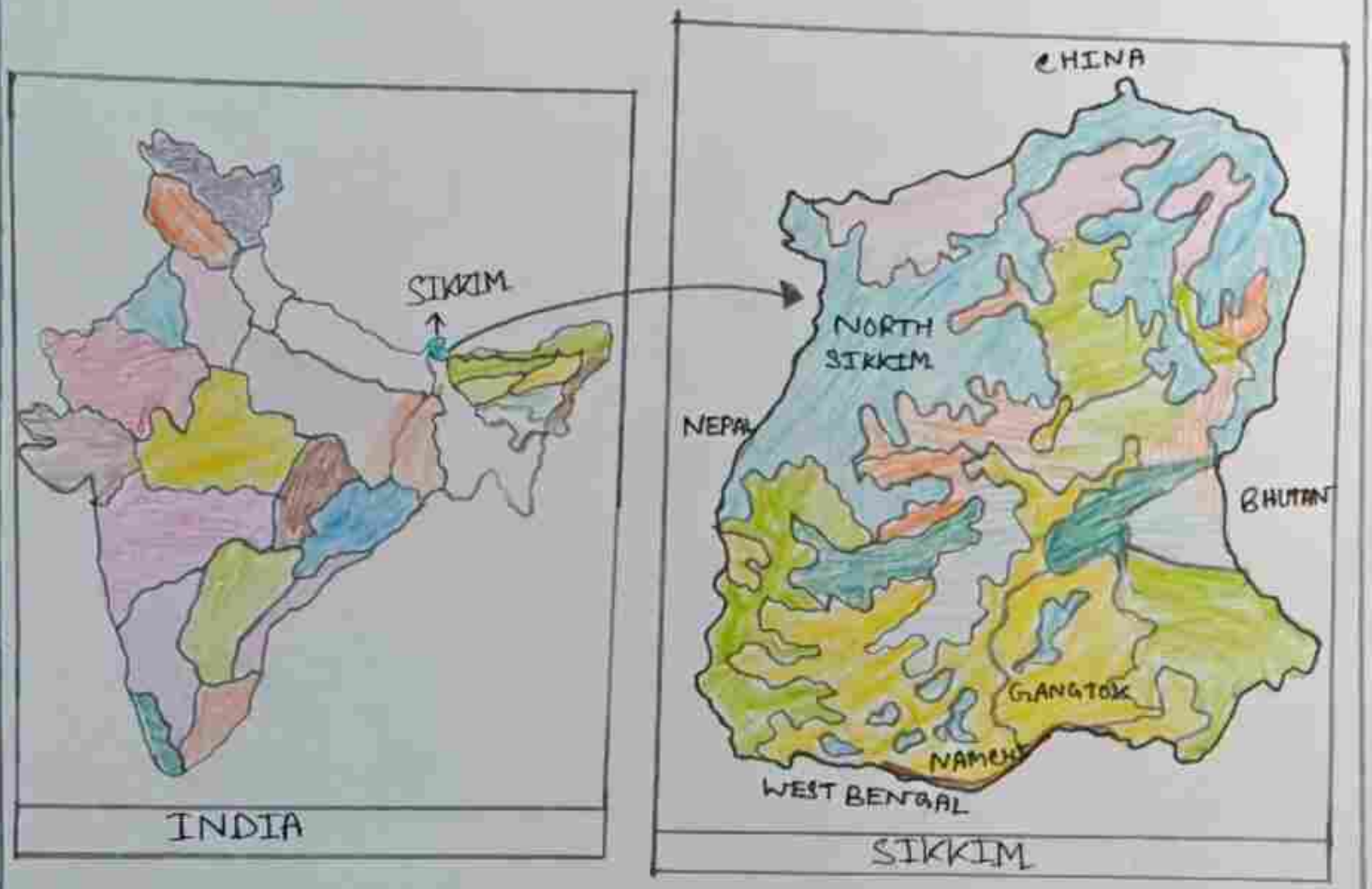
Source: Researchegate.Com

VEGETATION OF SIKKIM

Forestry is the major land use in the state and nearly 82% of the total geographical area of the state is under the administrative control of the state forest Department. this portion is one of the largest in the country. The forest cover of the state 46% of the total geographical area of the state. This figure is one of the largest in the country. There is one of the high altitude National Park (cum Biosphere Reserve) and six Wildlife Santuaries which together constitute over 31% of the total geegraphical area of the state. Covering just 0.2% of the geographical area, Sikkim shows tremendous biological diversity.

SIKKIM RECORDED FOREST AREAS	
Reserved Forest	5452 Sq km
Protected Forest	389 Sq km
Total	5841 Sq km
very Dense	458 Sq km
Moderately Dense	1904 Sq km
Total	3262 Sq km
Total Forest and tree Cover	3284 Sq km

VEGITATION MAP OF SIKKIM



- Very Moist Sal Bearing forest
- Himalayan Chirpine Forest
- East Himalayan Wet Temperature Forest
- Oak Rhododendron Forest
- Cultivable and other land
- Snow Covered Area
- East Himalayan Mixed Forest

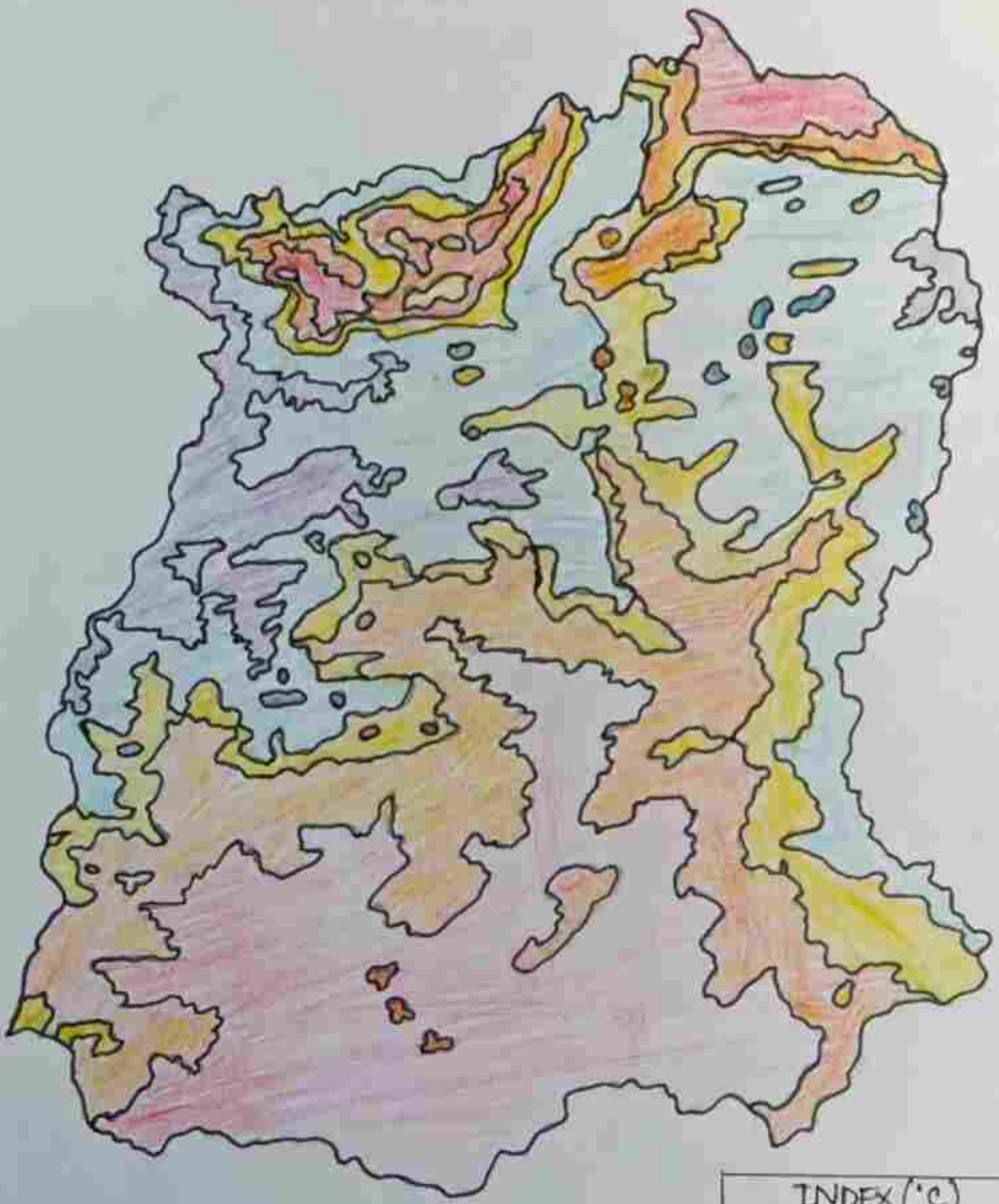
CLIMATE AND TEMPERATURE :-

Climatically, Sikkim experiances variable temperatu re with summer in toothills and freezing winter on the high mountains. The climate of the state has been divided rarely in to the topical, temperature and alpine zones. The general trends of decreasr in temperature with increase in altitudes hold every where. For most of the period in a year the climate is cold and humid as rainfall occurs in each months. The area experiences a heavy rainfall due to its proximity to the Bay of Bengal. The states recieves an average annual rainfall of 500 cm. which is the highest in the eastern Himalayas. The high density of rainfall causes extensive soil erosion and frequent landslides. The pre-moonsoon rainfall occurs in April-May and the Moonsoon occurs normally from the month of May and continues up to early October. The tempe-rature varies with altitude and slope. Maximum temperature is recorded usually during the month of July and August and minimum during December an January. During the period from May to September, fog becomes a common feature in this area. Also during winter, Snowfall is common in high altitude places. The mean temperature in the lower altitudinal zones varries between 4.5°c to 18.5°c. where as at

higher altitudinal Zones, it varries from 1.5'c to 9.5'c with biting cold experience at high altitude places in the winter months.

The climate of the state has been roroughly divided into the Tropical, Temperature and alpine Zones. For most of the periods in a year, the climate has cold and humid as rainfall occurs in each month. The area experiences a heavy rainfall due to its Proximity with the Bay of Bengal. The rainfall in North District is comparetively less than of the other districts.

SIKKIM'S LAND SURFACE TEMPERATURE

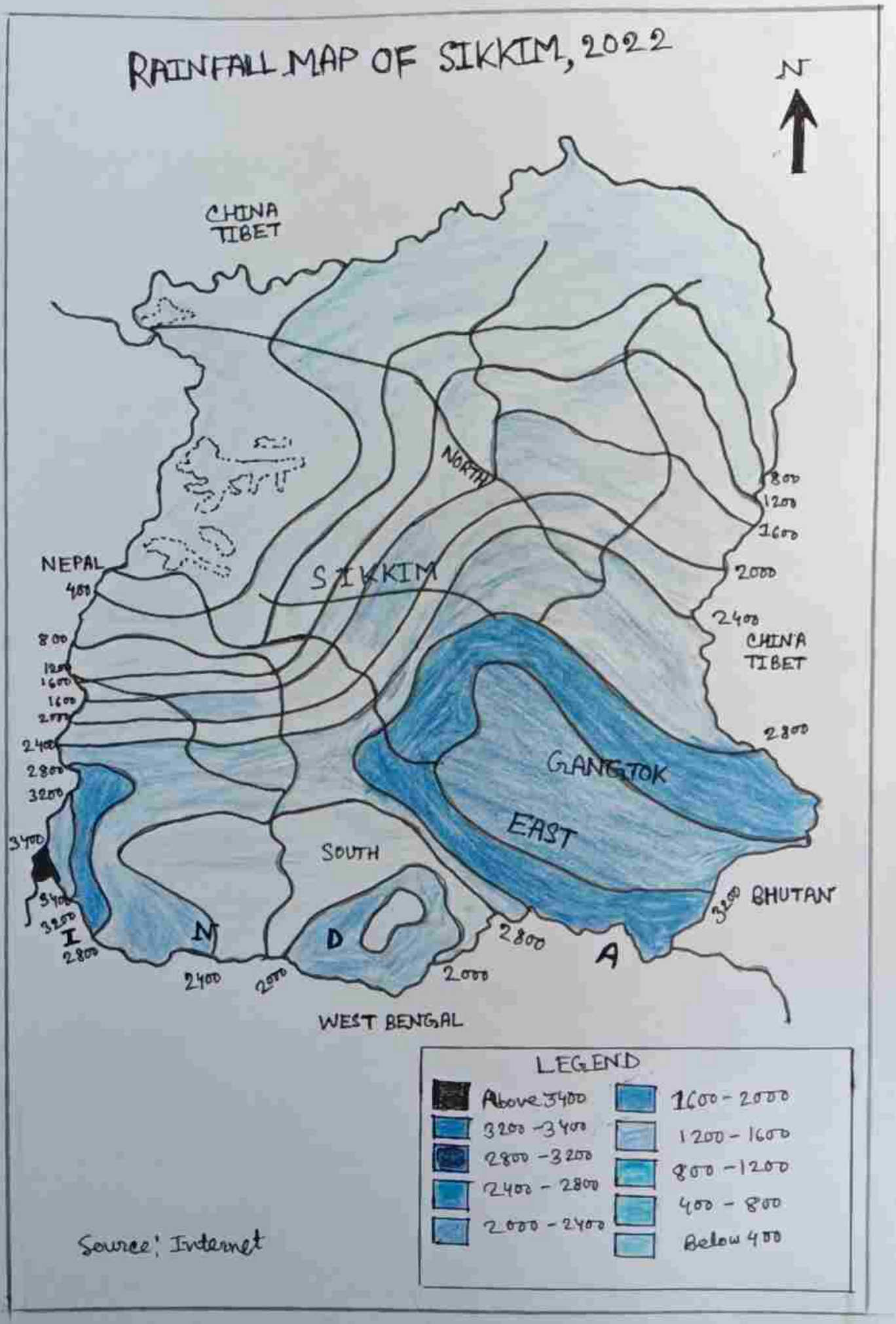


INDEX (°C)
< 0°
0° – 10°
10° – 20°
20° – 25°
25° – 31°

Source: MODIS, MOD11A1.061
Terra Land Surface Temperature

RAINFALL:-

An examination of available rainfall data shows that the mean annual rainfall is minimum at Thangu (82 mm) and maximum at Gangtok (3494 mm). An isohyetal analysis rainfall areas (i) South east quadrant, including Nargan, Singhik, Dikchu, Gangtok, Rongli etc. (ii) South - west regions, there is low rainfall region e.g. Namchi. Rainfall in this area is a area in the North-West Sikkim which gets very little rainfall (even less than 4.9 mm). This area is having mainly snow covered mountains. Rainfall is heavy and well distributed during the months from May to early October. July is the the wettest month in most of the places. The intensity of of rainfall during South-West monsoon season decreases from South to North, While the distribution of winter rainfall is in the opposite order. The highest annual rainfall for the individual station may exceed 5000 mm. and average number of rainy days (days with rain of 2.5 mm. or more) ranges from 100 at Thangu to 184 at Gangtok.


RAINFALL MAP OF SIKKIM, 2022
N
CHINA
TIBET
NORTH
SIKKIM
NEPAL
400
800
1200
1600
2000
2400
2800
3200
3400
CHINA
TIBET
GANGTOK
EAST
SOUTH
BHUTAN
WEST BENGAL
LEGEND
Above 3400
3200 - 3400
2800 - 3200
2400 - 2800
2000 - 2400
1600 - 2000
1200 - 1600
800 - 1200
400 - 800
Below 400
Source: Internet

River of Sikkim

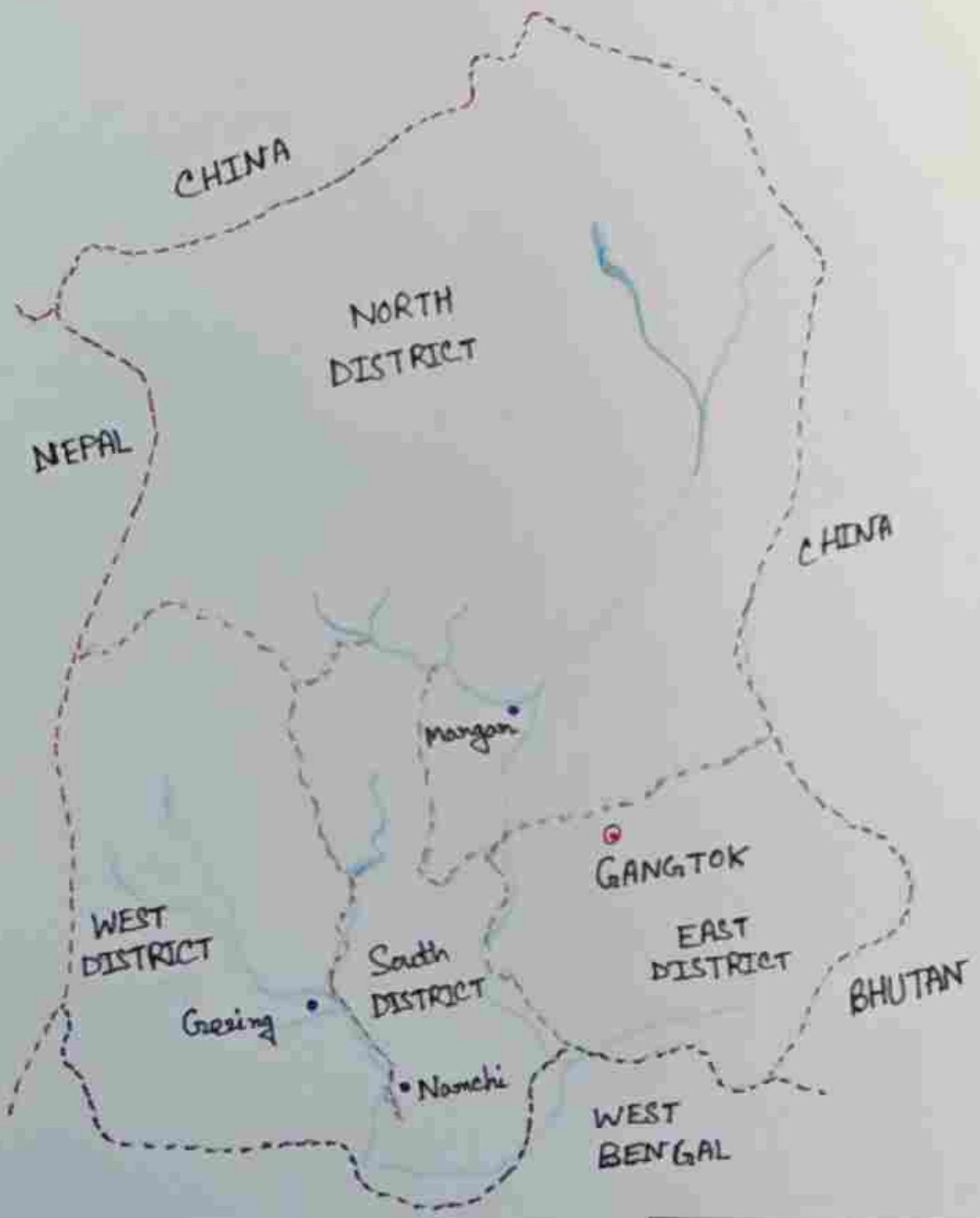
Teesta River:-

Teesta River is a 414 km (257 mi) long river that rises in the Pauhunri Mountain of eastern Himalayas, flows through the Indian states of Sikkim and West Bengal and subsequently enters Bangladesh through Rangpur Division. In Bangladesh, its falls into Brahmaputra River which after meeting some other major rivers of Bengal Delta finally falls in to the Bay of Bengal. It drains an area of 12,540 km^2 (4,840 sq mi). In India it flows through Mangan District, Gangtok District, Pakyong District, Cooch Behar Districts, and the cities of Rangpo, Jalpaiguri and Nakhligori. In Bangladesh, it flows through Lalmonirhat District, Rangpur District, Kurigram District and Gaibandha District. Teesta is the largest river of Sikkim and second largest river of West Bengal after the Ganges.

Location	
Country	• India • Bangladesh
States	• Sikkim, India • West Bengal, India • Rangpur, Bangladesh
Important Bridges	• Chungthang Teesta Bridge • Sirwani Teesta Bridge

Important Bridges	• Indreni Bridge • Rangpo Teesta Bridge • Melli Teesta Bridge • Teesta Bazzar Bridge • Coronation Bridge • Sevoke Railway Bridge • Joyee Setu • Jalpaiguri Teesta Bridge
District's	• Mangan District • Gangtok District • Pakyong District • Kalimpong District • Cooch Behar District • Jalpaiguri District • Rangpur District • Kurigram District • Lal Monirhat District
Physical Characteristics	
Source	Pauhunri, Zemu Glacier, Gurudongmar Lake
• location	Sikkim, India
• elevation	7,128m (23,386ft)
Mouth	Brahmaputra River
• location	Phul chhari Upazila, Gaibandha, Bangladesh
Length	414km

RIVER MAP OF SIKKIM



Source :- www.mapsofindia.com

PHYSICAL PHOTOGRAPHS

CHAPTER-2

SOCIO-ECONOMIC PROFILE OF TATHANGCHEN VILLEGE OF GANGTOK DISTRICT

Economic Profile :-

The economy of Sikkim is mainly based on Agricultural and Animal Husbandary. Approx. 11% of the total geographical Area is under Agri Culture is of the mixed type and still at the subsistence level rather than commercial level. The work force Participation rate as per 1991 census is 40.44%. The female participation rate in sikkim is also much higher than the national average. Cultivators account for the greater majority of the people in the state. Their percentage is 57.84%. Agricultural labourers as a whole constitute only 7.81% of the workers in the state. House holds and other industries are negligible, but other worker (Tertiary Sector) at the workers level represent a good percentage of population. The decreasing ratio of other worker at the state level of economic diversification. The importance of Agriculture can be judged by the high % of Population approx. 65% engaged in it. Animal husbandry is an integral part of the household economy of the region. There are certain house hold industries also which substantially adds to house hold incomes. The past one and half

Demography :-

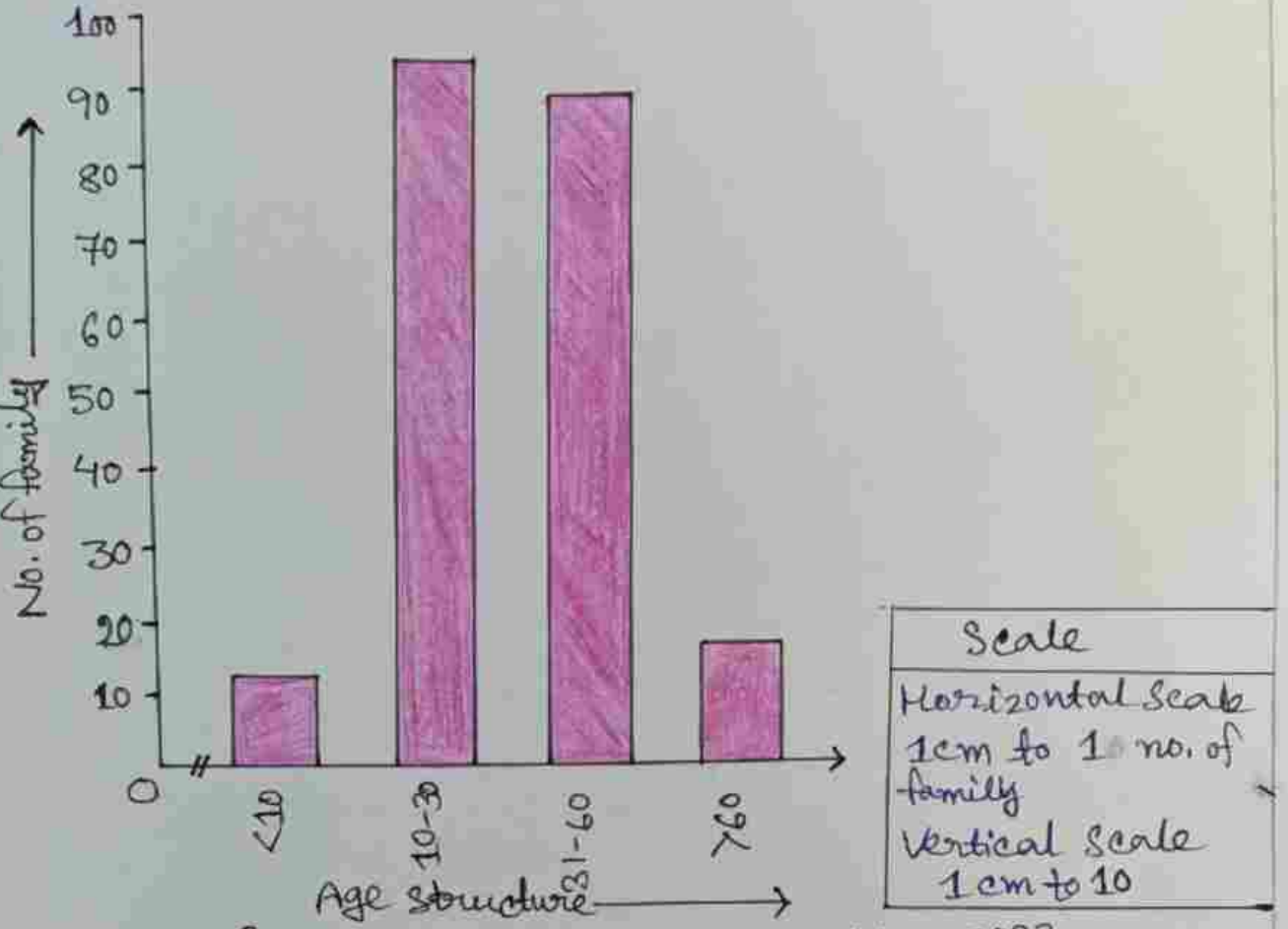
Sikkim is a multi-ethnic state and broadly the population can be divided into Tribal and Non-Tribal groups. As per the 2001 census of India, the total population of the state is 5,40,851 whereas in 1991 it was 4,06,457 only. The Decennial growth in 1981-91 was 28.47% whereas for 1991-01 it is 32.98%. The overall density of population in the state is 76 per sq km. East District is the most population (Population density 257) and North District is least populated (Population density only 10). Sex ratio (Females per thousand Male) in 1991 was 878. whereas in 2001 is 875. There are only 8 urban towns and urban population is 11.10% of total population. Schedule Caste and Schedule Tribe population is 5.93% and 22.36% respectively. North District is Tribal District as it has about 55.38% tribal population. Literacy rate is 69.68% higher than the all India average literacy rate of 65.38%.

Per Capital GSDP is Rs 23,786=00, Natural Growth rate is 16.90 per thousands, Per Capital outlay on education is Rs. 1288=00, Per capital forest cover is 0.61 ha and the

green protection Index is .0903, highest in the country In the year 2005-06, the per capital income is Rs 26,851=00, literacy rate is 82%. number of colleges are 11, Number of government schools are 782, number of religious organizations are 732, Forest cover 45.97%. Number of domestic tourism are 2,51,744, Number of foregin tourist are 16,523, Power Production is 165Mu, People below poverty line are 19.20% and the Annual state revenue is Rs 228.31 crores.

AGE STRUCTURE OF TATHANGCHEN VILLEGE OF EAST SIKKIM

BAR DIAGRAM:-

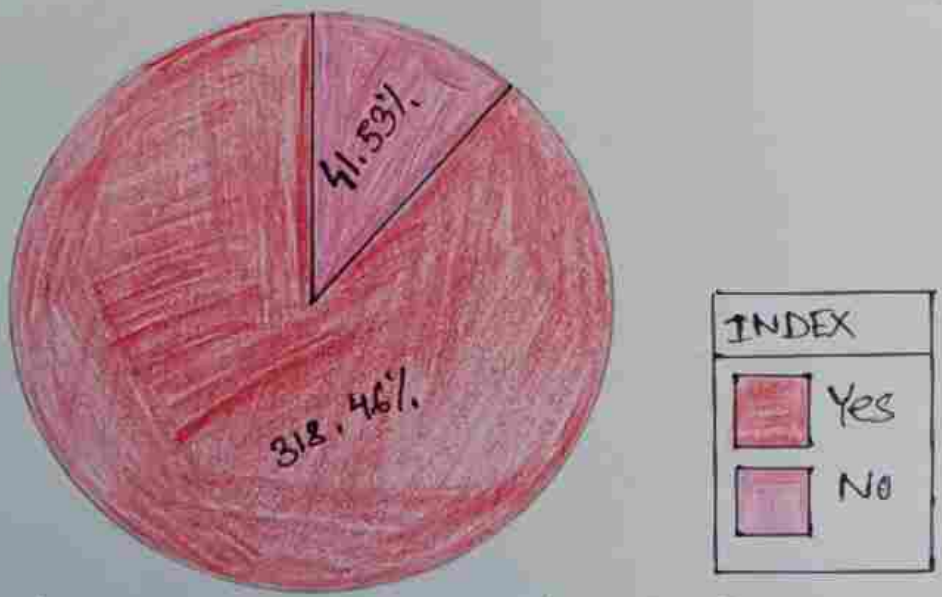


Source: Primary survey Data, October, 2023

INTERNET FACILITIES

PIE DIAGRAM:-

r = 3.9 cm



Source: Primary survey Data, October, 2023

Toilet Facility :-

This pie diagram is based on Toilet facility of Tathangchen village of Gangtok, Sikkim, India.

Water facility :-

This pie diagram is based on water facility of Tathanchen village of Gangtok, Sikkim, India.

Family Income :-

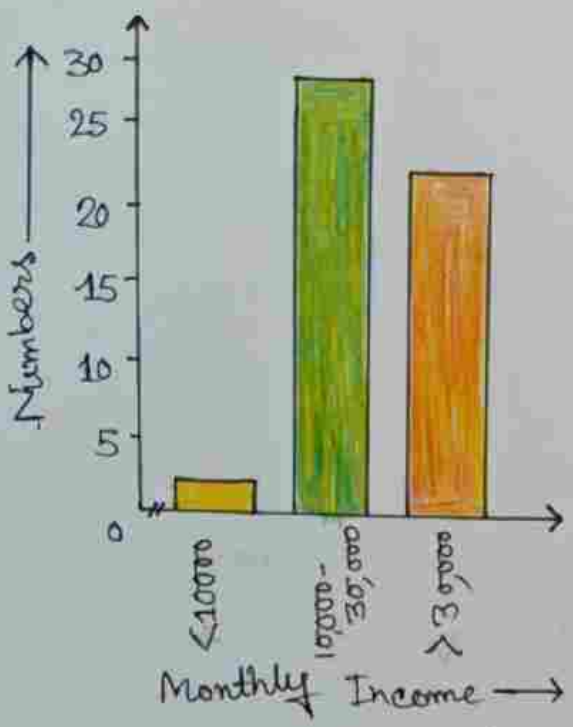
This Bar diagram is based on Family Income of Tathangchen village of Gangtok, Sikkim, India.

Residential Information :-

This Bar diagram is based on Residential information of Tathangchen Village of Gangtok, Sikkim, India.

FAMILY INCOME:

BAR DIAGRAM:



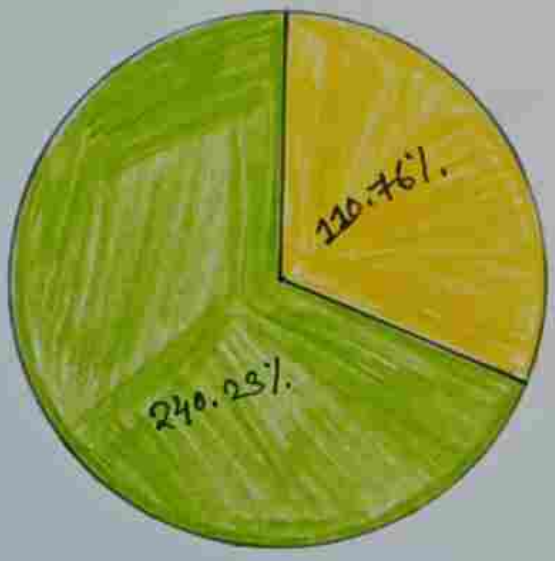
Scale
Horizontal Scale 1 cm to 1
Vertical Scale 1 cm to 5

Source: Primary Survey Data, October, 2023

PIE DIAGRAM:-

RESIDENTIAL INFORMATION

$r = 3.5$ cm



INDEX
Migrated
Permanant

Source: Primary Survey Data, October, 2023

Education Qualification :-

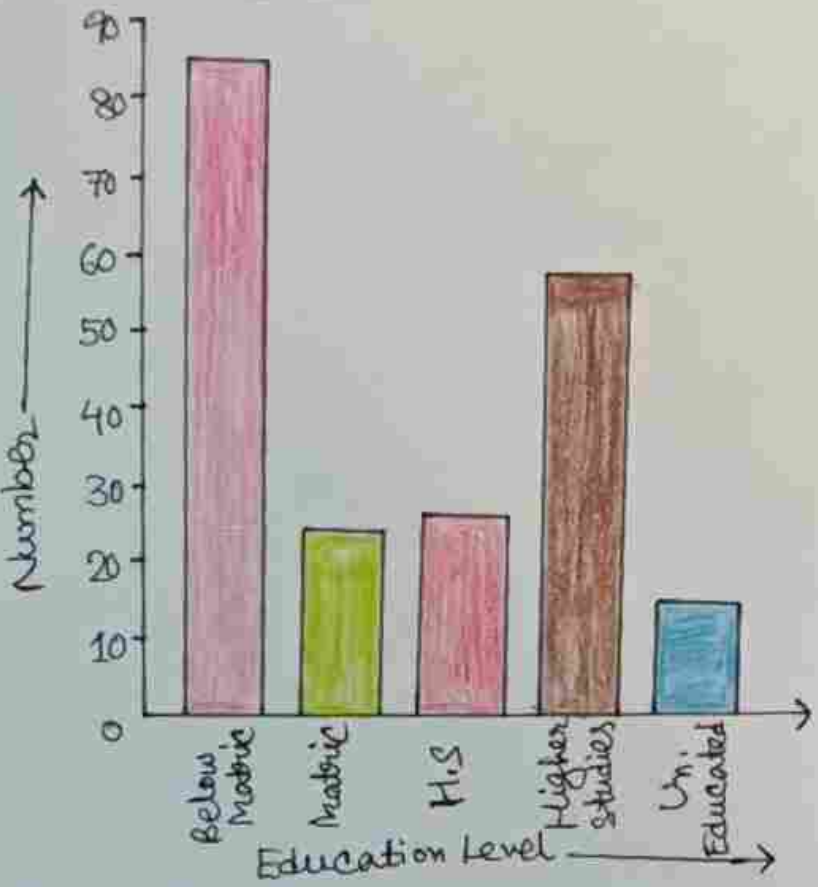
This Bar diagram is based on Education Qualification of Gangtok, Sikkim, India.

House Condition :-

This Pie diagram is based on House Condition of Tathangchen village of Gangtok, Sikkim, India.

SHOWING THE EDUCATION QUALIFICATION OF TATHANGCHEN VILLEGE, GANGTOK

BAR DIAGRAM:-

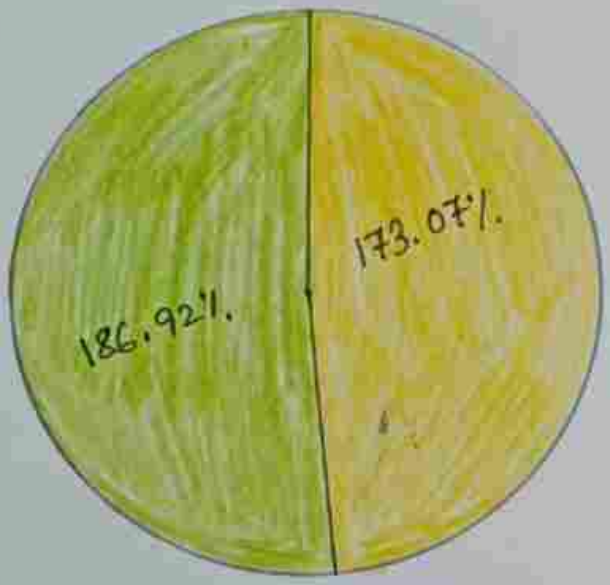


SCALE
Horizontal Scale 1cm to 1
Vertical Scale 1cm to 10

Source:

PIE DIAGRAM :-

SHOWING THE HOUSE CONDITION OF TATHANGCHEN, SIKKIM.



$r = 3.8$ cm

INDEX
OWN
Rented

Source: Primary Survey Data, October, 2023

No of Rooms :-

This Bar diagram is based on no. of rooms information of Tathangchen Village of Gangtok, Sikkim, India.

Type of House :-

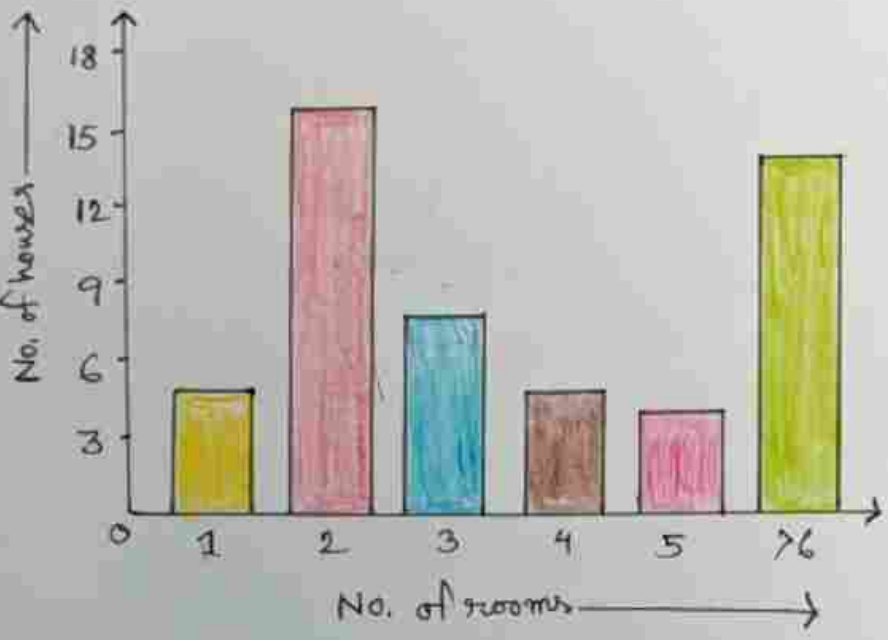
This Bar diagram is based on type of house information of Tathangchen Village of Gangtok, Sikkim, India.

Caste :-

This pie diagram is based on types of Caste of Tathangchen Village of Gangtok, Sikkim, India.

SHOWING THE NUMBER OF ROOMS OF 52 HOUSES IN GANGTOK, SIKKIM

BAR DIAGRAM:-

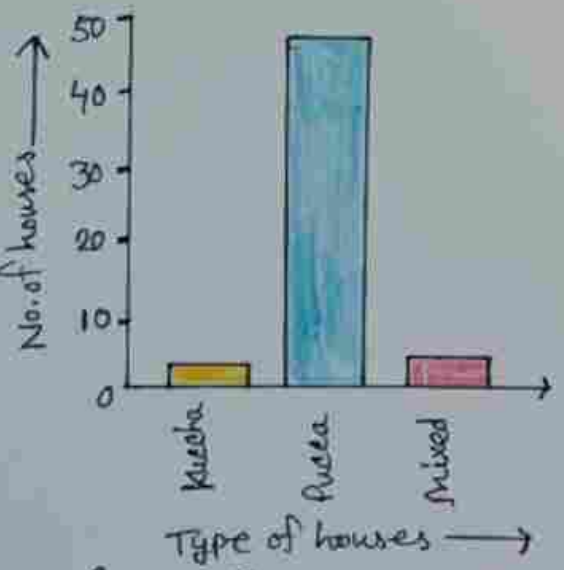


SCALE
Horizontal Scale 1cm = 1 bar Vertical Scale 1cm = 3 houses

Source: Primary Survey Data, October, 2023

BAR DIAGRAM :-

SHOWING THE TYPES OF HOUSES OF 52 HOUSES IN GANGTOK, SIKKIM, INDIA



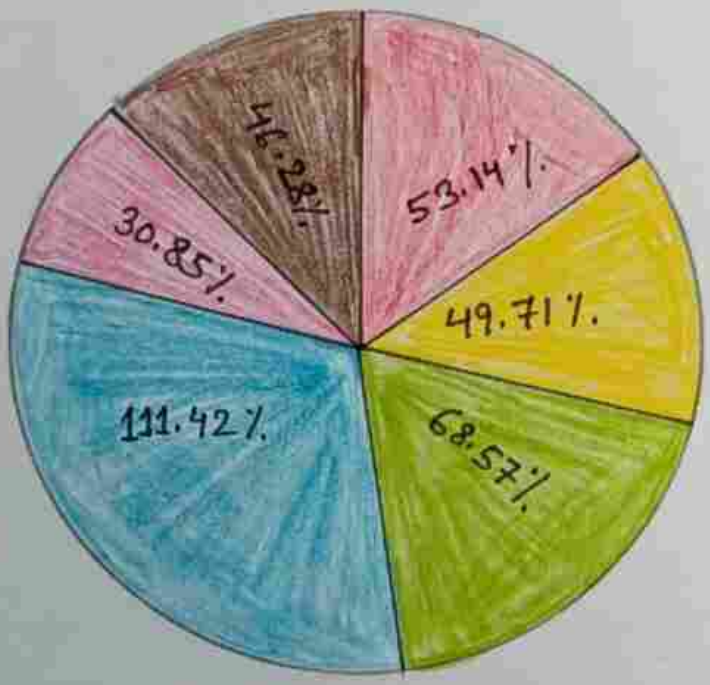
SCALE
Horizontal Scale 1cm = 1 type of house vertical Scale 1cm = 10 houses

Source: Primary Survey Data, October, 2023

SHOWING THE CASTE SYSTEM OF TATHANGCHEN VILLEGE OF GANGTOK, SIKKIM

PIE DIAGRAM :-

$r = 4.4\,cm$



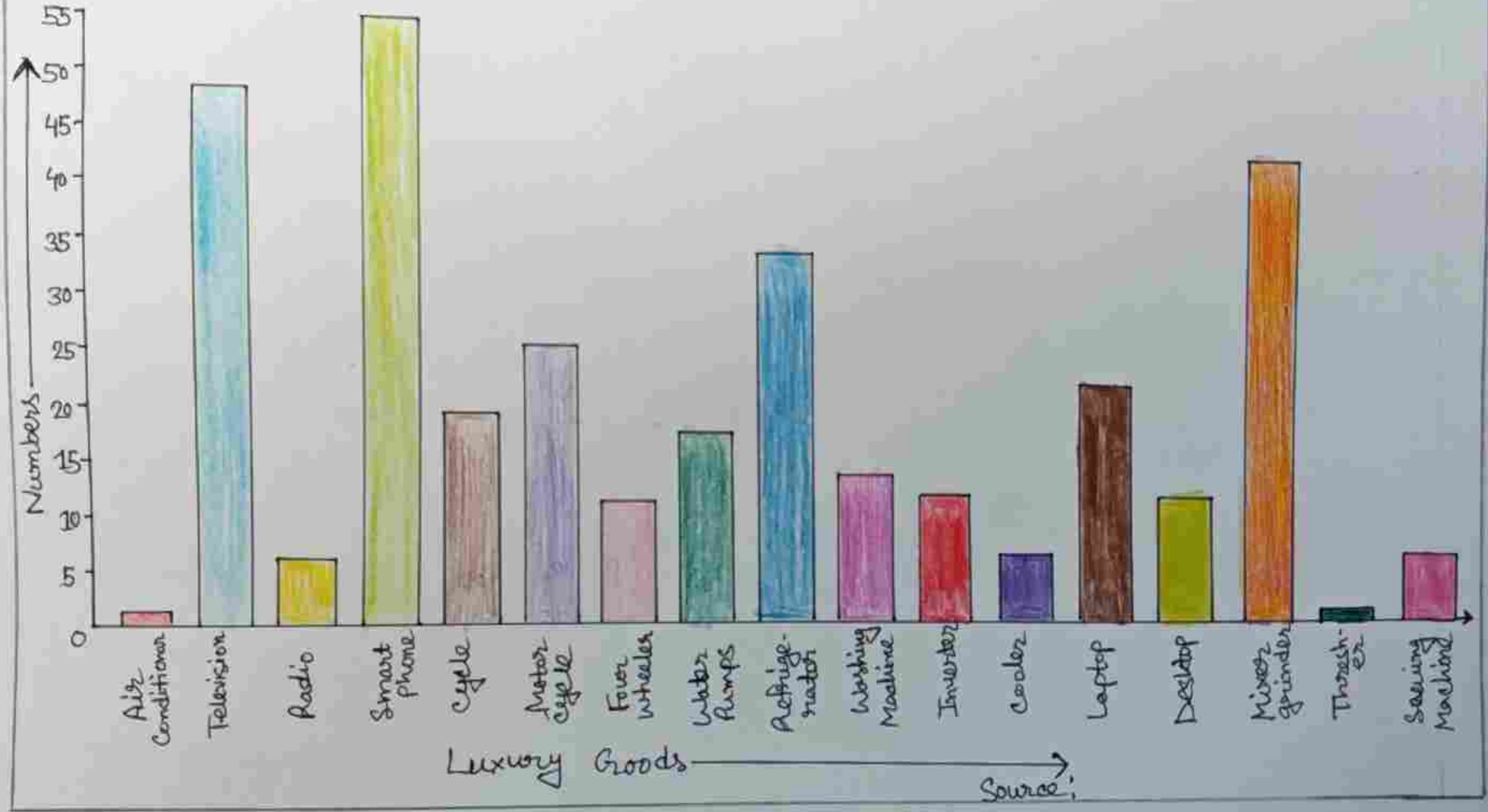
INDEX

- General
- SC
- ST
- OBC-A
- OBC-B
- Others

Source: Primary Survey Data, October, 2023

SHOWING THE LUXURY GOODS OF TATHANGCHEN VILLEGE OF GANGTOK, SIKKIM, INDIA

BAR DIAGRAM:-



Maritial Status:-

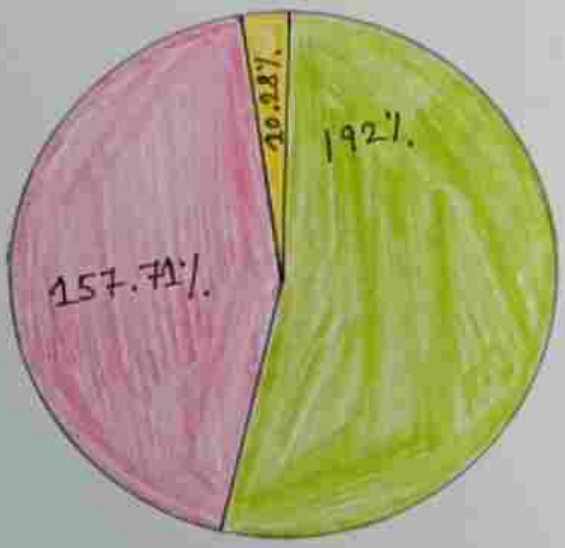
Table of Maritial Status of Tathangchen Village of Gangtok

Maritial Status	Tally Marks	No.	Maritial status (indegree)
Married	卌 II	112	192°
Un-Married	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 II	92	157.71°
Divorced		0	0
Separated		0	0
Widow	卌 I	6	10.29°
Total			360°

SHOWING THE MARITIAL STATUS OF TATHANGCHEN VILLEGE, GANGTOK, SIKKIM

PIE DIAGRAM:-

$r = 3.5\,cm$



INDEX
Married
Unmarried
Widow

Source: Primary Survey Data, October, 2023

RELIGION :-

Hinduism is Majority religion in Gangtok city with 58.87% followers. Buddhism is second Most Population religion in Gangtok City with 28.15% following it. In Gangtok City, Islam is followed by 3.14% christianity by 9.07%, Jainism by 0.14% and Sikkim by 0.16%.

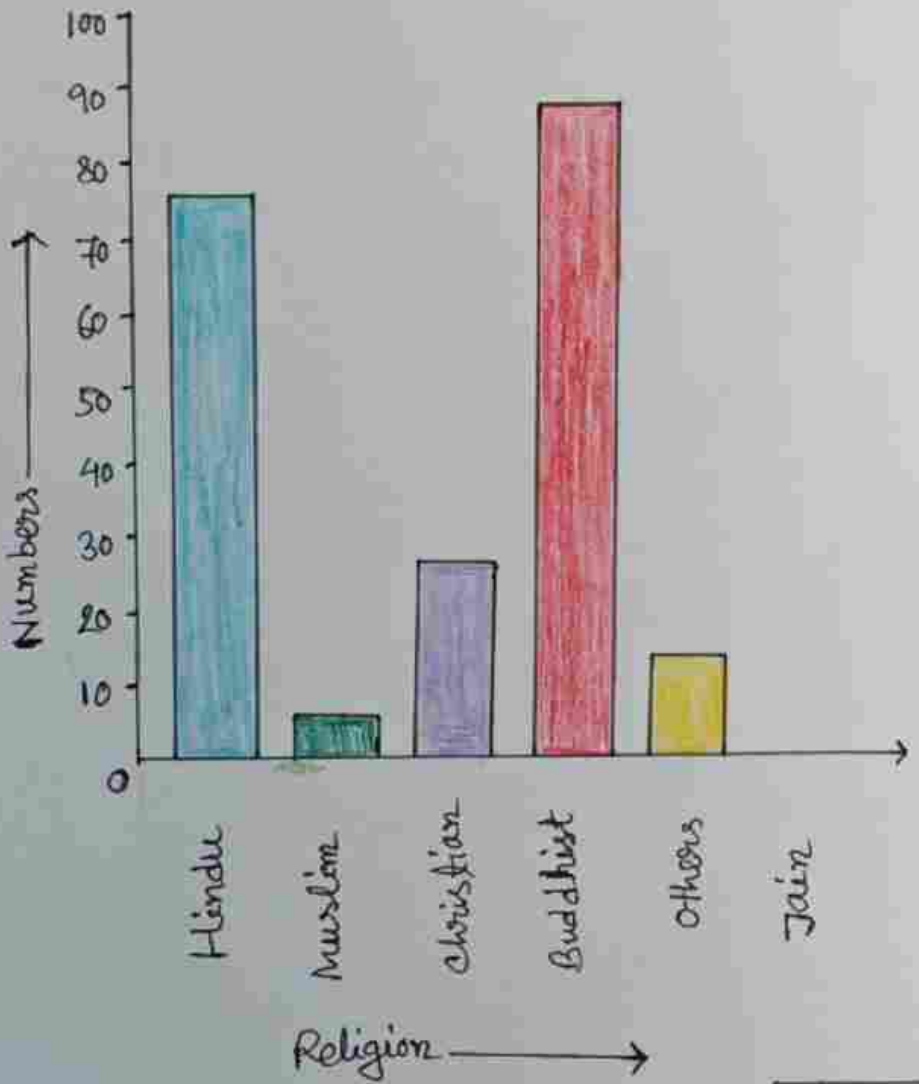
Table of Religion Category of Tathangchen :-

Religion Category	Tally Marks	Number	Scale	Number (in cm)
Hindu	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 I	76	1cm to 8 people	9.5
Muslim	卌 I	6		0.75
Jain		0		0
Christian	卌 卌 卌 卌 卌 II	27		3.4
Buddhist	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 III	88		11
Other's	卌 卌 III	13		1.6
Total		210		

Source: Primary Survey Data, October 2023

SHOWING THE RELIGION OF TATHANGCHEN VILLEGE OF SIKKIM, GANGTOK

BAR DIAGRAM :-



SCALE
Vertical Scale 1 cm = 10 No. Horizontal Scale 1 cm = 1 Religion

Source: Primary Survey, October, 2023

Occupation :-

Gangtok in Sikkim has many such people engaged in various types of work. Some of them are businessman, some are divers, some are farmers and some are employed in other types of work. Some are undergovernment jobs and some are under private jobs also there are youths at young age who are not engaged in any work and some woman are included among them. The persons employed in these various works are shown through a table.

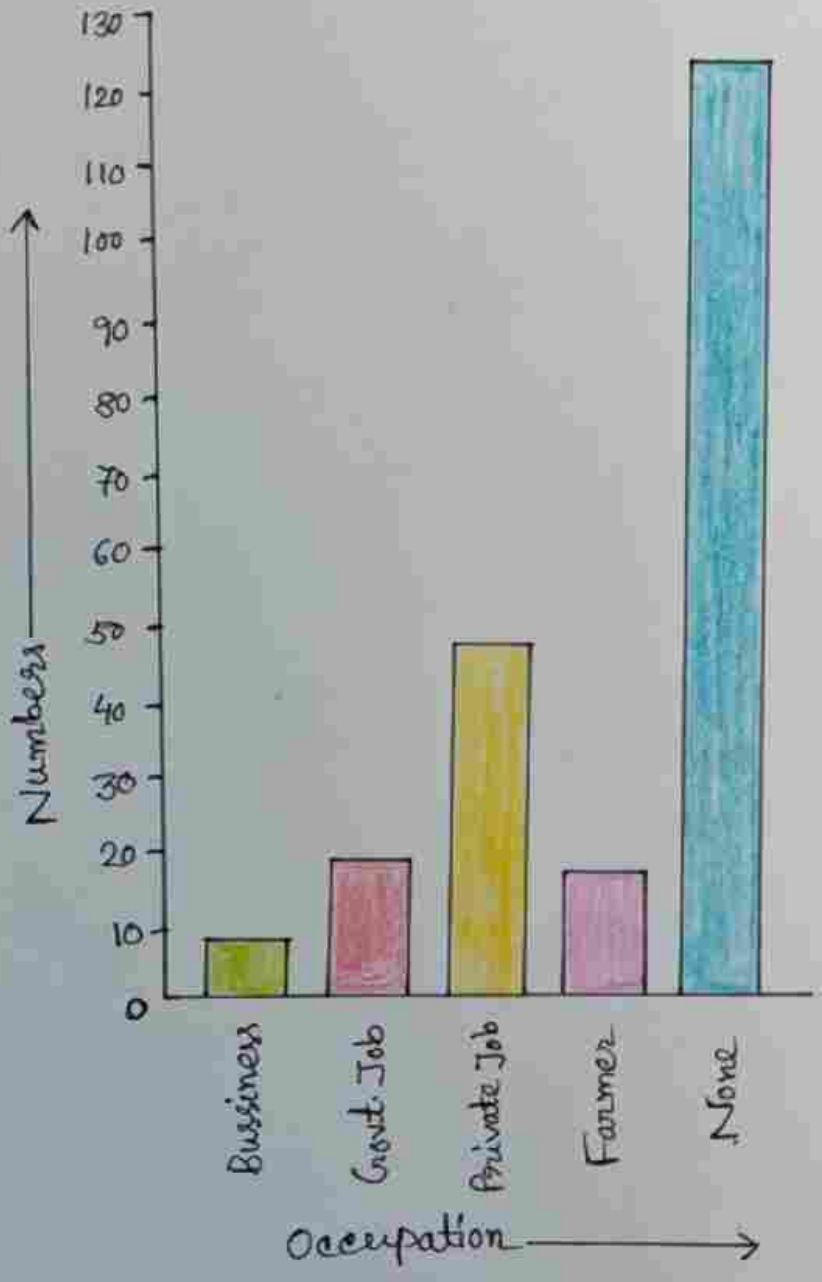
Table of Occupation of Tathangchen Village of Gangtok :-

Occupation	Tally Marks	No.	Scale	No (in cm)
Bussines	𝍸 II	7	1 cm = 10 people	0.7
Govt Job	𝍸 𝍸 𝍸 III	18		1.8
Private Job	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 II	47		4.7
Farmer	𝍸 𝍸 𝍸 I	16		1.6
None	𝍸 II	122		12.2
Total		210		

Source : Primary data, October 2023 survey

SHOWING THE OCCUPATION TYPES OF TATHANGCHEN VILLEGE, GANGTOK, SIKKIM, INDIA

BAR DIAGRAM:-



SCALE
Horizontal Scale
1cm = 1 occupation
Vertical Scale
1cm = 10 Numbers

Source:- Primary Survey, Data, October 2023

SOCIO ECONOMIC PHOTOGRAPS

CHAPTER - 3

TRANSPORT AND COMMUNICATION

TRANSPORTATION SYSTEM

A transportation system can be defined as the combination of elements and their interactions, which produce the demand for travel with in a given area and the supply of transportation services to satisfy this demand. This definition is general and flexible enough to be applied to different contrexts. The specific structure of the system is defined by the problem itself (or class of problems) for whose solution it is employed.

Transport in India refers to the system of moving people, goods and services from one place to another within the country. India with its vast geography and diverse population, relies on various mode of transportation needs of its citizens and support economic activities. These modes include road transport, railways, airways, waterways and pipelines.

Transport in Sikkim :-

The state of Sikkim is accessible through both airways and roadways. There is however, no direct transportation service to Sikkim by railways. Being a very hilly region, the communication services of Sikkim are still at a budding stage but undergoing developments with the best efforts from the governments.

Sikkim Roadways :-

The State of Sikkim is connected by National Highway 31A which links Siliguri in West Bengal to Gangtok in Sikkim. There are bus and truc services run by the Sikkim National Transport. There are also privately run bus, jeep and tourist taxi services throughout Sikkim. The state is connected to Tibbet by the Nathula Pass. The highway that links gangtok with Sevoke is National Highway 31A.

Sikkim Nationalised Transport :-

Regular buses, taxis and cabs are available to make journey to Sikkim and within Sikkim. Sikkim Nationalised Transport is one of the organised services provinalized transport service, Private services are also in sikkim which makes it easier for the tourists and visitors to have a smooth experience here.

Sikkim Railways !.-

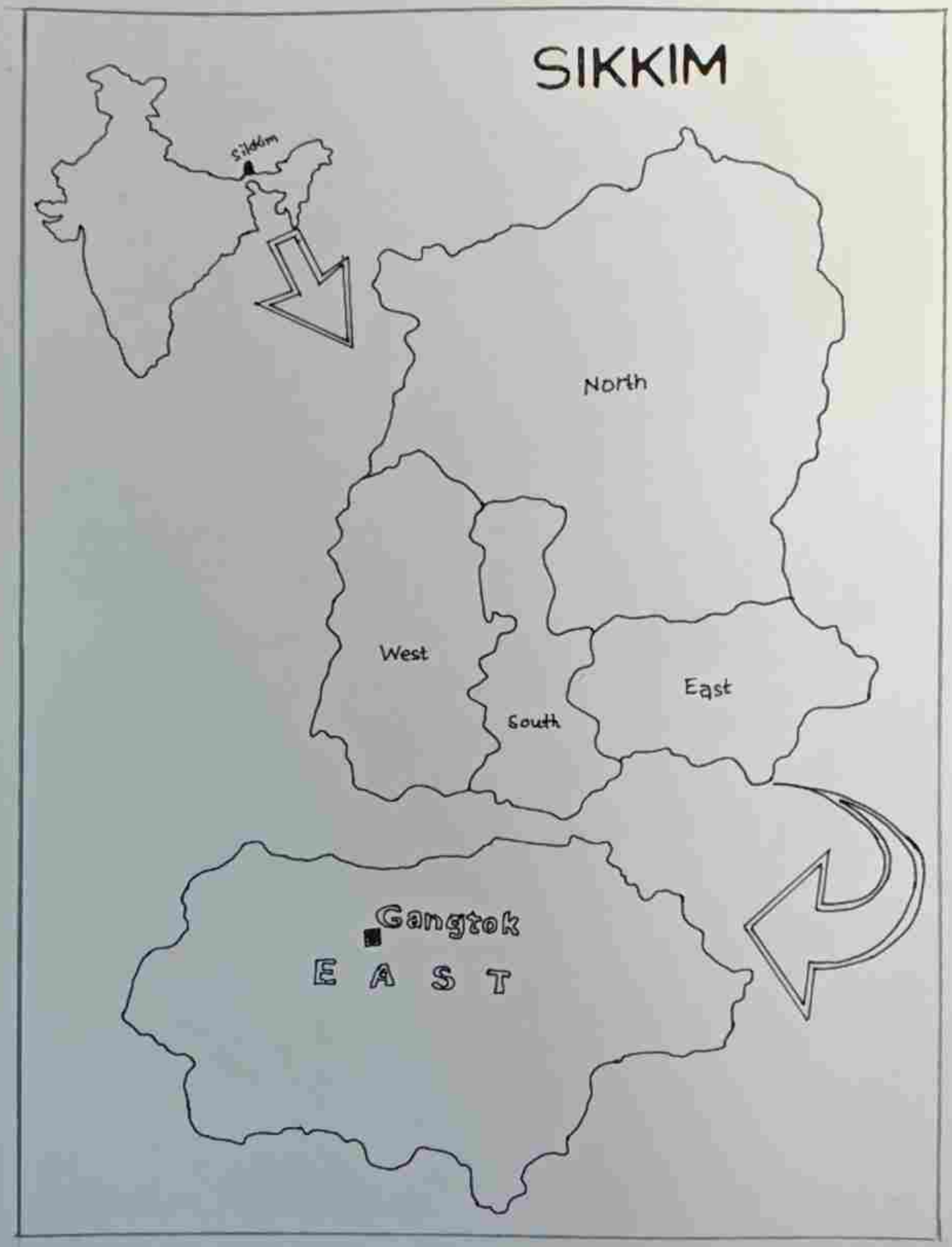
There are no railway connections and lines in Sikkim. The nearest railway station is located in siliguri and New Jalpaiguri. New Jalpaiguri railway station is located 125 kms away from Gangtok and Siliguri is located 114 kms away. However, booking tickets is a trivial affair via online or the Sikkim Nationalised Transport office on all working days.

Sikkim Airways:-

Through Sikkim does not have any airpot because of its through terrain, there is however, a helipad in Gangtok which is the only civilian helipad in the state. The closest airpotet to Sikkim is in Bagdogra near the towns of Siliguri in West Bengal. The Bagdogra airport is located about 124 kms from Gangtok.

The helicopter services not only are for transport and communication but also for sight seeing purposes. It provides wonderful trips to tourists making memories for them to cherish. These helicopters which can accommodate five passengers for a single trip are flown by experts hired.

Transportation holds immense significance for India's development and connectivity like; Economic Growth, Accessibility and connectivity, Employment Generation, Trade and Commerce, Regional Development etc.


SIKKIM
Sikkim
North
West
South
East
Gangtok
E A S T

Roadways:-

Introduction:-

Sikkim is a land locked state and comprises of young and fragile mountains, rivers, streams and water springs; thus, making it both diverse and vulnerable to natural Catastrophe. The state is bereft of railways and waterways and recently, the decision of spicejet to discontinue its flights from Pakyong Green field Airport until technical standards are met, makes roadways the only means of feasible transportation for the state.

Sikkim lies in the seismic Zone V and the re-occuring seismic movements and heavy rainfall trigger off landslides and movements of cap soil resulting in damage of roads and bridges there by, breaching the normal lifeline.

Sikkim, a picturesque Indian state nestled in the eastern Himalayas, boast a unique road network due to its challenging terrain and stunning topography. The road system in Sikkim is primarily composed of three types of roads:-

1) National Highways (NH):-

Sikkim is connected to the rest of India through the National Highway network. NH10, also known as the Gangtok Nathula Road, is a crucial link that connects the capital, Gangtok, to the strategic Nathula Pass on the India - China border. This highway plays a significant role in trade and tourism.

2) State Highways (SH):-

The state has several state highways that facilitate intra-state travel and connectivity. These roads connect various towns and cities within Sikkim, enabling transportation of goods, public commuting, and promoting tourism in the region.

3) Rural Roads :-

Sikkim's rural road network is vital for connecting remote villages and hamlets with towns and cities. These roads are essential for transportation of agricultural produce, access to healthcare and education, and fostering socio-economic development in rural areas.

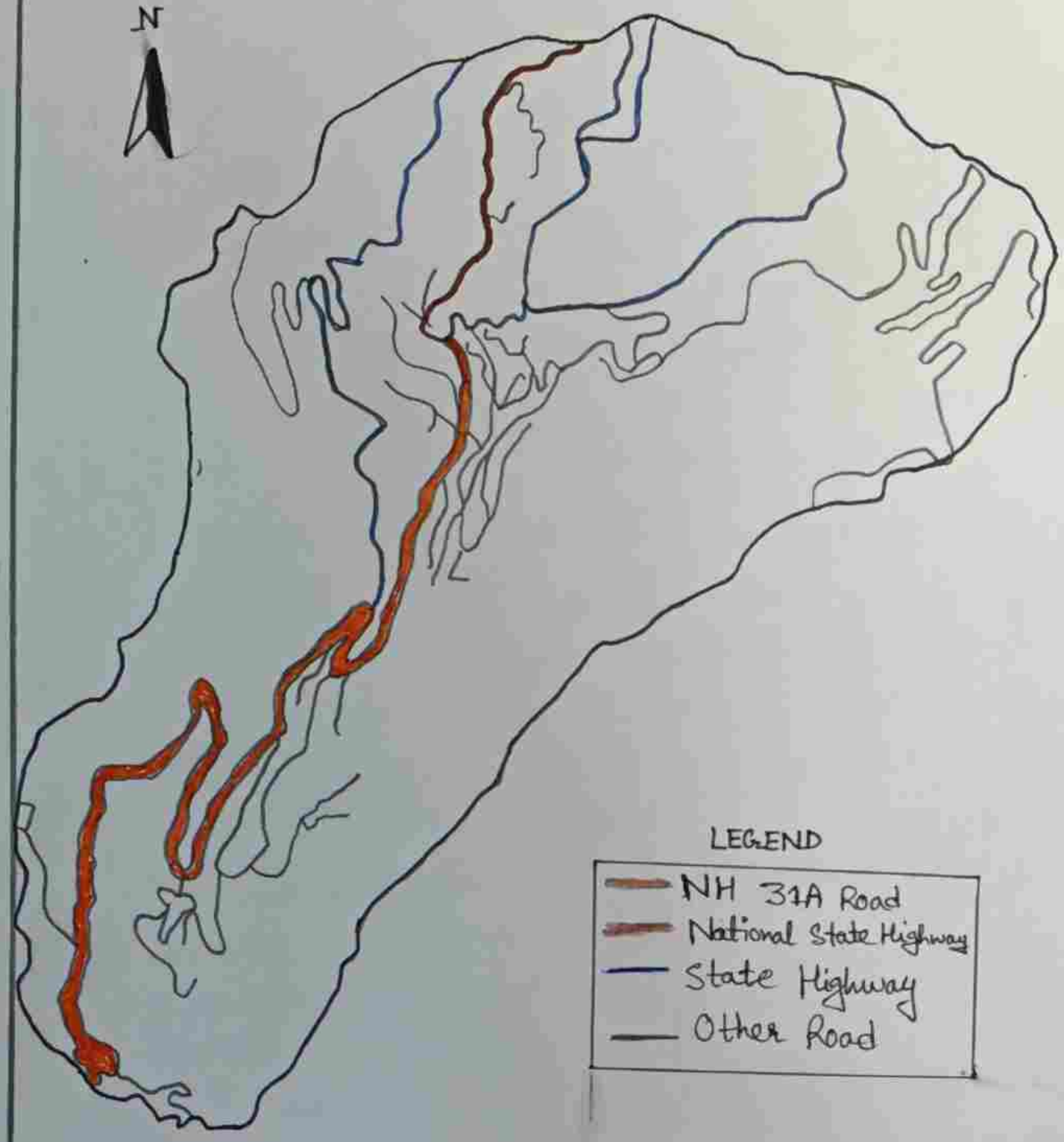
Challenges and Features :

Sikkim's challenging terrain, charaterised by steep slopes and rouged mountain's, poses a significant obstacle in road construction and maintainance. Landslides and frequent rainfall during the monsoon season often damage the roadways, requiring continious repairs and maintainance efforts.

The road network offers breath-taking views of the Himalayan peaks, making it a popular destination for adventure tourism and nature enthusiasts.

Sikkim has made strides in road infrastructure development in recent years, aiming to improve connectivity and accessibility to promote economic growth and tourism. In Summary, Sikkim's road network is a critical lifeline, overcoming geographical challenges to connect the state internally and link it to the rest of India, enabling economic growth and enhancing the state's natural beauty.

ROAD NETWORK OF GANGTOK

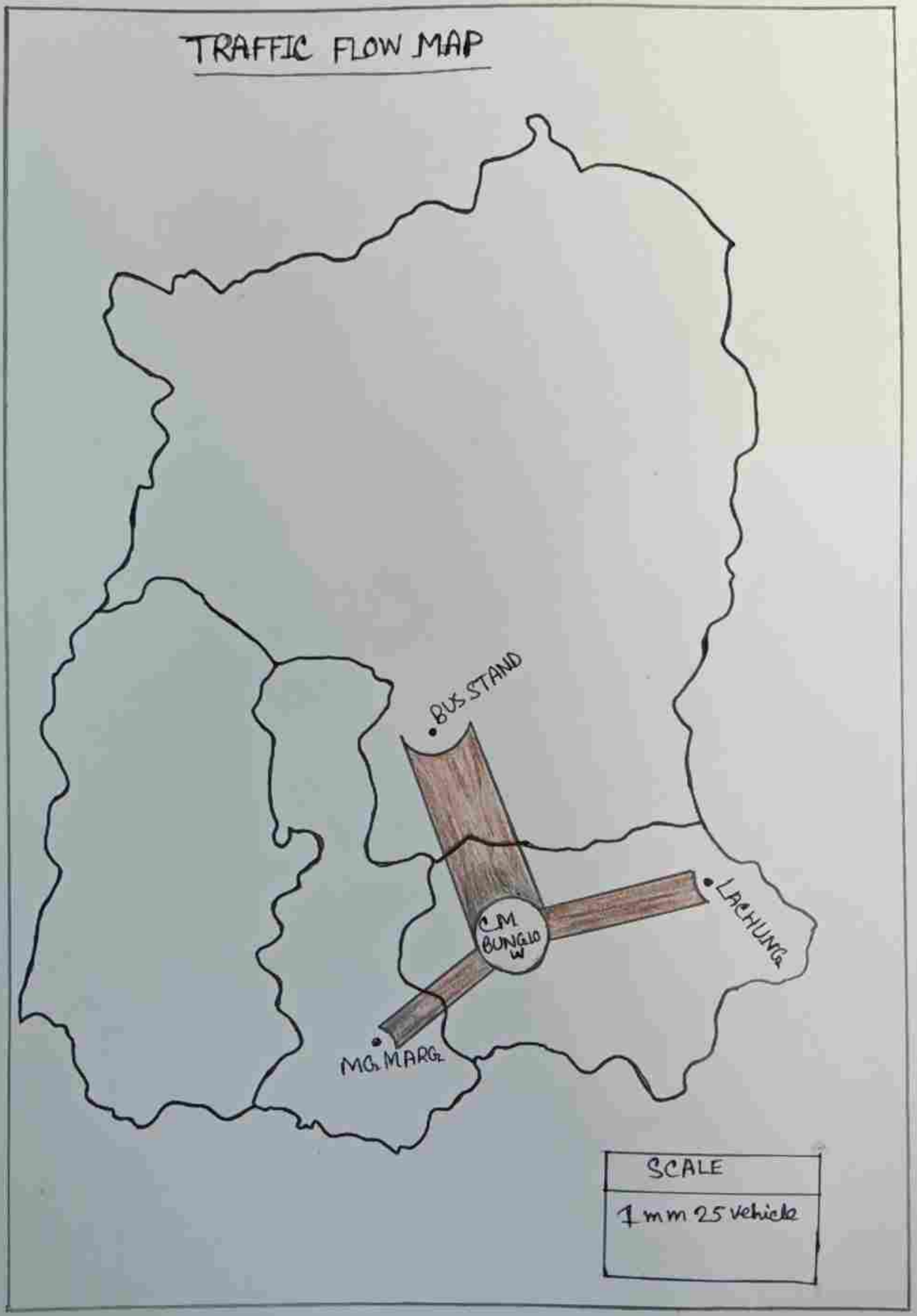


Gangtok, the capital of Sikkim, is characterised by a network of roads that traverse the picturesque Himalayan terrain. The road system primarily consists of winding mountain roads, some of which offer stunning panoramic views of the surrounding valleys and peaks. The major arteries include National Highways 10 (NH10) that connects Gangtok to Siliguri and beyond, serving as a lifeline for the region's connectivity to the rest of India.

Within Gangtok, the road network is a mix of main thoroughfares and narrower lanes, often meandering through the hilly landscape. MG Marg, the bustling central street, is a popular pedestrian-friendly area, flanked by shops, eateries, and vibrant markets - other notable roads include Tibet roads, which is a prominent commercial hub, and NH 10A leading to Nathu La Pass, an important border point with China.

Due to the challenging to pography, maintaing and expanding the road infrastructure is an ongoing effort to improve accessibility, traffic flows, and safety. Landslides and adverse weather conditions can pose significant challenges to road maintainence and necessitate continious upgrades and repairs. Overall, Gangtok's road network plays a vital role in sustaing tourism, trade, and daily life for the residents of this enchanting Himalayan city.

TRAFFIC FLOW MAP



Given the number of road is = 3

Volume of Circle = 360°

Therefore each bar pairs will be at $\frac{360°}{3} = 120°$ interval

So,

Toward Nathula = 120°

Toward Busstand = 240°

Toward MG Market = 360°

Radious of Circle is

$$\pi r^2 = 3368$$

$$r^2 = \frac{3368}{\pi} = 1072.06$$

$$r = \sqrt{1072.06}$$

$$= 32.74$$

Suppose, 1Cm represent 10 cm on radious

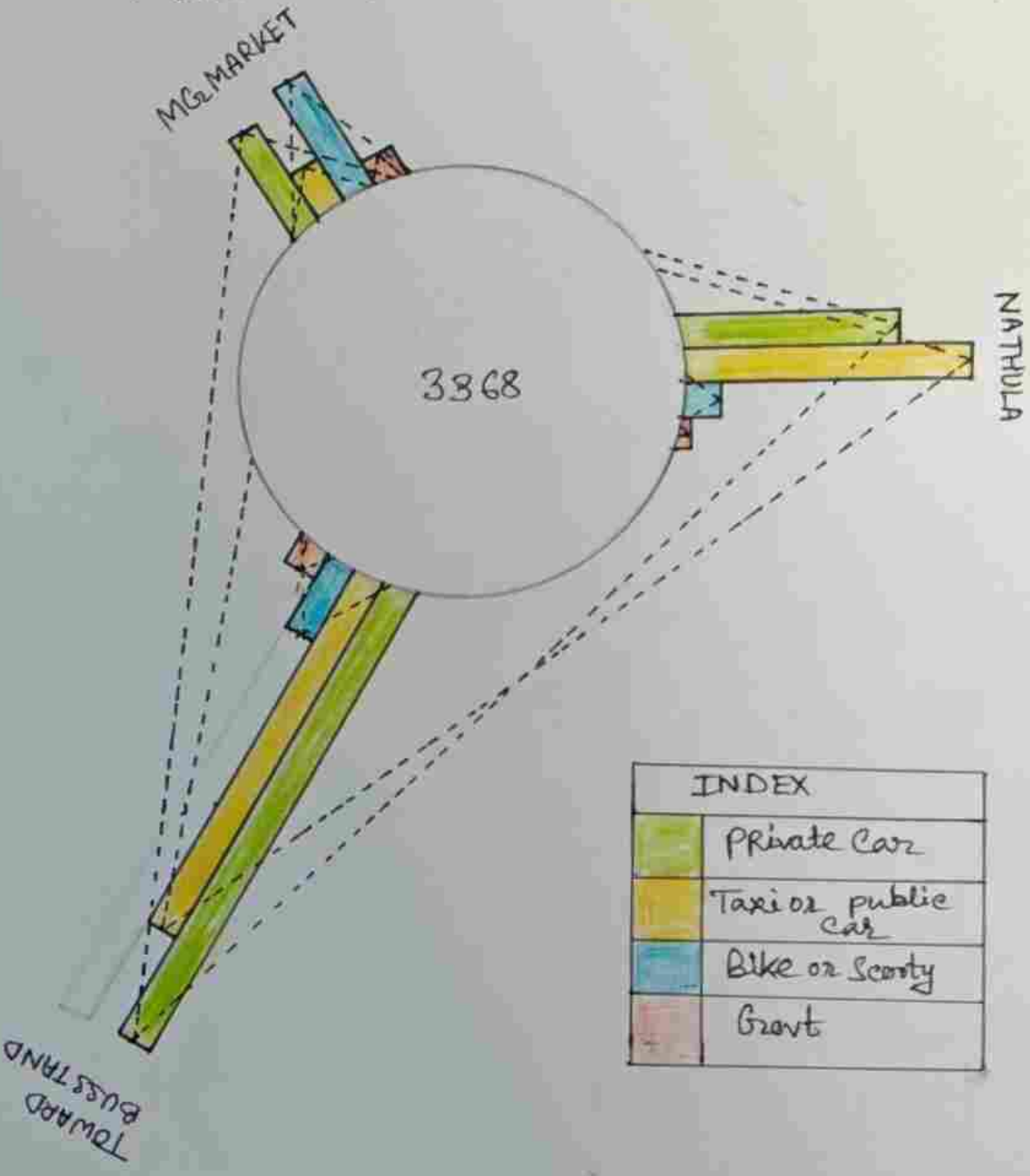
$$\therefore \text{Radious of Circle} = \frac{32.74}{10}$$

$$= 3.274$$

Road Name	Type of vehicle	No of vehicle	Scale	Bar according to the scale
Toward Nathula or Lachung	Private car	329	1 cm to 100	3.29
	Taxi / Public Car	418		4.18
	Bike / Scooty	62		0.62
	Govt	29		0.29
Toward Bus stand	Private car	810		8.10
	Taxi / Public Car	628		6.28
	Bike / Scooty	131		1.31
	Govt	51		0.51
Toward MG Market	Private Car	166		1.66
	Taxi / Public Car	66		0.66
	Bike / Scooty	196		1.96
	Govt	54		0.54

STAR DIAGRAM

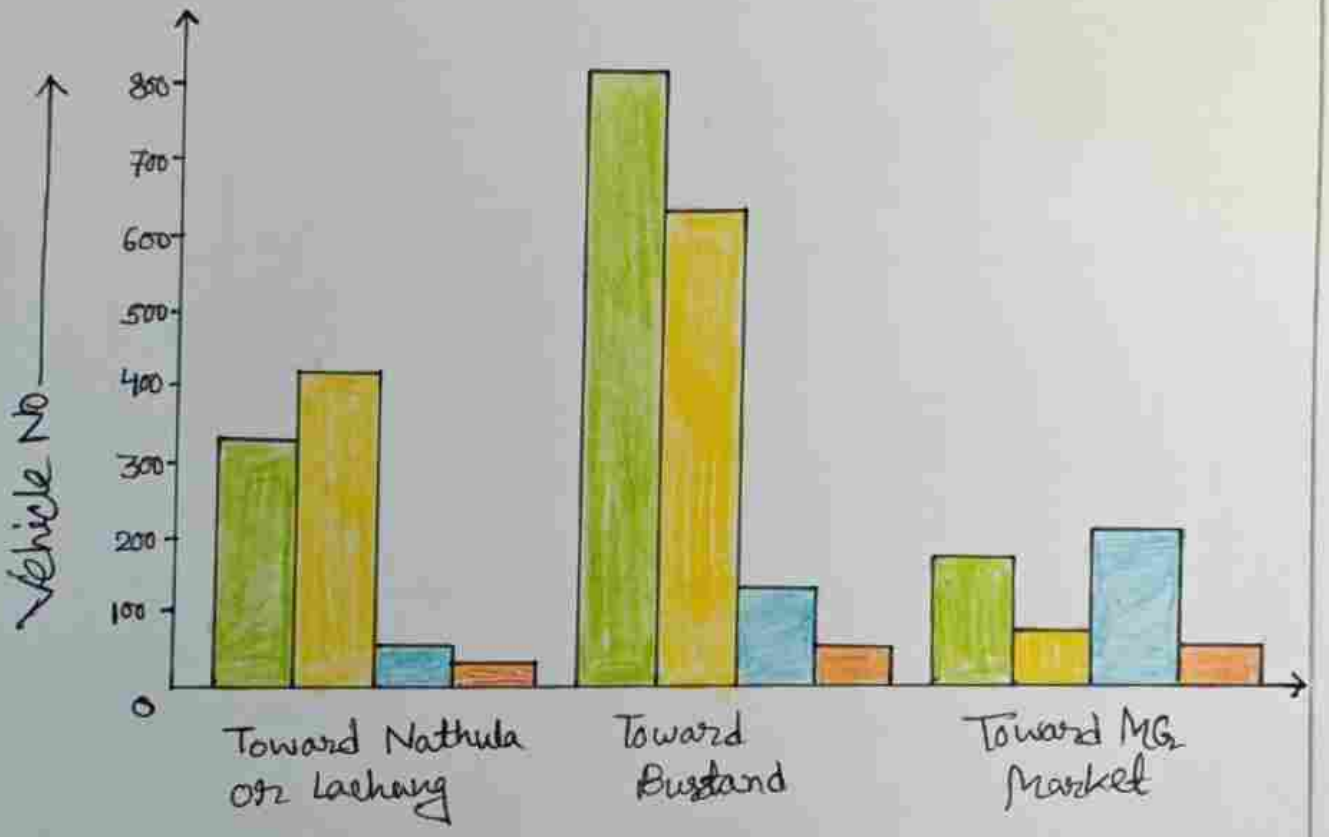
SHOWING THE MULTIPLE BAR DIAGRAM OF TOWARD NATHULA, BUS STAND AND MG MARG



Scale; 1cm to 100 vehicle

SHOWING THE NUMBER OF VEICHLE MOVES FROM DIFFERENT STATION

BAR DIAGRAM :-



SCALE
vertical scale 1cm to 100 vehicle

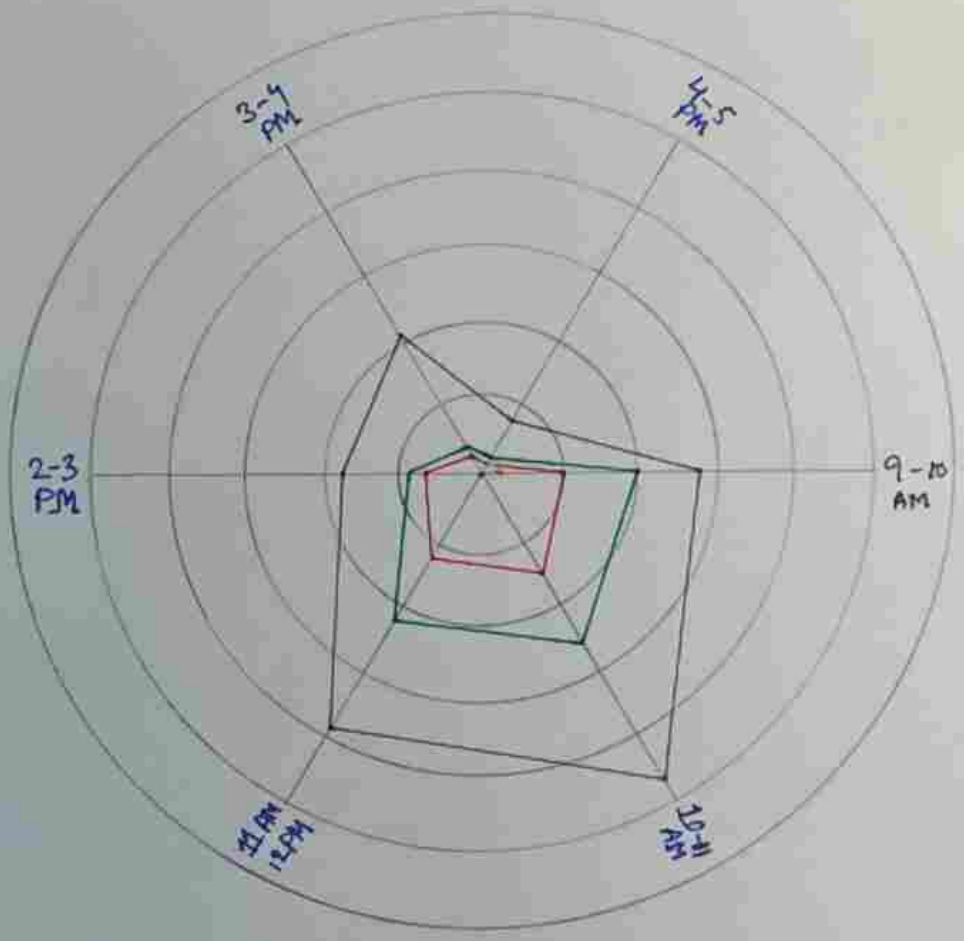
INDEX
Private Car
Taxi / Public Car
Bike / Scooty
Goat

Source: Primary Survey Data, October, 2023

Road Name	Time	vehicle	Scale	
Toward Nathula or Lachung	9-10	198	1 cm = 100	1.98
	10-11	263		2.63
	11am-12 pm	221		2.21
	2-3pm	90		0.9
	3-4	44		0.44
	4-5	22		0.22
Toward Busstand	9-10	280		2.80
	10-11	477		4.7
	11am-12	389		3.89
	2-3	184		1.84
	3-4	207		2.07
	4-5	83		0.83
Toward MG Market	9-10	99		0.99
	10-11	149		1.49
	11-12	120		1.20
	2-3	70		0.70
	3-4	26		0.26
	4-5	18		0.18

STAR DIAGRAM

SHOWING THE NUMBER OF VEICHLE MOVES FROM CM BUNGLOW CHOWK (GANGTOK) TO DIFFERENT STATION



INDEX	
\	Toward Bus stand
/	Toward Nathula or Lachung
\	MG Market Road

SCALE
1cm to 100 unit

TRANSPORT AND COMMUNICATION

CHAPTER - 4

CONCLUSION

CONCLUSION:

Problem

1 Tourism impact: Overwhelming tourism may lead to environmental degradation, affecting the local ecosystem and cultural heritage.

2 Development Imbalance: Uneven development may occur with certain areas benefiting more from tourism related activies while others face neglect.

3 Environmental Concerns: Increased tourist footfall may contribute to waste generation, population and strain on natural resources in the pelling area.

Suggestion

1 Sustainable Tourism Practices: Implement and promote sustainable tourism practies to minimize the environmental impact and preserve the local ecosystem.

2 Waste Management: Establish effective waste management systems to handle the influx of tourists.

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Department of Geography

This is to certify that ARGHA GHOSH

Roll 2116247 No. 2189030 and

Registration No. 091523 of 2021-22 of B.Sc. Hons

Semester – V Examination of 2024 in Geography under Kalyani University has completed his/ her project work on Socio-Economic Structure of Tathangchen Area of Gangtok District of Sikkim.

under our supervision and guidance.

He/she is permitted to submit the same as partial fulfillment of B.Sc. Hons Semester – V Examination 2024 in Geography (SEC/ Practical) paper CC/P-11

Sakti Mandal
Signature

Head of the Department of Geography
Dr. SAKTI MANDAL
Head, Assistant Professor
Department of Geography
Sripat Singh College, Jiaganj

Ajay Debnath
Signature

Field Supervisors

Outcome Report: Geographical Excursion

Date of Excursion: 2nd to 7th October 2023**,**

Location: Namchi Village, Sikkim

Participants: 35

Organized By: Department of Geography,

Name of Field Supervisor: Dr. Ajoy Debnath and Mr. Biswajit Chowdhury

Introduction:

The geographical excursion to Namchi Village, Sikkim was organized as part of the academic curriculum for the Honors students of Semester- V (Hons) in the Geography Department. The aim of this excursion was to provide students with practical exposure to geographical features and processes, supplementing their theoretical understanding.

Learning Objectives Achieved:

During the excursion, students were able to achieve the following key objectives:

1. **Observation of Geographical Features:**

Students had the opportunity to observe mountain ranges, rivers, coastal areas, soil types, etc., which helped them understand concepts related to geomorphology, hydrology, etc.. This hands-on observation solidified their understanding of the formation and impact of these features.

2. **Practical Data Collection:**

Students conducted various field activities, including Socio-economic data and soil sampling, topographical mapping, climate measurement, etc.. This allowed them to learn how to collect and analyze data in a real-world context, a vital skill for geographical research.

3. **Interaction with Local Communities:**

Students interacted with local communities to understand the relationship between human activities and the environment. This included understanding how geographical features impact agriculture, industry, and daily life in the region.

4. **Environmental Awareness:**

The excursion heightened students' awareness of environmental issues such as deforestation, soil erosion, climate change, etc.. The exposure to real-world environmental challenges reinforced the importance of sustainable development and environmental management.

5. **Group Collaboration and Problem Solving:**

Working in groups, students collaborated on field assignments and data analysis. They also encountered unexpected challenges, such as weather conditions or navigation issues, which helped them develop problem-solving and teamwork skills.

6. **Impact on Academic Learning:**

This excursion directly contributed to the students' understanding of topics covered in their coursework. Concepts such as [specific geographical concepts like erosion, tectonic activity, or human-environment interaction] were experienced first-hand, making them easier to comprehend and retain.

Conclusion:

The geographical excursion to Namchi Village, Sikkim was a successful and enriching experience for the students. It bridged the gap between theoretical study and practical application, enhancing both academic learning and personal development. We recommend continuing such excursions for future batches, as they play a crucial role in a holistic geographical education.

Recommendations:

- More frequent field trips should be organized to diverse locations to cover a broader range of geographical phenomena.
- Future excursions could include more interdisciplinary approaches, involving collaboration with students from environmental science or sociology departments to widen perspectives.

Sakti Mandal

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