

SUPPORTING DOCUMENTS FOR NAAC SELF STUDY REPORT (SSR) (3RD CYCLE)

PERIOD: 2017-2022

CRITERI	k	KEY INDICATO	R: 2.3		
TEACHING, LEA	TEACHIN	G LEARNING I	PROCESS		
EVALUA	TION				
METRIC NUMBER:	STUDENTS	CENTRIC	METHODS	SUCH	AS
2.3.1	EXPERIENTIAL	L LEA:	RNING, PA	RTICIPAT	ORY
	LEARNING &	PROBLEM	SOLVING MET	THODOLO(GIES
	FOR ENHA	NCING	TEACHING	LEARI	DING
	EXPERIENCES		TOOLS		





PREPARED AND SUBMITTED BY

NANDA NATH SAIKIA COLLEGE, TITABAR



Affiliated to Dibrugarh University

Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING &
	PROBLEM SOLVING METHODOLOGIES FOR ENHANCING
	TEACHING LEARNING EXPERIENCES USING ICT TOOLS
EXPERIEN	TIAL AND PARTICIPATORY LEARNING THROUGH LABORATORY WORK





LABORATORY WORK









MATRIC NO	HEADING		
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING &		
	PROBLEM SOLVING METHODOLOGIES FOR ENHANCING		
	TEACHING LEARNING EXPERIENCES USING ICT TOOLS		
EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH LABORATORY WORK			













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	TEACHING LEARNING EXPERIENCES USING ICT TOOLS		
EXPERIENTIAL A	EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH LARORATORY WORK		





LABORATORY WORK/PRACTICAL









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Metric No: Heading 2.3.1 EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING & PROBLEM SOLVING METHODOLOGIES FOR ENHANCING TEACHING LEARNING **EXPERIENCES USING ICT TOOLS**

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PRACTICAL WORK













LABORATORY WORK/PRACTICAL









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH LABORATORY WORK





LABORATORY/PRACTICAL WORK









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Metric No: Heading

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SOLVING METHODOLOGIES FOR ENHANCING TEACHING LEARNING

EXPERIENCES USING ICT TOOLS

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PRACTICAL WORK/TRAINING







TRAINING/PRACTICAL WORK









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR













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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

INTRODUCTION

Humans love to travel. Traveling is very important to gain knowledge, to see new things and have new experiences. Travel is more than going somewhere, it is a psychological event. With an objective of gaining knowledge, an educational tour was conducted from Nanda Nath Saikia College, Titabar, Jorhat, Assam. There are all total twenty-four (24) student from various department of the college participated in the programme. As a destination our college decided to go Sikkim which is one of the beautiful states of northeast India bordered by Bhutan, Tibet and Nepal and a part of the Great Himalayas.

We visited East Sikkim during the second week of December 2017, when many warned us that it will be too cold. However, we wanted to see snow and were not compromising on that. Our college team consisted of 24 students under the guidance of two Asst. Professors, Mr. Nirmal Jyoti Konwar and Mr. Uday Narayan Gogoi. A travel guide Mr. Rupam Bhattacharjee was also there to help us out during the whole journey. We started our journey on 13th December, 2017. We reached Mariani junction at about 6pm. The train 'Avadh ASSAM' was a bit late, so we had to wait for a little and about 7:45pm the train had arrived and finally our journey started.

THE JOURNEY

We reached New Jalpaiguri (NJP) junction next day about 4pm. After reaching NJP we departed for Gangtok by exclusive Tata SUMU. This four-hour drive over mountains was not a comfortable one. However, the charming and breathtaking natural beauty made us forget everything. The vehicles were going through a narrow road beside the river 'Teestha'. We took a light meal at about 7pm and at about 8:45pm we reached our hotel 'Twilight Lodge'. The hotel was a luxurious one and had all the facilities we needed. When we arrived the hotel, it was already 9pm, so we could not go out on that day. Our travel guide told us that we will start visiting places the next day.

The hotel was at the main town area of Gangtok. Gangtok is the capital city of Sikkim and one of the cleanest cities of India and also developed into a significant tourist destination. The town is connected with smooth broad streets along with a systematic network of footpath which was famous for its cleanliness. We all took rest for the night on 14th December, 2017.

On the next day, 15th December, 2017, after taking our breakfast we were headed to visit to East Sikkim. We again took three exclusive Tata Sumu and going through a zigzag road. We all felt lucky to be there when we witnessed the clear blue sky against the backdrop of snow clouded mountains. We reached Namchi after two hours of drive. There we witnessed Baba Harbhajan Singh Mandir which was dedicated to one of the great soldier of India. He was one of the famous soldiers who was posted at Nathula and sacrificed his life for the honour of India. After death, he was regarded as the "Hero of Nathula" for for his courage and sacrifice. He was entitled with the term "Baba" (saintly father) because of his saintly status. The soldiers who were posted near Nathula and Sino-Indian border between the state of Sikkim and Chinese occupied Tibet have a believe that the spirit of Harbajan protects every soldier in the adverse situation. It is also believed that if an army officer does not maintain a clean and disciplined attire he is punished by Baba with a slap. The story of courage and sacrifice inspired us very much and reminded us of our duty towards the country. As soon as we got off, we felt like we

FIELD WORK/EDUCATIONAL TOUR





Inwend ried (Mr. J.P. Oza) Coordinator, IQAC



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were in a closed refrigerator, as it was terribly cold up there. The wind was too cold and freezing. Everyone started clicking photos with their smart phones and DSLR cameras.

When we came back from there, we also visited Ganju Lama War Museum situated at Sherathang near Nathula, named after late Honorary Captain Ganju Lama a recipient of Victoria Cross during World War II. By visiting this war museum, we can learn about the bravery of Indian soldier posted in the Nathula area and Indo Chinese border area who laid down their lives for the defense of the country.

We spent a little time there and on our way back to hotel we stopped at the 'Tsomgo lake' which is located 38 k.m. from Gangtok at an altitude of 12400 feet. This 15-meter-deep lake is situated amid Rhododendron Forest and colourful carpets of Primula and Poppy blossoms. In the winter season, the lake remains almost frozen which attracts many tourists. Near the lake one can opt for YAK RIDES, most of the students experienced it. It costs us Rs 300/- per student for one ride. Then some of us had the experience of wearing traditional attire of Sikkim. Then, we returned to our hotel.

In the evening after taking some rest we went to M.G. MARKET, which is dedicated in the name Mahatma Gandhi, the great freedom fighter of India. When we reached there, we felt like we were in some western country as the markets and its road is so neat and clean with buildings all brightened up by lights. There was a memorial of Mahatma Gandhi at the middle of the market which was beautifully built. The whole place is free of smoke, trash and any kind of motor vehicles.

The second day, we started at about 8am. Firstly we visited Sri Hanuman Mandir at Pakyong which was at about 10 min drive from our hotel. Then we headed towards 'Plant Conservatory'. It is a lush green area with lots of green area with lots varieties of plants. The site is famous for Sikkim orchids, bonsai and other seasonal flowers. It is one of the best places to visit and spent time with family and loved ones.

Then we were taken to 'Ganesh Tok' view point which is situated at an altitude of 6100 feet and almost 7 km. from Gangtok. It has a 360-degree view from above. It is very calm and serene and the temple was pretty famous too.

After that we went to visit Bakthang waterfalls. The falls are formed as the Ratey Chu, the main water sources of Gangtok plummets through a vertical drop. It looked quite impressive and their adventurous events like rope way and hill climbing are also present.

Then, we went to Gonjang Budhist monestary which was established in 1981 by H.E. Tinkye Gonjang Rimpoche. It is situated near Tashi View point. It follows the Jangter tradition of Nyingmapa school of Tibetan Buddhism. It has Thadrol Dorjee Memorial Community Health Care Centre which provides medication to monks and the local people. Monastic education along with Tibetan language and English are taught to the monk students. The knowledge of comparative studies of Indian and Tibetan Buddhist Philosophy is also imparted.

CONCLUSION

At the end, we returned to our hotel. As it was the last day at Sikkim, everyone looked a little sad as none of us wanted to leave that place. The place was like heaven for us. But we had no other choice and at about 3pm we traveled to the NJP junction. We reached the station at about 7:30pm, we had our dinner at the junction and again we had to wait for the train as it was very

late. Finally, the train arrived at 2:45am and we left for Mariani junction. Next day at about lam we reached the station and everyone went there home.

It is a journey that none of us will forget in the rest of their lives. We had a great experience and learned so much things.

FIELD WORK/EDUCATIONAL TOUR





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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR



P.O. TITABAR: DIST, JORHAT: PIN 785630: ASSAM [Provincialised & Affiliated to Dibrugarh University] NAAC Re-accredited with Grade 'B' at CGPA 2.65

Dr. Litool Baruah Principal & Secretary email : litoolbanush@gmail.com Mobile No.: 9435490134

Phone No. 03771-248446(O) Fax No. 03771- 249301(O) E.mai: nnscollege@gmail.com Website: nnsaiklacollege.org Date 16:02-2018

Memo. No: NNSO Log/Eield Study/Tour/2018/1831.

To whom it may concern

This is to certify that the following regular students of B.A. 6° Semester, Department of Geography, N.N. Saikia College, Titabar are going on an Field Study Tour to Dhola, Sodiya, Roing and Dibru Soikhowa on 20° February, 2018 and 21° February, 2018 under the guidance of Mrs. Runumi Deka Mahanta, Associate Professor and Dr.(Mrs.) Jonali Saikia Borkakoty, Associate Professor, Department of Geography.

List of the Students

SI No	Name of the Students	Roll no
1	Sri Subhasish Chitia	26
2	Sri Gitartha Gourov Saikia	117
3-	Sri Udipto Gogoi	163
4	Sri Manashiyoti Kachari	173
5	Miss Shyamolee Chetia	175
6	Miss Priyakhi Hazarika	183
7	Miss Rita Mahanti	186
8	Sri Somiron Dutta	204
9	Miss Rimpi Buragohain	209
10	Miss Shahrin Akhtar Ahmed	212
11	Sri Kaipha Guria	216
12	Sri Manabjyoti Saikia	234
13	Sri Dhrubojyoti Handique	248
14	Miss Priyanka Borah	253
15	Miss Puja Gogoi	270
16	Miss Geetamoni Karmakar	292
17	Miss Parbin Begum	301

(b.2.18 (b.2.18 Principal. N.N.Saikia College. Titabar.

Principal N.Saikia Collona Tilahar

FIELD STUDY TO DHOLLA SADIYA

FIELD WORK/EDUCATIONAL TOUR





In The wal (Mr. J.P. Oza) Coordinator, IQAC

N.N. Saikia College, Titat



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NANDA NATH SAIKIA COLLEGE

Estd.1959 P.O. TITABAR: DIST. JORHAT: PIN 785630; ASSAM [Provincialised & Affiliated to Dibrugarh University]
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Dr. Litool Baruah
Principal & Secretary
email: litoolbaruah@gmail.com
Mobile No.: 9435490134

Date 21. 2 . 2018

Memo, No: NNSGv6u/Edu. Excursion/2018/ 1836

To whom it may concern

This is to certify that the following regular students of B.A. 4th Semester Major. Department of Geography, N.N. Saikin College, Titabar are going on an Educational Excursion to Digha and Calcutta from 4th March to 12th March, 2018 under the guidance of Mr. Jayanta Kumar Sarmah, Associate Professor and Dr.(Mrs.) Navamallika Sharma, Assistant Professor, Department of Geography.

List of the Students

SI.No.	Roll No	Name	Age	sex
1	09	Miss Gitashree Gowala	19	F
2	11	Sri Rituraj Gogol	20	M
3	16	Miss Sangita Kachari	19	F.
4	17	Miss Prinji Murah	20	F
5	20	Sri Ankur Ranjan Phukan	20	M
6	26	Miss Priyanka Buragohai	19	F
7	29	Miss Dimpi Borah	20	F
8	46	Sri Madhurjya Boruah	20	M
9	48	Sri Arnab Baruah	20	M
10	51	Miss Ritumani Boruah	20	F
11	53	Miss Tonmoyee Handique	20	F
12	55	Sri Dip Gogoi	20	M
13	56	Miss Trishna Rajkhowa	19	F
14	57	Sri Bidya Rao	20	M
15	69	Sri Mridu pawan Mahanta	20	M
16	71	Miss Monisha Borah	19	F
17	76	Sri Fiju Sonowal	19	M
18	87	Sri Niraj Gogoi	20	M
19	88	Miss Krishna Saikia	19	F
20	92	Miss Susmita Boruah	19	F
21	94	Miss Barbi Hazarika	20	F

(Dr. L. Barnal) 18 Principal N.N. Saixia Rencipal N.N. Saixia Rencipal N.N. Saixia College Titabar e.g.

FIELD STUDY TO KOLKATA, DIGHA





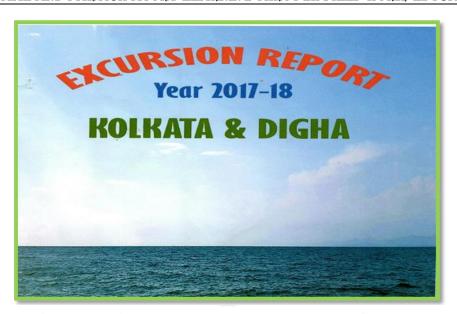




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সূচীপত্র

Unit - 1

1.2 - উদ্দেশ্য

1.3 - শিক্ষামূলক ভ্ৰমণ

(a) কলকাতা (b) দীঘা 1.4 - অধ্যয়নৰ পদ্ধতি

(a) পর্যবেক্ষণ

(b) ক্ষেত্র অধ্যয়ন 1.5 - ৰেল যাত্ৰাৰ চমু বিৱৰণ

দীঘা - ইয়াৰ চমু বিৱৰণ

1.2 - উদ্দেশ্য

1.3 - শিক্ষামূলক ভ্রমণ

Unit - 3

1. কলকাতা

(i) আৰম্ভণি

(ii) ভৌগলিক বিৱৰণ

(iii) জলবায়

(iv) বিস্তাৰ (জনসংখ্যা)

(v) কৃষি অর্থনৈতিক

(vi) পৰিবহন ব্যৱস্থা

(vii) শিক্ষামূলক ভ্ৰমণৰ মূলক্ষেত্ৰ

<u>Unit - 4</u>

সামৰিণ 1.1 প্ৰামৰ্শ

Introduction:

জ্ঞান অৰ্জনৰ আন এক অভিজ্ঞতাৰে পৰিপুষ্ট পথ হ'ল ভ্ৰমণ।এনে একে শিক্ষামলক ভ্ৰমণৰ উদ্দেশ্য আগত ৰাখিয়ে নন্দনাথ শইকীয়া মহাবিদ্যালয়ৰ হৈ 2018 চনৰ 4 মাৰ্চৰ পৰা 12 মাৰ্চলৈকে চতুৰ্থ যান্মাষিক 21 জন ছাত্ৰ-ছাত্ৰীসহ 2 জন ছাৰ-বাইদেৱেৰে সৈতেকলকাতা আৰু দীঘা অভিমুখে ৰাওনা হৈছিলো। চকুৰে দেখা আৰু কিতাপত পঢ়া তাৰ মাজত এক বিশাল পাৰ্থক্য আছে। লগতে ভূগোল বিভাগৰ ছাত্ৰ-ছাত্ৰী হিচাপে বিভিন্ন অঞ্চলৰ ভৌগলিক পৰিবেশ, অৰ্থনীতি, সমাজ-সংস্কৃতিসহ ভ্ৰমণ পৰ্যটকৰ বিৱৰণৰ পৰা ভৌগলিক জ্ঞান আহৰণ কৰিব পাৰি। সেয়েহে পাঠ্যপুথিৰ জ্ঞানৰ উপৰিও নিজে দেখা আৰু অভিজ্ঞতাৰ ভিত্তি জ্ঞানৰ ভগোলবিজ্ঞানৰ ব্যৱহাৰিক

ভৌগলিক অধায়নৰ গুৰুত্বতাঃ- ভগোলবিজ্ঞানৰ বিভিন্ন স্থানৰ অৱস্থিতি, বন্ধৰতা, নদ-নদী, জনবসতিৰ প্ৰতিৰূপ, ব্যৱসায় বাণিজ্য, বিভিন্ন জীৱিকা, যাতায়ত- যোগাযোগ আদি সমূহ জানিবৰ বাবে ভূগোলক শিক্ষামূলক ভ্ৰমণৰ অৰ্ত্তভুক্ত কৰা হয়। মূলতঃ শিক্ষামূলক ভ্ৰমণ ভূগোল বিজ্ঞানৰ বিভিন্ন দিশসমূহ বিতংকৈ পূৰ্ণতা প্ৰদান কৰে। লগতে আমি ভ্ৰমণ কৰা কলকতা আৰু দীঘা স্থান, বৰ্তমানৰ অৱস্থিতি অতীত বুৰঞ্জীৰে ভৰপুৰ, দীঘাৰ মনোমোহা প্ৰাকৃতিক দৃশ্যপট ইত্যাদিৰ তুলনামূলক ধাৰণাৰ জ্ঞান আহৰণ কৰাই আমাৰ ভ্ৰমণৰ মল লক্ষ্য আছিল। ইয়াৰোপৰি আমি প্ৰায়ে মানচিত্ৰত দেখি থকা, শুনি থকা কলকতা আৰু দীঘাৰ ভৌগোলিক অৱস্থিতি তথা মানুহবোৰৰ জীৱিকা, আৰ্থ-সামাজিক বিকাশ আদি দিশসমূহৰ ওপৰত হোৱা অভিজ্ঞতাই আমাৰ অধ্যয়ন সম্প গুৰুত্বপূৰ্ণ ভূমিকা পালন কৰে।

FIELD WORK/EDUCATIONAL TOUR

(Dr. L. Baruah) Principal N.N. Saikia College Titabar







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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

অধ্যয়ন পদ্ধতিঃ-

(a) পর্যবেক্ষণঃ- পর্যবেক্ষণ হ'ল এনে এটা পদ্ধতি যাৰ জৰিয়তে কোনোবা আঞ্চলৰ বিভিন্ন দিশসমূহ যেনে- ভৌগলিক, আৰ্থ সামাজিক দিশসমূহ সঠিক ৰূপত পাৱা যায়। পৰ্যবেক্ষণৰ যোগেৰে আহৰণ কৰা ধাৰণাসমূহ যুক্তিসংগত আৰু সুনিশ্চিত।

(b) ক্ষেত্ৰ অধ্যয়নঃ- এই পদ্ধতিত কোনো এখন স্থানৰ নিৰ্দিষ্ট কেতবোৰ দিশ বিতংকৈ আলোচনা কৰা হয়। ক্ষেত্ৰ ভিত্তিক অধ্যয়ন কৰোতে ভৌগলিক দিশৰ পৰা আৰম্ভ কৰি প্ৰযুক্তিগত দিশসমূহৰ বিষয়ে জ্ঞাত হ'ব পাৰো।

(c) পৃথিগত অধ্যয়ন ঃ- বিভিন্ন কিতাপ বা Internate তথ্যৰ ভিত্তিতো কোনোবা এটা অঞ্চলৰ সম্যক জ্ঞান আহৰণ কৰিব পাৰি।

এই তিনি পদ্ধতিৰ দ্বাৰা আমি আমাৰ শিক্ষামূলক ভ্ৰমণটি প্ৰয়োগ কৰাৰ ফলস্বৰূপে আমি আমাৰ মূল অধ্যয়নক্ষেত্ৰ কলকাতা আৰু দীঘাৰ বিৱৰণ দাঙি ধৰিবলৈ সক্ষম

মুখ্য কেন্দ্ৰ ক'লকতা-দীঘ 2018 চনৰ মাৰ্চ মাহৰ 4 তাৰিখে দেওবাৰে নিশা 9 বজাত আমি তিতাবৰ অৱস্থিত 'নন্দনাথ শইকীয়া মহাবিদ্যালয়ৰ তোৰণৰ পৰা 21 জন ছাত্ৰ-ছাত্ৰীসহ আমাৰ ততাৱধায়ক শিক্ষাণ্ডৰু শ্ৰীযত জয়ন্ত শৰ্মা ছাৰ আৰু নৱমল্লিকা শৰ্মা বাইদেৱৰ সৈতে ভ্ৰণৰ উদ্দেশ্যে এখন বেচৰকাৰী মেজিকত উঠি মৰিয়ণি অভিমুখে ৰাওনা হ'লো আৰু 11:25 বজাত 'মৰিয়ণি জংচন'ৰ পৰা কলিকতা অভিমুখে ৰাওনা

চমু বিৱৰণঃ 11:25 ৰাতি Kamrup Express ত উঠি কলিকতা অভিমুখে ৰাওনা হওতে বহু নতুন নতুন অভিজ্ঞতাৰ সন্মুখীন হৈছিলো। উত্ত-পূব সীমান্ত ৰেল পথেদি যাত্ৰা কৰোতে ডিমাপুৰ, লামডিং, চাপৰমুখ, আজি জংচন পাৰ হৈ 4-00 বজাত গুৱাহাটী পালোগৈ। গুৱাহাটী জংচনটো বহু ডাঙৰ আছিল। অলপ ৰৈ আকৌ

Page- 6

 গীজা

- এই গীজা ঘৰটোক St. Pauls cathedral বুলি কোৱা হয়। এই গীৰ্জাঘৰটোৰ 1847 চনত বনাই সম্পূৰ্ণ হৈছিল। এই গীৰ্জা ঘৰটো 247 ফুট ওখ আৰু 81 ফুট বহল।



 ভিক্টোৰিয়া মেম বিয়েল ঃ- ভাৰতৰ এটা সুন্দৰ সৌধ। তাজমহল সদৃশ মার্বল পাথৰে তৈয়াৰী ভিক্টোৰিয়াৰ স্মতিৰক্ষাৰ উদ্দেশ্যে বনোৱা হৈছে। এই সংগ্ৰহালয়টো 1906-1921 ৰ মাজত বনাইছিল। এইটো হুগলী নদীৰ পাৰত অৱস্থিত।



Page-

<u>4.Eden Garder ঃ</u>- ইডেন গাডেন খন কলকাতাৰ ক্ৰিকেট খেল পথাৰ। এই খন 1864 ত প্রতিষ্ঠা হৈছিল। ইয়াত IPL, T20 খেল হয়। ইয়াত একেলগে 66,000 মানতে বহি খেল উপভোগ কৰিব পৰা ব্যবস্থা আছে।

5. Princep Ghats - এই ঘাটটো বৃটিছ শাসনৰ সময়ত 1841 চনত বনোৱা হৈছিল। ইয়াৰ ওচৰতে এটা ৰেল ষ্টেচন আছে।



6. Indian Musium 8- এই সংগ্ৰহালয়টো কলকাতাৰ অর্থাৎ বিশ্বৰ এক সৌধ। এই সংগ্রাহলয়টো 1814 চনত বনোৱা হৈছিল। ইয়াত প্রায় 102,646 বস্তু সংগ্রহ কৰিব পৰা ব্যৱস্থা আছে। ইয়াত শিল, জন্তু, মানুহৰ মূৰ্ত্তি, মোগল চিত্ৰ আদি। কিছু

7. Science city ্ব- এক অভ্তপ্ব আৰু আটকধুনীয়া ঠাই হৈছে এই Science city ইয়াত গেলাৰি বিজ্ঞানৰ লগত জড়িত বিভিন্ন সামগ্ৰী, বিজ্ঞানৰ কিছ চমক প্ৰদ সৃষ্টি আদি আছে।ইয়াত Dynmotion Half, Earth, Exploration Hall, 3space odvssey আদি আছে। 6 মার্চ বেছি সময় ইয়াতে কটোৱা হৈছিল।

FIELD WORK/EDUCATIONAL TOUR



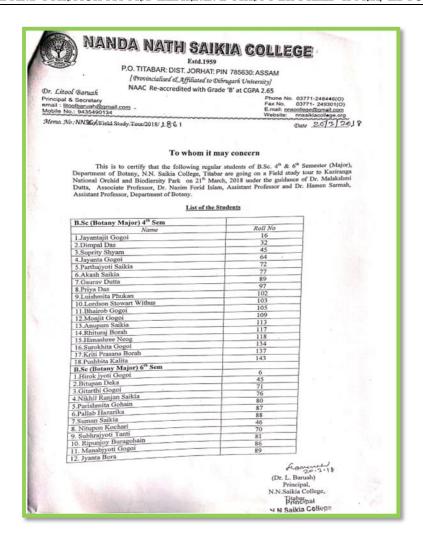


(Mr. J.P. Oza) Coordinator, IQAC



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2017-18

A REPORT ON FIELD TRIP TO KAZIRANGA NATIONAL ORCHID PARK











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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

- One day excursion to Kaziranga National Orchid Park

The site to be visited by botanical excursion was decided unanimously as kaziranga Orchid parts.

Our team: The excursion team consisted of 30 students and supervised by our horb ble departmental teachers.

Preparation of journey: Before the journey we took some old newspapers polythene bags, knife, mobile and others where considered to be necessary during collection.

The journey: Our excursion to Kaziranga Orchid Park is a botanical excursion on the 21th March 2018, we went to excursion trip to Kaziranga Orchid park. The one day excursion to kaziranga was undertaken on 21th march 2018 at 8:00 am from Nanda Nath Salika college. The trip was ensured on one but BICKAGHAT at nearly about 10:45 am there we had been breakfast and then again we go through 22:15 pm we saw many orchids there are for some single parts of the control of the co

GENERAL REPORT ON THE PLACE VISITED



KAZIRANGA NATIONAL ORCHID AND BIO-DIVERSITY PARK

Maziranga national park is one among the top ten most visited national parks in India. Recently, Kaziranga orchid and biodiversity park established at a 2 kilometers distance from kohrariali (near central range, Kaziranga, Spanning a wide area of 18 bighas (5.95 acres) of land at durgapur village is the largest orchid park of its kind that has added a new dimension to the glory and pride of Kaziranga National Park. I'll that, scientists have discovered only 850 varities of orchid a India's northeast region out of the 1314 species of orchids found in India, Kaziranga National Orchid park along boasts of possessing a lit more than 500 varities of wild orchids collected from different parts of northeast India states. Besides orchids Kaziranga National Orchid and bio-diversity park houses 132 species of sour feutus and leafy vegetables, 12 species of cane, 46 species of bamboo and a large variety of local fishes.

APPENDIX – A

1.List of orchids studied in kaziranga orchid park

SI no.	Vernacular Name	Scientific Name	Family	Habit
1.	Pinecone	Dendrobium thyrsiflorum	Orchidaceae	Herbs
2.	Foxtail	Rhynchostylis	Orchidaceae	Herbs
3.	Slipper	Paphiopedilum hirsutissimum	Orchida	Herbs
4.	Bomzang	Dendrobium nobile	Orchidaceae	Herbs
5.	Double edged dendrobium	Dendrobium anceps	Orchidaceae	Herbs

200	Rounded	rotundum		Orchidace	Orchidaceae Herbs Orchidaceae Herbs	
-	The comb Vanda			Orchidace		
2. Cact	us					
SI no.	Vere	acular e	Scien	tific Name	Family	
1.	Dwa	rf Turk's		cactus nzanus	Cactaceae	
2.		ature el cactus	Thelocactos setispinus		Cactaceae	
3.	Drag	oon bones		e ghost	Cactaceae	
4.	Moti hunc	er of freds	Mammiliaria compressa		Cactacene	
3. Medi	cinal plants					
Si no.	Vernace	dar Sci	entific	Name	Family	
I.	Safed m	usli Ch bor	ioroph	ylum oum	Lilincene	
2.	Salparn		Desmodium gangeticum		Fabaceae	
3.	Lemon	balm Me	Melissa officinalis		Lamiaceae	
4.	Palmare	almarosa Cymbopog		gonmartini	Poaceae	
5.	* Vanilla	1 Va	nilla n	lanifolia	Orchidaceas	

Discription of the Specimens found in there ORCHIDS





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stribution and Habitat:- Vanda cristata is a medium sized, onopodial (it grows from a single, upright stem) epiphytic species tive to altitudes between 1200-2300m (4000-7500 feet) in the imalayas (Garhwal to Bhutan), Tibet and Assam(khasia) humid rests. These plant grow on moss covered trees in an area with bright that and a distinct dry season in the winter.

Cactus



Origin:- Central Mexico (Hidalgo, Queretaro, San Luis Potosi) Habitat:- Grows at an altitude of 1.300- 2.240 m.



3.<u>Mammillaria hahniana</u>:- (old lady cactus) is a species of flowering plant in the family cactaceae, native to central Mexico. It grows to 25 cm (10 in) tall by 50 cm (20 in) broad. The solitary spherical stems. 12 cm in diameter, are covered in white down and white spines. Reddish







Conclusions

Kaziranga Orchid Park is a important place due to the avilibility of its diversity of orchids and many other important plant species; but now we have observed that this diversity is dehiscings due to its dence flora which mesmerises the sit for tourists. It helps us to could extra knowledge and information about the orchids as well as other type of plants which will surely help us for the further detailed studies.





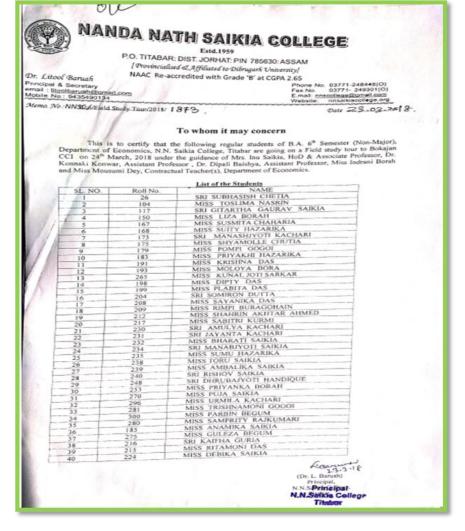




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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

A Field Report on -

"SHILLONG, CHERRAPUNJI and DAWKI, Meghalaya."

> By - Class Roll no.: 126. B.Sc. 5th Sem. Paper code: 506. Nanda Nath Saikia College,

Miss Taslima Ahmed Hazarika. Year - 2018.

ECO PARK



It is designed and maintained by the Government of Meghalaya, located at Cherrapunji or Sohra, which is the best place to enjoy the view the "Green Canyons" of Cherrapunji along with the waterfalls, that are located nearby and some streams passing by the park. Also, Bangladesh hill ranges and planes are seen on the other side by crossing over a bridge in the park.

The park have vast varieties of indigenious orchids, given by Shillong Agri-Horticultural Society, which are placed in the Grenhouse of the park.

The Southern part is the originating point of the Nohsngithiang falls.

AIM OF THE FIELD STUDY :-

It is really really important that we all learn to value the environment and to understand it.

The things we study from the books are not just enough about the environment and so, observing the things practically is inmportant to get a clear account of that place.

Zoologists must have to create a good relationship with the flaura and fauna of a place to be studied, which will help to learn about them, their habitat, nature and their interactions with the environment more accurately.

The field study that we have done was to know about the plants and animals and their relationship with their environment and the different ecosystems of Shillong, Cherrapunji and Dawki.

Description of the places :-

UMIUM LAKE



It is also known as "Barapani Lake", which is a reservoir, located in the hills, 15km to North of Shillong. It was created by damming the Umium river in early 1960's. The principle catchment of the lake and dam is the spread over 220sq.km. The water is clear and somewhat blue-greenish in colour. The lake serves a mojor tourist's attractions, which also have recreation facilities, destination for water sports and adventure facilities.

The lake dewels varities of birds, trees, insects, aquatic animals, aquatic plants, etc.









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THE LIVING ROOT BRIDGE



It is the finest creations of mankind, which are standing erect for over a period. This formidability bridge structure is made up of tangled thick roots of rubber plants, putting them into hollow canes of Areca nut palm by the Khasis and Jaintia tribes, which can hold 50 or more people in one go. This structure was made 150 years ago.

The stream flowing by the bridge contains varieties of aquatic plants and animals and the area is covered by beautiful rich forest.

CONCLUSION:-



This field work seemed to be an integral part of our environmental study of wildlife and different ecosystems of Meghalaya. As our objective was to learn various ecosystems, habitats and forest's types and environment wildlife and to appreciate nature, I think that we did accomplish our objective.

It was fun and interesting to be in nature and learn through a realistic way, besides the books and from this field study, we have learned things related to our present and old syllabus, which would help us in future field studies and also to learn about the nature and it's components.

It was real enjoyment to do this field study with my friends and teachers and make this final report.





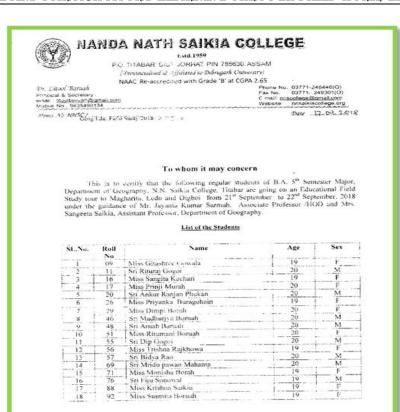




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A FIELD STUDY ON MARGHERITA DIGBOI AND LEDO













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সূচীপত্র

- ১/ কৃতজ্জা

- ৪/ ভৌগোলিক অধ্যয়নৰ গুৰুত্বতা
- ৫/ ক্ষেত্ৰ অধ্যয়নৰ পদ্ধতি
- ৬/ ৰে'ল যাত্ৰাৰ চমু বিৱৰণ
- ৭/ যাত্ৰা পথৰ মানচিত্ৰ
- ৮/ ভ্ৰমণৰ সময়সূচী
- ৯/ ক্ষেত্ৰ অধ্যয়নৰ ঠাইসমূহৰ বিৱৰণ
- ক) মাৰ্ঘেৰিটা
- খ) লিডু
- গ) তিগবৈ ১০/ সামৰণি
- ১১/ মন্তব্য

বিশ্বযুদ্ধৰ সময়ত নিৰ্মিত এই ঐতিহাসিক পথটোৰ দৈখা ১৭৩৬ কি:মি:. এই পথটোৰ নিমাৰ্ণ কাৰ্যত ১৫,০০০ মাৰ্কিন সেনা আৰু ৩৫,০০০ স্থানীয় শ্ৰমিকে ভাগ লৈছিল। অভব্য অৰণা, সুউচ্চ পাহাৰ, দ খাৱৈ আদিৰ মাজেৰে নিৰ্মিত পথটোৰ দৈৰ্ঘ্য ১৭৩৬ কি:মি: অসমত ৫৭ কি:মি:, ম্যানমাৰত ১০৮০ কি;মি:আৰু চীনত ৬৩৯ কি:মি; অন্তৰ্গত।

Coal Heritage park and Museum



মাৰ্থেৰিটাত অৱস্থিত এই সংগ্ৰাহালয়টো John Berry ৰ অসমলৈ অৱদানৰ তথ্যচিত্ৰ। তেওঁৰ যুক্তি, তেওঁৰ ব্যৱহাৰ কৰা বয়বস্তু সমূহ ব্ৰিটিছৰ দিনতে কয়দাখনিত ব্যৱহাৰ কৰা বিভিন্ন প্ৰকাৰৰ গা-সঁজুদি সমূহ, ইটাৰে নিৰ্মিত সামগ্ৰী, যোগাযোগৰ মাধ্যমৰ কাৰণে ব্যৱহাৰ, টেলিফ'ন, ঘড়ী, মুদ্ৰা আদি আছে৷ John Berry, ৰাণী Margherita ৰ আলোকচিত্ৰ সমূহ সংৰক্ষণ কৰি ৰখা হৈছে। প্ৰতিবছৰে এই সংগ্ৰাহালয়টোলৈ ব্যাপক হাৰত ছাত্ৰ-ছাত্ৰীৰ লগতে ব্যাপক হাৰত পৰ্যটক আহে।

ড ভূপেন হাজৰিকা Children Park মাৰ্ঘেৰিটাত অৱস্থিত। উদ্যানখন ড° ভূপেন হাজৰিকা দেৱৰ মৃতিত শিওসকলৰ বাবে স্থাপন কৰা হয়। ইয়াত সাময়িক আমোদ-প্ৰমোদৰ কাৰণে বিভিন্ন খেলৰ সামগ্ৰী আছে।

FIELD WORK/EDUCATIONAL TOUR





I Thurst (Mr. J.P. Oza) Coordinator, IQAC N.N. Saikia College, Titab



Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
	TEACHING LEARNING
EXPERIENTIAL AND	PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

<mark>টিশং কয়লা খনি :</mark>- এই কয়লাখনি অঞ্চলটো লেখাপানীৰ ওচৰত অৱস্থিত। ইয়াৰ জক্ষাংশ দ্ৰাঘিমাংশ বিস্তৃতি 27°16'40" উত্তৰ জক্ষৰেখা আৰু 95°51'46" পুর দ্রাহিমাবেখা। এই কছলাখনিটো North Eastern Coal Fielde ৰ অধীনত চলিত পৃথিৱীৰ আটাইতকৈ ফুদ্ৰ কয়লাধনিৰ অঞ্চল। এই অঞ্চলৰ আৰম্ভণিতে তিনিটা কয়লাখনিৰ পৰা কয়লা তাহৰণ কৰা হৈছিল যদিও বৰ্তমান ইয়াৰ মাত্ৰ এটা ক্যলাখনিৰ পৰাছ ক্যলা উৎপাদন হয়। ইয়াৰ খনন প্ৰক্ৰিয়া গভীয় প্ৰকৃতিৰ। টিপং কয়লাখনিৰ পৰা বৰ্তমান সময়ত কয়লা উদ্ঘাটন তাতি কম পৰিমাণে হয়। চলিত বৰ্ষত উৎপাদন একেবাৰে নাই। এই কয়লাখনিৰ চুবুৰীয়া ডঞ্চলসমূহ বছত পিছপৰা আছিল। ১৯৯৩ চনতে এই টিপং কয়লাথনিত প্রায় ১৬ জন মানুহৰ মৃত্যু হৈছিল। এই কয়লাখনিৰ লোকসকলে প্রতিদিনে মৃত্যুক আগত ৰাখি কাম কৰিবলগা হয়। কাৰণ এনে Underground কয়লাখনিত বিভিন্ন সমস্যা যেনে :- অব্লৈজেন গেছৰ অভাৱ,

টিৰাপ কলনা ধনি :- এই ধনি অঞ্চলটি লিভূৰ কাষতে অৱস্থিত। ইয়াৰ তক্ষাংশ আৰু প্ৰাথিমাংশ বিস্তৃতি 27°1735" উত্তৰ তক্ষৰেৰা আৰু 95°46'16" পুৰ দ্ৰাঘিমাৰেখা। এই অঞ্চলটোৰ খনন প্ৰক্ৰিয়া মুক্ত প্ৰকৃতিৰ (open cast inning) মুক্ত কৰাৰ হেতু এই খনিৰ আশে পাশে কেইখনমান কৃত্ৰিম পাহ্যৰ ণটি উঠিছে। এই কয়লাখনিত ১২-৩০ বজাৰ পিছত তাৰ কৰ্মকৰ্তা সকলৰ বাদে বেলেগৰ প্ৰৱেশ নিষেধ। ইয়াত বাৰিষা কালত পাহাৰৰ তলৰ ডংশত সেউজীয়া পানী দেখা যায়।

মিথেন গেছৰ উৎপত্তি আদি।



ক্ষেত্ৰ অধ্যয়নৰ মুখ্য কেন্দ্ৰসমূহ :-

ভিগবৈ তেল শোধনাগাৰ:- ভিগবৈ তেল শোধনাগাৰটো Assam oil Company limited ৰ অধীনত ১৯০১ চনত প্ৰতিষ্ঠা কৰা হয়। এই শোধনাগাৰটো এছিয়াৰ প্ৰথম তেল শোধনাগাৰ। তিনিচুকীয়াৰ অন্তৰ্গত ডিগবৈ তেল শোধনাগাৰটো বৰ্তমান ভাৰতীয় তেল নিগমৰ (Assam oil diuison) ৰ মুখ্য কাৰ্যালয়। বৰ্তমান এই শোধনাগাৰৰ বাৰ্ষিক শোধন ক্ষমতাৰ প্ৰায় ১০,০০০ ওগ। ১৯৫৮ চনলৈকে ইয়ে ভাৰতৰ একামাত্ৰ শোধনাগাৰ। ১১৭ বছৰত ভৰি দিয়া এইটো শোধনাগাৰত আজিও কেৰাচিন, পেট্ৰল, ডিজেন, ম্বেহদ্ৰব্য, মম, বিটুমিন, দাহ্য , পেছ প্ৰকৃতিৰ দ্ৰব্যসমূহৰ উৎপাদন অব্যাহত আছে।

<u>ডিগবৈৰ যুক্তৰ সমাধিক্ষেত্ৰ :-</u> ডিগবৈৰ পৰা ১৫ কম দূৰত পেঙেৰী চাহ বাগানৰ পথত দিতীয় বিশ্বযুদ্ধৰ সময়ত এই সমাধি ক্ষেত্ৰ অৱস্থিত। এই সমাধি ক্ষেত্ৰত দ্বিতীয় বিশ্বযুদ্ধৰ সময়ত শ্বহীদ হোৱা ২০০ সৈনিকৰ স্মৰণত শ্বহীদ ম্মাৰক নিমাৰ্গ কৰা হৈছিল। সম্প্ৰতি পৰ্যটকৰ বাবে এই ক্ষেত্ৰ যথেষ্ট আকৰ্ষণৰ কেন্দ্ৰ। ইয়াত প্ৰতিজ্ঞন সৈনিকৰ বয়স, জন্ম, পিতৃ-মাতৃৰ সকলো কথা উল্লেখ আছে।









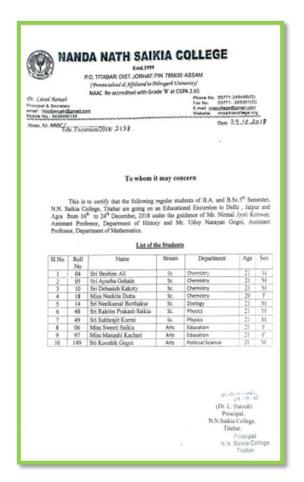


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	LEARNING EXPERIENCES USING ICT TOOLS

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR





FIELD WORK/EDUCATIONAL TOUR





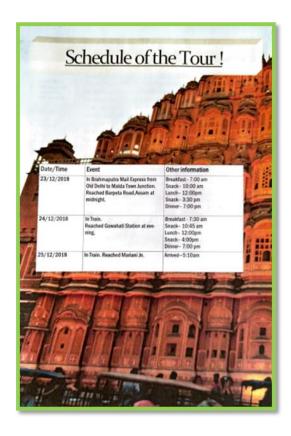


N.N. Saikia College, Titaba



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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR





Day-1

At Agra (Taj Mahal & Agra Fort)

Taj Mahal

Tai Mahlal

The Till Mahla, built by an emperous in memory of his believed quores. Construction of the Till Mahlal hagein in 1631, and is believed to have rather 18 years to complete, with error 2,000 control or consequence of the clark. The design and conservation is used to be that of the degendary architect. Under Administ Ladveri. Legand has it that once control under the control of the degendary architect. Under Administ Ladveri. Legand has it that once control under the control of the profess of the profess of the profess of the control of the contr

The Gateway to the Taj Mahal

The Gateway in the Tai Mahad!

After purchasing the tickets, the tourists have to enter the majestic entrance gate way if red and tissue, is a beautiful monument in itself. This gate way is an octagonal estimate by the second of the second of the second of the second entrance hall, surrounded by small rowers on both the sides in the floor part of the second of the second entrance hall, surrounded by small rowers on both the sides in the floor years till ent the second entrance of the second entrance, the second entrance has the second entrance, there are strong belocation. The gate is a master piece of flue initys went inverf. It is prefer in lay work of white marble and precious stones into the red sandstance surface, has elegantly executed inscriptions in "Italia" script, inlay of with Barks harden on white marble andreas, given a charming look in the whole structure. Some Queranic texts are nicely inscribed in black letters. These Queranic ways and the second of the second entrance of the seco

The Tuj Garden :-

The Toi Gardon :
From the main extraonic gate, a few steps take the visitor down into the Taj gardens. The gardens in the Taj were designed by th Mandan Khan, who was a noble in the Martin the Taj were designed by th Mandan Khan, who was a noble in the Martin the Internation and Fanning channels of water with karge exercises are typical of at the first design. Here was drawn any from the river exercises are typical of the Martin the river and correcting water up by a think way, drawn by the bullecks or by time the river and correcting water up by a chain way, drawn by the bullecks or by time the river and correction on the sum to the research of the two distincts of the remaining of the roman visitation of the reversion on the walls, water was taken through iron piper to the fountains and the ranning water channels.

THE SOUTHERN GATE

The gate is towards the South, which faces the old Manniazabad (Modern Taj Gunj). It is meant for the prelatriest or the grellatr only. On the right side of this gate is a Tomb of red stone which is surrounded by your Tarks and converted with a down. It is said that where is a grave of one leafy companies of Manniaj Mahal. Due to this reason this halfiling is called as the name of a Mark of Hansour. It stoach on an elected square measuring 156 for each way, it has been event a family referred to the converted for the control damater, there are no unswirectful about of marthe stone. The platform of the building is estaponal and the cupods is turnip-shaped. No historian has given an account of these general, yet they agree with this probability, that these graves may belong to the personal ward attendants of Mannia; Mahal, Jean appearing this building, there is a red stone edifice of the same type.

THE EASTERN GATE

gute faces towards Fatchabod. There is a domed tomb erected on an elevated playform near this gate. This was built in the memory of assother nife of Shah Jahan colled Sirhindi Beyam. Due to this, the gate is nown as 'Sirhi Darwaza.' The main building is eight tokled, hering twenty four arches, a big hall and a verandord.

It is the main entrance of the Taj Mahal and this gate faces towards the Agra contonment and Agra city. There is a red sand stone edifier outside this gate which is known as Fatehpari Massid, which was constructed in the memory of Fatehpari Regum acorder righe of Shab Johns.

THE TOMB BENEATH THE DOME

Some Opinions



<u>Day-2</u> Fatehpur Sikri, Agra Hawa Mahal, Jantar Mantar & City Palace, Jaipur

EATENPER SIKE!

Fatchpar Sikri is ideasted about 37 Km, west of Agra on Agra-Jaipar National Highway. It was small village named Sikri, dwell by some stone cutiers and was under the Reijaut chiefy agate 16th century. It is most the Jamous battle Field of Thanaudi' or Tanwah where a decisive buttle was Jought between Bahur and Rana Sanga. It was Jamous for the dwelling plate of a Suff Salat Shelkh Salaam bit sixtery one Calgrad, to made a duchat solid plate with a few solid solid Shelkh Salaam bit sixtery one Calgrad, to made a built at Sikri Village just to have a prosper to the Suff Salat to bless Abbur with a sone from his Reighat wife Mariam-ac-Jamani. It is salid that the Suff Salat to bless Abbur with a sone from his Reighat wife Mariam-ac-Jamani. It is salid that the Suff Salat to selficed his ist mention of some of the Empress Josha Bal. This described Magidal cajind was enclosed by 50 feet high battle waith built of the Sala This described Magidal cajind was enclosed by 50 feet high battle waith built of the Mathaur Gate. Charl Darwaya, Euraj Gate, Balvado Cart, Creatiful Barvado, Salad Sala

PANCE IMMENT.

Towards the vest of Khus Mahal, a beautiful ediffice is visible, knoWn as Panck Mahal having fire stories. It is the beauty of this building that its every supper store; became smaller that the lower one. It appears like of "Buddhist' Viber" in appearance. The ground floor is of 72 x 51 feet, having 8 columns. There are 56 columns in the first floor, 20 in the second, 21 in the third and top floor having a Kiool of 4 only. The height of the stories are as under 1st. Storey 69 B,, the second 31 feet, the third of the first floor, 20 in the stories are as under 1st. Storey 69 B, the second 31 feet, the third of feet, the found 11 feet and on the fifth story there is a down built on four pillars. This building has got some curvings on the walls depicting one placking flowers and fruit, and elephants.



The Pink City, Jaipur





FIELD WORK/EDUCATIONAL TOUR

(Dr. L. Baruah) Principal N.N. Saikia College Titabar



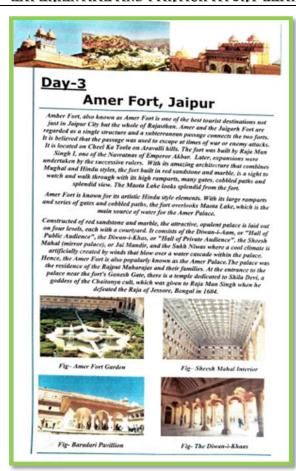


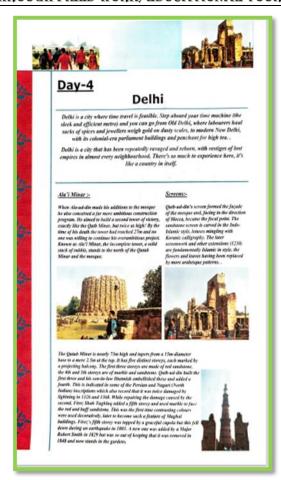


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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR





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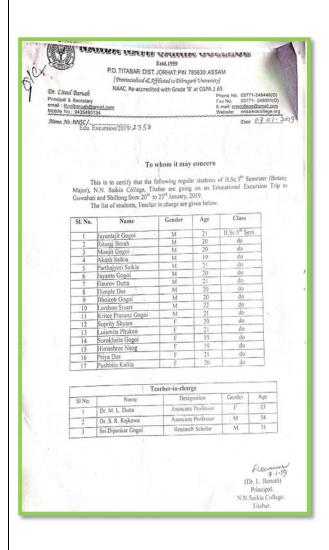


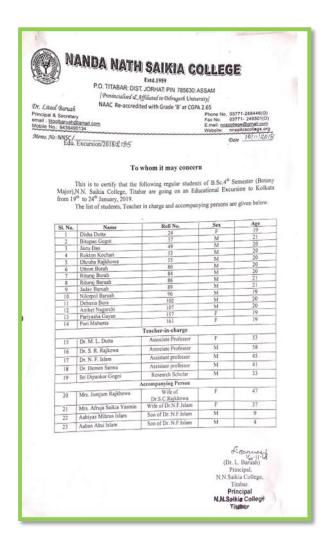




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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR



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NAAC Re-accredited with Grade 'B' at CGPA 2.65

Or. Littool Barnah Principal & Secretary email: <u>Hooksman Fromail.com</u> Mobile No.: 9435490134

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To whom it may concern

This is to certify that the following regular students of Department of History, N.N. Saikin College, Titabar are going on an Educational Tour to Dambuk, Arunachal Pradesh on 30th January, 2019 under the guidance of Mr. Budhin Dutta, Associate Professor /HOD. Dr. Rabindra Bordoloi, Assistant Professor, Mr. Nirmal Jyoti Konwar, Assistant Professor and Mr. Rajib Das, Assistant Professor, Department of History.

St. No.	Name	Class	Roll Nos.	Remarks
01	Sri Krishna Saikia	6th Semester	136	
4.	Miss Anmona Saikia	in .	39	
02	Miss Gayatri Baruah		21	
03	Miss Pompi Hazarika	-	185	
04	Miss Rupali Bhuyan		48	
05	Miss Piku Kachari	-	23	
06	Miss Piku Kachari Miss Pinki Kalita		237	
07	Miss Susma Rai		220	
08	Miss Niharika Dutta	-	05	
09	Miss Abidita Das		84	
10	Sri Rama Gogoi		66	
11		4 ^f semester	183	
12	Sri Prashidho Gogoi Sri Jewel Hazarika		280	
13	Szi Netra Kachari		88	
14			152	
15	Sri Biju Saikia Sri Farmid Zamam Khanikar		286	
16		-	02	
17	Miss Priyanka Tamuli		86	
18	Miss Mayuri Bordoloi		290	
19	Miss Writtika Bhuyan	**	103	
20	Miss Bhagyashri Sonowal	2 ^{eJ} semester	72	
21	Miss Darobi Borah	-	14	
22	Miss Bobita Borah	- "	172	
23	Sri Bhairab Saikia		301	
24	Md. Altaf Rahman		198	
25	Sri Manash Protim Deka			
26	Sri Jayanta M. Kachari		243	
27	Sri Jintu Konwar	**	167	
28	Sri Jadumoni Borah	**	294	-
29	Sri Kuber Paul	***	289	

(Dr. L. Baruah)
Principa/incipal
N.N.Sai N.N.Saikia Colloge
Titabas, Titabar

FIELD WORK/EDUCATIONAL TOUR





In The wal (Mr. J.P. Oza) Coordinator, IQAC



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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

তিপি সঁচায়ে এক মনোৰম ঠাই এফালে শাৰী শাৰী পাহাৰ, এফালে আকৌ অহৰ্নিশে কুলু কুলু শব্দ কৰি বৈ আছে ভৰলু नमी। नीला वबन थावन कवि एक भानी आरू आन काटन অসংখ্য সৰু-বৰ শিল আৰু শিল।

মানুহে যিমানেই ভূগোল আৰু ইতিহাস অধ্যয়ন নকৰক কিয় ইয়াৰ জ্ঞানে পূৰ্ণতা আনিব নোৱাৰে, যদিহে মানুহে ভ্ৰমণ নকৰে। ভ্ৰমণে মানুহক জ্ঞানী কৰে। পৃথিৱীত এনে কোনো জাতি নাই যিসকলৰ কাৰণে ভ্ৰমণ অপ্ৰিয়। জ্ঞান অৰ্জনৰ কাৰণে ভ্ৰমণ কৰাটো অতি প্ৰয়োজনীয়। শিক্ষা লাভৰ উদ্দেশ্যে সকলো শিক্ষিত লোকেও তেওঁলোকৰ জ্ঞানৰ পৰিসৰ বৃদ্ধি কৰিবৰ বাবে শ্ৰমণ কৰে।

বিগত বৰ্ষৰ দৰে এইবাৰো তিতাবৰস্থিত নন্দনাথ শইকীয়া মহাবিদ্যালয়ৰ ইতিহাস বিবাগে এটা শিক্ষামূলক স্ত্ৰমণৰ সিদ্ধান্ত ল'লে। আৰু সেই সিদ্ধান্ত বাস্তব্যত পৰিণত হ'ল ১৭ জানুবাৰী ২০১৮ তাৰিখে। আমি নন্দনাথ শইকীয়া মহাবিদ্যালয়ৰ ইতিহাস বিভাগৰ ছাত্ৰ-ছাত্ৰীসকলে শিক্ষামূলক ভ্ৰমণৰ কাৰণে এইবাৰ অৰুণাচল প্ৰদেশৰ অন্তৰ্গত তিপিলৈ যোৱাৰ এক সিদ্ধান্ত ল'লো। আমাক সকলোকে ১৬ জানুবাৰী তাৰিখে ৰাতি ১০ বজাত উপস্থিত হ'বলৈ কৈছিল। কথা মতেই কাম, সকলো ছাত্র-ছাত্রী সঠিক সময়ত আহি মহাবিদ্যালয়ৰ চৌহদত উপস্থিত হৈছিলোহি। মহাবিদ্যালয়ৰ পৰাই মোৰ বন্ধু-বান্ধৱী আৰু নন্দনাথ শইকীয়া মহাবিদ্যালয়ৰ ইতিহাস বিভাগৰ মূৰবৰী অধ্যাপক শ্ৰীযুত বুদ্ধিন্দ্ৰনাথ দত্ত ছাৰ আৰু সহকাৰী শিক্ষক শ্ৰীযুত বৰীক্ৰ বৰদলৈ ছাৰ, শ্ৰীযুত নিৰ্মল জ্যোতি কোঁৱৰ ছাৰ আৰু শ্ৰীমতী ৰুলী দন্ত বাইদেউৰ সৈতে সেইদিনা আমি সকলোৱে ৰাতি ১২.৪৫ মান বজাত আমাৰ মহাবিদ্যালয়ৰ পৰা অৰুশাচল অভিমুখে যাত্ৰা আৰম্ভ কৰিলো।

চিকিমিকি পুৱা হৈছে সময় প্ৰায় ৪.৫৪ মান বাজিছিল তেতিয়াই আমি ব্ৰহ্মপুত্ৰ নদীৰ দ্বিতীয় বৃহৎ ভোমোৰাণ্ডৰি দলং পালোগে। দলং পা<mark>ৰহৈ গৈ আছো</mark> লাহে লাহে পূব আকাশত সূৰবেও দেখা দিছে, সোণালী কিবৰ লৈ সৰ্গৌৰৱে দূৰ পাহাৰৰ মি<mark>পাৰৰ পৰা মাজ</mark> আকাশলৈ ওলাই অহা বেলিটোক বাৰুকৈয়ে কুঁলনীয়ে চাটি ধৰিছে। ইয়াৰ পাছতে ৬ মান <u>বাজোতে বালিপাৰা</u> চাৰিআলি পালোগৈ আৰু এখন হোটেলত ব্ৰেকষাষ্ট কবিলো। বালিপাৰা চাৰিআলিত কিছু সমন্ত্ৰ ৰ'লো। ९ মান বজাত আকৌ পুনৰ বাছত উঠি আমি যাত্ৰা আৰম্ভ কৰিলো। বালিপাৰা পাৰ হৈ ছাত্ৰ-ছাত্ৰীসকলে বাছ্ফাৰ ভিতৰতে থ্ল-মূলকৈ এক সাংস্কৃতিক অনুষ্ঠান আৰম্ভ কৰি দিলে আৰু এই লেৰকেও এনেয়ে বহি যোৱা বিধৰ ছাত্ৰ নাছিল, সাংস্কৃতিক অনুষ্ঠানটো আগবাঢ়ি যোৱাত সহায়

সহযোগ আগবঢ়াই দূৰত্ব অতিক্ৰম কৰি শিক্ষামূলক শ্ৰমণৰ গড়বাহানলৈ দূৰত্ব অতিবাহিত কৰি গৈ আছিলো। প্ৰায় তেৰ গতগ্ৰহ্মনে মুখ্য আত্মাহত আমি অৰুণাচল হতীমনেৰ বাট অতিক্ৰম কৰাৰ পাছত আমি অৰুণাচল প্ৰদেশলৈ যোৱাৰ, অৰুলাচল প্ৰদেশৰ পাহাৰৰ পাদদেশত আৰু অসমৰ সমভূমি হিত ভালুকপুং হিত প্ৰবেশনাৰ পালোগৈ আৰু তিপিলৈ যোৱাৰ অনুমতি ল'লো। ইয়াৰ পাছত আমাৰ বাহুখনে অসমৰ সমভূমি এৰি এইবাৰ কিছুদুৰ অৰুণাচলৰ শাৰী শ্বৰী পাহ্যৰৰ মাজত স্থিত একা-বেঁকা ওখ চাপৰ এচলীয়া পাহ্যবৰ প্ৰথেৰে আমাৰ গন্তব্য স্থানলৈ গতি কৰিলো। পাহ্যবৰ একা-বেঁকা ৰাজ্যৰে যাওঁতে ৰাজ্যটোৰ পৰা আনটোৰ কাষৰ মুকলি আকাশংন নদী আৰু শাৰী শাৰী পাহাৰৰ টিলাবোৰ, _ সমগ্ৰ অৰুণাচন প্ৰদেশক কাজসম্পদত চহকী কৰি পাহাৰৰ টিলাবোৰ স-গৌৰৱে থিয় হৈ থকাৰ দৃশ্য উপভোগ কৰিলো। আৰু এক বুজাব নোৱাৰা মনোৰম দৃশ্যৰ সৃষ্টি কৰি সকলো বেশী-বিদেশী পৰ্যটকক আকৰ্ষণ কৰি কোনো ভেম নাৰাখি কলোৰে উপযোগী মল্যা বতাহ সৃষ্টিকৰি যি এক বুজাব নোৱৰা পৰিবেশ বৰ্তাই ৰাখি এই অৰুণাচল প্ৰদেশৰ পাহাৰবোৰ থিয় হৈ আছে। কিছু সময়ৰ পাছত আমি আমাৰ গুড়ুৱা স্থান পালোগৈ যিভোখৰ ঠাইক তিপি বুলি কোৱা হয়, তাত পাই ছাত্ৰ-ছাত্ৰীসকলৰ মনত ভাবিব নোৱৰা এক আনন্দত মতলীয়া হৈ সকলো বাছৰ পৰা নামি নদীৰ তীৰত অসংখ্য দৰু-বৰ শিলগুটিবোৰৰ ওপৰেৰে সমূহ ছাত্ৰ-ছাত্ৰীয়ে পানী চবৰ বাবে আগবাঢ়ি গ'ল। এই ঠাই ডোখৰত নমাৰ লগে লগে বতাহে আমাক গোটেই ৰাতিৰ টোপনি ক'লে ক'লে উৰুবাই ক্লিল আমি ভাবিব নোৱাৰা হ'লো। তিপি সঁচায়ে এক মনোৰম ঠাই এফালে শাৰী শাৰী পাহাৰ, এফালে আকৌ অহৰ্নিশে কুল কুল শব্দ কৰি বৈ আছে ভবলু নদী। নীলা বৰণ ধাৰণ ত্ৰৰি চেঁচা পানী আৰু আন ফালে অসংখ্য সৰু-বৰ শিল আৰু শিল। আমি যেতিয়া বাছৰ পৰা নামি আলোক-চিত্ৰ ল'বৰ বাবে নদীৰ পানীত নামিছিলো তেতিয়া আমাৰ বাবে ই এক জটিল কাম ফেন হৈ পৰিছিল। যিটো নেকি ইমান ঠাণ্ডা পানীত আমি কেতিয়াও নমা নাই। আমি আটায়ে শিলৰ ওপৰে ওপৰে উঠিলো কিছু সময়, তাৰ পাছত সকলোৱে একে লগে **চাহ বালো।** আমাৰ এই শিক্ষামূলক ভ্ৰমণৰ মূল উদ্দেশ্য আছিল **ৰ্ক্টা বনভোজ খো**ৱাৰ। আমাৰ লগত গৈছিল অচ্যুৎ ভাগৱতী দাই তেখেতে আমাৰ মহাবিদ্যালয়ৰ ইলেফ্ট্ৰনিক্স আৰু **বিকোনো** কাৰিকৰী দিশত কাম কৰে। তেখেতে আমাৰ নতোজটোত ৰন্ধন প্ৰকৰণত সহায় কৰিছিল আৰু তেখেতক সহায় কৰি দিছিল আমাৰ জোষ্ঠ কেইগৰাকীমান ৰাইপেট স্কৰ ছাৰ বাইদেউ সকলেও পূৰ্ণ সহায় সহযোগিতা আগবাদুহক্ষি। এফালে কনভোজৰ প্ৰস্তৃতি, এফালে আলোকচিত্ৰ লোৱৰ তংগৰতা আৰু আনফালে সংগীতৰ টো লগতে অঞ্চি প্ৰকৃতিৰ পৰা ভাহি অহা পাহাৰৰ মাজত খুনা শাই ৰচ্যাত্ৰ কৰা গৰ্জন আৰু লগতে নদীৰ পানীয়ে শিলত কুমা গাঁ কৰা কুল কুল শব্দ। এই বনভোজটোত যোৱাৰ আগ্ৰহ ভাঙৰ অভিজ্ঞতাটো হ'ল তিপি নদীৰ পানীত ৰবীন্ত্ৰ বৰুদ্ধৈ ছাৰ আৰু নিৰ্মল ছাৰৰ লগত আমি একেলগে পানীত নাম গা ধোৱাৰ আৰু আলোক চিত্ৰ লৈ আমি আনন্দত ইয়াসেই আত্মহাৰা হৈ পৰিছিলো যে নদীৰ পানীত নামিহে আমি হৈছ যোৱাৰ প্ৰকৃত আনন্দ বুজি পাইছিলো। গা ধুই আমি শ্বেক্ত বোৱা কৰিলো সময়ো কিছু হ'ল সকলোৱে একেলু আলোক চিত্ৰ গ্ৰহণ কৰি আমি বাছত উঠি নদীৰ পাৰৰ পৰ Archid Reshors Centre পালোগৈ তাত আমি মোল বাবে সঁচাকৈয়ে ক'ব লাগিব কাহানিও দেখি নোপোৱা মন্ত ত্তনি পাইছিলো আৰু ফটোত দেখি পাইছিলো বিজ্ঞাপা উল্লি হ'ল মাংসভোজী উদ্ভিদ কলচি উদ্ভিদ এই উদ্ভিদজোপা। কৰি সদায় দেখা গছপাত খিলাই ছবিত প্ৰাণ হৰি নিয়ে কবিয়ালৈ বিপৰীত হৈছিল কাৰণ এইটো আমি আগতে কেডিয়াও বাস্তবত কলচি উদ্ভিদ দেখা নাছিলো। এই Archid Reshes Centre টোত বহুতো নাম নজনা বনৰীয়া উদ্ধিদ দেথিতা পাইছিলো। তাত বিজ্ঞান সন্মাতভাবেও বায়বীয় উঙ্লি সংৰক্ষণ কৰা আছে আৰু বহুতো কৰীয়া বায়**বী**য় <mark>উল্লি</mark> উদ্যানখনত চানি ধৰি আছে। সেই বায়বীয় উ**ন্ধি গৰে**ন কেন্দ্ৰত আমাক শ্ৰীযুত বৃদ্ধিন্দ্ৰনাথ দস্ত **ছাৰে উদ্ভিদসমূহ <mark>নি</mark>স** সংৰক্ষণ কৰিব লাগে তাৰ বিষয়ে কিছুক**থা অৱগত কৰি**ল। ছাৰে কৈছিল তাহানিতেই অশোকে প্ৰকৃতিৰ ভাৰনাম ৰক্ষ কাৰণে ৰাস্তাৰ দাঁতিত বৃক্ষৰোপণ কৰিছিল আৰু কোটো উৰ্ট্ৰ আছে এজোপা উদ্ভিদ দহজন পুত্ৰৰ সমান। ইয়াৰ পাছত বিক্ৰ ৪ মান বজাত আমি ঘৰমুৱা হ'লো। ৰাস্তাত যাওঁতে যেলেও সাংস্কৃতিক অনুষ্ঠান সৃষ্টি হৈছিল এইবাৰো ঘূৰি আয়েত তাতকৈ আৰু দুগুণে ইয়াৰ পৰিসৰ সঁচাকৈয়ে বৃদ্ধি ^{পৰি} এইবাৰ আমাক ছাব-বাইদেউসকলেও কিছু সহায়-সহক্ষেত্ৰ আগ বঢ়াইছিল। এনেদৰে নাচি-বাগি গীত গাঁই আহি আমি বাতি ১০.১০ মান বজাত মহাবিদ্যালয় পালেছি পাছৰ পৰা নামি সকলোৱে ঘৰমুৱা হ'লো। 🏵









Affiliated to Dibrugarh University

Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES FOR ENHANCING TEACHING
	LEARNING EXPERIENCES USING ICT TOOLS

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR









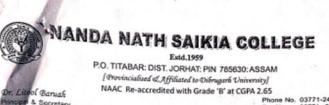




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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR



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No.: 9433490134.

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Phone No. 03771-248446(O) Fax No. 03771- 249301(O) E.mail: nnscotleas@omail.com Website: nnsaikiacotlege.org Dete 26.12.2019

To whom it may concern

This is to certify that the following regular students of B.A. and B.Sc. 5th Semester, N.N. Saikia College, Titabar are going on an Educational Excursion to Sikkim from 2st January, 2020 to 6th January, 2020 under the guidance of Mr. Budhin Dutta, Vice-Principal, N.N.Saikia College, Titabar.

SL. NO.	NAME	AGE	GENDER	STATUS
1	MS. PUJA MAHANTA	21	F	STUDENT
2	MS. JIMPI SAIKIA	21	F	STUDENT
3	SRI ASHISH BURAGOHAIN	21	M	STUDENT
4	SRI PARTHA PRATIM BORAH	20	M	STUDENT
5	SRI ADITYA BORAH	20	М	STUDENT
6	SRI DEBASISH BORA	21	М	STUDENT
7	SRI ANURAG SARMAH	19	м	STUDENT
8	SRI MRIGANKA SARMAH	20	М	STUDENT
9	IRFAN ALI AHMED	20	м	STUDENT
10	SASANKA RANJAN MAHANTA	20	М	STUDENT
11	NILOTPAL BARUAH	19	M	STUDENT

(Dr. L. Baruah) Principal, N.N.Saikia College, Titabar. Principal N.N.Saikia College Titabar

FIELD WORK/EDUCATIONAL TOUR





In The wal (Mr. J.P. Oza) Coordinator, IQAC

N.N. Saikia College, Titat



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Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES FOR ENHANCING TEACHING
	LEARNING EXPERIENCES USING ICT TOOLS

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

INTRODUCTION

"The world is a book and those who do not travel read only one page."

Traveling is very important to gain knowledge, to see new things and have new experiences. Travel is more than going somewhere, it is a psychological event. With an objective of gaining knowledge, an educational tour was conducted from Nanda Nath Saikia College, Titabar, Jorhat, Assam. There are all total eleven (11) students from various department of the college participated in the educational tour. As a destination our college decided to go Sikkim which is one of the beautiful state of northeast India bordered by Bhutan, Tibet and Nepal and a part of the Great Himalayas.

We visited East Sikkim during the first week of January 2020. Our college team consisted of 11 students under the guidance of Vice Principal Mr. Budhin Dutta. We started our journey on 2nd January, 2020. We reached Mariani junction at about 12.10 pm. The train 'Avadh ASSAM' (15910) arrived in time i.e. 1:30pm and finally our journey started.

THE JOURNEY

We reached New Jalpaiguri (NJP) junction on 3rd January 2020 about 6:15 am. After reaching NJP we departed for Gangtok by two Innova van. This four-hour drive over mountains was exciting. The vehicles were going through a narrow road beside the river 'Teestha'. Though we reached the Hotel Uddan Woodberry before 1:30pm, so we could not go out on that day because bad weather. The team had their Lunch at 2pm and at about 7:45pm we had our dinner. We decided to start our tour from the next day.

The hotel was at the main town area of Gangtok. Gangtok is the capital city of Sikkim and one of the cleanest cities of India and also developed into a significant tourist destination. The town is connected with smooth broad streets along with a systematic network of footpath which was famous for its cleanliness. We all took rest for the night on 3rd January, 2020.

On the next day, 4th January, 2020, after taking our breakfast we were headed to visit to East Sikkim. We again took three exclusive Tata Sumu and going through a zigzag road.

The Banjhakri Falls is one of the prominent tourist attractions situated only 7 k.m. away from Gangtok in the state of Sikkim. The art crafts of the park display the traditional healers who used to worship spirit near the Banjhakri Falls. A museum is also there which was curated by the Sikkim Rural Energy Department Agency that exhibit about renewable energy. All the

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students fell excited to experience the scenic beauty of the place as well as the mythology of the place.

The Tashi View Point is another eye catching sight from where one can experience mountains and beautiful Gangtok. It is widely known for the best sunrise and sunset view. The students were delighted to witness the gorgeous Kanchenjunga, the third highest peak of the world from there.

The Enchey Monastery is one of the significant religious places for tourist attraction of Gangtok. This monastery is based on Nyingma order of Vajrayana Buddhism. It was established in the year 1909. The meaning of Enchey Monastery is Solitary Monastery. It is regarded as the sacred religious institution that attributed the legend that Guru Padmasambhava had subdued the spirits of the Kangchenzonga, Yabdean and Mahakala in the temple. We feel very lucky to have this opportunity to visit these places of religious and cultural importance.

Ganesh Tok is a small temple situated in Gangtok which attracts hundreds of devotees and visitors all over the country in a day. It is places on the top of a hill from which one can look Kanchenjunga and its surroundings. Near Ganesh Tok another place namely Hanuman Tok was established in the upper reaches of Gangtok. The temple was established in1952 dedicated to Lord Hanuman and maintained by Indian Army. According to the local legend, when Rama's brother Laksmana fainted during an epic battle of Ramayana, Hanuman need to fly away to Dronagiri mountain in order to bring Sanjivani. During the journey, Hanuman took some rest in a place where this temple was built later.

Our last destination of the day was Rumtek Monastery which is known as Dharma Chakra situated in Gangtok. It is the largest monastery of Sikkim. It is the home of the community of monks where they use to perform the rituals and practices of Karma Kagyu Lineage. Originally the monastery was built during 18th century under the direction of 12th Karmapa Lama, Changchub Dorje. Later in the year 1966 it was newly built which gradually became one of the most significant tourist attractions of Gangtok.

On 5th January, 2020, we started our journey at 7.30 A.M. Our destinations were The Lingdum Monastery, The Buddha Park of Ravangla and Siddheswar Dham. The Lingdum Monastery or Ranka Monastery is another place of significance in the tourist map of Sikkim which is 16 k.m. from Gangtok. It was founded by Zurmang Gharwang Rinpoche, the 12th incarnation of Zurmang Gharwang of Kagyu Sect of Tibetan Buddhism. This monastery is

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famous for a rare collection of Budhist manuscripts and beautiful wall with intricate thanka paintings and vibrant hand -stitched wall- hangings.

The Buddha Park of Ravangla is situated near Ravangla in South Sikkim district. It was constructed during the period between 2003 to 2013. The main attraction of this park is the 130-foot-high statue of Buddha. The site was within the larger religious complex of Rebong Monastery. The statue was consecrated by Dalai Lama in the year 2013. Now a day this place become one of the significant place of tourist attraction of Sikkim.

Siddheswar Dham is also known as Char Dham which is located at Solophok hill. The place is 5 k.m. away from Namchi Town. It is believed that one who visited this place can wash away his or her sins. A mind blowing 87 feet Shiva statue and sculpture of Lord Kirateswar and the replicas of 12 Jyotilingas is the center of attraction of this place. Students were delighted to experience the view of Kanchenjunga from Siddheswar Dham. Our students were enlightened to know the socio cultural and traditional heritage of the place.

In the evening after taking some rest we went to M.G. MARKET which is dedicated in the name Mahatma Gandhi, the great freedom fighter of India. When we reached there we felt like we were in some western country as the markets and its road is so neat and clean with buildings all brightened up by lights. There was a memorial of Mahatma Gandhi at the middle of the market which was beautifully built. The whole place is free of smoke, trash and any kind of motor vehicles.

CONCLUSION

At the end, we returned to our hotel. As it was the last day at Sikkim, everyone looked a little sad as none of us wanted to leave that place. The place was like heaven for us. But we had no other choice. On 6th January, 2020, we returned back by Innova to NJP station. On the way, one of our team had the opportunity of River Rafting at Teestha River for the distance about 5 to 8 K.M. We reached the station at about 5:00pm, we had our dinner at the junction and again we had to wait for the train. When the train arrived with a heavy heart we left for Mariani junction. Next day at about 1 am we reached the station and we conclude our journey.

It is a journey that none of us will forget in the rest of their lives. We had a great experience and learned so much things.

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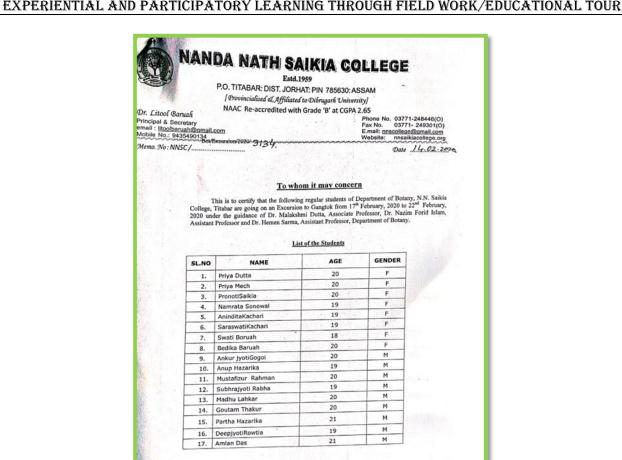






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FIELD WORK/EDUCATIONAL TOUR

(Dr. L. Baruah)
Principal,
N.N.Saikia College,
Titabar.





(Mr. J.P. Oza)

Coordinator, IQAC

N.N. Saikia Coilege, Titaba



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EXCURSION REPORT
ON FIELD STUDY TO
SIKKIM
DEPARTMENT OF BOTANY
NANDANATH SAIKIA COLLEGE,
TITABAR

INTRODUCTION

An excursion is a trip group of people, usually made for lessons, education or physical purpose. It often an adjunct to a longer journey or visit to a place. An educational excursion is any student activity conducted outside the school site that is organized by the college and approved by the college authorities. They provide direct source of knowledge acquaint the student with first hand information.

In the month of February, 2020 we arranged a Botanical excursion to 'Sikkim'.The excursion was held on 17th February. 2020. Our excursion team was lead by our professor Dr. Mahalaksmi Dutta Ma'am, Dr. Nazim Forid Islam Sir, Dr. Hemen Sarma Sir.

Our team consisted of students of B.sc 4th semester. The aim of our excursion was to study the vegetation and ecology of Sikkim.

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NAME OF THE PLACE AND GEOGRAPHICAL **DIMENSIONS**



Sikkim is a state in north-eastern. It borders Tibet in the north and north-east, Bhutan in the east, Nepal in the west and West Bengal in the south. Sikkim is also located close to India's Siliguri Corridor near Bangladesh. Sikkim is the least populous and second smallest among the Indian states.

A part of Eastern Himalaya, Sikkim is notable for its biodiversity, including alpine and sub-tropical climate, as well as being a host to Kanchenjunga, the highest peak in India and third highest on Earth. Sikkim's capital and largest city is Gangtok.

- Samdruptse: The tallest statue of Guru Padma Shambhaw in the world with a height of 135ft built above Namchi town. It is the place where ones wishes can be fulfilled. It is located below the Tendong hill facing. The view from Samdruptse hill is something to be cherished and enjoyed. The hilltop offers a view of Namchi town, Darjelling, Kalingpong, MT. Kanchenjunga and eastern part of Nepal.
- · Gangtok Ropeway: This is one of the greatest attractions in Gangtok and should not be missed. It is double cable zig back ropeway which is operational since December 2003. Each cable can carry upto 24 passengers. There are three stations in this 1km long ride. The lowest is at deorali nean Institute of Tibetology. The next stationis at Namnang and the topmost station is at Tashiling at an altitude of 6,200ft and next to the Secreteriot. The ride takes about 10minutes.
- Tsomgo Lake: Alsp known as Tsongmo Lake or Changu Lake is a glacial lake in east Sikkim, some 40km from capital Gangtok located at an elevation of 3,753 metres, the lake remains frozen during the winter season. The lake surface remains different colours with the change of seasons and is held in great reverence by the local Sikimese people. One can click pictures of their on riding

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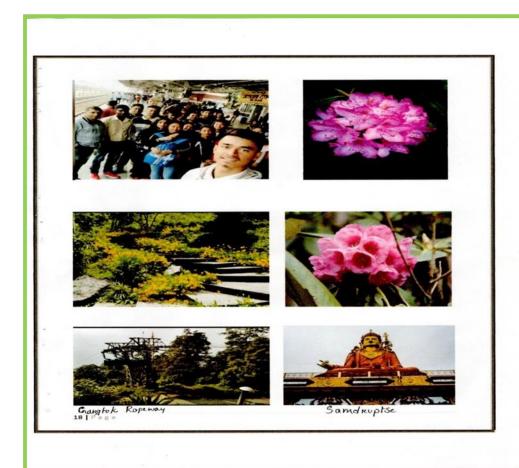




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on yak. May to August is the time of flowers like the blue and yellow poppies, rhododendrons, primulas.

 <u>Baba Harbajan Singh Mandir</u>: Baba mandir is one of the most significant destinations of East Sikkim. A shrine of Baba Harbaian Sinah a soldier of the Indian Army who died close to the Nathula Pass. The Old Baba mandir is located in the Kukup where he was posted and the new is build close to the Tsomgo lake. At around 56kms from Gangtok, this temple is surrounded by stupendous natural beauty Baba Mandir to Nathula pass distance is about 8.5 kms and it will take 20min drive by a car to reach. And the distance between Tsomao lake and Baba Mandir is about 16.3 kms, a 30min journey by a car.

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The profile of the hill suggested that the main Shiva complex with the main status be placed at the highest commanding point in the west direction and facing cost. The entire complex is divided into four main elements namely: (1) Shiva statues with 12 Jyotirlingas, (2) Four Dhams, (3) Sai Baba Temple, (4) Kirteshwar statue besides Nandi bull, Sai Duar, Sai Temple, Kirat Duar, Shiv Duar. Other facilities include: Main entrance gate, Car parking, Driver's room, Kiosks, 96-bedded Yatri Niwas, VIP Guest house, auditorium and cafeteria, main prayer hall, viewinf pavilion, dormitory, water bodies and musical fountain.

 Namchi Rock Garden: Latitude: 27.179878* Longitude: 88.379898*

Set admist totally tranquit background, the mountains form the main setting. The idyllic surroundings coupled with the beauty around make this spot ideal for pick neckers located between Namchi Town and Samdruptse it nestles at the base of Samdruptse hill below the main road approx. 3.5km from the main town of Namchi. The garden has different species of plants, flowers and tress growing everywhere. Along the pathway are several waiting sheds, view points and water bodies landscapes to fit the taste of the visitors.

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PLACES WE VISIT

· Solophak Chardham: The unparalled beauty of the State and very friendly and hospitable people are the competitive and comparative advantage. The construction of the pilgrimage-cum-cultural centre at Solophak aims at promoting Religious Tourism, coupled with Village and Eco-tourism. The unique Piligrim Centre has a main temple of 108feet height on which is based the 87feet high statue of Lord Shiva incarnated as Kirteswar in Indrakut(Present Sikkim). Therefore, in the incarnation he is locally worshipped by the people of Sikkim as Kirateshwar. A statue of 16.5 feet height of Lord Kirateshwar is also installed in the complex.

In order to attain Moksha, the Hindu belief is to perform pilgrimage to all the existing four Dhams. Thereby replicas of these four Dhams namely Badrinath, Jagganath and Dwarka dedicated to Lord Vishnu and Rameshwar dedicated to Lord Shiva also constructed. The piligrim centre is constructed on top of the Solophak Hill in South Sikkim which is about 5km from Namchi town over an area of 28,958hectres of land. The built up complex covers an area of 7acres and is accessible by a smooth road.

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Name of plants

<u>Family</u>

Araphalis cavci Berberis sikkimensis Cacalia chola Carex kingiana Cremanthodium palmatum

Berberidaceae Asteraceae Cyperaceae Orchidaceae

B. Eastern Himalayan Endemic in Sikkim.

Eriobotrya hookeriana Rosaceae Liliaceae Lloydia flavonutons Maddenia himalaica Rosaceae Primula whitei Premulaceae Rhododendron grande Ericaceae Rhododendron ciliatum Rhododendron neightei Ericaceae

91Paze

Floristic Diversity: The plant diversity of Sikkim is fascinating because of species richness and diverse community structure. The flowering plants are represented by about 4458 species in the state, belonging to 1371 genera of 197 families. The genera and species are arranged alphabetically within a family; the arrangement of families has been followed as in most of indian Herberial Benthom and Hooker's system) with some of split pames are common of split pames. The state:

SI.No	Family	India	Sikkim	Percentage
• 1	Orchidaceae	1220	527	43
• 2	Asteraceae	803	293	36
• 3	Poaceae	1291	291	23
• 4	Fabaceae	1141	221	19
• 5	Cyperaceae	545	143	26
• 6	Rosaceae	432	138	32
• 7	Serophulariaceae	368	112	30
• 8	Rubiaceae	616	110	18
• 9	Lamiaceae	435	95	22
• 10	Funharhiaceae	523	94	18

Endemism: Several endemic species have been collected from Sikkim. It is estimated that about 3% of the plants known from Sikkim are endemic to the region. The genus like Brachycaulos is exclusively endemic to Sikkim. Some of the endemic species are listed here:









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Geography: Nestling in the Himalayan mountains, the state of Sikkim is characterized by mountainous terrain. Almost the entire state is hilly, with an elevation ranging from 280metres(920ft) in the south at border with West Bengal to 8,586metres(28,169ft) in northern peaks near Nepal and Tibet. The summit of Kanchenjunga, the world's third highest peak is the state's highest point, situated on the border between Sikkim and Nepal. For the most part, the land is unfit for agriculture because of the rocky, precipitous slopes. However, some hill slopes have been converted into terrace

The state has 28 mountain peaks, more than 80 glaciers, 227 high altitude lakes (including Tsongmo, Gurudongmar, and Khaecheopalni) five major hot springs, and more than 100 rivers and streams.

Climate: The state has 5 seasons: winter, summer, autumn and monsoon season between June and September, Sikkim's climate ranges from sub-tropical in the south to tundra in the north. Most of the inhabited regions of Sikkim experience a temperature climate with temperature seldom exceeding 28*C in summer.

Sikkim is one of the few states in India to receive regular snowfall. The snoe-line ranges from 6100metres in the south of the state to 4900metres in the north.

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Conclusion

I conclude by thanking our department teachers and students for organizing such an informative excursion for us in crucial to develop our practical skills regarding flowering plants. In our excursion we acquired different types of knowledge for our practical life.

In our excursion we returned quite well without any difficulty, for that my special thanks of gratitude to our honourable lecturer. The site visit gave us a chance to experience and learn what cannot be gained during lectures or turtorials. Sikkim is a land of beauty and treasure of enormous natural resourses.

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Phone No. 03771-248446(O) Fax No. 03771- 249301(O) E.mail: nnscollege@gmail.com Website: nnsaikiacollege.org

Date 19 102/2020

To whom it may concern

This is to certify that the following regular students of B.A. 2nd Sem., 4th Sem. & 6th Sem., Department of Economics, N.N. Saikia College, Titabar are going on an Eductional Field Study Trip to Bandarchaliha on 20th February, 2020 under the guidance of Dr. Konnaki Konwar, Assistant Professor, Dr. Dipali Baishya, Assistant Professor, Miss Prostuti Dutta, Miss Mousumi Dey and Mr. Papul Das, Department of Economics.

List of the Students

Sl. No.	Roll No.	Name of the students	Semester	
1	14	Saima Ashrafin Begum	BA 2 nd Sem	
2	92	Suhana Aftab	do	
3	99	Jogeswar Bhuyan	do .	
4	153	Rinki Kumari Thakur	do	
5	170	Sunita Devi	do	
6	225	Jayada Robi Das	do	
7	303	Sujata Kurmi	do	
8	10	Manshi Sarmah	BA 4 th Sem	
9	17	Padum Saikia	· do	
10	30	Ankur Saikia	do	
11	39	Nebedita Rao	do	
12	51	Sochin Gogoi	do	
13	54	Ratul Kachari	do	
14	75	Sudeshna Dev	do	
15	78	Bhaskarjyoti Baruah	do	
16	100	Athena Handique	do	
17	105	Anita Devi	do	
18	106	Roshmi Kachari	do	
19	177	Prostuti Gogoi	do	
20	188	Rakhimoni Bora	do	
21	202	Biki Bhumij	do	
22	03	Prasurjya Pran Kalita	BA 6 th Sem	
23	07	Javanta Saikia	do	
24	37	Lakhimi Bhuyan	do	
25	38	Prinshi Phukan	do	
26	79	Madhurjya Baruah	do	
27	140	Sikhamoni Kachari	do	
28	141	Simpi Saikia	do	
28	187	Probhat Suri	do	

(Dr. L. Baruah) Principal, N.N.Saikia College, Titabaryat

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In Thewart (Mr. J.P. Oza) Coordinator, IQAC



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Principal & Secretary
email: Illicolbaruafi@gmail.com
Mobile No.: 9435490134
Pol.8e/Edu: Trip/2020/-2-1448 Memo. No: NNSC/.....

To whom it may concern

This is to certify that the following regular students of B.A. 2nd Sem. & 4th Sem. Department of Political Science, N.N. Saikia College, Titabar are going on an Eductional Field Study Trip to Kokilamukh, Jorhat on 20th February, 2020 under the guidance of Dr. Gunaram Nath, Associate Professor, Mr. Joy Prakash Oza, Associate Professor and Mr. Hemendra Thengal, Assistant Professor, Department of Political Science.

List of the Students

	Roll No	Year	Name of Students
1	5	4th Sem.	Miss Kabita Dutta
2	8	,,	Miss Mridusmita Das
3	16		Sri Rituraj Rajkhowa
4	26		Sri Hemakanta Kalita
5	29	,,	Sri Budha Shyamal Changmai
6	44	ļ.,	Miss Priyakhi Gogoi
7	49	1	Miss Animash Kakoty
8	60	,,	Miss Guddi Gowalla
9	64		Sri Basudev Munda
10	69		Miss Koruna Kachari
11	87	,,	Miss Lipika Kalita
12	90	,,	Sri Umkanta Gorh
13	97	"	Sri Arshish Mahanta
14	111	70	Miss Ankita Rao
15	117	,,	Miss Chimpi Saikia
16	122	,,	Sri Sanjib Gogoi
17	126	,,	Miss Trisha Saikia
18	131	,,	Miss Tapti Kachari
19	150	,,	Sri Uday Murah
20	151		Miss Mala Bora
21	158	,,	Sri Pritam Dey
22	164	,,	Miss Puja Chalraboty
23	167		Miss Himsikha Changimout
24	168	,,	Miss Senu Shyam
25	173		Sri Rajkamal Bora
26	180	"	Miss Rupjyoti Saikia
27	187		Sri Pallab Kumar Das
28	203		Sri Pranjal Bora
9	152	1	Miss Rimjhim Gogoi
0	03	2 nd Sem.	Sri Keshab Chandra Barman
	13		Miss Mrinmoyyee Handique
1	106	"	Sri Pallab Jyoti Gogoi
2	109	"	Sri Sekhar Ranjan Das
3			Miss Dimpi Gogoi
4	33:	,,	Miss Kabyashri Bora
5	135	-,-	Sri Srimanta Gogoi
6	279 284	"	Miss Priyanku Baruah

Long 2 202 (Dr. L. Baruah)
Principal,
N.N. Saikia College,
Titabar.

FIELD WORK/EDUCATIONAL TOUR

Cornal (Dr. L. Baruah) Principal N.N. Saikia College Titabar



In Thewart (Mr. J.P. Oza)

Coordinator, IQAC



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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

Educational Field Study Trip to Kokilamukh, Jorhat, 2020 Students of B.A. 2nd and 4th semester Department of Political Science N. N. Saikia College, Titabar

On 20th February 2020 Students of B.A. 2nd and 4th semester, Department of Political Science, N. N. Saikia College, Titabar organized an Educational Field Study Trip to Kokilamukh, Jorhat, under the guidance of Dr. Gunaram Nath, Associate Professor, Mr. Joy Prakash Oza, Associate Professor and Mr. Hemendra Thengal, Assistant Professor, Dept. of Political Science. The main aim of the field study is to find out the dependency of the ethnic people of Kokilamukh, Jorhat on nature. In this field study, the ethnic people of Kokilamukh and their relation with nature are deeply discussed. Current ethnic conditions, their lifestyle and natural environment etc. are also being analyzed in this work. Through this we can get a lot of knowledge about the ethnic people. Along with visiting two Mising villages of Kokilamukh we discussed about environment and ethnic society with a popular environmental activist and forestry worker Padmashree, Mr. Jadav Payeng. His contribution to the nature by making a forest is a great example of love for nature and so we also discussed and appreciated his contributions through this field study.



Students of Political Science with Jadav Payeng, Forest Man of India









Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
	TEACHING LEARNING

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

A trip to Hoollongapar Gibbon Sanctuary Department of Zoology

Report:

On the 2nd of February, 2021 a field trip was carried out to Hoollongapar Gibbon Sanctuary with a group of 33 students, all from 1st semester having Zoology Honours. They were accompanied by the teachers-in-charge, Dr.ManashiBortamuly (HoD) and MitaliChetia, Assistant Professors from Zoology Department. The journey started at 8:30 am and we reached the spot at around 9:30 am. After completing the official formalities, we headed towards the forest led by the forest officials. In a little deeper part of the forest, we spotted the awesome Gibbons. The male was black in colour and the female was brown in colour. The white eyebrows that they possessed were one of their distinctive features. We also spotted the stump tailed macaque and a capped langur. The sanctuary holds the distinction of harbouring these unique animals apart from other animals for which we needed to go still deeper and toil harder. On returning back to the start spot, the official briefed us about the history of the Gibbon sanctuary. He told us about the different animals harbouring the sanctuary and explained to us about its ecological significance. After having our lunch and a short milling around, we headed towards our journey back and safely reached back our college premises at around 2:30 pm. In short, it was fun and wonderful learning experience. It surely pinched us to appreciate the different wonders of nature.









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EXPERIENTIAL LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

Community Cultural Survey by Department of Assamese

A field study as a part of experiential learning carried out by the department with the students of Assamese (GE-1) Generic Course. Four (4) teachers participated in the tour with 36 student participants in the neighbourhood community at old Ambato Village, Jorhat-Nagaland border in the district Wakha on 5th February, 2021. The students visited the nearby community and discussed with the people about their social custom. The neighbourhood community co-operate with the student participants and tell them about their rituals and daily life. The teachers guided the students and divided them with 6 (six) groups to write a report of the field study. The students can grow their holistic development with the field study.











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Dr. Litool Baruah Principal & Secretary email: litoolbaruah@gmail.com Mobile No: 9435490134

700/Field Study Tour/2021/3505 Memo No.: NNSC/.....

Phone No. 03771-248446(O) 03771-249301(O) Email: nnscollege@gmail.com Website : nnsaikiacollege.org

Date: 31/12/2021

To whom it may concern

This is to certify that the regular students of 5th Sem. Department of Zoology, N.N. Saikia College, Titabar mentioned in the list enclosed herewith are going on an Eductional Field Study Tour to Kaziranga National Park on 2nd and 3rd January, 2022 under the guidance of Dr. Manashi Bortamuly, Assistant Professor & HoD, Department of Zoology & Dr. Jafrin Farha Hussain, Assistant Professor. Zoology Department.

(Dr.L.Baruah)
Principal,
N.N.Saikia College,
Titabar.
Principal
N.N. Saikia College
Titabar

FIELD WORK/EDUCATIONAL TOUR

rearrial (Dr. L. Baruah) Principal N.N. Saikia College Titabar



In Toward (Mr. J.P. Oza) Coordinator, IQAC



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LIST OF STUDENTS B. SC 5TH SEMESTER, DEPARTMENT OF ZOOLOGY

SI. No.	Roll No.	Name of the Student			
1.	8	Rishi Bawri			
2:	13	Plabita Saikia			
3.	17 -	Junmoni Chutia			
4.	19	Richamoni Kachari			
5.	20	Basanta Chutia			
6. X	23	Kabita Devi —			
7.	36	Jan Saikia			
8.	40	Mayuri Chutia			
9.	41	Rashmi Kurmi			
10.	44	Sayanika Saikia			
11.	47	Manash Jyoti Das			
12.	48	Gauranga Krishna Gogoi			
13.	54	Rajani Kachari			
14.	57	Jyoti Rekha Gogoi			
15.	62	Bitu Gonju			
16.	64	Yeasane Saikia			
17.	80	Puja Belwar			
18.	93 .	Sanjay Chutia			
19.	94	Jahnabi Hazarika			
20.	99	Chitraranjan Chutia			
21.	101	Rohan Manki			
22.	113	Diksita Changmai			
23.	130	Rituraj Gogoi			
24.	143	Siraj Jyoti Kurmi			

TINKU DAS

Principal N.N. Saikia College Titabar

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25.



In The war (Mr. J.P. Oza) Coordinator, IQAC



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Phone No. 03771-248446(O) Fax No. 03771-249301(O) Email: nnscollege a gmail.com Website: nnsaikiacollege.org

Memo No Edy Four/Cert./Eco.Dept/2022/

Date 27.05.2022

To whom it may concern

This is to certify that the following regular students of B.A. 2nd, 4th & 6th Semester students, Department of Economics, N.N.Saikia College, Titabar are going on an Educational Field Study Trip to North East Agro Products & Services (Bahubali Egg Firm) under the guidance of Dr. Konnaki Konwar and Mrs. Udeshna Buragohain on 30.05.2022.

List of students

Semester	Sl. No.	Roll No.	Name of the Students
2 nd	1.	25	Uditya Kachari
Semester	2.	138	Amrit Pritom Phukon
Semester	3.	64	Niyajul Ali
	4.	139	Rituraj Shyam
	5.	194	Pubali Bora
	6.	1	Usharani Hazarika
	7.	98	Gufrana Tasneen
	8.	12	Prostuti Kachari
	9.	114	Jyoti Thakur
4 th	10.	12	Richa Bora
Compater	11.	52	Bhaswati Hazarika
Semester	12.	18	Sukhjit Das
	13.	271	Omprakash Bhuyan
6 th	14.	99	Jogeswar Bhuyan
Commenter	15.	153	Rinki Kumari Thakur
Semester	16.	92	Suhana Aftab
	17.	170	Sunita Devi
	18.	14	Saima Ashrafin Begum

(Dr. L. Baruah) Principal, N.N. Saikia College, Titabar. Principal N.N. Saikia College Titabar









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

To.

The Principal

N. N. Saikia College, Titabar

Date: 18/06/2022

Sub: Botanical Excursion to Sahitya Manishi Uddyan, Jorhat, Assam.

Sir,

In inviting the subject cited above I would like to inform you that department of Botany is organizing a Botanical Excursion to Sahitya Manishi Uddyan on 18th june 2022 and seek permission for the same. All the students of B.Sc. 2nd semester of Botany core will be taken to the said tour under the guidance of Dr. N.F. Islam and Dr. P. N. Bhattachargy, Department of Botany, N. N. Saikia College.

I therefore request you to give permission and help for the same.

Enclosed herewith the list of travelers for your kind perusal and necessary action.

Yours Sincerely.

Botany Bepartment lege, Titato N.N. Saikie Col (Dr. M. L. Dutta) HoD, dept of Botany N. N. Saikia College,

FIELD WORK/EDUCATIONAL TOUR

(Dr. L. Baruah) Principal N.N. Saikia College Titabar



(Mr. J.P. Oza) Coordinator, IQAC



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3rd Semester Student list

Sl. No.	Roll No.	Student name
1	1	Jadab Sharma
2	4	Ankita Baruah
3	17	Jadumoni Gogoi
4	64	Tabassum Khatun
5	71	Dhruba Jyoti Kachari
6	77	Prasanta Kachari
7	82	Jadumoni Sonowal
8	96	Bedanta Saikia
9	147	Tulsi Malakar
10	149	Sabana Ali Anjum
11	150	Amar jyoti Das
12	155	Madhusmita Kurmi
13	160	Mriganku Tamuli
14	172	Arunima Saikia
15	141	Gauranga Bhusan Chutia









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH FIELD WORK/EDUCATIONAL TOUR

DEPARTMENT OF BOTANY

NANDA NATH SAIKIA COLLEG, TITABAR P.O –JORHAT, DIST-JORHAT, ASSAM, PIN- 785630

A REPORT ON THE EDUCATIONAL TOUR, 2022 SAHITYA MANISHI UPABAN

The field study as per the curriculum was an exposure trip to a place rich biodiversity. The field study tour programme of the 2nd semester students of Botany Department, N.N.Saikia College was planned on the date of 18th June 2022. It was an educational tour to Sahitya Manishi Upaban.

Sahitya Manishi Upaban is a park full of plant biodiversity, situated at Kundar Gaon in Titabar. It was inaugurated by the Ministry of Environment, Forest and climate change, Assam in 30th july, 2022 by Shree Parimal Suklyabadya.

One can find different types of orchids, medical plants, different species of Bamboo, ornamental plants etc. various plants of economic importance like Aalkuori (Aloebarbadensis); Gathiyon (Kaempeeria gealanga); Rudraksha (Eleocarus ganitrus); Bor gos (Ficus benghalensis); Dhuna(Canarium bengalanse); are found.

The different types of plant species are planted separately on the area which includes Medicinal plants, Angiosperms, Orchids, Ferns, Cactus, Ornamental plants etc.

Fungal species like Agaricus (abrupti bulbus) and Red ring rot (Phellinus pini) were found.

Bryophytes like Lunularia cruciate , Marchantia and Sphagnum flexuosum were found.









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Pteridophytes were quite abundantly found which includes species like Pteris vittata, Diplazium dietrichianum, Huperzia selago, Adiantum capillus veneris, Lygodium, and various other ferns.

Gymnosperms like Cycus also found.

Angiosperms like Bon golphai, kaju badam, amlokhi, chenichampa, karobi etc are abundantly found there.

Dr. Malakhmi Dutta

Head of the Department

Botany, N. N. Saikia College









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Dr. Litool Baruah Principal & Secretary Principal & Secretary email: <u>Ilisoibaruah@amail.com</u> Mobile No.: 9435490134 Mobile No.: 9435490134

Memo. No: NNSC/....

Date 14.02.2020

To whom it may concern

This is to certify that the following regular students of Department of Botany, N.N. Saikia College, Titabar are going on an Excursion to Gangtok from 17° February, 2020 to 22° February, 2020 under the guidance of Dr. Malakshmi Dutta, Associate Professor, Dr. Nazim Forid Islam, Assistant Professor and Dr. Hemen Sarma, Assistant Professor, Department of Botany.

List of the Students

SL.NO	NAME	AGE	GENDER
1.	Priya Dutta	20	F
2.	Priya Mech	20	F
3.	PronotiSaikia	20	F
4.	Namrata Sonowal	19	F
5.	AninditaKachari	19	F
6.	SaraswatiKachari	19	F
7.	Swati Boruah	18	F
8.	Bedika Baruah	20	F
9.	Ankur jyotiGogol	20	M
10.	Anup Hazarika	19	M
11.	Mustafizur Rahman	20	М
12.	Subhrajyoti Rabha	19	М
13.	Madhu Lahkar	20	М
14.	Goutam Thakur	20	M
15.	Partha Hazarika	21	M
16.	DeepjyotiRowtia	19	M
10.	Amian Das	21	M

(Dr. L. Baruah) Principal, N.N.Saikia College, Titabar.

FIELD WORK/EDUCATIONAL TOUR





In The wal (Mr. J.P. Oza) Coordinator, IQAC



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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PROJECT PREPARATION BY THE	
STUDENTS	

Synthesis and characterization of fish-oil-based epoxy resin and its blending with epoxidized sunflower oil.

A Dissertation submitted to

Department of Chemistry, N.N Saikia College, Titabar for Partial Fulfillment of B.Sc. Degree in Chemistry Paper DSE-603 Under Dibrugarh University



Under the Supervision of Dr. Partha Pratim Saikia Dr. Bhaskar Jyoti Saikia Department of Chemistry Nanda Nath Saikia College Submitted by

Tanjila Jebin
Roll No: 30820070
Reg No: S1905785
B.Sc 6th Semester, 2022
Department of Chemistry

Nanda Nath Saikia College, Titabar

DEPARTMENT OF CHEMISTRY

(Dr. L. Baruah)
Principal
N.N. Saikia College
Titabar







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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PROJECT PREPARATION BY THE **STUDENTS**

CERTIFICATE

Dr. Bhaskar Jyoti Saikia Assistant professor Department of Chemistry N. N. Saikia College, Titabar

It is my pleasure to forward the dissertation entitled "Synthesis and characterization of fish-oilbased epoxy resin and its blending with epoxidized sunflower oil." submitted by Tanjila Jebin, student of B.Sc. 6th Semester of our College for the partial fulfillment of B.Sc. Degree in Chemistry (Core) under Dibrugarh University, Assam. Tanjila Jebin Carried out the investigation under my constant supervision and guidance. The results enter incorporated in this dissertation have not been submitted to any university or institute for any purpose. The dissertation is in my opinion worthy of consideration for the paper DSE 603 of Chemistry core in accordance with the regulations of Dibrugarh University, Dibrugarh.

(Dr. Partha Pratim Saikia)
Head
HOD Dept. of Chemistry
N.N. Saikia College, Titabar

Dept. of Chemistry

(Dr. Bhaskar Jyoti Saikia)

Supervisor

23.07.22.

External Examiner

DEPARTMENT OF CHEMISTRY





In Thurst (Mr. J.P. Oza) Coordinator, IQAC



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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PROJECT PREPARATION BY THE **STUDENTS**

ACKNOWLEDGEMENT

I am very much grateful to Dr. Partha Pratim Saikia & Dr. Bhaskar Jyoti saikia, Assistant Professor, Department of Chemistry, Nanda Nath Saikia College, Titabar, for their constant supervision and guidance during the course of my dissertation work. I am also thankful to other faculty members of our department Dr. Dhrubajit Borah, , Dr. Jayanta Madhab Bora, Assistant Professor, Department of Chemistry for their suggestions and encouragement. I am grateful to Dr. L Boruah, Principal for providing laboratory facilities. I am also thankful to my friends for their help and support.

With regards

Tangila Jebin

Tanjila Jebin

B.Sc 6th Semester

Roll No: 30820070

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STUDENTS	

Synthesis and characterization of fish-oil-based epoxy resin and its blending with eoxidized sunflower oil.

Abstract:

Fish oil and sunflower oil based thermosetting polymer was synthesized from waste-derived fish oil. The oil first oxidized to form epoxides followed by crosslinking with polyamidoamine based crosslinker and citric acid modified cellulose. Synthesized products were characterized by FTIR and 1H NMR spectroscopy.

Keywords: Bio-based-epoxy, fish oil, sunflower oil

1. Introduction:

Recently, in the synthesis of polymer, the substitution of petroleum-based raw materials with renewable raw materialshas attained worldwide considerationdue tonecessities for sustainability, resolutions for ecological problems and depletion of fossil fuels. Among the various types of renewable raw materials, fish oil and vegetable oils are excellent raw materials for new monomers and polymers due to their easily availability, environmental, and social advantages¹.

Epoxy resins are a thermosetting synthetic polymer which are basically composed of two substances known as resin and hardener. The main purpose of epoxy is to be used as an adhesive due to its high durability. Epoxy resin adhesive forms an excellent bonding agent. The bonding of the resin can be developed to yield several different products, each with its own unique application. Epoxies are typically used to fabricate high-performance composites with superior mechanical properties, resistance to corrosive liquids, and environments. Epoxies are also used to achieve good electrical properties, good performance at high temperature, and good adhesion to the substrate².

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Vegetable oils are esters formed by glycerin and different fatty acids containing from 8 to 24 carbon atoms and between 0 and 7 carbon-carbon double bonds, depending on the plant type and climatic conditions of growing³ Moreover, various chemical modifications can be performed on vegetable oils, yielding functionalized vegetable oils (FVOs) that can be used to obtain diverse products. The interest on epoxidized vegetable oils has been increasing in the last years due to their use as renewable and sustainable lubricants, plasticizers or as intermediate to produce a wide range of chemicals. Epoxidized soybean oil is a bio-based product derived from the epoxidation of soybean oil with hydrogen peroxide and either acetic or formic acid obtained by converting the double bonds into epoxy groups, which is nontoxic and of higher chemical reactivity. They can be converted by different kinds of reactions with co-monomers and/or initiators. Three-dimensional structure that comes from the directing cross-linking of ESO and hardeners forms material with high stability, superior mechanical properties and high chemical resistance, which make the products versatile among a variety of materials. In addition, the chemical modification of ESO has gained more and more attention in recent years.

Fig.1: Epoxidized linoleina major component of epoxidized sunflower oil.

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Coordinator, IQAC



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Fish oil is biodegradable, and is readily available as a byproduct in the production of fish meal. Typically, fish oil has a triglyceride structure with a high percentage of polyunsaturated v-3 fatty acid side chains, which can contain as many as 5 to 6 non-conjugated carbon–carbon double bonds per ester side chain. These double bonds in the fatty acid chains of the fish oil triglyceride have cis-stereochemistry⁴. which can be easily converted to corresponding epoxy resins.

Nevertheless, in the field of bio-based polymer, very little work has been performed in fish oil-based polymers in comparison to vegetable oil-based polymer. Therefore, in this work, we have used fish oil and soybean oil as raw material for the synthesis of epoxy resin. Currently, fish oil is used industrially to produce protective coatings, lubricants, sealants, inks, animal feeds and surfactants⁵. Fish processing generates large amounts of waste that is presently used to produce low cost fertilizers or dumped at sea⁶ With approximately 50 wt.% of the total catch being discarded as waste, there is a large amount of material available for use as a feedstock for bio-polymer synthesis. With increasing production in the aquaculture industry to meet the growing demands of a growing population, the amount of waste produced will also increase. This waste will need to be disposed of, at a cost to the industry. The amount of recoverable oil from this waste varies considerably depending on the species, season, and tissue present in the waste material, but can account for up to 50% of the waste material. By utilizing this material for the production of bio-polymers, it does not compete with food production or use large amounts of land space.

As the bio-economy slowly gains interest to the researchers and in industries, the focus is shifting to the synthesis of bio-based epoxy resin extracted from inexpensive and renewable natural resources, such as lignin, vegetable oil, west derived fish oil, rosin, sugars, furan, and itaconic acid. Recent bio-based materials showed similar or improved properties than commercial petroleum-based product.

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Within this investigation, fish oil based thermosetting polymer is synthesized from wastederived fish oil with the oil first oxidized to form epoxidized fish oil followed by crosslinking with polyamido amine based crosslinker.

Fig.2: Epoxidation reaction of fish oil.

Polymers ranging from soft crosslinked gel to hard thermosetting plastics have been obtained. 1H NMR, FTIR, differential scanning calorimetry (DSC), and TGA have been used to characterize the structures and physical properties of the fish oil-based polymers. The results indicate that the products are typical thermosetting polymers with densely crosslinked structures. These polymer materials have densities of approximately 1000 kg/m3, which appear to be independent of their compositions. The structure of the bulk polymer is composed of 40–85 wt% of crosslinked polymer networks plasticized by 15–60 wt% of unreacted free oil.

Cellulose is a linear biopolymer found naturally in plant cells such as wood and cotton. It is the worlds most abundant polymer in nature and possesses properties such as good biocompatibility, low cost, low density, high strength, and good mechanical properties. By

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mechanical or chemical treatment, the cellulose fibers can be converted into cellulose nanofibers (CNFs) or cellulose nanocrystals (CNCs) that possess outstanding properties compared with the original cellulosic fiber but also when compared with other materials normally used as reinforcements in composite materials such as Kevlar or steel wires⁷

The cellulose molecule contains three different kinds of AGU: a reducing end group that contains a free hemiacetal or aldehyde at the C1 position, a non-reducing end group with a free hydroxyl group at the C4 position, and internal glucose rings joined at the C1 and the C4 positions. The internal glucose units are predominant due to the long chain lengths. Each internal AGU has three hydroxyl groups. The hydroxyl group at the C6 position is a primary alcohol, while the hydroxyl groups at the C2 and C3 positions are secondary alcohols. These hydroxyl groups are all possible sites for chemical modification of cellulose where the hydroxylgroup at the C6 position is the most reactive.

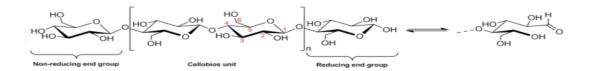


Fig.3: The molecular structure of a cellulose polymer where the cellobios is the smallest repeating unit in the polymer. The reducing end group can be either a free hemiacetal or an aldehyde.

1.1. Literature review:

J. Wisniak et al (1970) epoxidized anchovy oil of iodine value 188.8 in situ, with preformed peracetic acid, or using a mixed strategy, to determine a kinetic model for the reaction and the optimization of double bond conversion to oxirane rings. In the range of the operating

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variables, epoxidation and ring opening may be described by a pseudo-first-order reaction, and use of a mixed strategy allows a 92.2% conversion of the double bonds with a final oxirane number of 8.5 and iodine number of 19.4. Optimal conditions correspond to an in situ process at 70° C. with partially preformed peracetic acid and fast addition of the oil, using 6.16 moles of 41 weight % hydrogen peroxide and 0.5 mole of acetic acid, per mole of ethylenic unsaturation, in the presence of 10 weight % dry basis of resin catalyst Dowex 50W-12X, 50/100-mesh. Thermal stability of the epoxidized oil compares favorably with that of commercial PVC plasticizers⁸

K. Rehman et al (2014)used fish oil for preparation of bio gels using polymer hydrogel and fish oil and found effective as vehicles for transdermal drug delivery. They found that fish oil bigels offer better thermal stability and higher drug permeation than hydrogel formulations alone. The addition of fish oil proved to beneficial as it allowed bigels to offer higher cumulative drug permeation and drug flux, which may be due to the omega-3 fatty acids. The oleogel-hydrogel proportion of 10:90 was proven to be the best combination for bigels in this study showing higher release and good mechanical proper ties⁹.

C. Chang et al (2017) developed a process for the production of epoxides with a terminal oxirane group from soybean oil. Optimized reaction parameters were obtained using response surface method(RSM) based on a Box-Behnken experimental design. The model predicted by RSM indicated that the molar ratio of EPCH to soap, CTAB loading, and reaction time were highly significant to epoxidation yield. An epoxidation yield of 94.26%, which was obtained under optimal reaction conditions, was very close to the predicted yield¹⁰

D. Piccolo et al (2018) studied the effects of microwave irradiation on the process of epoxidation of soybean oil. A rigorouscomparison was performed between the products obtained by conventional and microwave heating, using twobatch reactors with the same

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geometry but different heating sources. The epoxidation of the oil was performed by reaction with peracetic acid generated in situ by reaction between hydrogen peroxide (HP) and acetic acid. Acetic acid and HP 35 wt% were used instead of the commonly used formic acid and HP 60 wt% to reduce the risk of detonation and corrosion. The MW heating showed a strong beneficial effect on the selectivity and especially on the rate of the process, reducing the time required by about 50%¹¹

2.Objective:

The objectives of this study are:

- 1. Extraction of oil from fish
- 2. Epoxidation of the extracted fish oil
- 3. Epoxidation of sunflower oil.
- 4. Curing of epoxidized fish oil to produce thermosetting polymer
- 5. Synthesis of citric acid modified nanocellulose
- Synthesis of copolymer of sunflower oil and fish oil cured with citric acid modified nanocellulose and polyamidoamine.
- Characterization of the synthesized polymers /copolymers by FTIR and NMR spectroscopy.

3. Materials

Acetic Acid glacial (RANKEM), Sodium Hydroxide (RANKEM), Hydrogen Peroxide (RANKEM), Sodium Bicarbonate (RANKEM), Sulphuric Acid (RANKEM), Citric Acid, Cellulose were used as received without further purification.

4. Experimental:









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4.1. Extraction of Fish oil:

The extraction process was dome using ultrasonic extraction unit¹². This apparatus consists of 500 ml. extraction beaker, ultrasonic bath and ultrasonic generator. The ultrasonic bath has frequency of 25 kHz. The extraction beaker was immersed in the ultrasonic bath. Ethanol was used as solvent during the extraction process. Extraction process was initially done in the absence of ultrasonic wave. For example, 10 g of dried fish was mixed with 300 mL of ethanol and placed in a 500 mL. beaker. The beaker was left for 20 min at ambient condition without sonication. After that, the sample was filtered to remove the powder and evaporated by using rotary evaporator to get oil. The amount of extracted oil was recorded.

4.2 Synthesis of epoxidized sunflower oil:

Sunflower oil was epoxidized through in-situ method in the presence of glacial acetic acid and hydrogen peroxide as reported earlier by Kim et al and Sahoo et al. Epoxidation of oil was performed in a 3-necked flask equipped with a magnetic stirrer and thermometer. The flask with 79 g of linseed oil was placed in water bath, and first 30 g of acetic acid and 19.75 g of Seralite resin were added followed by stirring for 30 minutes. After this, 113 g of hydrogen peroxide (H2O2) was added drop-wise through the dropping funnel and stirred for 6 hours at 500 rpm. Subsequently, the epoxidized oil layer was separated through separating funnel, washed with 2 wt% Na2CO3 solution, and then with distilled water. The epoxidized oil later dried using MgSO4 followed by filtration and dried overnight at 60°C under high vacuum.

4.3 Epoxidized Fish Oil

Prepared following a previously reported method,9 with modification of the reaction time, solvent, and equivalents of reagents. Waste-derived fish oil (3.00 g) and CH₃COOH (0.45 g,









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7.6 mmol) was dissolved in heptane (0.65 g) and heated in an oil bath to the reaction temperature. An acidified hydrogen peroxide solution (2.60 g, 23 mmol H2O2, 30% wt/wt; 0.026 g conc. H2SO4) was added dropwise to the reaction over 1 h. Upon complete addition, the reaction was stirred for 12 h at the desired temperature. The reaction mixture was cooled to 0 °C, dissolved in 5 mL CH2Cl2, and washed with deionized water (3 organic phase was dried over anhydrous MgSO4 and the solvent removed under reduced pressure to give a clear, colourless oil (1.66 g).



Fig.4: Experimental setup for epoxidation of fish oil.



Fig.5: Synthesized epoxidized fish oil.







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4.4. Curing of epoxy resins:

To prepare cured epoxy resin, epoxidized fish oil and mixture of epoxidized fish oil and sunflower oil was dissolved in tetrahydrofuran. Then, amine curing agent, polyamidoamine, was added to the mixture. The mixture was casted into molds and cured by heating at 80 C for 3 h and 150 C for 3hrs.

4.5. Preparation of CAC/epoxy resin composites:

To prepare CAC/epoxy resin composite, CAC was mixed with fish oil/sunflower oil ormixture of both with contents of 5, 7,10,15 and 20 wt% with magnetic stirring at roomtemperature for 3 h. Then, amine curing agent, polyamidoamine, was added to the mixture 13. The mixture was casted into molds and cured by heating at 80 C for 3 h and 150 C for 3 hrs. Pure epoxy resin and unmodified cellulose/epoxy resin composites were also prepared.

5. Measurements

Fourier transform infrared (FT-IR) spectra of the samples are recorded on Nicolet Impact 410 FT-IR spectrometer over a frequency range of 4000-500 cm⁻¹. H NMR spectra were recorded using a Bruker DPX300 NMR machine.

6. RESULTS AND DISCUSSION:

6.1 ¹H NMR analysis:

The 1H NMR spectrum for FO, Figure 6, contains a triplet at 0.87 ppm that corresponds to the terminal methyl group for all fatty acids except ω -3 fatty acids, which appear at 0.97 ppm. Peaks from 1.24 to 1.32 ppm correspond to protons of the methylene groups. A peak at 1.61









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ppm represents the protonson the carbon β to the carbonyl group for all fatty acids except

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2.02 ppm corresponds to the protons on the allylic carbons. Peaks from 2.28 to 2.31 ppm correspond to the protons on the carbon β to the carbonyl group for all fatty acids except for DHA, which appears as a small peak at 2.38 ppm. Peaks around 2.80 ppm correspond to protons on allylic carbons between two double bonds, which shifts upfieldafter epoxidation. Peaks from 4.11 to 4.30 ppm and 5.25 ppm represent the protons in the glycerol chain of the triglyceride, on the methylene and methine carbons, respectively. The peaks around 5.32 ppm correspond to the olefinic protons. The 1H NMR spectrum for EFOshows new peaks from 2.80 to 3.19 ppm, which corresponds to the formation of the epoxide.

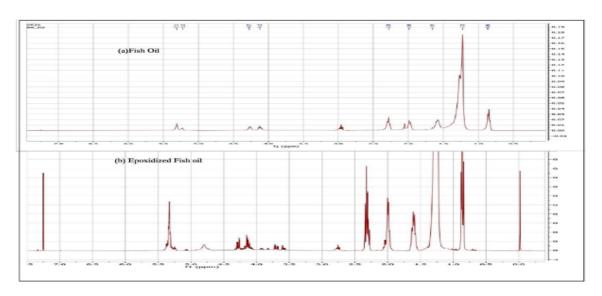


Fig. 6:1H NMR spectra ofepoxidized fish oil (a) and fish oil (b).

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DHA. The peak centered on







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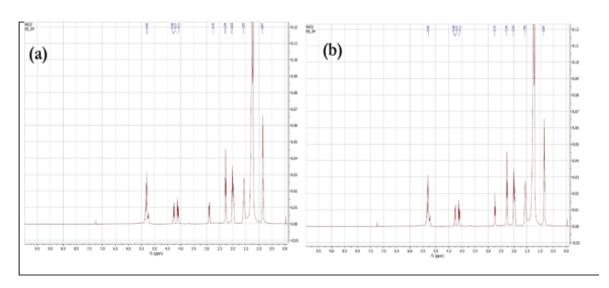


Fig. 7: H NMR spectra of epoxidized sunflower oil (a) and sunflower oil (b)

6.2. FT-IR study:

Representative spectra for FO and EFO are shown in Figure 8. The spectrum for FO showed a characteristic band at 3009 cm-1 from the double bonds, which did not appear in the spectrum for EFO. The spectrum for EFO showed a characteristic band at 825 cm-1 from the epoxide group, that was not present in the FO spectrum. Bands at 1743 cm-1 and 1158 cm-1, due to the ester group and bands at 1462 cm-1 and 1377 cm-1, due to the methyl groups, were present in both spectra.









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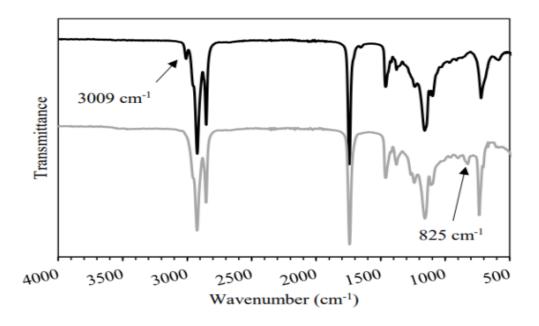


Fig.8: (a)FTIR spectra of fish oil(a) and epoxidized fish oil(b).

The surface modification of cellulose was confirmed by ATR-IR.Compared with the characteristic spectrum of cellulose, CAC and fibrillated CAC showed a new absorption peaks around 1720 cm⁻¹ assigned to -COO stretching vibration









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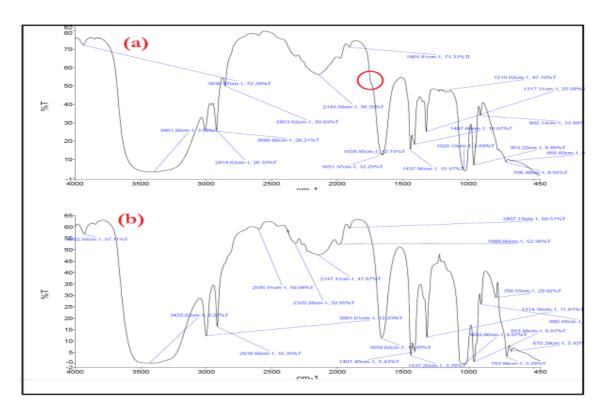


Fig.9:(a) FT-IR spectra of citric acid modified cellulose(b)FT-IR spectra of unmodified Cellulose.

7. Conclusion:

Fish oil was extracted from fish waste. Fish oil based thermosetting polymer was synthesized from waste-derived fish oil with the oil first oxidized to form epoxidized fish oil followed by crosslinking with polyamido amine based crosslinker. Synthesized products were characterized by FTIR and ¹H NMR spectroscopy.









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8. References:

- 1. Pasaoglu ME et al. Chemosphere. 2021, 269, 128710.
- S. R. Sandler, W. Karo, Polymer Syntheses (Second Edition) 1994.
- J.L.MASSINGILLJR., R.S. BAUER, in Applied Polymer Science: 21st Century, 2000
- 4M. Kathalewar et al. Eur. Polym. J. 57 (2014) 99–108
- T. S. Garrison et al., Polymers (Basel). 2016, 8(7): 262
- N.Nagavekar, et al. Volume 248, 1, 2021, 117030
- T. E. Montung et al. International Journal of Plastics Technology, 22,185–216, 2018
- 8. J. Wisniak et al ,Ind. Eng. Chem. Prod. Res. Dev. 1970, 9, 1, 33-41
- K. Rehman et al ,Journal of Oleo Science, 63 (2014), 961-970
- 10. C. Chang et alIndustrial Crops and Products, 99, 2017,34-40)
- 11. D. Piccolo et al. Chemical Engineering Journal, 377, 2019, 120113
- S. Abdullah et al. journal of applied science 10(21) 2713-2716, 2010) (S. Abdullah et al. journal of applied science 10(21) 2713-2716, 2010
- 13. Y.I. Hsu et al. / Polymer Degradation and Stability 178 (2020) 109213









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আর্থ সামাজিক জীৱন আৰু শৈক্ষিক প্রস্থিতি

গোলাঘাট জিলাৰ কমাৰবন্ধা অঞ্চলৰ নিৰ্বাচিত গাওঁ সমূহৰ এক প্ৰকল্প ভিত্তিক অধ্যয়ন

(A Study on the Socio Economic Life and Educational Status of the Selected Village's of Kamarbondha Area under Golaghat District)

A project report submitted to the Department of Education, Nanda Nath Saikia College for the partial fulfillment of BA 6th Semester (Core) in Education.



Submitted by -Name :- JUPITORA BORA Registration Number :- S1921622

Roll Number :- 30810093

Under the guidance of MANISHA SAIKIA **Assistant Professor** Department of Education

DEPARTMENT OF EDUCATION NANDA NATH SAIKIA COLLEGE NANDA NATH SAIKIA COLLEGE **YEAR 2022** Department of Education

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(Dr. L. Baruah) Principal N.N. Saikia College Titabar



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CERTIFICATE

DEPARTMENT OF EDUCATION NANDA NATH SAIKIA COLLEGE TITABAR

This is certify that the Project Report entitled "A Study on the Socio Economic Life and Educational Status of the Selected Villages of Kamarbondha Area of Golaghat District" is prepared by

Sri/Miss	Jupitora B	ora	Roll	Number:
30810093		and	Registration	Number :
S1921622	of B.A 6 th	Semeste	er (Crore) in I	Education of
the Vear 2022				

Momisha Saikia Supervisor

Department of Education

Nanda Nath Saikia College

Dr. Bisakha Beri Damy 2022 Head of the Department 2022

Department of Education

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কৃতজ্ঞতা স্বীকাৰ

প্ৰতিবেদনখন সম্পূৰ্ণৰূপে প্ৰস্তুত কৰোতে বিভিন্ন পক্ষ তথা উৎসৰ পৰা সহায় সহযোগিতা লাভ কৰা হৈছিল। প্ৰথমতে আমাৰ মহাবিদ্যালয়ৰ অধ্যক্ষ ড° লিটুল বৰুৱা দেৱক প্ৰকল্প অধ্যয়নৰ বাবে অনুমতি বিচৰাত তেওঁ অনুমতি প্ৰদানৰ বাবে কৃতজ্ঞতা জ্ঞাপন কৰিছো I

বিশেষভাৱে শিক্ষাতত্ব বিভাগৰ মুৰব্বী অধ্যাপিকা ড° বিশাখা দেৱী দাস বাইদেউ লৈ অশেষ ধন্যবাদ আৰু কৃতজ্ঞতা জ্ঞাপন কৰিছো। তেওঁৰ অবিহনে এই প্ৰকল্প অধ্যয়ন সম্পূৰ্ণ কৰাতো অসম্ভৱ আছিল। তেখেতে আগবঢ়োৱা বহুমূলীয়া পৰামৰ্শ আৰু নিৰ্দেশনাই আমাক উৎসাহ যোগাইছিল। তেওঁলোকৰ ওপৰিও শিক্ষাতত্ত্ব বিভাগৰ অধ্যাপিকা মনীষা শইকীয়া বাইদেউ আৰু হিমাক্ষী বৰা বাইদেউয়ে বিশেষ ভাৱে এই অধ্যয়নত সহায় আৰু উৎসাহ যোগাইছিল। তেওঁলোককো কৃতজ্ঞতা জ্ঞাপন কৰিছোঁ।

ইয়াৰোপৰি নিৰ্বাচিত কৰি লোৱা গাওঁ তিনিখন ক্ৰমে বকলাই গাওঁ, মাউত গাওঁ, আৰু কুমাৰ গাঁৱৰসমূহ বাসিন্দালৈ প্ৰকল্প অধ্যয়নত উপযুক্ত সহায় সহযোগিতা আগবঢ়োৱাৰ বাবে তেওঁলোকক ধন্যবাদ জ্ঞাপন কৰিছোঁ

> अभे यही खालाखा क्या শ্ৰী মতী জুপিতৰা বৰা

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১.০০ : আৰম্ভনি : (Introduction) :

সমাজ হৈছে মানৱ সৃষ্ট এক ব্যৱস্থা । এথন সমাজত প্রচলিত ৰীতি-নীতি, নিয়ম-শৃংথলা, আইন -কানুন আদিবোৰেই সমাজথনক ধৰি ৰাখে ।

একোটা মানৱ জাতিৰ বিকাশৰ ক্ষেত্ৰত আৰ্থসামাজিক দিশ আৰু শৈক্ষিক দিশ দুয়োটাই গুৰুত্বপূৰ্ণ উপাদান ।এজন ব্যক্তিৰ আর্থসামাজিক জীৱন ব্যক্তিজনৰ শিক্ষা,উপার্জন আৰু বৃত্তিৰ লগত জড়িত ।সমাজ এখন বিকাশৰ ক্ষেত্ৰত ব্যক্তিএজনৰ অৰ্থনৈতিক অৱস্থাটোৱে যথেষ্ট পৰিমাণে প্ৰভাৱ পেলায় আৰু শিক্ষা ক্ষেত্ৰ থনেও যথেষ্ট পৰিমাণে প্ৰভাৱ পেলায় ।

শিক্ষাই অৰ্থনৈতিক জীৱনত আগুৱাই যাবলৈ ব্যক্তিক উৎপাদনক্ষম কৰি তোলে আৰু এক সুন্দৰ জীৱন যাগনত সহায় কৰে । এখন সমাজৰ উন্নতিৰ বাবে সমাজখনৰ প্ৰত্যেকজন ব্যক্তি শৈক্ষিক আৰু অৰ্থনৈতিক দিশত পৰিপক্ক হ'ব লাগিব কিয়নো জনসাধাৰণ বা ব্যক্তিসকল এই দুয়োটা দিশত উন্নত হ'লে হে সমাজখনো উল্লভিৰ পখত আগুৱাই যাব ।সমসাময়িক বিশ্বখনত বিশেষকৈ উল্লয়নশীল আৰ্থসামাজিক শ্বিভি হৈছে আটাইতকৈ গুৰুত্বপূৰ্ণ বিষয় । আৰ্থসামাজিক অৱস্থা আৰু জনগাঁথনিয়ে মানৱ বিকাশৰ শ্বিতিক প্ৰতিনিধিত্ব কৰে যিয়ে যিকোনো সম্প্ৰদায় বা ৰাজ্যৰ বা সমাজৰ বিকাশৰ স্থৰ জোখাত সহায় কৰে ।

১.০১:আর্থ সামাজিক জীৱন : (Socio eonomic life) :

আৰ্খ সামাজিক শ্বিভিয়ে এজন ব্যক্তিৰ অৰ্থনৈতিক দিশ আৰু সমাজভাত্বিক পৰিমাপক বুজায়। অৰ্খাৎ আৰ্খ সামাজিক জীৱন হৈছে কোনো ব্যক্তি বা গোটৰ সামাজিক অৱস্থা বা শ্ৰেণী বা কোনো এখন ঠাইৰ জনসাধাৰণৰ আৰ্থিক আৰু সামাজিক দিশৰ অৱস্থাটোক বুজায়। এথন সমাজ জনসাধাৰণৰ অবিহনে কেভিয়াও গঠিভ হ'ব নোৱাৰে। কোনো এখন ঠাইৰ জনসাধাৰণ বা ব্যক্তিৰ আৰ্থসামাজিক জীৱনটো ব্যক্তিজনে কৰা উপাৰ্জন, শিক্ষা আৰু বৃত্তিৰ ওপৰতে বিশেষকৈ নিৰ্ভৰ কৰে। ব্যক্তিজনে বা জনসাধাৰণে সুস্থভাৱে জীৱন নিৰ্বাহৰ বাবে অৰ্থনৈতিক দিশৰ ওপৰত গুৰুত্ব দিয়াটো অতি প্ৰয়োজনীয়। এথন সমাজ আৰ্থসামাজিক দিশত উন্নত হোৱাৰ ক্ষেত্ৰত সমাজৰ ব্যক্তিসকলে যখেষ্ট বৰঙণি যোগাই ঠিক সেইদৰে কিছুক্ষেএত সমাজখনেও ব্যক্তিসকলৰ উল্লতিৰ ক্ষেত্ৰত বৰঙণি যোগাই। মানুহৰ বা ব্যক্তিৰ আৰ্থসামাজিক জীৱনটোক সাধাৰণতে ৩টা ভাগত বিভক্ত কৰিব পাৰি। সেইসমূহ হ'ল – উচ্চ বা ধনী , মধ্যবিত্ত আৰু নিম্ন বা আর্থিকভারে দুর্বল ।









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১.০২: শৈক্ষিক প্রস্থিতি : (Educational status) :

এখন সমাজ বা ঠাইৰ শৈক্ষিক প্ৰস্থিতি বুলিলে সমাজখনৰ শিক্ষাৰ ক্ষেএখনক বুজা যায়। এখন সমাজৰ শৈক্ষিক প্ৰস্থিতি সমাজখনৰ লোকসকল শিক্ষাৰ ক্ষেএভ কিমান দূৰ আগবঢ়া আৰু পিছপৰা বা অনুন্নত তাৰ ওপৰত বিশেষকৈ নিৰ্ভৰ কৰে। সমাজ এখনত কিমান বা কেইখন শিক্ষানুষ্ঠানৰ ব্যৱস্থা আছে, সমাজখনৰ শিক্ষিত লোকৰ সংখ্যা, অশিক্ষিত লোকৰ সংখ্যা আৰু সম্পূৰ্ণভাৱে নিৰক্ষৰ লোকৰ পৰা মুক্ত নে নহয় তাৰ ওপৰত ভিত্তি কৰিয়েই সমাজ এখনৰ শৈক্ষিক প্ৰস্থিতিৰ বিষয়ে জানিব পাৰি।

১.০৩: অধ্যমূলৰ ক্ষেত্ৰ : (Study area) :

যোৰহাট জিলাৰ অন্তৰ্গত তিতাবৰ মহকুমা হৈছে এখন উল্লেখনীয় ঠাই। যোৰহাট জিলাৰ পৰা প্ৰায় ২০কিলোমিটাৰ নিলগত তিতাবৰখন অৱস্থিত। তিতাবৰখন পূৰ্বে ৯৪.২০৫৪২৪ দ্রাঘিমাংশত আৰু উত্তৰে ২৬.৬০২৭৭১ অক্ষাংশত অৱস্থিত। ২০২১ চনৰ লোকপিয়ল মতে তিতাবৰৰ মুঠ জনসংখ্যা হৈছে ১২২,৪৫৫। তিতাবৰৰ মুঠ মাটিকালি হৈছে ৪৮৭.৪ বর্গকিলোমিটাৰ। ইয়াৰ সাক্ষৰতাৰ হাৰ হৈছে ৯২.২৬%। তিতাবৰ মহকুমাৰ ১৪৩ আন গাঁৱৰ মাজৰ পৰা প্রকল্প অধ্যয়নৰ বাবে ৩ খন গাওঁ বাছনি কৰি লোৱা হৈছে। সেইকেইখন হৈছে ষ্টেচন তিনি আলি ৱাৰ্ড নং ৯, পূৱালী নগৰ ৱাৰ্ড নং ৮ নং আৰু জ্যোতি নগৰ ৱাৰ্ড নং ১০। এই গাওঁ ৩খন তিতাবৰ টাউনৰ পৰা ১০০ মিটাৰ,১৫০ মিটাৰ আৰু ২০০ মিটাৰ নিলগত অৱস্থিত। গাওঁ কেইখনৰ পূবে খৰিকটীয়া, পশ্চিমে তিতাবৰৰ চৰকাৰী চিকিৎসালয়, উত্তৰে বিবিজান গাওঁ আৰু দক্ষিণে ধলি দলং আছে। গাওঁ কেইখনৰ অধিকাংশ লোকেই হিন্দু ধৰ্মাৱলম্বীৰ আৰু শিক্ষিত আৰু অধিকাংশ লোকেই ব্যৱসায়িৰ জড়িয়তে অৰ্থ উপাৰ্জন কৰে।

১.০৪: অধ্যমূলৰ ভাৎপৰ্ম : (Significance of the study) :

সাধাৰণতে এখন সমাজ হৈছে বিভিন্ন মানুহৰ গোট য'ত বিভিন্ন জনগোষ্ঠীৰ আৰু বিভিন্ন সম্প্ৰদায়ৰ লোকে একগোট হৈ বসবাস কৰে। ব্যক্তিয়ে সমাজত সুস্থ ভাৱে জীৱন নিৰ্বাহৰ বাবে অৰ্থনৈতিক আৰু শৈক্ষিক এই দুয়োটা দিশ অভ্যন্ত প্ৰয়োজনীয় । এই দুয়োটা দিশৰ সঠিক জ্ঞান থাকিলেহে ব্যক্তি এজন সুস্থভাৱে জীৱন নিৰ্বাহ কৰিবলৈ সক্ষম হ'ব। যিহেতু মানুহৰ মৌলিক প্ৰয়োজনৰ বাবে অৰ্থ আৰু জ্ঞান অৰ্জনৰ বাবে শিক্ষাৰ প্ৰয়োজনীয় । এখন সমাজৰ অৰ্থনৈতিক আৰু শৈক্ষিক দিশটো সবল হ'লে হে এখন সমাজ উন্নতিৰ প্ৰথত আগবাঢ়িব ।









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১.০৫ : অধ্যমূলৰ উদ্দেশ্য : (Objectives of the study) :

- এই অধ্যয়নৰ উদ্দেশ্য সমূহ তলত বৰ্ণনা কৰা হ'ল :
- ১) ভিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁওসমূহৰ শৈক্ষিক ব্যবস্থা আৰু প্ৰস্থিতি সম্পৰ্কে অনুসন্ধান কৰা।
- ২) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁওসমূহৰ আৰ্থসামাজিক পটভূমিৰ বিষয়ে অধ্যয়ন কৰা।
- ৩) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁৱসমূহৰ পাৰিপাৰ্শ্বিক দিশ অধ্যয়ন কৰা।
- 8) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁওসমূহৰ সামাজিক জীৱন সম্পৰ্কে অধ্যয়ন কৰা।
- ৫) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁওসমূহৰ অৰ্থনৈতিক শ্বিতি সম্পৰ্কে অধ্যয়ন কৰা।

১.০৬ : অধ্যমূলৰ সীমাবদ্ধতা : (Limitations of the study) :

উক্ত অধ্যয়নটো যোৰহাট জিলাৰ তিতাবৰ মহকুমাৰ নিৰ্বাচিত ৩ থন গাওঁ ক্ৰমে ষ্টেচন তিনি আলি ৱাৰ্ড লং ১ , পুৱালী লগৰ ৱাৰ্ড লং ৮ আৰু জ্যোতি লগৰ ৱাৰ্ড লং ১০ ত সীমাবদ্ধ কৰা হৈছে ।









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২.০০ : প্রণালীভত্ব : (Methodology) :

২.০১ : আৰম্ভনি : (Introduction) :

একোটা মানৱ জাতিৰ বিকাশৰ ক্ষেত্ৰত শৈক্ষিক দিশ আৰু আৰ্থসামাজিক দিশ দুয়োটাই অতি গুৰুত্বপূৰ্ণ। এজন ব্যক্তিৰ আৰ্থসামাজিক জীৱন আৰু ব্যক্তিজনৰ শিক্ষা উপাৰ্জনৰ লগত আৰু বৃত্তিৰ লগত জড়িত। সমাজ এখনৰ বিকাশ আৰু উল্লতিৰ ক্ষেত্ৰত ব্যক্তিএজনৰ শৈক্ষিক ক্ষেত্ৰখনে আৰু অৰ্থনৈতিক অৱস্থাটোৱে যথেষ্ট সহায় কৰে।

বৰ্তমান সময়ছোৱাৰ সমাজ ব্যৱস্থাত বিজ্ঞান আৰু প্ৰযুক্তিবিদ্যাৰ প্ৰভাৱ অত্যাধিক পৰিমাণে পৰিছে । ইয়াৰ ফলত সমাজৰ শৈক্ষিক আৰু অৰ্থনৈতিক দিশটো যথেষ্ট পৰিমাণে সবল হোৱা পৰিলক্ষিত হৈছে । যিহেতু মানুহৰ বা ব্যক্তিৰ মৌলিক প্ৰয়োজনৰ বাবে অৰ্থ আৰু জ্ঞানৰ বাবে শিক্ষাৰ প্ৰয়োজন । এথন সমাজৰ উন্নতিৰ মূলতে সমাজথনৰ অৰ্থনৈতিক আৰু সামাজিক দিশটো জড়িত হৈ থাকে । কিয়নো এই দিশসমূহৰ বিকাশ সাধন হ'লেহে সমাজখনৰো বিকাশ সাধন হ'ব ।

ইয়াত প্ৰকল্প অধ্যয়নৰ বাবে যোৰহাট জিলাৰ তিতাবৰ মহকুমাৰ অন্তৰ্গত ৩ থন গাওঁ ক্ৰমে ষ্টেচন তিনি আলি ৱাৰ্ড নং ৯ , জ্যোতি নগৰ ৱাৰ্ড নং ১০ আৰু পূৱালী নগৰ ৱাৰ্ড নং ৮ বাছনি কৰি লোৱা হৈছে।

২.০২ : জনসংখ্যা : (Population) :

প্ৰকল্প অধ্যয়নৰ বাবে যোৰহাট জিলাৰ তিতাবৰ মহকুমাৰ অন্তৰ্গত বাছনি কৰি লোৱা গাওঁ কেইখনৰ ভিতৰত তিতাবৰ ষ্টেচন তিনি আলি ৱাৰ্ড নং ৯ ৰ পৰিয়ালৰ সংখ্যা হৈছে ৬৫ ঘৰ , জ্যোতি নগৰ ৱাৰ্ড নং ১০ ৰ মুঠ পৰিয়াল হৈছে ১৪০ ঘৰ আৰু পূৱালী নগৰ ৱাৰ্ড নং ৮ ৰ মুঠ পৰিয়ালৰ সংখ্যা হৈছে ৯৩ ঘৰ । তিনিখন গাওঁৰ মুঠ পৰিয়ালৰ সংখ্যা হৈছে ২৯৮ । গতিকে অধ্যয়নটোৰ জনসংখ্যা হৈছে ২৯৮ ঘৰ ।









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২.০৩ : নমুনা নির্বাচন : (Sampling method) :

বৰ্ণনামূলক জৰীপ পদ্ধতিৰে কৰা এই অধ্যয়নত নমূলা বা এককবোৰ সাদৃশ্যিক পদ্ধতিৰ সহায়ত নিৰ্বাচিত কৰা হয় ।

নমুনা পদ্ধতিত জনসমষ্টিৰ প্ৰতিটো এককৰ তথ্য সংগ্ৰহ কৰা নহয় বৰঞ্চ জনসমষ্টিটোক প্ৰতিনিধিত্ব কৰিব পৰা সীমিত সংখ্যক একক বাছনি কৰি সেই একক সমূহৰ পৰা তথ্য সংগ্ৰহ কৰা হয় । উক্ত অধ্যুমনটোত প্ৰত্যেক ৩ থন গাওঁৰ পৰা ১০ ঘৰকৈ মুঠ ৩০ ঘৰ পৰিয়াল বাছনি কৰি লোৱা হৈছে ।

২.০৪ : তথ্যৰ উৎস : (Source of data) :

এই প্ৰকল্প অধ্যমনত দুই প্ৰকাৰৰ তথ্য সংগ্ৰহ কৰা হৈছে । সেইকেইটা হ'ল :-

- ১) প্রাথমিক উৎস
- ২) দ্বিতীয়ক উৎস
- ১) প্ৰাথমিক উৎস :- প্ৰাথমিক উৎসত গোল প্ৰথমবাৰৰ কাৰণে ৩ থন গাওঁৰ ব্যক্তিসকলৰ পৰা প্ৰশ্নসূচী পদ্ধতিৰ জৰিয়তে লাগতীয়াল তখ্যসমূহ সংগ্ৰহ কৰা হৈছে তখা সাক্ষাৎকাৰ সূচীৰ জৰিয়তে উক্ত গাওঁ কেইখনৰ মূৰব্বী তিনিজনৰ পৰা গাওঁ সম্পৰ্কে তথ্য আহৰণ কৰা হৈছে ।
- ২) দ্বিতীয়ক উৎস :- ইতিমধ্যে যিবোৰ তথ্য সংগ্ৰহ কৰি লিপিবদ্ধ কৰা হৈছে সেই তথ্যসমূহক দ্বিতীয়ক উৎস বোলে । ইয়াৰ বাবে বিভিন্ন কিভাপ , মেপ আৰু ইন্টাৰনেটৰ জৰিয়তে ভিভাবৰ অঞ্চলৰ ভখা গাওঁ কেইখন সম্পৰ্কে তথ্য আহৰণ কৰা হৈছে ।

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In Toward (Mr. J.P. Oza) Coordinator, IQAC



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২.০৫ : তথ্য সংগ্ৰহৰ আহিলা : (Tools of data collection) :

তথ্য সংগ্ৰহৰ ক্ষেত্ৰত ব্যৱহৃত হোৱা আহিলাসমূহ হৈছে :-

- ১) সাক্ষাৎকাৰ সূচী আৰু
- ২) প্রশ্নসূচী
- ১) সাক্ষাৎকাৰ সূচী :– উক্ত প্ৰকল্প অধ্যয়নটোত বিভিন্ন তথ্যসমূহ লাভ কৰিবলৈ মূৰব্বীসকলৰ বাবে সাক্ষাৎকাৰ সূচী প্ৰস্তুত কৰি গাওঁখনৰ সবিশেষ তথ্য লাভ কৰিবলৈ মূৰব্বীসকলৰ পৰা এই সূচীৰ জৰিয়তে তথ্য লাভ কৰা হ'ল ।
- ২) প্ৰশ্নসূচী: প্ৰশ্নসূচী হ'ল বহুতো প্ৰশ্নৰ সমাহাৰ এখন সূচী। প্ৰশ্নসূচী খন নমুনা হিচাপে বাছনি কৰা ব্যক্তি আৰু প্ৰতিক্ৰিয়াকাৰী সকলৰ পৰা তখ্য সংগ্ৰহ কৰিবৰ বাবে ব্যৱহাৰ কৰা হয়। তখ্য সংগ্ৰহৰ কাৰণে ৩০ ঘৰ পৰিয়ালৰ বাবে মুঠ ৩০ খন প্ৰশ্নসূচী লোৱা হৈছে।

২.০৬ : তথ্য বিশ্লেষণ : (Data analysis) :

তথ্য বিশ্লেষণ প্ৰকল্প অধ্যয়নৰ এক গুৰুত্বপূৰ্ণ পৰ্য্যায় । তথ্য সংগ্ৰহ কৰাৰ পাছত সংগৃহীত তথ্যসমূহ বিশ্লেষণৰ জড়িয়তে বৰ্ণনা কৰা হয় । তথ্যসমূহ পদ্ধতিগত ভাৱে এই প্ৰকল্পটীত বিশ্লেষণ কৰা হৈছে । আৰু এই বিশ্লেষণ প্ৰক্ৰিয়া অতি সহজ সৰল কৰিবলৈ তথ্যসমূহ শ্ৰেণীকৰণ আৰু তালিকাকৰণ কৰা হৈছে । সংগৃহীত প্ৰতিটো তথ্য এই প্ৰতিবেদনত যুক্তিযুক্ত ভাৱে উপস্থাপন কৰা হৈছে আৰু এই তথ্য বিশ্লেষণৰ ক্ষেত্ৰত অনুসন্ধানকাৰীৱে অতি সাৱধানে আৰু সূক্ষ্ম দৃষ্টিৰে তথ্য উপস্থাপন কৰিছে ।

২.০৭ : উদ্দেশ্যে ভিত্তিত তথ্যৰ বিশ্লেষণ : (Objectives of data analysis) :

উক্ত প্রকল্প অধ্যয়নটোৰ অড়িয়তে লাভ কৰা তখ্যসমূহ তলত উদ্দেশ্যে ভিত্তিত বিশ্লেষণ কৰা হ'ল :

- ১) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁৱসমূহৰ আৰ্থসামাজিক পটভূমি বিষয়ে অধ্যয়ন ।
- ২) নিৰ্বাচিত গাওঁ কেইখনৰ শৈক্ষিক বিষয় আৰু প্ৰশ্বিতি সম্বন্ধে অধ্যয়ন কৰা ।
- ৩) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাওঁ কেইখনৰ পাৰিপাৰ্শ্বিক অৱস্থা সম্বন্ধে অধ্যয়ন কৰা।
- 8) গাওঁ সমূহৰ সামাজিক দিশ সম্পর্কে অধ্যয়ন কৰা ।

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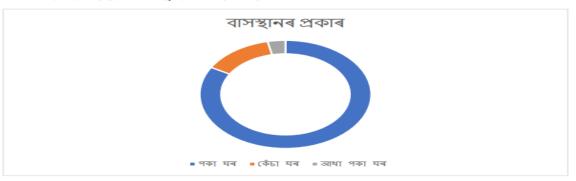
- ৫) গাওঁ কেইখনৰ অৰ্থনৈতিক স্থিতি সম্পর্কে অধ্যয়ন কৰা ।
- ১) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাঁৱসমূহৰ আৰ্থসামাজিক পটভূমি বিষয়ে অধ্যমন ।
- (ক) : বাসস্থানৰ প্ৰকাৰ : (House Type) :

ঘৰৰ সাংগঠনিক ব্যবস্থা নিৰ্ভৰ কৰে প্ৰধানকৈ এজন ব্যক্তিৰ অৰ্থনৈতিক দিশৰ ওপৰত । ভখ্য সংগ্ৰহৰ বাবে অনুসন্ধানকাৰীয়ে যোৱা গাওঁ ৩ খনৰ অধিক সংখ্যক লোকৰে আৰ্থিক অৱস্থা উন্নত হোৱাৰ বাবে ঘৰৰ সাংগঠনিক অৱস্থাও উন্নত । গাওঁ কেইখনৰ বিভিন্ন প্ৰকাৰৰ ঘৰৰ তালিকা তলত প্ৰস্তুত কৰা হ'ল :-

তালিকা লং- ১

বাসস্থানৰ প্ৰকাৰ	সংখ্যা	শতকৰা
পকা ঘৰ	২৫	৮৩.৩8%
কেঁচা ঘৰ	8	50.00%
আধা পকা ঘৰ	5	७.७७%
মুঠ	ಅ೦	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনৰ অধিকাংশ লোকৰে পকা বাসস্থান আছে আৰু খুব কম সংখ্যক পৰিয়ালে কেঁচা ঘৰ আৰু অৰ্ধ–কেঁচা ঘৰত বসবাস কৰে ।









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(গ) : পোহৰৰ উৎস : (Source of Light) :

যোৰহাট জিলাৰ ভিতাবৰ মহকুমাৰ অধিকাংশ গাওঁতে বিদ্যুৎৰ ব্যৱস্থা আছে । বিদ্যুৎৰ সুবিধা যিকোনো এটা অঞ্চলৰ বাবে অধিক গুৰুত্বপূৰ্ণ কাৰক । বৰ্তমান সম্মছোৱাত বিদ্যুৎৰ অবিহলে বসবাস আৰু কাম কৰাটো সম্ভৱ নহয় । বিজ্ঞান আৰু প্ৰযুক্তিবিদ্যাৰ অগ্ৰগতিৰ ফলত প্ৰতিটো অঞ্চলত বিদ্যুৎৰ ব্যৱস্থা আছে । বাছনি কৰি লোৱা গাওঁ ৩থনৰ বিদ্যুৎ ব্যৱহাৰৰ এথন তালিকা তলত উল্লেখ কৰা হ'ল :-

তালিকা নং- ৩

পোহৰৰ উৎস	সংখ্যা	শতকৰা
বিজুলী বাতি	২৭	৯০%
সৌৰ শক্তি	2	७.७७%
কেৰাচিল/ম'ম বাতি	3	৬.৬৭
मूर्ठ	७०	500%

তলত দণ্ড চিএৰ সহায়ত পোহৰৰ উৎস বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু দণ্ড চিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনৰ অধিকাংশ পৰিয়ালতে বিজুলী বাতিৰ ব্যৱস্থা আছে আৰু থুব কম সংখ্যক পৰিয়ালৰ ঘৰত সৌৰ শক্তি আৰু কেৰাচিন/ম'ম বাতিৰ ব্যৱস্থা আছে ।









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২) নিৰ্বাচিত গাওঁ কেইখনৰ শৈক্ষিক বিষয় আৰু প্ৰশ্বিতি সম্বন্ধে অধ্যয়ন কৰা ।

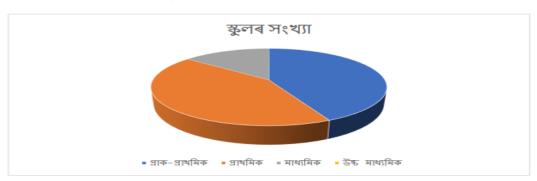
(ক) : স্কুলৰ সংখ্যা : (Numbers of School) :

জ্ঞান হৈছে এক অমূল্য সম্পদ । শিক্ষাৰ অবিহনে কোনো ব্যক্তিয়ে এক সৃস্থ আৰু উত্থল ভৱিষ্যত কামনা কৰিব নোৱাৰে । বাছনি কৰি লোৱা গাওঁ কেইখনত অধিকাংশ লোকেই শিক্ষিত আৰু গাওঁ কেইখনত উপযুক্ত পৰিমানৰ বিদ্যালয়ৰ সংখ্যাও দেখা গ'ল । তলত গাওঁ কেইখনত থকা স্কুলৰ সংখ্যা এখন তালিকাৰ সহায়ত বৰ্ণনা কৰা হ'ল :-

তालिका नः- 8

ऋूल	সংখ্যা	শতকৰা
প্রাক – প্রাথমিক	Ŀ	8২.৮৫%
প্রাথমিক	Ŀ	83.86%
মা ধ্য মিক	3	\$8.90
উচ্চ মাধ্যমিক	0	0%
मूर्ठ	78	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা যায় যে গাওঁ কেইখনত মুঠ ৬ খন প্ৰাক– প্রাথমিক, ৬ থন প্রাথমিক আৰু ২ থন মাধ্যমিক বিদ্যালয় আছে ।









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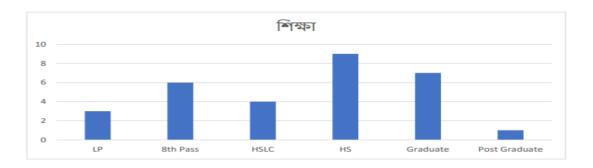
(থ): শিক্ষা: (Education):

শিক্ষা হৈছে মানৱ জীৱনৰ এক গুৰুত্বপূৰ্ণ দিশ । আৰ্থসামাজিক দিশৰ অগ্ৰগতিৰ মূলতেই হ'ল শিক্ষা । শিক্ষাৰ অবিহনে কোনো ব্যক্তিয়ে সফল আৰু উত্বল ভৱিষ্যভ কামনা কৰিব নোৱাৰে । গাওঁ কেইখনৰ প্ৰায় সকলো লোকেই শিক্ষিত বুলিব পাৰি । গাওঁ কেইখনৰ শিক্ষিত লোকৰ তখ্যসমূহ তলত তালিকাৰ সহায়ত বৰ্ণনা কৰা হ'ল :-

তালিকা নং- ৫

শিষ্ষাগত অৰ্হতা	ব্যক্তিৰ সংখ্যা	শতকৰা
LP	9	50%
8 th Pass	৬	₹0%
HSLC	8	50.00%
HS	ه	90%
Graduate	9	২৩.७8%
Post Graduate	5	७.७७%
Total	ಅಂ	500%

তলত দণ্ড চিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত ভালিকা আৰু দণ্ড চিএৰ পৰা দেখা গ'লযে গাওঁ কেইখনৰ অধিকাংশ লোকেই শিক্ষিত আৰু অতি কম সংখ্যক লোক হে নিৰক্ষৰ বা অশিক্ষিত ।









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৩) তিতাবৰ থণ্ডৰ নিৰ্বাচিত গাওঁ কেইখনৰ পাৰিপাৰ্শ্বিক অৱস্থা সম্বন্ধে অধ্যয়ন কৰা।

(ক) চিকিৎসাল্ম : (Hospital) :

বর্তমান সময়ছোৱাত চিকিৎসা বিজ্ঞান অতি গুৰুত্বপূর্ণ । চিকিৎসা অবিহনে সুস্থ জীৱন যাপন সম্ভৱ নহয় । মানুহৰ জন্মৰ পৰা মৃত্যু পর্যন্ত ইয়াৰ প্রয়োজনীয়তা আছে । চিকিৎসা বিজ্ঞান এজন ব্যক্তিৰ আয়ুস ৰেখা স্বৰূপ । বাছনি কৰি লোৱা গাওঁ কেইখনৰ পৰিয়ালসকলৰ চিকিৎসা ব্যৱস্থা সম্পর্কে তলত তালিকাৰ সহায়ত বর্ণনা কৰা হ'ল :

তালিকা নং- ৬

চিকিৎসা ব্যৱস্থা	পৰিয়ালৰ সংখ্যা	শতকৰা
হোমিও	0	0%
ঘৰুৱা	0	0%
চিকিৎসাল্য	৩০	500%
কবিৰাজ	0	0%
मूर्ठ	ಅಂ	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনত বসবাস কৰা প্ৰত্যেকটো পৰিয়ালৰে চিকিৎসা ব্যৱস্থা হৈছে চিকিৎসাল্য ।









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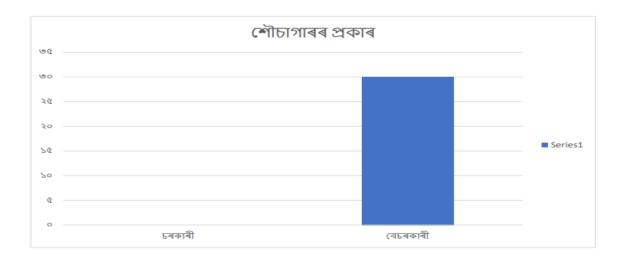
(থ) : শৌচাগাৰৰ ব্যৱস্থা : (Toilets Facilities) :

পৰিৱেশ পৰিষ্কাৰ বা স্বচ্ছতাৰ অৰ্থে শৌচাগাৰৰ ব্যৱস্থা থকাটো অত্যন্ত জৰুৰী । শৌচাগাৰে পৰিৱেশ নিকা অৰ্থাৎ ধুনীয়া কৰি ৰাখে আৰু নানা বেমাৰ আজাৰৰ পৰা দূৰত ৰাখে । বাছনি কৰি লোৱা গাওঁ ৩ খনৰ শৌচাগাৰৰ এখন তালিকা তলত প্ৰস্তুত কৰা হ'ল :-

তালিকা লং- ৭

শৌচাগাৰৰ প্ৰকাৰ	সংখ্যা	শতকৰা
চৰকাৰী	0	0%
বেচৰকাৰী/নিজা	90	500%
मूर्ठ	90	500%

তলত দণ্ড চিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু দণ্ড চিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনৰ প্ৰত্যেকখন ঘৰতে নিজা শৌচাগাৰৰ ব্যৱস্থা আছে ।









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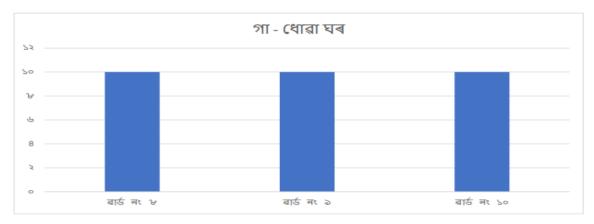
(ঘ) : গা-ধোৱা ঘৰ : (Bathroom) :

পৰিৱেশ পৰিষ্কাৰ আৰু স্বচ্ছতাৰ অৰ্থে একোটা পৰিয়ালত একোটা গা–ধোৱা ঘৰ থকাটো অত্যন্ত জৰুৰী । এক সূন্দৰ আৰু শৃংখলাবদ্ধ সমাজ গঢ়ি তুলিবলৈ প্ৰতিটো পৰিয়ালত একোটাকৈ গা–ধোৱা ঘৰ থকাটো বাঞ্চনীয় । তলত গাওঁ কেইখনৰ পৰিয়ালসমূহত থকা গা–ধোৱা ঘৰৰ সংখ্যা এখন তালিকাৰ সহায়ত বৰ্ণনা কৰা হ'ল :

তালিকা লং- ১

গাওঁৰ নাম	গা–ধোৱা ঘৰৰ সংখ্যা	শতকৰা
পূৱালী নগৰ ৱাৰ্ড নং ৮	20	७७.७8%
ষ্টেচন তিনি আলি ৱার্ড নং৯	20	৩৩.৩৩%
জ্যোতি নগৰ ৱাৰ্ড নং ১০	20	७७.७७%
मूर्ठ	ಅಂ	500%

তলত দণ্ড চিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :



উপৰোক্ত তালিকা আৰু দণ্ড চিএৰ পৰা দেখা যায় যে প্ৰকল্প অধ্যয়নৰ বাবে নিৰ্বাচিত কৰা গাওঁ কেইখনৰ প্ৰত্যেকখন ঘৰতে একোটা গা–খোৱা ঘৰ আছে ।









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8) গাওঁ সমূহৰ সামাজিক দিশ সম্পর্কে অধ্যয়ন কৰা।

(ক): ধর্ম : (Religion) :

যোৰহাট জিলাৰ ভিতাবৰৰ বাছনি কৰি লোৱা ৩খন গাওঁৰ বাসিন্দাসকল বিভিন্ন ধৰ্মীয় কাৰ্মৰ লগত জডিত। ধৰ্ম হৈছে এলে এক অৱস্থা যিয়ে ভাৱ–ভংগীৰ যোগেদি একোটা জাতি তথা সম্প্ৰদায়ক একএিত কৰি ৰাখে। ভাৰত হৈছে এখন ধৰ্ম নিৰপেক্ষ দেশ। ইয়াত বিভিন্ন ধৰ্মাৱলম্বীৰ লোকে বসবাস কৰে।

তখ্য সংগ্ৰহৰ কাৰণে অনুসন্ধানকাৰীয়ে যোৱা গাওঁ ৩থনৰ সকলো লোকেই হিন্দু ধৰ্মৰ । ইয়াৰ সকলো লোকে বিভিন্ন উৎসৱ–পাৰ্বন একেলগে মিলাপ্ৰিতীৰে উদযাপন কৰে ।

গাওঁ ৩ থনৰ ধৰ্মাৱলী লোকসকলৰ এথন তালিকা তলত উল্লেখ কৰা হ'ল :-

তালিকা লং- ১০

धर्म	লোকৰ সংখ্যা	শতাংশ
হিন্দু	ಅಂ	500%
মুছলমান	0	0%
গ্রীষ্টান	0	0%
মুঠ	७ ०	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল:-



উপৰোক্ত তালিকা আৰু পাইচিএৰ জৰিয়তে দেখা গ'ল যে গাওঁ কেইখনৰ সকলো লোকেই হিন্দু ধৰ্মাৱলম্বীৰ ।









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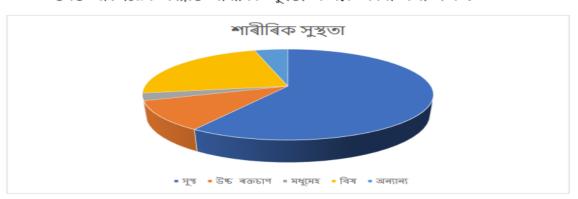
(খ): পৰিয়ালৰ সদস্যসকলৰ শাৰীৰিক সুস্থতা : (Physical Fitness of Family Members):

এটি সুস্থ দেহতহে এটি সুস্থ মনৰ জন্ম হয় । সেইহে এক সুস্থ আৰু আনন্দদায়ক জীৱন নিৰ্বাহৰ বাবে ব্যক্তিজন শাৰীৰিক ভাৱে সুস্থ হোৱাটো অভ্যন্ত জৰুৰী । ভলভ ভালিকাৰ সহায়ভ বাছনি কৰি লোৱা গাওঁ কেইখনৰ ৩০ ঘৰ পৰিয়ালৰ সদস্যৰ শাৰীৰিক সুস্থতা সম্পৰ্কে বৰ্ণনা কৰা হ'ল :

তালিকা লং- ১১

শাৰীৰিক সুস্থতা	সদস্যৰ সংখ্যা	শতকৰা
সুস্থ	৬৭	%6۶.69
উচ্চ ৰক্তচাপ	25	50.65%
মধুমেহ	•	২.৬৬%
বিষ	২৬	২৩.২২%
অন্যান্য	Œ	8.83%
मूर्ठ	55@	500%

তলত পাই চিএৰ সহায়ত শাৰীৰিক সুস্থতা সম্পৰ্কে বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনৰ অধিকাংশ লোকেই সুস্থ আৰু কিছু সংখ্যক লোক উচ্চ ৰক্তচাপ , মধুমেহ , বিষ আৰু কিছু অন্যান্য ৰোগভ আক্ৰান্ত ।









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৫) গাওঁ কেইখনৰ অৰ্থনৈতিক শ্বিতি সম্পর্কে অধ্যয়ন কৰা।

(ক): বৃত্তি:(Occupation):

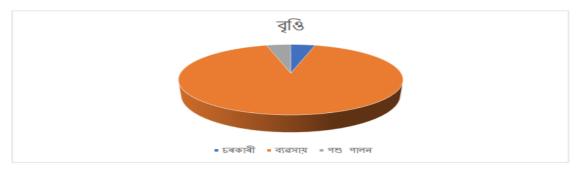
বৃত্তি হৈছে এটা পৰিয়ালৰ আৰ্থিক দিশৰ উন্নয়নৰ এক উৎস । বাছনি কৰি লোৱা ৩ খন গাওঁৰ লোকসকল আৰ্থিক আৰু সামাজিক দিশৰ উন্নতিৰ বাবে বিভিন্ন কামত নিয়োজিত হৈ আছে । যাৰ ফলত নিজৰ আৰ্থসামাজিক দিশটো আৰু শৈক্ষিক দিশৰ উন্নয়নৰ লগতে গাওঁ খনৰো সামান্য শ্বিতিৰ উন্নয়নত বা বিকাশত অৰিহণা যোগাইছে ।

বাছনি কৰি লোৱা গাওঁ ৩ খনৰ বিভিন্ন বৃত্তিত নিয়োজিত লোকসকলৰ তথ্যসমূহ তলত তালিকাৰ সহায়ত বৰ্ণনা কৰা হ'ল :-

তালিকা লং- ১২

বৃত্তি	সংখ্যা	শতকৰা
চৰকাৰী	3	8.59%
ব্যৱসায়	88	৯১.৬৬%
পশু পালন	3	8.59%
কৃষি	0	0%
মূঠ	88	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা গ'ল যে গাওঁ ৩ খনৰ ব্যৱসায় ৪৪ জন , পশু পালন ২ জন আৰু ২ জন চৰকাৰী চাকৰিয়াল ।









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(ঘ) : ব্যুমৰ পৰিমান : (Amount of Spending) :

মানুহৰ দৈনন্দিন জীৱন নিৰ্বাহত প্ৰয়োজন হোৱা বিভিন্ন লাগতিয়াল সামগ্ৰী সমূহ একএিত কৰিবলৈ যখেষ্ট পৰিমাণৰ অৰ্খৰ প্ৰয়োজন হয় । বাছনি কৰি লোৱা গাওঁ কেইখনৰ ৩০ ঘৰ পৰিযালৰ মাহেকীয়া হোৱা ব্যয়ৰ পৰিমান তলত তালিকাৰ সহাযত বৰ্ণনা কৰা হ'ল :

তালিকা নং- ১৪

ব্যয়ৰ পৰিমাল	পৰিয়ালৰ সংখ্যা	শতকৰা
0-6000	4	৬.৬৬9%
5000 - 50,000	22	৩৬.৬৭%
55,000 - 30,000	50	8७.७७%
२५,००० - ७७,०००	8	50.00%
मूर्ठ	৩০	500%

তলত দণ্ড চিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :



ওপৰত গাওঁ কেইখনৰ পৰিয়ালসমূহৰ ব্যয়ৰ পৰিমান তালিকা আৰু দণ্ড চিএৰ সহায়ত বৰ্ণনা কৰা হ'ল ।









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PROJECT PREPARATION BY THE **STUDENTS**

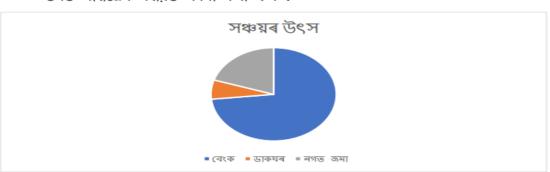
(গ) : সঞ্মৰ ব্যৱস্থা :- (Source of Savings) :

সঞ্চয় হৈছে এলে এক ব্যৱস্থা যাৰ জৰিয়তে মানুহে উপাৰ্জনৰ টকা-পইচাসমূহ বিভিন্ন ধৰণেৰে জমা কৰি ৰাখে বা ৰাখিব পাৰে । উদাহৰণ স্বৰূপে : বেংক আৰু ডাকঘৰ । বৰ্তমান সম্মুছোৱাত দেখা যায় যে নিজৰ ঘৰত টকা – পইচা জমা কৰি ৰখাৰ পৰিৱৰ্তে অন্য কোনো চৰকাৰী বা ব্যক্তিগত প্ৰতিষ্ঠানত জমা কৰি খ'লে সুৰক্ষিত অনুভৱ কৰে আৰু সুৰক্ষিত ভাৱে থাকে । বাছনি কৰি লোৱা গাওঁ কেইখনৰ লোকসকলে বিভিন্ন প্ৰকাৰৰে নিজৰ ধন সমূহ সঞ্চ্য কৰি ৰাখে । তলত তালিকাৰ সহায়ত পৰিয়াল সমূহৰ সঞ্মৰ উৎস অৰ্থাৎ স্থানসমূহ বৰ্ণনা কৰা হ'ল :-

তালিকা নং- ১৪

সঞ্যৰ স্থান	পৰিয়ালৰ সংখ্যা	শতকৰা
বেংক	২ ২	9७.७७%
ডাকঘৰ	4	৬.৬9%
নগত জমা	હ	२०%
मूर्ठ	9 0	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :-



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা গ'ল যে গাওঁ কেইখনৰ ৩০ ঘৰ পৰিয়ালৰ মাজত ২২ ঘৰ পৰিয়ালে বেংকত , ২ ঘৰ পৰিয়ালে ডাকঘৰত আৰু বাকী ৬ ঘৰ পৰিয়ালে নগত ভাৱে টকা সঞ্ম কৰি ৰাখে ।









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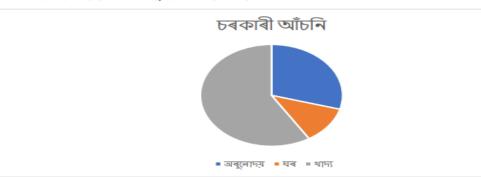
(ঘ) চৰকাৰী আঁচলিৰ সুবিধা : (Benefits of government schemes) :

প্ৰকল্প অধ্যমনটোৰ বাবে নিৰ্বাচন কৰি লোৱা গাঁও কেইখনৰ প্ৰায় সংখ্যক লোকেই চৰকাৰী আঁচনিৰ সুবিধা লাভ কৰিছে। চৰকাৰী আঁচনিসমূহ হ'ল:- অৰুণোদ্য়, ৰাষ্ট্ৰীয় থাদ্য সুৰক্ষা আঁচনি, NREGA, অনাময় শৌচালয় আঁচনি, প্রধানমন্ত্রী কৃষি বিকাশ আচঁনি, প্রধানমন্ত্রী ইন্দিৰা আৱাস যোজনা আদি। গাওঁ কেইখনৰ লোকসকলে লাভ কৰা সুবিধাসমূহৰ এখন ভালিকা ভলভ উল্লেখ কৰা হ'ল -

তালিকা নং- ১৫

আঁচনিৰ	পৰিয়ালৰ সংখ্যা	শৃতকৰা
অৰুণোদ্য	œ.	১৬.৬ 9%
খাদ্য	٥٥	99.99%
ঘৰ	3	৬.৬৭%
শৌচালয়	0	0%
সুবিধা নোপোৱা	50	8७.७७%
मूर्ठ	90	500%

তলত পাইচিএৰ সহায়ত বৰ্ণনা কৰা হ'ল :



উপৰোক্ত তালিকা আৰু পাইচিএৰ পৰা দেখা যায় যে তথ্য সংগ্ৰহ কৰা ৩০ ঘৰ পৰিয়ালৰ মাজত ১৭ ঘৰ পৰিয়ালে বিভিন্ন ধৰণৰ চৰকাৰী আঁচনি সুবিধা লাভ কৰিছিল সক্ষম হৈছে ।









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৩.০০ অধ্যমনৰ দ্বাৰা প্ৰাপ্ত প্ৰধান তথ্যসমূহ : (MAJOR FINDINGS OF THE STUDY) :

উক্ত প্রকল্পটো অধ্যয়নৰ বাবে যোৰহাট জিলাৰ তিতাবৰ মহকুমা থণ্ডৰ তিনিখন গাঁও নির্বাচিত কৰি লোৱা হৈছে । গাঁও কেইখন হৈছে ষ্টেচন তিনি আলি ৱার্ড নং ৯, পূৱালী নগৰ ৱার্ড নং ৮ আৰু জ্যোতিলগৰ ৱার্ড নং ১০ । অনুসন্ধানকাৰীৰ দ্বাৰা উক্ত গাঁওকেইখনৰ অধ্যয়নৰ জৰিয়তে গাঁও কেইখনৰ আর্থসামাজিক জীৱন আৰু শৈক্ষিক প্রস্থিতিৰ বিষয়ে জানিব পৰা গৈছে। গাঁও কেইখনৰ প্রায় সংখ্যক লোকেই ব্যৱসায়ৰ লগত জড়িত হোৱাৰ লগতে সীমিত সংখ্যক চাকৰিয়ালো দেখা যায় । ইয়াৰোগৰি শৈক্ষিক দিশতো গাঁওকেইখন যথেষ্ট আগবঢ়া বুলিয়েই ক'ব পাৰি । গাঁওকেইখনৰ বর্তমান উঠি অহা সকলো শিক্ষাৰ্থীয়ে উচ্চ শিক্ষাৰে শিক্ষিত । অৱশ্যে গাঁও কেইখনত পূৰণি ২/১জন বৃদ্ধ নিৰক্ষৰো দেখা গোৱা গ'ল। গাঁওকেইখনত ল'ৰা-ছোৱালীৰ সুবিধাৰ্থে প্রতি ২/৩ কিলোমিটাৰ অন্তৰে অন্তৰে প্রাক–প্রাথমিক আৰু প্রাথমিক বিদ্যালয় দেখা পোৱা গ'ল । উক্ত তিনিখন গাওঁতে নামঘৰৰ,মন্দিৰ লগতে প্রেক্ষাগৃহ খকাও দেখা গ'ল । গাঁওকেইখন ধর্মীয় আৰু সাংস্কৃতিক দিশতো যথেষ্ট আগবঢ়া । নামঘৰত দিহা নাম, ভাওনা, নাম–প্রসংগ আদি হোৱাৰ লগতে ৰাজহুৱা প্রেক্ষাগৃহত ল'ৰা–ছোৱালীৰ স্বৰ্বভামুখী দিশৰ বিকাশৰ অৰ্থে নৃত্য,গীত আদিকে ধৰি বিভিন্ন অনুষ্ঠানসমূহ অনুষ্ঠিত কৰা হয়।

অনুসন্ধানকাৰীৰ দ্বাৰা উক্ত গাঁওকেইখনৰ প্ৰকল্প অধ্যয়নৰ জৰিয়তে জানিব পৰা গৈছে যে, গাঁওকেইখনৰ কিছু সংখ্যক পৰিয়াল চৰকাৰী আঁচনিৰ পৰা বঞ্চিত হৈছে আৰু অধিকাংশ পৰিয়ালে চৰকাৰী আঁচনিৰ সুবিধা লাভ কৰিছে । গাঁওকেইখনৰ কিছু সংখ্যকে ঘৰ, শৌচাগাৰ আদিৰ সুবিধা পোৱাৰ লগতে মহিলা সকলে অৰুণোদ্য় আঁচনিৰো সুবিধা লাভ কৰিছে । তদুপৰি গাঁওকেইখনৰ কিছু সংখ্যক মহিলাই পশুপালন কৰাৰ লগতে ২/১ মহিলাই বেচৰকাৰী অনুষ্ঠানত কৰ্ম কৰি থকা দেখা যায় । গতিকে, এই সকলো বিলাক দিশ চালি–জাৰি চাই গাঁওকেইখন আৰ্থসামাজিক আৰু শৈক্ষিক দিশত যথেষ্ট আগবঢ়া বুলি জানিব পৰা যায়।

গাঁওকেইখনৰ পাৰিপাৰ্শ্বিক দিশ সম্পৰ্কে লহ্ষ্য কৰিলে দেখা যায় যে গাঁওকেইখনৰ লোকসকলৰ কিছু সংখ্যক পৰিয়ালে পুখুৰী, দমকলৰ পানী ব্যবহাৰ কৰে আৰু অধিকাংশ পৰিয়ালে চৰকাৰী পানীৰ সুবিধা লাভ কৰিছে। আৰু গাঁওকেইখনৰ প্ৰত্যেক পৰিয়ালতে শৌচালয় আৰু গাঁ–ধোৱা ঘৰৰ উপযুক্ত ব্যৱস্থা আছে । গভিকে এই ক্ষেত্ৰভ গাঁওকেইখনৰ পাৰিপাৰ্শ্বিক দিশটো উন্নভ বুলিয়েই ক'ব পৰা যায় । উক্ত গাঁও কেইখনৰ প্ৰত্যেক ব্যক্তিয়েই হিন্দু ধৰ্মাৱলম্বীৰ আৰু প্ৰায় সংখ্যক লোক অসমীয়া আৰু বেংগলী সম্প্ৰদায়ৰ দেখিবলৈ পোৱা যায় ।









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8.০০ পুন: অধ্যয়নৰ বাবে পৰামৰ্শ (SUGGESTIONS FOR FURTHER RESEARCH) :

উক্ত প্ৰকল্পটো অধ্যয়নৰ জৰিয়তে,অনুসন্ধানকাৰীয়ে গাঁও তিনিখনৰ আৰ্খ-সামাজিক জীৱন আৰু শৈক্ষিক প্ৰশ্বিতিৰ বিষয়ে জানিবলৈ সক্ষম হৈছে। গাঁও তিনিখনৰ পূৰুষ সকলৰ লগতে কিছু সংখ্যক মহিলাইও অৰ্থনৈতিকভাৱে শ্বাৱলম্বী আৰু আত্মনিৰ্ভৰশীল হ'বৰ বাবে পশুপালন কৰাৰ লগতে বেচৰকাৰী প্ৰতিষ্ঠানতো কৰ্মৰত হৈ আছে। অৱশ্যে উক্ত গাঁও তিনিখনত বহু সংখ্যক শিক্ষিত নিবনুৱা দেখা গ'ল। উক্ত গাওঁ কেইখনৰ অধিকাংশ পৰিয়ালে মধ্যবিত্ত ।উক্ত অধ্যয়নৰ জৰিয়তে, গাঁও তিনিখনত দেখা পোৱা কিছুমান সমস্যা আৰু সমস্যাসমূহ সমাধানৰ হেতু কিছুমান পদক্ষেপ গ্ৰহণ কৰিব লাগিব আৰু উপযুক্ত পৰামৰ্শৰ ব্যৱস্থা ল'ব লাগিব।এইসমূহ তলত উল্লেখ কৰা হ'ল:–

- (১) গাঁও তিনিখনৰ নিবনুৱা সকলক সংস্থাপনৰ বাবে বিভিন্ন ধৰণৰ সৰ্–সুৰা উদ্যোগ তথা অন্যান্য কৃষি কৰ্মত উৎসাহিত হ'বৰ বাবে অনুপ্ৰেৰণা যোগাব লাগিব। যাতে নিবনুৱাৰ হাৰ হ্রাস পায় ।
- (২) গাঁও তিনিখনৰ পাৰিপাৰ্শ্বিক অৱস্থা সম্পৰ্কে অধ্যয়ন কৰি দেখা পোৱা গৈছিল যে, গাঁও তিনিখনৰ প্ৰায় সংখ্যক পৰিয়ালৰ জাবৰ পেলোৱাৰ উপযুক্ত ব্যৱস্থা নথকাৰ বাবে খালত জাবৰ পেলায় যাৰ ফলত পৰিৱেশৰ ক্ষতিগ্ৰস্ত হোৱা দেখা পোৱা গ'ল । যিহেতু এই জাবৰৰ পৰা ঘৰতে সাৰ প্ৰস্তুত কৰিব পৰা যায়, সেয়েহে জনসাধাৰণক পেলনীয়া জাবৰৰ পৰাই সাৰ প্ৰস্তুত কৰি জীৱিকাৰ পথ মুকলি কৰি ল'ব পৰাকৈ সজাগ কৰি তোলাৰ প্ৰয়োজন।
- (৩) গাঁও তিনিখনত প্রাক-প্রাথমিক, প্রাথমিক আৰু মাধ্যমিক বিদ্যাল্য দেখা পোৱা গ'ল কিন্তু উচ্চতৰ মাধ্যমিক বিদ্যালয় দেখিবলৈ পোৱা ল'গল সেয়েহে, গাঁও তিলিখনৰ জনসাধাৰণক উষ্চতৰ মাধ্যমিক বিদ্যালয় স্থাপনৰ বাবে চৰকাৰক আবেদন জনাবলৈ উৎসাহিত কৰিব লাগিব।
- (৪) উক্ত গাঁও তিনিখনৰ মহিলাসকলক আত্ম-সহায়ক গোটৰ সহায়ত তাঁত বোৱা, আচাৰ বলোৱা আদি কৰ্মৰ লগত জড়িত হৈ জীৱিকাৰ পথ মুকলি কৰি ল'ব পৰাকৈ সজাগ কৰি তোলাৰ প্রযোজন।

উক্ত পৰামৰ্শসমূহৰ সফল ৰূপায়নৰ বাবেই প্ৰকল্পটো পূন:অধ্যয়নৰ প্ৰয়োজন আছে। ভদুপৰি প্ৰকল্পটো সম্পাদন কৰোতে যিহেতু গাঁও তিনিখনৰ গোটেই কেইঘৰ পৰিয়াল সামৰি লোৱা নাই সেইবাবে অধ্যয়নটোৰ পৰা প্ৰাপ্ত তথ্যসমূহ সম্পূৰ্ণৰূপে গাঁও তিনিখনৰ ক্ষেত্ৰত প্ৰযোজ্য ন'হবও পাৰে। সেইবাবে,এই ক্ষেত্ৰতো প্ৰকল্পটো পূল:অধ্যয়ন কৰাৰ প্ৰয়োজন আছে।









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৫.০০ সামৰণি (CONCLUSION) :

যোৰহাট জিলাৰ তিতাবৰ মহকুমা খণ্ডৰ নিৰ্বাচিত গাঁওসমূহৰ আৰ্থ–সামাজিক জীৱন আৰু শৈক্ষিক প্ৰস্থিতিৰ এক প্ৰকল্প তিত্তিক অধ্যয়নৰ জৰিয়তে গাঁও তিনিখনৰ আৰ্থ–সামাজিক জীৱন আৰু শৈক্ষিক দিশটোৰ কিছু আভাস পোৱা গ'ল লগতে গাঁও তিনিখনৰ মুঠ জনসংখ্যা , পূৰুষ আৰু মহিলাৰ সংখ্যা জানিব পৰা গ'ল। গাওঁ কেইখনৰ মুঠ জনসংখ্যা হ'ল ২৯৮ ঘৰ । গাওঁ কেইখনত পূৰুষৰ সংখ্যা মহিলাৰ সংখ্যাতকৈ কিছু পৰিমাণে বেছি দেখা যায় । গাওঁ কেইখনত ১৮ বছৰ বয়সৰ ওপৰৰ জনসংখ্যা অধিক দেখা গৈছিল আৰু ১৮ বছৰৰ তলৰ বয়সৰ জনসংখ্যা কম দেখা যায় । গাওঁ কেইখনৰ সকলো লোকেই হিন্দু ধৰ্মাৱলম্বীৰ দেখা পোৱা গ'ল ।

প্রকল্প অধ্যয়নৰ বাবে নির্বাচন কৰি লোৱা গাঁও তিনিখনৰ প্রায় সংখ্যক লোক ব্যৱসায়ৰ লগত জড়িত হোৱাৰ লগতে সীমিত সংখ্যক চাকৰিয়াল আৰু সীমিত সংখ্যক পৰিয়াল পশু পালনৰ লগত জড়িত হৈ থকা দেখা পোৱা গ'ল। গাঁও তিনিখনৰ সঞ্চয় ব্যৱস্থাৰ দিশটো চালে ক'ব পাৰি যে, গাঁও তিনিখনৰ প্রায় সংখ্যক লোকেই বেংকত সঞ্চয় কৰে আৰু সীমিত সংখ্যক পৰিয়ালে ডাকঘৰ আৰু নগতভাৱে সঞ্চয় কৰে । গাঁও কেইখনৰ কিছু সংখ্যক লোক আর্থিক ভাৱে দুর্বল হোৱাৰ বাবে কিছুমান পৰিয়ালে চৰকাৰী আঁচনিৰ সুবিধাও লাভ কৰা দেখা যায়। গতিকে, এই দিশ সমূহৰ পৰা নির্বাচিত গাঁও তিনিখনৰ অর্থনৈতিক স্থিতি সম্পর্কে জানিব পৰা যায়। ক্ষেত্র অধ্যয়নৰ জৰিয়তে জানিব পৰা গ'ল যে, গাঁও তিনিখন শিক্ষাৰ ক্ষেত্রখনো যথেষ্ট আগবঢ়া। গাঁও তিনিখনৰ প্রায় সংখ্যক লোকেই উচ্চ শিক্ষাৰে শিক্ষিত। গাওঁ কেইখনৰ কিছু সংখ্যক লোক হে নিৰক্ষৰ যদিও তেওঁলোকৰ ল'ৰা–ছোৱালি শিক্ষাৰ ক্ষেত্রত অতি আগবঢ়া।

নিৰ্বাচিত গাঁও তিনিখনৰ অধিকাংশই পোহৰৰ উৎস হিচাপে বিজুলী বাতি ব্যৱহাৰ কৰাৰ লগতে সীমিত সংখ্যক পৰিয়ালে সৌৰশক্তি আৰু কেৰাচিন ব্যৱহাৰ কৰা দেখা গ'ল। খোৱা পানীৰ সমস্যাও এক মনকৰিবলগীয়া দিশ । গাওঁ কেইখনত পানী যোগান আঁচনি নিয়মিত ভাৱে আছে আৰু খুব কম সংখ্যক পৰিয়ালে দমকলৰ পৰা খোৱা পানীৰ যোগান ধৰে । আৰু উক্ত গাঁও তিনিখনৰ সকলোৰে ঘৰতে শৌচাগাৰ, গা-খোৱা ঘৰ ,জীৱ-জক্ত পোহাৰ বাবে উপযুক্ত ব্যৱস্থা খকাও দেখা যায়। গাওঁ কেইখনৰ অধিকাংশ পৰিয়ালৰে নিজা ঘৰ-বাৰী খকা দেখা গ'ল আৰু খুব কম সংখ্যক পৰিয়ালে ভাড়া ঘৰত বসবাস কৰা দেখা গ'ল ।

উক্ত গাঁও তিনিখনত কৰা অধ্যয়নৰ জৰিয়তে গাঁও তিনিখনৰ বিভিন্ন সমস্যা সমূহ জানিব পৰা গ'ল। গাঁও তিনিখনৰ আৰ্খ–সামাজিক দিশ আৰু শৈক্ষিক দিশটো উন্নত কৰিবৰ বাবে চৰকাৰী বেচৰকাৰী অনুষ্ঠানে সমূহে জনসাধাৰণক সজাগ আৰু সচেতন কৰি তুলিব লাগে। তদুপৰি গাঁও কেইখনত দেখা গ'ল যে, গাঁও তিনিখনৰ প্ৰায় সংখ্যক লোকৰ ঘৰতেই জাবৰ পেলাবৰ বাবে









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উপযুক্ত ব্যৱস্থা নাই। গতিকে, গাঁও কেইখনত জাবৰ পেলোৱাৰ উপযুক্ত ব্যৱস্থা গ্ৰহণ কৰাৰ প্রয়োজন আছে। উক্ত গাঁও তিনিখনত প্রাক-প্রাথমিক, প্রাথমিক, মাধ্যমিক বিদ্যালয় আছে যদিও উদ্ভতৰ মাধ্যমিক বিদ্যালয় দেখিবলৈ পোৱা নগ'ল। সেয়েহে গাঁও তিনিখনত উদ্ভতৰ মাধ্যমিক বিদ্যাল্য় স্থাপনৰ বাবে ব্যৱস্থা কৰিব লাগে। চিকিৎসাল্য়ৰ ক্ষেত্ৰত বাছনি কৰা গাঁও তিনিখনৰ প্ৰত্যেকখন গাওঁতে চিকিৎসাল্যৰ সুবিধা আছে ।

যিহেতু অধ্যয়নটোৰ বাবে গাঁও তিনিখনৰ গোটেই কেইঘৰ পৰিয়াল সামৰি লোৱা নাই , মাত্ৰ তিনিখন গাঁৱৰ পৰা মুঠ ৩০ ঘৰহে সামৰি লোৱা হৈছে সেইবাবে অধ্যয়নটোৰ পৰা প্ৰাপ্ত তখ্যসমূহ সম্পূৰ্ণৰূপে গাঁও তিনিখনৰ ক্ষেত্ৰত প্ৰযোজ্য ন'হবও পাৰে। গতিকে, এই ক্ষেত্ৰত আৰু বিস্তৃত অধ্যয়ন কৰাৰ প্ৰয়োজন আছে ।

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A PROJECT REPORT

ON

<u>DETERMINATION OF AMOUNT OF HEAVY METAL</u> <u>IRON IN TEA SAMPLES USING FLAME ATOMIC</u> <u>ABSORPTION SPECTROMETER (FAAS)</u>





SUBMITTED BY
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- (iii) Digestion
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ABSTRACT

The project work entitled "Determination of The Amount of heavy metal Iron in Tea using Flame Atomic Absorption spectrometer(FAAS)" was carried out at Analytical service Department, Tocklai Tea Research Institute, Jorhat .The work describe about the determination of the amount of heavy metal (Fe) present in Tea samples. The amount of heavy metal in Tea has been of great concern because of their toxic effect when their concentration is more than the permissible level. These metals enter in the environment by different ways such as Industrial activities, soil pollution, vehicle emission, paints, organic manure, fertilizers .We have used flame atomic absorption spectrometer technique to determine the concentration of heavy metals (Fe) in different type of Tea samples.

1. INTRODUCTION



The Tocklai Tea Research Institute (formerly Tocklai Experimental Station) was established in 1911, at a site near the River Tocklai in Jorhat, Assam. Tocklai is the oldest and the largest Tea research institute in the world. It is a pioneer in the research and development of tea and an innovator in providing extension services to the tea industry. Research on all aspects of tea cultivation and processing is carried out at Tocklai Experimental station, Jorhat the oldest and the largest research station of its kind in the world. The Analytical Services department undertakes analysis of soils, soil amendments and other agricultural inputs like synthetic fertilizers, organic manures, micronutrients, pesticide residues and heavy metals. Samples received from tea estates are promptly analysed and reports sent enabling the estates to carry out the agricultural operations in time. Analytical laboratory is accredited by National Accreditation Bureau for Testing and Calibrating Laboratories (NABL) under ISO 17025.









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH INTERNSHIP

TEACHING LEARNING



Tea is one of the most popular and lowest cost beverages in the world and consumed by a larger number of people. Globally, Tea is cultivated in 3.94 million hectares with an annual production of 4162 million kg.(1) India's rank second in terms of area (0.58 million hectares) and production (966 million kg). Tea is one of the most popular alcohol-free and caffeinated beverages in the world.

It is made from new tea leaves and then brewed with boiling drinking water to get a tea infusion. Tea trees are mainly grown in some Asian and African countries, such as China, India, Sri Lanka, Kenya and Zimbabwe, etc. Because tea contains tea polyphenols (catechins), amino acids, tannic acid, and other antioxidants drinking tea is considered beneficial to human health, including the prevention of many diseases since it has been proven to prevent Alzheimer's disease, high blood pressure, and obesity. In addition, the essential trace elements in humans can be supplemented through drinking tea because tea leaves contain potassium, manganese, selenium, boron, zinc, strontium and copper.

It has been suggested that green Tea and black Tea may protect against cancer, though the catechins found in green Tea are thought to be more effective in preventing certain obesity related cancer such as liver and colorectal cancer

Negative effects of Tea drinking are centered around the consumption of sugar used to sweeten the Tea. Those who consume very large quantities of brick Tea may experience

Presence of excess of heavy metals (like Fe, Cu,Hg, Cd) affecting the development of children, intentionally high uptakes of copper may cause liver and kidney damage and even

5. INSTRUMENTATION

PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE

INTRODUCTION TO ATOMIC ABSORPTION SPECTROSCOPY:-

Atomic absorption (AA) is a process that occurs when ground state of atom absorbs energy in the form of light of a specific wavelength and is elevated to an excited state. The amount of light energy absorbed at this wave length will increase as the number of atoms of the selected element in the light path increases.

The basic instrumentation for atomic absorption requires a primary light source, an atom source, a monochromator, a detector to measure the light accurately ,electronics to treat the signal ,and a data display to show the result. The light source normally used is either a hollow cathode lamp or an electrode less discharge lamp.

The atom source used in the system just described must produce free analyte atoms from the sample. The source of energy for free atom production is heat, most commonly in the form of an air acctylene flame. The sample is introduced as an aerosol into the flame. This system is referred to as flame sampling. The flame burner head is aligned so that the light beam passes through the flame, where the light is absorbed.











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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH INTERNSHIP PROGRAMME

6. MATERIALS AND METHOD

SAMPLE COLLECTION:

The Tea samples were collected in summer season i.e. June to July 2017. A Total of 12 Tea samples were collected during this season from randomly selected areas of Jorhat city. The Tea sample were collected and preserved for analysis.

Method of Preparation:

Element: Iron

Reference Standard used: 1001 mg/L4 mg/L

· Stock standard solution:

Pipette out 10.0 ml of the above reference standard of iron in a 100 ml volumetric flask and make up the volume with 0.2% Solution (A). The concentration of the stock solution (A) so obtains 100 mg/

· Working standard solution :

The working standards were prepared by suitably diluting the stock solution (A). Preparation of working standard solution from stock (For 1.5 gm tea sample)

Working	Volume of	Final	Final
Standard	Stock	Volume	Concentration
Solution	Solution	(ml)	Of working
	Taken(ml)		Standard
			Solution
			(mg/L)
1	0.5	50	1.0
2	1.0	50	2.0
3	2.0	50	4.0
4	4.0	50	8.0
5	8.0	50	12.0

Digestion (Method for Di-Acid digestion):

Accurately weigh test portion (1.5 gm Made Tea sample) in to 100 ml conical flask added 17ml and 4ml then place on hot plate . Evaporate to near dryness to obtain clear solution and then cool .Transfer to 25 ml volumetric flask and make up the volume with de-ionized water. Prepared reagent blank containing same amounts of acids taken from same lots, evaporated as above.

7. RESULTS

Sample extraction:

Sample code	Concentration (mg/kg)
Blank-1	0.434
Blank-2	0.427
Blank-3	0.417
Sample-1	14.59
Sample-2	13.14
Sample-3	7.011
Sample-4	7.745
Sample-5	6.230
Sample-6	14.54
Sample-7	5.513
Sample-8	10.39
Sample-9	15.42
Sample-10	11.28









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EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH INTERNSHIP PROGRAMME

8.CONCLUSION

As an undergraduate of the Nanda Nath Saikia College I would like to say that this training program is an excellent opportunity for us to get to the ground level and experience the things that we would have never gained through going straight into a job, I am grateful to the Nanda Nath Saikia College and Tocklai Tea Research Association for giving me this wonderful opportunity.

Tea is the most common beverage used in everyday life by everyone. It must follow the UL recommended by WHO for heavy metals. In present study 12 tea samples were analysed for Fe. All Tea samples tested in this study were well below the FSSAL MLc (maximum limits) of 150 mg/kg for Fe in made Tea sample.

I have gained lots of knowledge and experience needed to be successful in a great research challenge.









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	LEARNING EXPERIENCES USING ICT TOOLS

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH TRAINING















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Metric No:	Heading
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Special Camp on Health and Hygiene











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	TEACHING LEARNING

PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/HAND WRITTEN MAGAZINE





Students are preparing wall magazine









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2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
	TEACHING LEARNING

EXPERIENTIAL AND PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/ HAND WRITTEN MAGAZINE









FIELD WORK/EDUCATIONAL TOUR









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PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/HAND WRITTEN MAGAZINE









Wall magazines of different departments









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MAGAZINE





Wall magazines of different departments

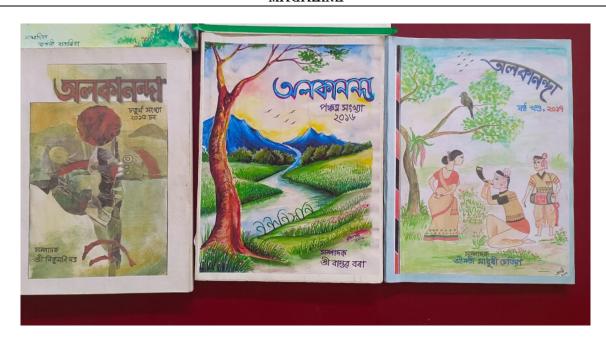








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	TEACHING LEARNING
PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/ HAND WRITTEN	
MAGAZINE	





Hand written magazine of departments







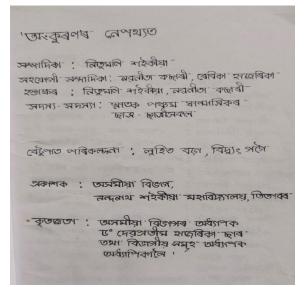


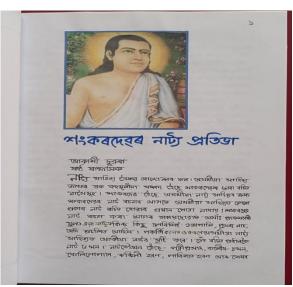
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PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/ HAND WRITTEN MAGAZINE







Hand written magazine of department of Assamese









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	TEACHING LEARNING

PARTICIPATORY LEARNING THROUGH PREPARATION OF WALL MAGAZINE/ HAND WRITTEN MAGAZINE



Hand written News letter prepared by the Students









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2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
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PARTICIPATORY LEARNING THROUGH SEMINAR PRESENTATION AND GROUP DISCUSSION









Seminar presentation by the students









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2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
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Seminar presentation by the students









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Seminar presentation by the students









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PARTICIPATORY LEARNING THROUGH SEMINAR PRESENTATION AND GROUP DISCUSSION









Notice for Seminar and Group Discussion









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PARTICIPATORY LEARNING THROUGH SEMINAR PRESENTATION AND GROUP DISCUSSION	

NOTICE

It is for information to the students of B.Sc Courses in Physics that the Seminars in Major Courses of all Semesters and the Group Discussion in General Courses of First and Third Semesters will be held within 8th to 11th February. 2021. So, the students are requested to prepare the topics of Seminar and Group Discussion and submit the same to the respective Course Coordinator allotted for the programme within 6th February, 2021. The time schedule of the programmes is as follows-

Date	Time	Class	Programme	Name of Course Coordinator
08/02/2021	9.00 am	B.Sc. 5th Semester (Major)	Seminar	Dr. R. Saikia
08/02/2021	9.00 am	B.Sc. 3 rd Semester (Major)	Seminar	Mr. S. D. Nath
09/02/2021	10.00 am	B.Sc. 1st Semester (Major)	Seminar	Mr. B. Prasad
10/02/2021	12.00 am	B.Sc. 3 rd Semester (General)	Group Discussion	Mr. B. Prasad
11/02/2021	11.00 am	B.Sc. 1st Semester (General)	Group Discussion	Mr. H. Tanti

(Dr. R. Saikia) Head

Department of Physics

Notice for Seminar and Group Discussion





(Mr. J.P. Oza)
Coordinator, IQAC



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	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
	TEACHING LEARNING

EXPERIENTIAL LEARNING AND PARTICIPATORY LEARNING FROM LECTURE PROGRAMME OF **EXPERTS**













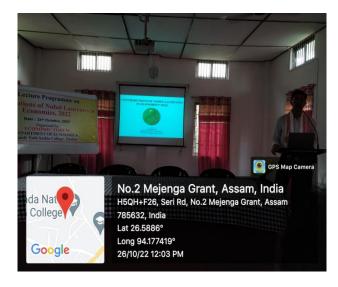




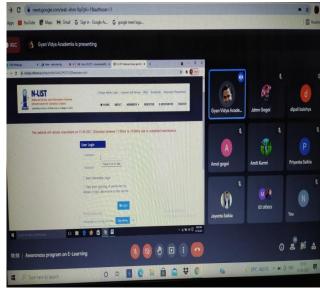
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	TEACHING LEARNING

EXPERIENTIAL LEARNING AND PARTICIPATORY LEARNING FROM LECTURE PROGRAMME OF EXPERTS

















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	TEACHING LEARNING

EXPERIENTIAL LEARNING AND PARTICIPATORY LEARNING FROM LECTURE PROGRAMME OF **EXPERTS**











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CAREER OPPORTUNITIES FOR THE STUDENTS OF ARTS AND SCIENCE

Ith April, 2022 in the presence of students of eth sen, N. N. Saikia College The resource person, NY surprised that termination kazivange Driversity delivers a Latk before the Sudon's of 6th sen N. N. Saikia callage (sunPract Sing Kalsi) 7H April , 2022 1. Shout Sharms Tamel, 4th Seneter, History Stot 2. Nibedila Shakma, 4th Sem, Flistory Dept. 3. Richa Saikia, 2nd Sem, Political Science. 4. Niha sonowal, and Som, History Dapt. 5 Esha Saihin Ind sum Assamuse Dept. 6. Mousemi butta, and sem, Assamese Lept 7 Khuse Boxah, 2nd sem, Bletical Dept. 9. Sukenga dina , 2nd sem , Palitical dapt.
9. Annetta Soution , 2nd Sem , Palitical Papt ,
10. Pringa Yhakuu , 4th Sem . Education Department 11. Kobita Thapa . 4th Sem . Education Department 12. Ankta Noth 2nd Som, Political Department 12. Analma Goga 2nd Som, Political Department 14. Barolina Coopi 2nd Som, Education Department 14. Bushha Gagai 2nd Som, Education Deput ment
15 Hayawalah Autha 4th Som, History Took.
16. Himmodai Arthan 4th Som, pal sc. Department
17. Chekhan Ranjam Dan 6th Som pal sc. Department
18. Kerlob Ch. Barnon Pal Socret Demartment (61250) 19 Dreighti Gogoi 2nd sum Assamuse Department

22. Fatheria Tanson, 2nd um , Education Dyd.
28. Balay chalia , and seem, political Dept
15. Keni thouad, 644 Sem , Political Dipt
27. Straj fost bruni 6th Sem Zoology Dept.
(28) Rasquita Chutta 6th sem 200/099 dept.
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3) Deep Joli Granda 6th San chamitry Dept. 33) Departin Bounds. 6th San. Chamistry Dept.
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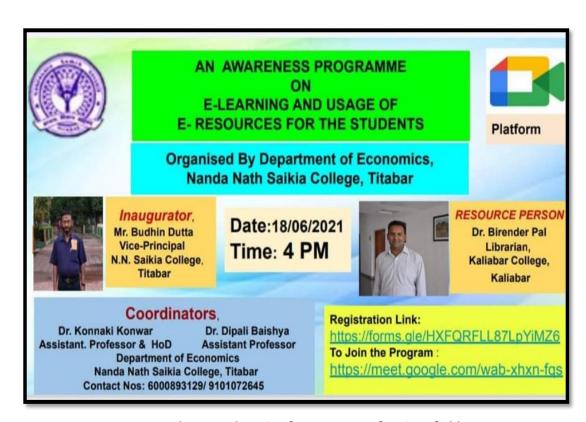




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	TEACHING LEARNING
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EXPERTS



Students are learning from experts of various field





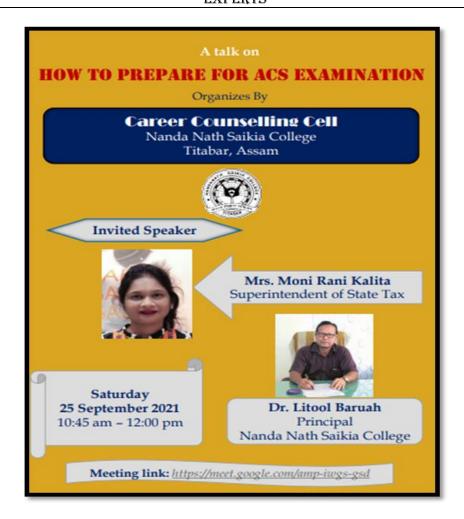




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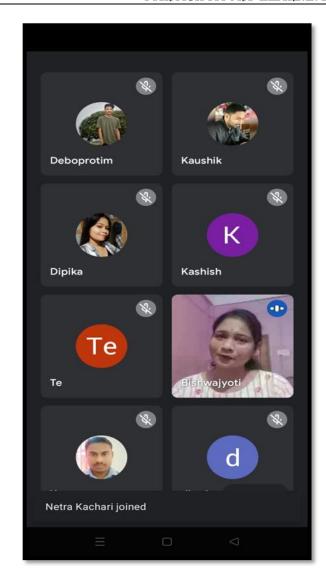


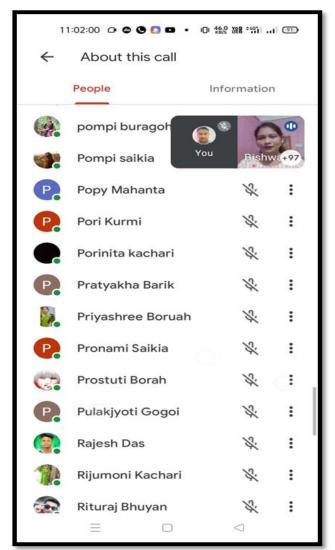


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PARTICIPATORY LEARNING FROM LECTURE PROGRAMME





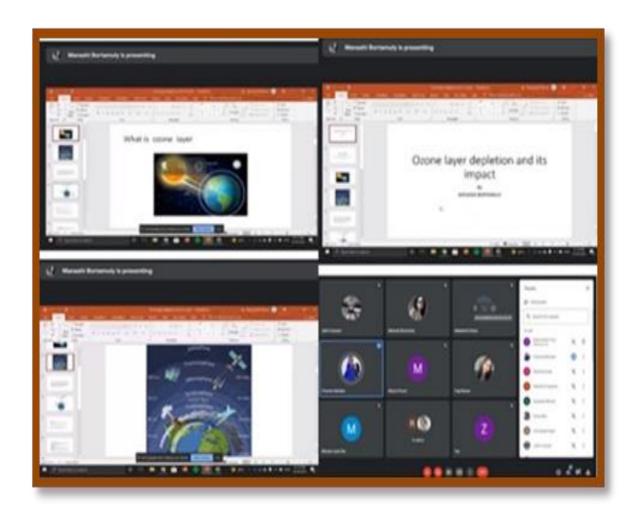








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	TEACHING LEARNING
PARTICIPATORY LEARNING FROM LECTURE PROGRAMME OF EXPERTS	



Webinar on "Ozone Layer Depletion and its Impact" organised by department of Zoology









Affiliated to Dibrugarh University

Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND PROBLEM SOLVING METHODOLOGIES ARE USED FOR ENHANCING LEARNING EXPERIENCES USING ICT TOOLS

ONLINE CLASS SCHEDULE

This i	s for all the concerned in 13-10-2020. The plat	EDULE FOR B.A. DATE: 13-10-2020 that Online classes for B form details and Class II et. respective subjects. E	.A 3 rd semester(CBCS	
Day/Timings	10am-11am	11.00am-12.00pm	12.00pm-1.00pm	1pm-2pm
	Assamese Core I (ntm-isjg-uwg)	Assamese GE 101 (tkq-vkrv-evg)	Assamese Core II (ntm-isjg-uwg)	Assamese Core I
993	Economics Core I (hgr-nuzi-ftp)	Economics GE 101 (qnf-hitv-nsq)	Economics Core II (hgr-nuzi-ftp)	Economics Core (hgr-nuzi-ftp)
Monday	Education Core I (qkh-ebnu-rio)	Education GE 101 (uoy-kiji-bda)	Education Core II (qkh-ebnu-rio)	Education Core (qkh-ebnu-rio)
	English Core I (swe-abgm-uje)	English GE 101 (juj-mkdz-ckh)	English Core II (swe-abgm-uje)	English Core II (swe-abgm-uje
	Geography Core I (qqs-prjx-ntb)	Geography GE 101 (frx-ifgn-vct)	Geography Core II (qqs-prjx-ntb)	Geography Core (qqs-prjx-ntb)
	History Core I (jjy-grbp-swp)	History GE 101 (fdv-zsec-zzi)	History Core II (jjy-grbp-swp)	History Core II
	Pol.Science Core I (goe-hafh-hfp)	Pol.Science GE 101 (tgr-exny-qos)	Pol.Science Core II (goe-hafh-hfp)	Pol.Science Co III (goe-hafh-hfp
Tuesday	do	do	do	do do
Wednesday	do	do	do	do
Thursday	do	do	do	do
Friday	do	X	do	do
Saturday	do	X	do	do

	A Section in		CONTRACTOR OF THE	
	ONLINE CLASS S	CHERT		1000
(C) E) E)	ONLINE CLASS S	CHEDULE FOR B	.A. 5th Semester (No	n-CBCS))
NO SELOTA	This is for all at	DATE: 13-10-	2020	536 3 6300
classe	es will start from 19-10- Platform Used: Good	cerned that Online classe 2020. The platform deta	es for B.A 5th semester	(Non-CRCS)
	Platform Used: Good	ole No.	mo and Class IDs are pro	ovided below:
	Class IDs are provid	ed with respective subj	iects, E.g. (wos-mfkt-m	io
Day/Timings	10am-11am	Allocation and the second		10).
		11.00am-12.00pm	12.00pm-1.00pm	1pm-2pm
	Assamese 501 (wos-mfkt-mjo)	Assamese 502 (wos-mfkt-mjo)	Assamese 503 (wos-mfkt-mjo)	Assamese 504 (wos-mfkt-mjo
Monday	Economics 501 (mqn-yctz-hvr)	Economics 502 (mqn-yctz-hvr)	Economics 503 (mqn-yctz-hvr)	Economics 504 (mqn-yctz-hvr
	Education 501 (hod-tsuq-rri)	Education 502 (hod-tsuq-rri)	Education 503 (hod-tsuq-rri)	Education 504 (hod-tsuq-rri)
	English 501 (hkw-kcsb-yjb)	English 502 (hkw-kcsb-yjb)	English 503 (hkw-kesb-yjb)	English 504 (hkw-kcsb-yjb
	Geography 501 (aqk-xzfj-xtj)	Geography 502 (aqk-xzfj-xtj)	Geography 503 (aqk-xzfj-xtj)	Geography 50- (aqk-xzfj-xtj)
	History 501 (bgb-ieun-mak)	History 502 (bgb-ieun-mak)	History 503 (bgb-ieun-mak)	History 504 (bgb-ieun-mak
XX	Pol.Science 501 (aeu-txen-dvy)	Pol.Science 502 (aeu-txen-dvy)	Pol.Science 503 (aeu-txen-dvy)	Pol.Science 50 (aeu-txen-dvy
Tuesday	Do	do	do	Do
Wednesday	Do	do	do	Do
Thursday	do	do	do	Do
Friday	do	do	do	Do
Saturday	do	do	do	Do

Notice 21-05-2021

All the teachers are hereby requested to take classes of HS 2^{nd} Year (Science and Arts) and B.A./B.Sc. 2^{nd} , 4^{th} and 6^{th} Semester classes through the online mode from today i.e. the 21^{st} May, 2021 as per the direction of Dibrugrah University and Assam Higher Secondary Education Council, Assam.

Vice-Principal, N.N.Saikia College, Titabar

(Dr. L. Baruah)
Principal
N.N. Saikia College
Titabar





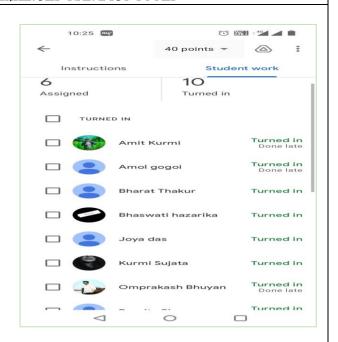


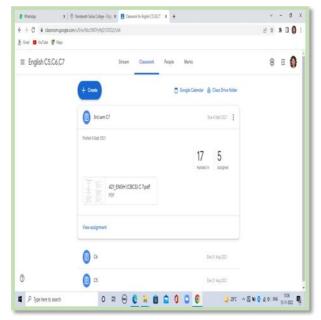
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Metric No: Heading 2.3.1 EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND PROBLEM SOLVING METHODOLOGIES ARE USED FOR ENHANCING LEARNING EXPERIENCES USING ICT TOOLS













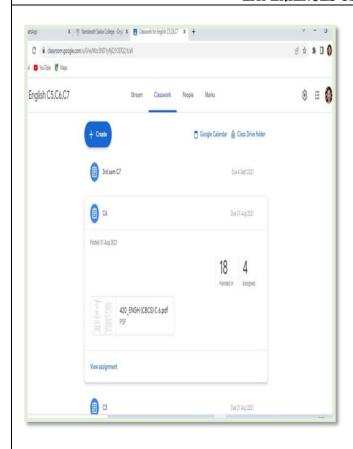


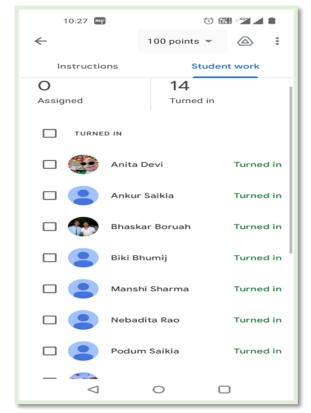


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Metric No:	Heading
2.3.1	EXPERIENTIAL LEARNING, PARTICIPATORY LEARNING AND
	PROBLEM SOLVING METHODOLOGIES, USE OF ICT FOR EFFECTIVE
	TEACHING LEARNING

EXPERIENTIAL LEARNING AND PARTICIPATORY LEARNING FOR ENHANCING LEARNING **EXPERIENCES USING ICT TOOLS**









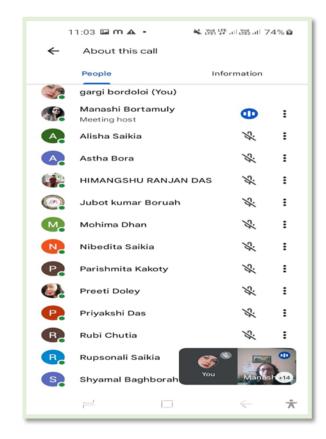


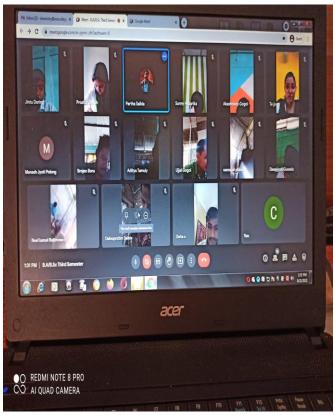


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EXPERIENTIAL LEARNING AND PARTICIPATORY LEARNING FOR ENHANCING LEARNING **EXPERIENCES USING ICT TOOLS**







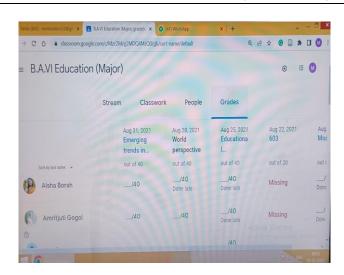


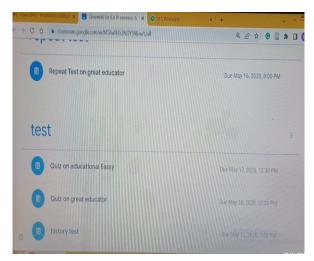


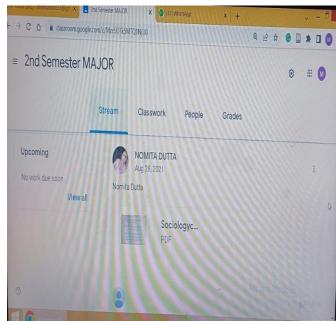


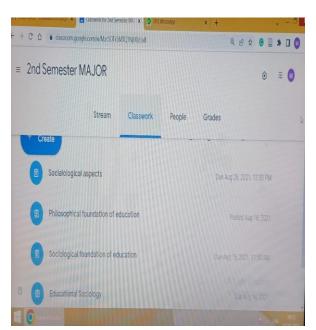
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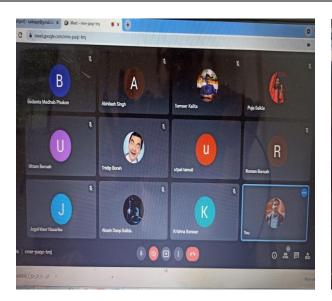






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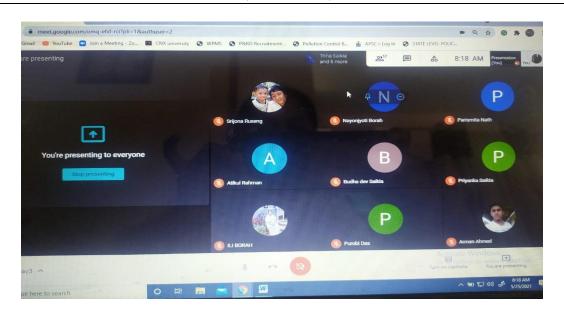


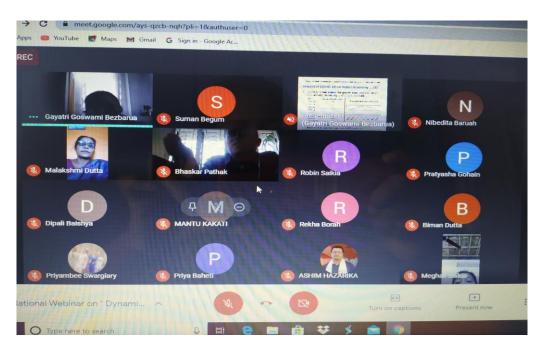




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