

NASARAWA STATE UNIVERSITY, KEFFI
FACULTY OF ENVIRONMENTAL SCIENCE
DEPARTMENT OF GEOGRAPHY

FIELD TRIP REPORT

Submitted By

Umar Yusuf – AMS24GIS0003

MSc. GIS Programme

September, 2024.

Acknowledgments

I extend my sincere gratitude to the faculty, especially staff of the Geography Department for their invaluable guidance, expertise and support throughout this field trip exercise. Their contributions were instrumental to the success of this endeavor. Additionally, I would like to express my appreciation to my wife for her unwavering support and for managing our household responsibilities during my absence.

Table of Contents

Acknowledgments	2
List of Figures.....	4
List of Tables	5
CHAPTER ONE	6
1.0 Introduction	6
1.1 Objective	7
1.2 Location/Site Description.....	7
1.3 Instruments and Materials	9
1.4 Team Members	10
CHAPTER TWO	11
2.0 Day One	11
2.1 Departure from Keffi to Makurdi.....	11
2.2 Arrival and Lodging	18
CHAPTER THREE	19
3.0 Day Two	19
3.1 Visit to Benue state Geographic Information Service (BENGIS).....	19
3.2 Visit to Benue state Urban Development Board (BUDB)	23
CHAPTER FOUR	25
4.0 Day Three	25
4.1 Visit to Oracle Business Limited.....	25
4.1.1 ORACLE PLASTIC	25
4.1.2 ORACLE FARM	26
4.1.3 ORACLE FEED MILL	26
4.2 Departure from Makurdi to Keffi.....	26
CONCLUSION AND RECOMMENDATION.....	35
REFERENCES	36
Appendix A - Field Trip Itinerary	37
Appendix B - Field Trip Payment Receipt	39
Appendix C - Field Book.....	40
Appendix D: Interactive Web Map of The Field Trip	47

List of Figures

Figure 1: Map of Makurdi, Benue state	8
Figure 2: Instruments and Materials used during the field trip	9
Figure 3: Photograph of MSc. GIS Students	10
Figure 4: Map of the field trip route from Keffi to Makurdi	12
Figure 5: Map of the LGA traversed by the field trip route	13
Figure 6: Map of the wards traversed by the field trip route	14
Figure 7: Accommodations location	18
Figure 8: Map showing locations of places visited	19
Figure 9: BUDB and BENGIS Organogram/Organizational breakdown structure.	21
Figure 10: Pictures of some of the activities at BENGIS	22
Figure 11: Pictures of some of the activities at BUDB	24
Figure 12: Pictures of some products/activities at Oracle Plastic - 1	27
Figure 13: Pictures of some products/activities at Oracle Plastic - 2	28
Figure 14: Pictures of some products/activities at Oracle Plastic - 3	29
Figure 15: Pictures of some products/activities at Oracle Plastic - 4	30
Figure 16: Piggery at Oracle Farm	31
Figure 17: Poultry at Oracle Farm	32
Figure 18: Pictures of Rabbit Hutches, Fish Pond and Cattle Paddock at Oracle Farm	33
Figure 19: Pictures of activities in the Feed Mill at Oracle Farm	34

List of Tables

Table 1: List of students in MSc. GIS	10
Table 2: LGAs along the field trip route.....	11
Table 3: Geographical features encountered along the field trip route	15

CHAPTER ONE

1.0 Introduction

On the 14th of August 2024, the university management under the leadership of the vice-chancellor Prof. Sa'adatu Hassan Liman through the head of geography department Prof. D. U. Sangari, approved the 2024 compulsory field trip for post graduate students in the geography department. This field trip is a three (3) unit course that must be undertaken to fulfill the requirement for the award of master of science degree.

Bello et.al., (2020), iterated that the field remains the laboratory of the geographers and related earth sciences and that fieldwork of any kind is very instrumental in geographic research and thus remain an indispensable part of a research.

A copy of the field trip itinerary (see Appendix A) was disseminated to all students. Though there were some adjustments to the planned route or journey due to insecurity and some logistic difficulties. We ended up spending lesser days and unable to visit all the sites listed on the itinerary as I will discuss below.

Field Trip Destination: Makurdi, Benue State

Duration: Five Days (Monday, August 26, 2024 - Friday, August 30, 2024)

Locations Visited:

- a) Benue Geographic Information Service (BENGIS): Students visited BENGIS to learn about the applications of Geographic Information Systems (GIS) in various fields, including urban planning, land administration and management.
- b) Benue State Urban Development Board: The field trip included a visit to the Urban Development Board to understand the challenges and strategies involved in urban planning and development in Benue State.

- c) Oracle Business Limited: The field trip concluded with a visit to the Oracle Business Limited to study the industrial processes involved in plastic production, feed mill, oracle farm and their impact on the local environment.

Locations Not Visited:

- a) Local Rice Mill Farm, Gboko: A visit to the local rice mill farm was canceled due to issues related to logistics and insecurity.
- b) Dangote Cement Factory, Gboko: Similarly, we couldn't make this visit due to the reason above.

1.1 Objective

The Geography Department of Nasarawa state university conducted a five-day field trip to Makurdi, Benue State, with the primary objective of providing students with practical, hands-on experience in the field of geography. The trip aimed to complement theoretical knowledge acquired in the classroom by allowing students to observe and analyze geographic phenomena in real-world settings.

1.2 Location/Site Description

Makurdi, the capital city of Benue state is situated in the North Central region of Nigeria located between latitude $7^{\circ} 44' 34''\text{N}$ and longitude $8^{\circ} 31' 18''\text{E}$ (Figure 1). It is situated along the Benue River, one of Nigeria's major waterways. Makurdi experiences a tropical monsoon climate, characterized by hot and humid weather with a distinct rainy season (Ohiaeri, 2020).

Agriculture is a significant economic driver in Makurdi, with rice, cassava, and yam being major crops. Makurdi is home to diverse ethnic groups, including the Tiv, Idoma, and Jukun (Agbu, 2019).

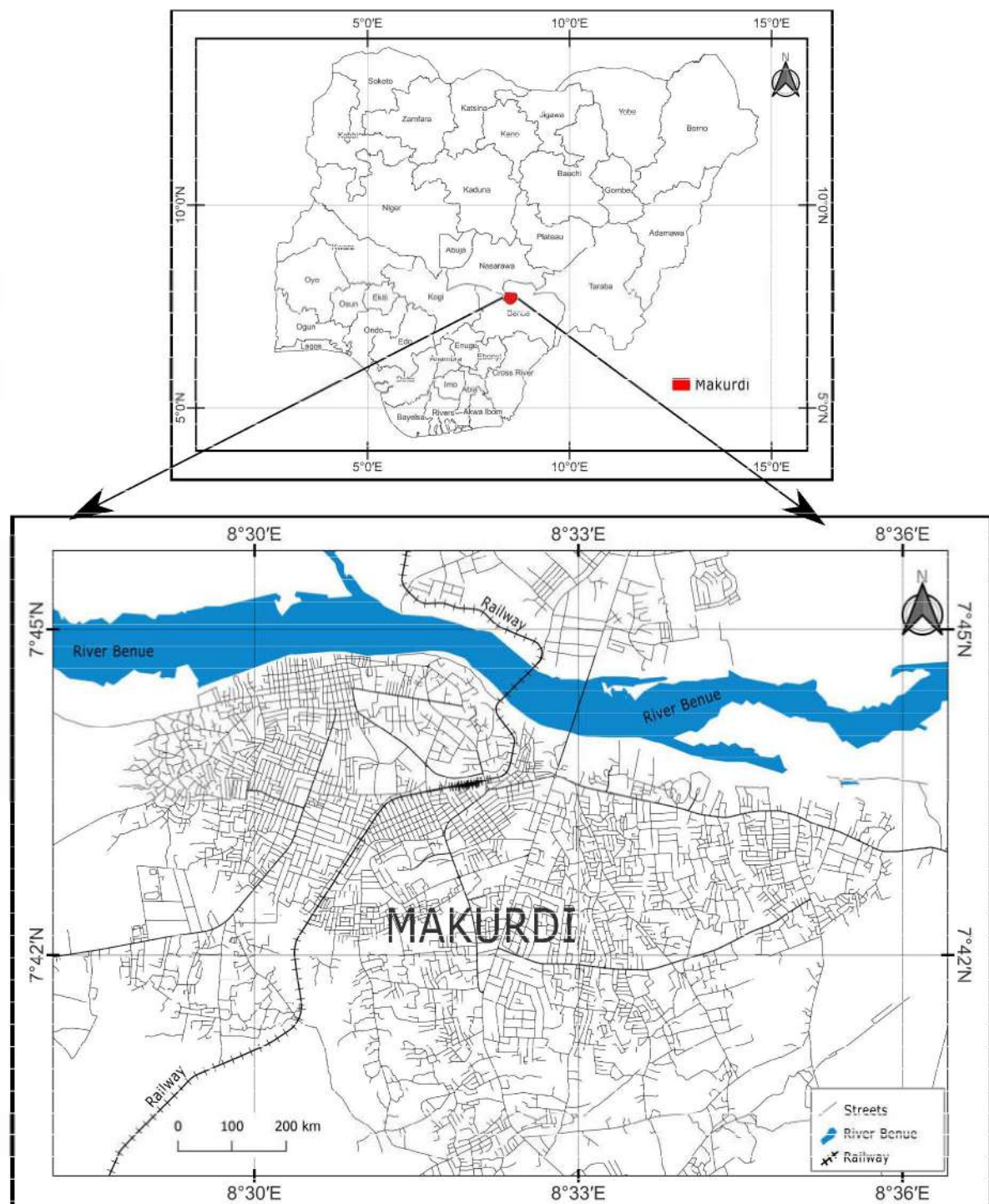


Figure 1: Map of Makurdi, Benue state (source: student's work)

1.3 Instruments and Materials

Materials requirement for any field trip varies according to the task involved, for this particular trip the following instruments and materials were used:

- a) Mobile Phone GPS
- b) Field book
- c) Writing Pen
- d) Mobile Camera
- e) Safety boots
- f) Hand gloves

See appendix C for the complete field book. It contains hand-written records of observation made during the field trip including name of places, their geographic coordinates and so on.

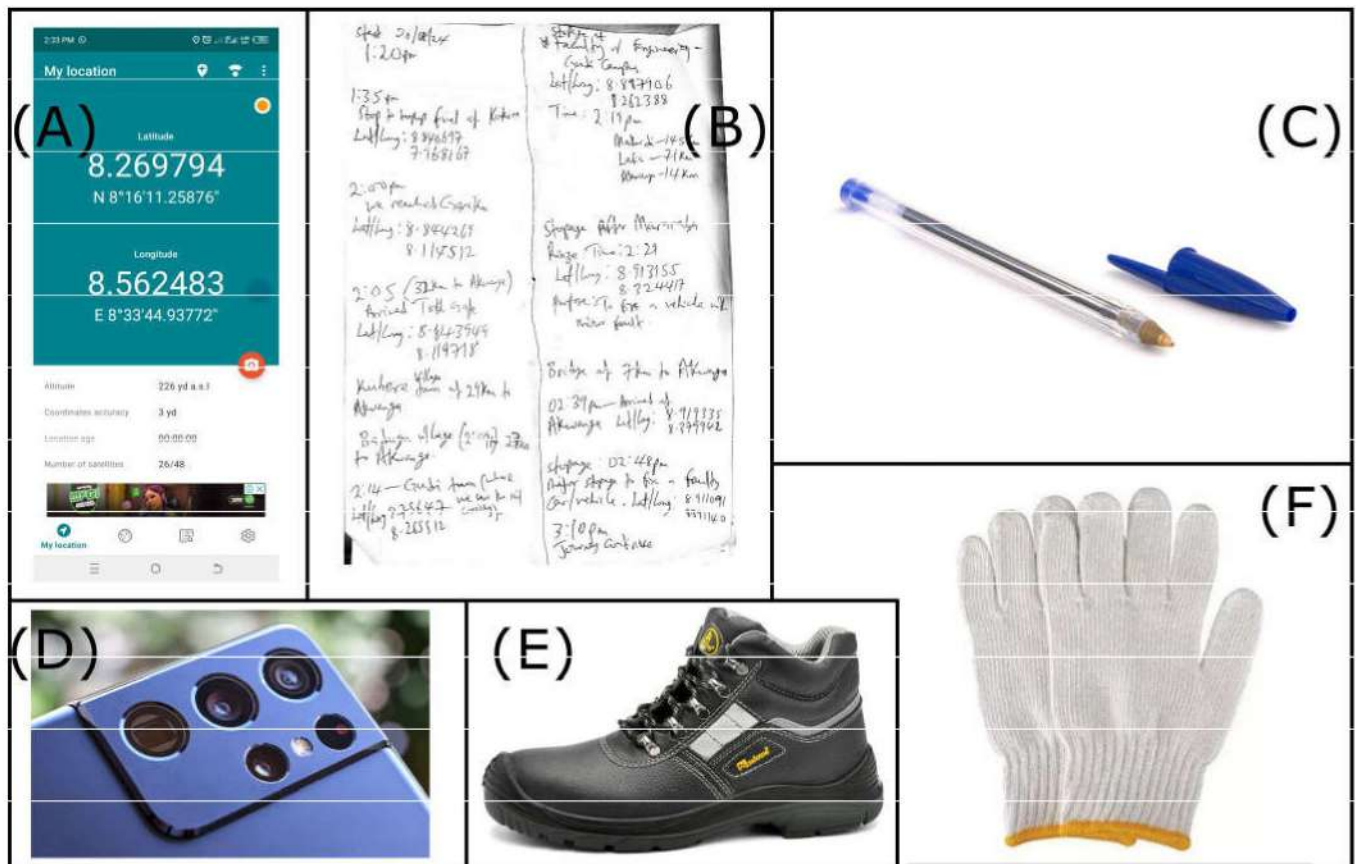


Figure 2: Instruments and Materials used during the field trip. (a) Mobile Phone GPS, (b) Field book, (c) Writing Pen, (d) Mobile Camera, (e) Safety boots, and (f) Hand gloves. (Source: student's work)

1.4 Team Members

We went for the field trip in teams and the list of students in the MSc. GIS programme that went for the field trip to Makurdi are listed below: -

Table 1: List of students in MSc. GIS

S/N	Name
1	Abdulkadir Anas
2	Azua Teryila Stephen
3	Christopher Bunyan Maigairi
4	Fada Shammah Emmanuel
5	Gabriel Okoro JNR
6	Hassan Bashir
7	Ishaku Leda Habila
8	James Ejembi Adoli
9	Jonah Jacob Sheasnu
10	Lawal Mohammad
11	Maigida Timothy Jeb
12	Miracle Ovy Joseph
13	Ojo Babatunde Clement
14	Onuche Godwin Attah
15	Oyelekan Oyeleke Emmanuel
16	Pius Peter Ogolekwu
17	Saiki Blessing Wophill
18	Shamsudeen Muhammad
19	Stephen Adamu
20	Suleiman Latifah J.
21	Umar Yusuf
22	Umbugadu Ayiaka Bulus
23	Yelton Emmanuel Deshi
24	Zakari Abdurazaq Tukura
25	Zulai Abdullahi Ridwan



Figure 3: Photograph of MSc. GIS Students (source: student's work)

CHAPTER TWO

2.0 Day One

2.1 Departure from Keffi to Makurdi

The field trip commenced on Monday, August 26, 2024. At approximately 9:00 AM the students started assembling at the Faculty of Environmental Science in preparation for the departure to Makurdi, Benue state. The transportation vehicles were made available and other logistic arrangements continued. Following the necessary logistical preparations, the departure for Makurdi, Benue State, was finalized around 1:00 PM. The field trip itinerary from Keffi to Makurdi, as depicted in Figure 4, traversed nine (9) local government areas (LGAs). Of these, seven (7) LGAs are situated within Nasarawa State, while the remaining two (2) LGAs belong to Benue State. The specific LGAs traversed are as follows: -

Table 2: LGAs along the field trip route

SN	State	LGA	Ward
1	Nasarawa	Keffi	Jigwada
2		Kokona	Garaku, Kokona, Hadari, and Dari
3		Akwanga	Gwanje, Gudi, Akwanga East, and Akwanga West
4		Nasarawa Egon	Alogani, Ende, Nassarawa-Eggon, and Ubbe-Ogba
5		Lafia	Agyaragu Tofa, Wakwa, Akurba, Gayam, Ciroma, and Shabu Kwandare
6		Obi	Gidan-Ausa I, Gidan-Ausa II, Kyakale, and Gwadenye
7		Keana	Galadima, Kadarko, and Madaki
8	Benue	Guma	Nyiev and Mbawa
9		Makurdi	North Bank I, North Bank II, Wailomayo, and Fiidi

These local government areas collectively encompass thirty-two (32) electoral wards (Figure 5 and 6). Of these, twenty-six (26) wards are located within Nasarawa State, while six (6) wards are situated in Benue State.

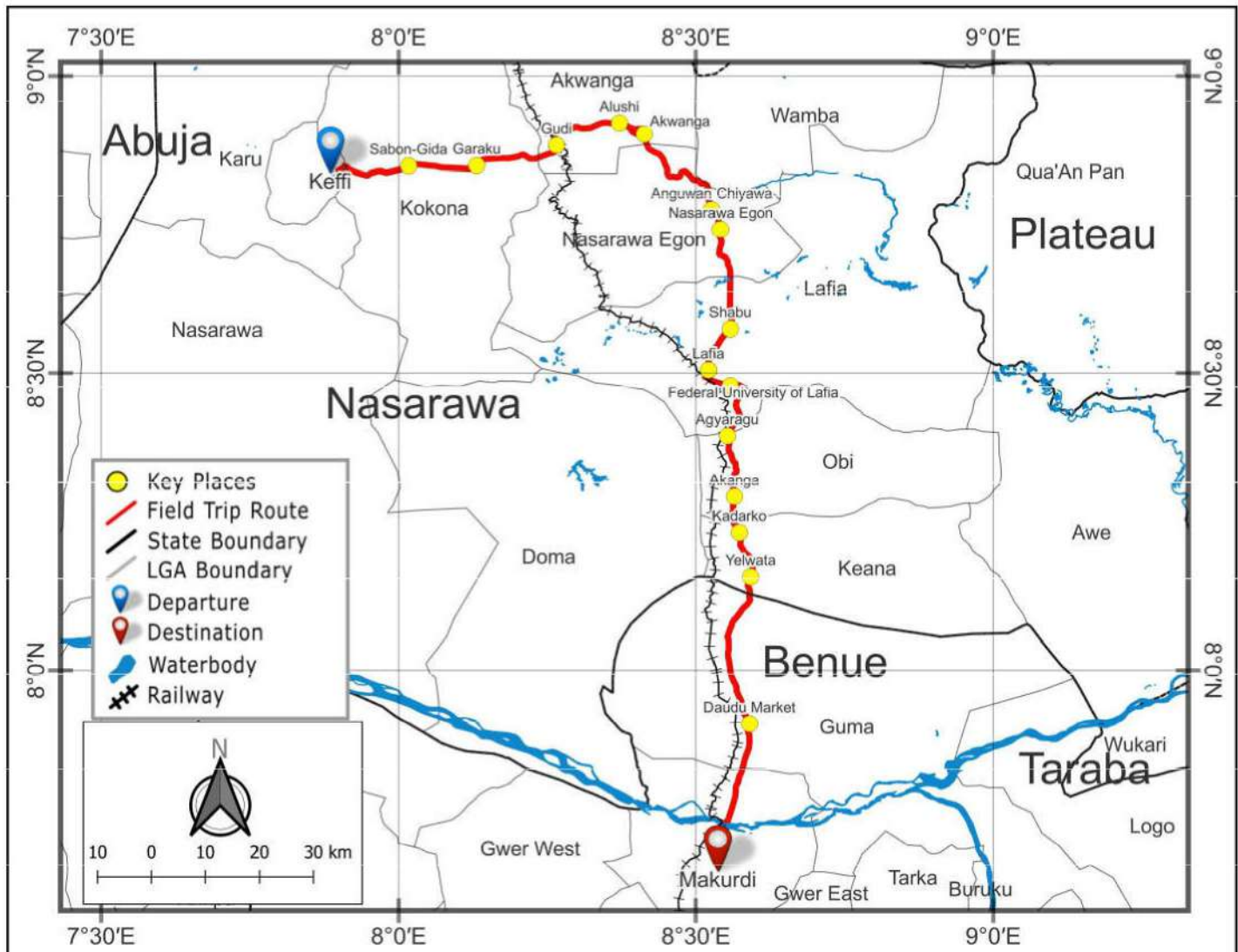


Figure 4: Map of the field trip route from Keffi to Makurdi (source: student's work)

The trip route followed the A234 highway, a major trunk road in Nigeria. The route is approximately 225 kilometers long and at an average car speed, can be covered in about 2 hours and 55 minutes.

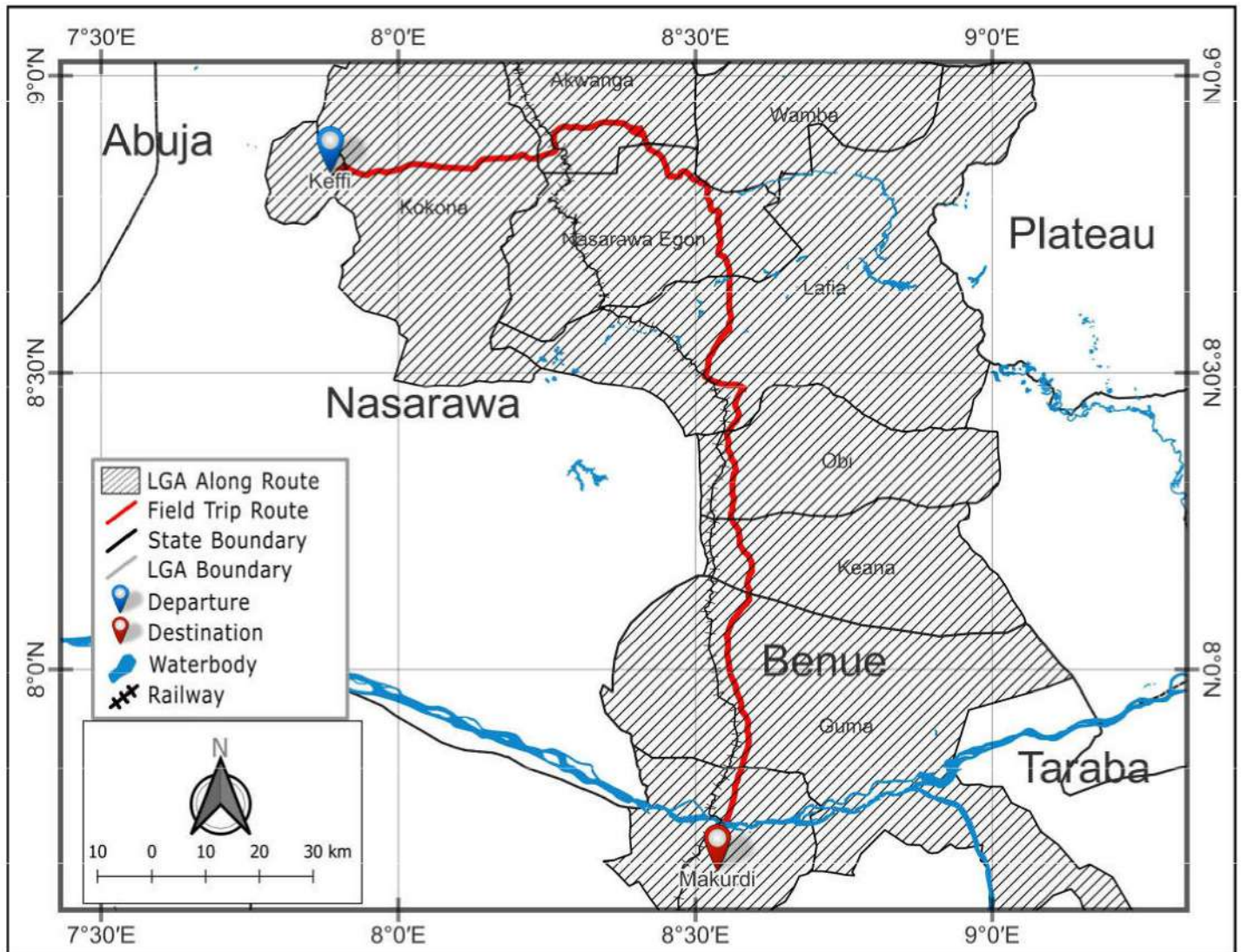


Figure 5: Map of the LGA traversed by the field trip route (source: student's work)

During the field trip, I had the opportunity to examine a variety of geographic features, encompassing both natural and human-made elements. Significant geographic features observed along the journey included four recently established toll gates, various settlements of varying sizes and densities, and diverse landscapes characterized by vegetation, hills, and mountains (see Table 3).

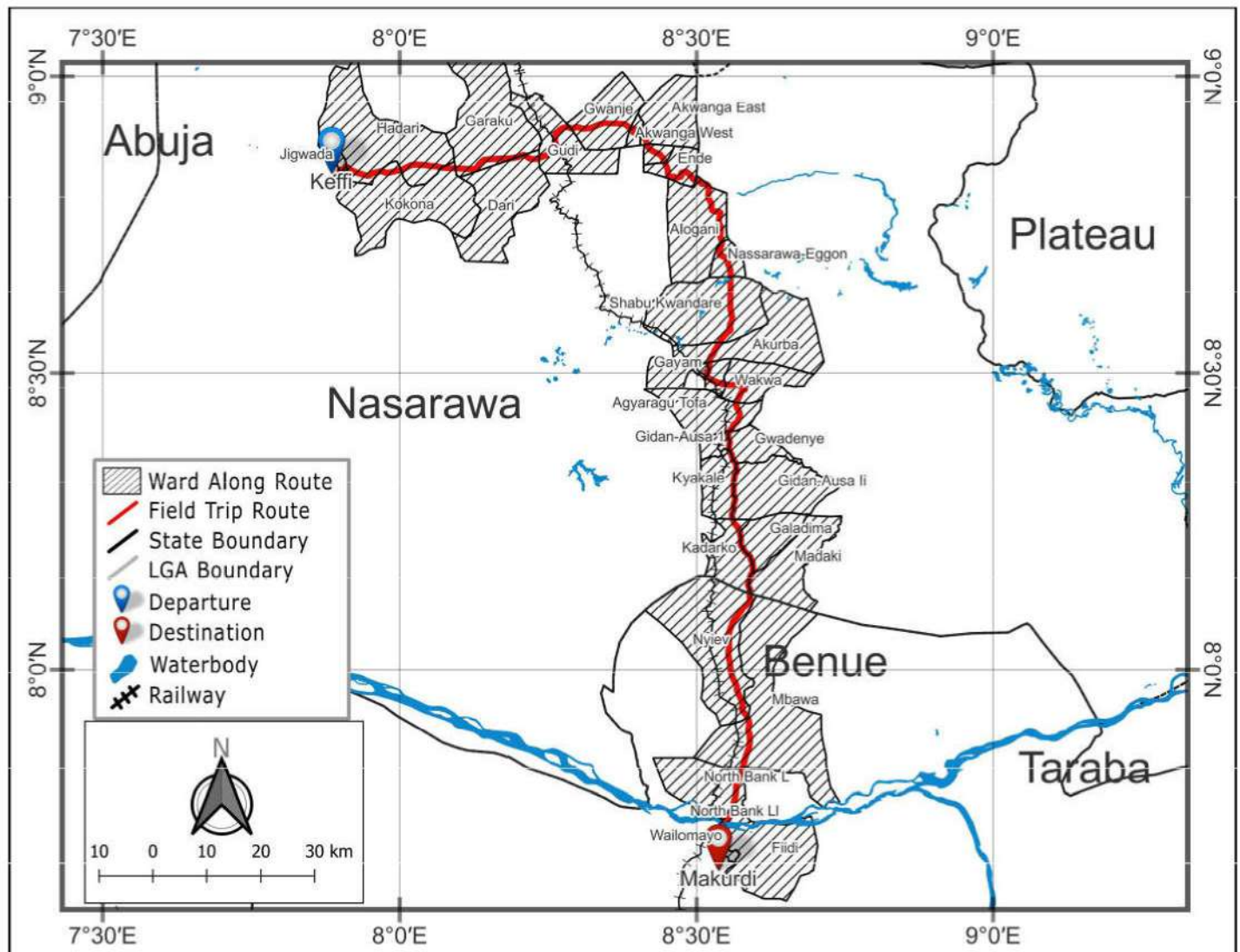


Figure 6: Map of the wards traversed by the field trip route (source: student's work)

Table 3: Geographical features encountered along the field trip route

S/N	Image	Lat (DMS)	Long (DMS)	Altitude	timestamp
1	26-08-2024 03-27-07 9894.jpg	8° 50' 6.28368"	8° 27' 9.92916"	431.0	2024/08/28 16:48:15.162+00
2	26-08-2024 03-42-23 9417.jpg	8° 44' 21.35544"	8° 32' 24.66168"	277.0	2024/08/28 16:44:07.167+00
3	26-08-2024 03-45-00 8984.jpg	8° 42' 54.82368"	8° 32' 28.41576"	269.0	2024/08/28 16:38:45.847+00
4	26-08-2024 03-46-21 6849.jpg	8° 42' 29.99952"	8° 32' 21.79284"	263.0	2024/08/28 16:07:07.113+00
5	26-08-2024 03-57-38 2362.jpg	8° 34' 21.4734"	8° 33' 23.34384"	159.0	2024/08/28 15:52:17.320+00
6	26-08-2024 03-58-05 8370.jpg	8° 34' 12.33444"	8° 33' 10.48644"	148.0	2024/08/28 15:51:33.163+00
7	26-08-2024 04-44-09 6061.jpg	8° 13' 56.4924"	8° 34' 22.3554"	179.0	2024/08/28 15:49:56.713+00
8	26-08-2024 05-23-01 9810.jpg	7° 48' 40.38696"	8° 34' 11.76636"	157.0	2024/08/28 15:35:54.241+00
9	26-08-2024 05-31-40 8692.jpg	7° 44' 26.3364"	8° 33' 2.8332"	64.0	2024/08/28 15:28:51.426+00
10	26-08-2024 05-43-07 1818.jpg	7° 43' 37.73028"	8° 32' 40.40916"	78.0	2024/08/28 15:22:50.159+00
11	26-08-2024 05-43-41 3746.jpg	7° 43' 38.35308"	8° 32' 41.63208"	78.0	2024/08/28 15:21:57.494+00
12	27-08-2024 08-45-15 7994.jpg	7° 43' 22.25352"	8° 31' 56.6778"	107.0	2024/08/28 15:15:58.323+00
13	27-08-2024 09-37-54 9004.jpg	7° 44' 42.14616"	8° 31' 43.4982"	88.0	2024/08/28 15:09:38.168+00
14	27-08-2024 09-44-28 6170.jpg	7° 44' 42.71388"	8° 31' 43.79988"	88.0	2024/08/28 15:04:23.169+00
15	27-08-2024 12-05-52 1904.jpg	7° 44' 1.78188"	8° 31' 53.778"	123.0	2024/08/28 15:02:00.168+00
16	27-08-2024 12-26-52 9140.jpg	7° 44' 4.4646"	8° 32' 35.10888"	79.0	2024/08/28 14:59:15.389+00
17	27-08-2024 12-27-50 1025.jpg	7° 44' 6.11376"	8° 32' 35.35044"	79.0	2024/08/28 14:57:26.202+00
18	27-08-2024 12-39-02 2615.jpg	7° 44' 9.02112"	8° 32' 36.39372"	65.0	2024/08/28 14:52:16.516+00
19	27-08-2024 12-39-23 9874.jpg	7° 44' 8.66616"	8° 32' 36.20652"	65.0	2024/08/28 14:43:00.168+00
20	28-08-2024 03-26-37 4989.jpg	8° 33' 44.9856"	8° 32' 44.01996"	159.0	2024/08/28 14:28:58.233+00
21	28-08-2024 03-27-20 9784.jpg	8° 33' 45.198"	8° 32' 44.05812"	159.0	2024/08/28 14:27:20.175+00
22	28-08-2024 04-49-56 8266.jpg	8° 51' 42.54156"	8° 11' 1.10292"	369.0	2024/08/28 14:26:37.175+00
23	28-08-2024 04-51-33 3969.jpg	8° 51' 42.55128"	8° 11' 0.81384"	369.0	2024/08/28 14:18:13.282+00
24	28-08-2024 04-52-17 4086.jpg	8° 51' 42.54552"	8° 11' 0.83652"	369.0	2024/08/28 13:51:15.168+00
25	28-08-2024 08-33-34 8251.jpg	7° 44' 16.59912"	8° 30' 47.44224"	96.0	2024/08/28 13:50:31.168+00
26	28-08-2024 08-34-09 3465.jpg	7° 44' 16.11636"	8° 30' 38.59884"	88.0	2024/08/28 13:49:19.336+00
27	28-08-2024 08-36-17 1277.jpg	7° 44' 34.70712"	8° 30' 32.69412"	77.0	2024/08/28 13:40:24.317+00
28	28-08-2024 09-54-37 1674.jpg	7° 42' 19.11708"	8° 29' 2.74956"	77.0	2024/08/28 13:39:03.890+00
29	28-08-2024 10-07-29 5763.jpg	7° 42' 33.13044"	8° 29' 6.57816"	77.0	2024/08/28 13:37:01.169+00
30	28-08-2024 10-08-36 6609.jpg	7° 42' 33.02568"	8° 29' 6.3546"	77.0	2024/08/28 13:36:18.169+00
31	28-08-2024 10-11-53 2147.jpg	7° 42' 33.05268"	8° 29' 6.19116"	77.0	2024/08/28 13:35:09.169+00
32	28-08-2024 10-15-33 4740.jpg	7° 42' 33.048"	8° 29' 6.19188"	77.0	2024/08/28 13:32:22.161+00
33	28-08-2024 10-16-38 6958.jpg	7° 42' 33.048"	8° 29' 6.19188"	77.0	2024/08/28 13:29:04.169+00
34	28-08-2024 10-18-57 3905.jpg	7° 42' 33.048"	8° 29' 6.19188"	77.0	2024/08/28 13:19:55.020+00
35	28-08-2024 10-20-56 9752.jpg	7° 42' 33.99588"	8° 29' 4.37388"	77.0	2024/08/28 13:16:15.169+00
36	28-08-2024 10-21-15 6944.jpg	7° 42' 33.67008"	8° 29' 4.71516"	77.0	2024/08/28 13:14:16.167+00
37	28-08-2024 10-22-43 116.jpg	7° 42' 30.73752"	8° 29' 4.91784"	77.0	2024/08/28 13:12:29.966+00
38	28-08-2024 10-22-58 8800.jpg	7° 42' 30.73788"	8° 29' 4.92072"	77.0	2024/08/28 13:04:40.357+00
39	28-08-2024 10-25-12 5274.jpg	7° 42' 31.62672"	8° 29' 4.84836"	77.0	2024/08/28 12:54:09.169+00
40	28-08-2024 10-25-26 1655.jpg	7° 42' 31.85316"	8° 29' 4.74504"	77.0	2024/08/28 12:53:50.169+00
41	28-08-2024 10-25-40 1661.jpg	7° 42' 31.3218"	8° 29' 4.7508"	77.0	2024/08/28 11:24:37.204+00
42	28-08-2024 10-26-12 9466.jpg	7° 42' 31.56984"	8° 29' 4.8354"	77.0	2024/08/28 11:23:41.205+00

43	28-08-2024 10-32-51 6593.jpg	7° 42' 40.73616"	8° 28' 46.61868"	73.0	2024/08/28 11:18:46.146+00
44	28-08-2024 10-32-51 9601.jpg	7° 42' 40.73616"	8° 28' 46.61868"	73.0	2024/08/28 09:26:12.251+00
45	28-08-2024 10-33-41 5038.jpg	7° 42' 33.20676"	8° 29' 1.7232"	77.0	2024/08/28 09:25:40.161+00
46	28-08-2024 10-34-00 4815.jpg	7° 42' 33.80004"	8° 29' 3.0012"	77.0	2024/08/28 09:25:26.161+00
47	28-08-2024 10-34-11 3110.jpg	7° 42' 33.58692"	8° 29' 2.98284"	77.0	2024/08/28 09:25:12.592+00
48	28-08-2024 10-34-40 7786.jpg	7° 42' 34.16832"	8° 29' 2.56884"	77.0	2024/08/28 09:22:58.087+00
49	28-08-2024 10-34-55 6264.jpg	7° 42' 33.96168"	8° 29' 2.73696"	77.0	2024/08/28 09:22:43.026+00
50	28-08-2024 10-39-28 1285.jpg	7° 42' 36.04212"	8° 28' 39.21096"	73.0	2024/08/28 09:21:15.164+00
51	28-08-2024 10-39-38 8894.jpg	7° 42' 36.04212"	8° 28' 39.21096"	73.0	2024/08/28 09:20:56.678+00
52	28-08-2024 10-42-47 868.jpg	7° 41' 50.13024"	8° 28' 35.50692"	89.0	2024/08/28 09:18:57.467+00
53	28-08-2024 10-42-57 9303.jpg	7° 41' 50.13024"	8° 28' 35.50692"	89.0	2024/08/28 09:16:38.504+00
54	28-08-2024 10-46-59 9051.jpg	7° 43' 8.20596"	8° 29' 5.1396"	75.0	2024/08/28 09:15:33.905+00
55	28-08-2024 10-49-32 4162.jpg	7° 42' 31.49568"	8° 29' 1.60296"	77.0	2024/08/28 09:11:53.169+00
56	28-08-2024 10-49-50 2596.jpg	7° 42' 31.41936"	8° 29' 2.06844"	77.0	2024/08/28 09:09:35.161+00
57	28-08-2024 10-50-04 1466.jpg	7° 42' 30.7368"	8° 29' 2.08392"	77.0	2024/08/28 09:08:36.241+00
58	28-08-2024 10-50-15 4499.jpg	7° 42' 30.71376"	8° 29' 2.25708"	77.0	2024/08/28 09:07:29.162+00
59	28-08-2024 10-50-39 2429.jpg	7° 42' 31.03596"	8° 29' 2.54184"	77.0	2024/08/28 08:54:37.161+00
60	28-08-2024 10-53-16 4958.jpg	7° 42' 30.852"	8° 29' 2.08788"	77.0	2024/08/28 08:51:22.852+00
61	28-08-2024 10-53-47 6434.jpg	7° 42' 30.852"	8° 29' 2.08788"	77.0	2024/08/28 08:45:27.160+00
62	28-08-2024 10-53-57 4452.jpg	7° 43' 8.20596"	8° 29' 5.1396"	75.0	2024/08/28 08:29:33.921+00
63	28-08-2024 10-54-22 3121.jpg	7° 41' 33.3744"	8° 29' 27.366"	105.0	2024/08/28 08:12:51.169+00
64	28-08-2024 10-54-37 109.jpg	7° 41' 33.3744"	8° 29' 27.366"	105.0	2024/08/28 08:12:31.170+00
65	28-08-2024 10-54-57 2364.jpg	7° 41' 33.3744"	8° 29' 27.366"	105.0	2024/08/28 08:09:16.166+00
66	28-08-2024 10-55-38 9141.jpg	7° 41' 33.3744"	8° 29' 27.366"	105.0	2024/08/28 08:07:14.073+00
67	28-08-2024 11-21-18 2499.jpg	7° 42' 16.17264"	8° 28' 8.02704"	78.0	2024/08/28 07:42:53.172+00
68	28-08-2024 11-22-13 4047.jpg	7° 42' 15.28596"	8° 28' 8.02308"	78.0	2024/08/28 07:41:07.476+00
69	28-08-2024 11-22-51 5187.jpg	7° 42' 14.98068"	8° 28' 8.43528"	78.0	2024/08/28 07:36:17.169+00
70	28-08-2024 11-25-07 1664.jpg	7° 43' 24.88836"	8° 30' 19.2348"	93.0	2024/08/28 07:34:09.162+00
71	28-08-2024 11-25-32 9578.jpg	7° 43' 24.88836"	8° 30' 19.2348"	93.0	2024/08/28 07:33:34.222+00
72	28-08-2024 11-25-47 2902.jpg	7° 43' 15.37752"	8° 30' 10.5894"	88.0	2024/08/28 07:32:47.162+00
73	28-08-2024 11-26-07 5631.jpg	7° 43' 15.37752"	8° 30' 10.5894"	88.0	2024/08/27 13:26:51.745+00
74	28-08-2024 11-26-32 8332.jpg	7° 43' 15.37752"	8° 30' 10.5894"	88.0	2024/08/27 13:06:50.866+00
75	28-08-2024 11-26-52 9354.jpg	7° 42' 40.73616"	8° 28' 46.61868"	73.0	2024/08/27 12:58:03.255+00
76	28-08-2024 11-27-17 1079.jpg	7° 42' 15.08148"	8° 28' 8.38704"	78.0	2024/08/27 12:36:09.589+00
77	28-08-2024 11-29-46 443.jpg	7° 42' 13.64508"	8° 28' 6.93048"	81.0	2024/08/27 11:39:23.160+00
78	28-08-2024 11-35-11 972.jpg	7° 42' 14.66316"	8° 28' 3.08424"	81.0	2024/08/27 11:39:02.513+00
79	28-08-2024 11-35-44 8861.jpg	7° 42' 14.97204"	8° 28' 1.182"	80.0	2024/08/27 11:27:50.271+00
80	28-08-2024 11-36-00 6381.jpg	7° 42' 14.94936"	8° 28' 1.24788"	80.0	2024/08/27 11:26:52.161+00
81	28-08-2024 11-36-35 565.jpg	7° 42' 14.50116"	8° 28' 0.45516"	81.0	2024/08/27 11:20:40.463+00
82	28-08-2024 11-37-36 3695.jpg	7° 42' 14.26536"	8° 28' 0.54552"	81.0	2024/08/27 11:05:52.159+00
83	28-08-2024 11-38-12 8291.jpg	7° 42' 14.36904"	8° 28' 0.33096"	81.0	2024/08/27 11:05:20.159+00
84	28-08-2024 11-43-02 7845.jpg	7° 41' 50.13024"	8° 28' 35.50692"	89.0	2024/08/27 08:44:28.160+00
85	28-08-2024 11-47-19 8401.jpg	7° 42' 17.91684"	8° 28' 2.13564"	80.0	2024/08/27 08:37:54.158+00
86	28-08-2024 11-47-34 974.jpg	7° 42' 17.97984"	8° 28' 2.2566"	80.0	2024/08/27 08:35:02.695+00
87	28-08-2024 11-47-50 6090.jpg	7° 42' 17.88408"	8° 28' 2.04024"	80.0	2024/08/27 07:45:15.372+00

88	28-08-2024 11-48-10 6139.jpg	7° 42' 17.90316"	8° 28' 1.94376"	80.0	2024/08/27 07:44:12.401+00
89	28-08-2024 11-52-33 5116.jpg	7° 42' 15.7824"	8° 28' 5.20932"	80.0	2024/08/27 07:36:54.208+00
90	28-08-2024 11-52-48 3139.jpg	7° 42' 15.76332"	8° 28' 5.15748"	80.0	2024/08/26 16:43:41.160+00
91	28-08-2024 11-53-00 4888.jpg	7° 42' 15.85656"	8° 28' 4.94004"	80.0	2024/08/26 16:43:07.749+00
92	28-08-2024 11-54-30 2928.jpg	7° 42' 12.70476"	8° 28' 3.92844"	81.0	2024/08/26 16:31:40.161+00
93	28-08-2024 11-55-19 2840.jpg	7° 42' 12.6396"	8° 28' 3.95832"	81.0	2024/08/26 16:23:01.161+00
94	28-08-2024 11-55-28 6109.jpg	7° 42' 12.71664"	8° 28' 3.84276"	81.0	2024/08/26 15:44:09.163+00
95	28-08-2024 12-13-48 1667.jpg	7° 42' 19.8324"	8° 29' 1.34916"	77.0	2024/08/26 15:16:48.668+00
96	28-08-2024 12-16-50 561.jpg	7° 42' 20.28384"	8° 29' 1.84308"	77.0	2024/08/26 14:58:05.162+00
97	28-08-2024 12-17-19 3817.jpg	7° 42' 21.73176"	8° 29' 1.84524"	77.0	2024/08/26 14:57:38.162+00
98	28-08-2024 12-17-47 666.jpg	7° 42' 21.8088"	8° 29' 2.28768"	77.0	2024/08/26 14:46:21.159+00
99	28-08-2024 12-18-35 4931.jpg	7° 42' 20.41992"	8° 29' 1.8294"	77.0	2024/08/26 14:45:00.159+00
100	28-08-2024 12-18-46 692.jpg	7° 42' 21.708"	8° 29' 1.79664"	77.0	2024/08/26 14:42:23.684+00
101	28-08-2024 12-23-41 3147.jpg	7° 42' 18.95364"	8° 29' 1.74408"	77.0	2024/08/26 14:27:07.159+00
102	28-08-2024 12-24-37 9085.jpg	7° 42' 18.95292"	8° 29' 1.743"	77.0	2024/08/26 13:14:42.158+00

The first column of the table (Image) represents the pictures taken during the field trip, the other columns represent associated attributes to the pictures including the latitude (Lat (DMS)), the longitude (Long (DMS)), the altitude (Altitude), and the date/time (timestamp) respectively.

An interactive web map, corresponding to Table 3, is accessible online at "<https://umaryusuf.com/nsuk/fieldtripmap>" (Umar, 2024). This web-based mapping tool provides a dynamic and visually engaging representation of the data presented in Table 3, allowing users to explore and analyze the geographic features and their relationships in a more interactive manner. Additionally, Figures 10 through 19 present the photographs associated with the table entries.

2.2 Arrival and Lodging

Upon arriving Makurdi at approximately 6:30 PM, we all assembled at ‘Donny Suites’ (Figure 5) not far from ‘Father's Moustache Hotel’ at latitude $7^{\circ} 43' 51''\text{N}$ and longitude $8^{\circ} 32' 11''\text{E}$.



Figure 7: Accommodations location. (A) Donny Suites, (B) Empire Suites (source: student's work)

Due to the limited capacity of Donny Suites, the entire group of students was unable to be accommodated within the same facility. As a result, a portion of the students sought alternative lodging arrangements. Specifically, I, along with several colleagues, secured accommodations at Empire Suites, a hotel situated along David Mark Bypass in Makurdi. The precise geographic coordinates of Empire Suites are approximately latitude $7^{\circ} 43' 34''\text{N}$ and longitude $8^{\circ} 29' 53''\text{E}$.

CHAPTER THREE

3.0 Day Two

3.1 Visit to Benue state Geographic Information Service (BENGIS)

The second day of the field trip began with a visit to 'Benue Geographic Information Service (BENGIS)'. BENGIS is geographical location is approximately to latitude 7° 44' 42"N and longitude 8° 31' 44"E and situated to the northwestern part of Makurdi town along the bank of River Benue (Figure 8).

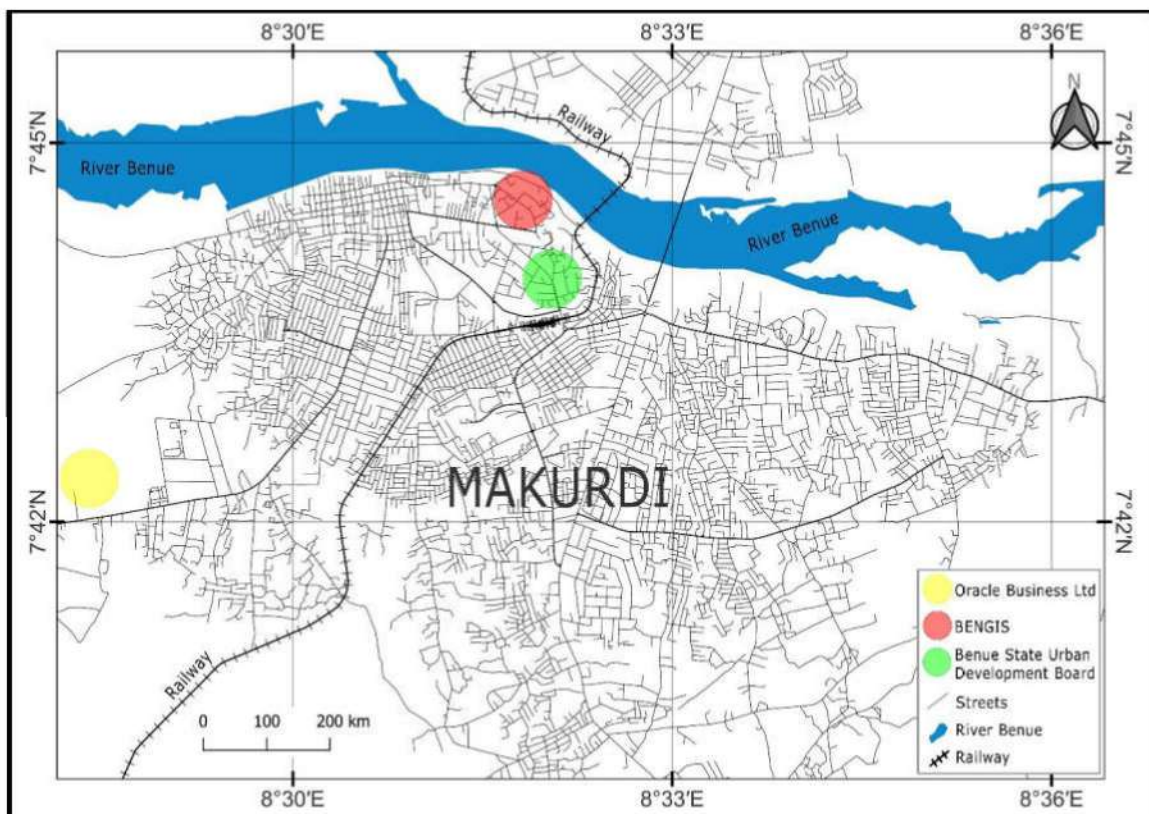


Figure 8: Map showing locations of places visited. BENGIS is in red painted circle, Oracle farm in yellow painted circle and Benue state urban development board in green painted circle (source: Umar, 2024).

We were introduced to the BENGIS management staff including the Surveyor General, the Director of Mineral Resources, the Director of Planning, GIS Project Manager and the Director of ICT. A resource person was the assigned to lead us around the facility

from the reception desk to the GIS unit. We were guided through the process of applying for a Certificate of Occupancy (C.of.O). The application journey began at the Application Submission Unit, where an applicant will submit the necessary documents. From there, the application proceeded to the File Tracking Management Office for record keeping. Next, it will be reviewed by the Surveyor General Office to verify land ownership and boundaries. The Planning Office then assessed the land's intended use and compliance with urban planning regulations. Finally, the GIS Unit captured and entered relevant data to complete the application process.

We learned that BENGIS is a service agency for computerization and optimization of geospatial business process that captures and issues landed properties with titles within a short time and help on issues of litigations and land disputes with the help of authentic digital Certificate of Occupancy (C of O).

BENGIS is operated through the "Ministry of Lands, Survey and Solid Minerals" and it follows a hierarchical organizational structure, common in government agencies. This structure involves a clear chain of command, with authority flowing from top to bottom (Figure 9).

We also had the opportunity of seeing the server room where all processed title records are stored. We also received a brief lecture in the boardroom, here we learnt that QGIS is the primary GIS software used in BENGIS and MerlinWeb Search is the software used for file tracking management. Some of the photographs taken during the activities at BENGIS are presented below (Figure 10).

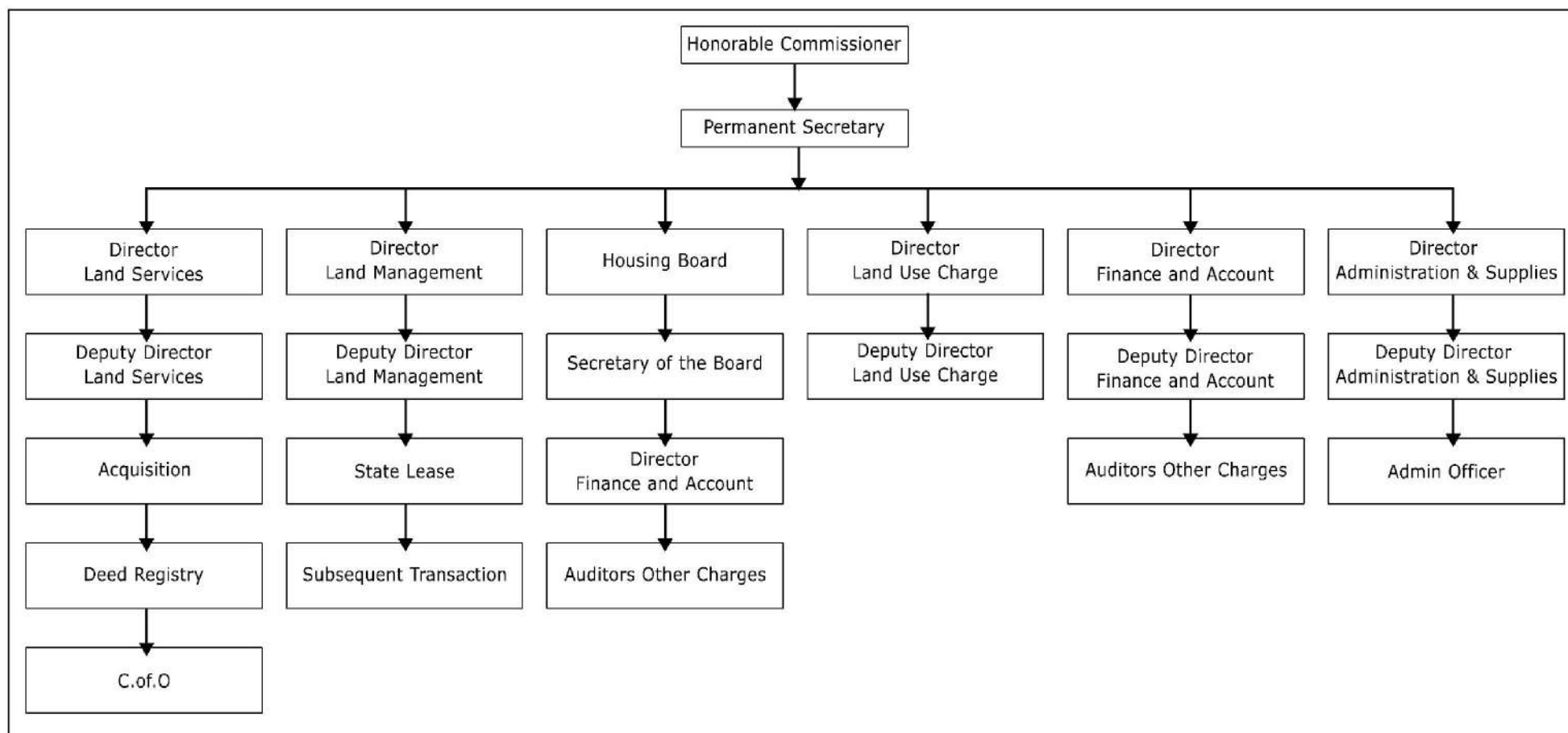


Figure 9: BUDB and BENGIS Organogram/Organizational breakdown structure.

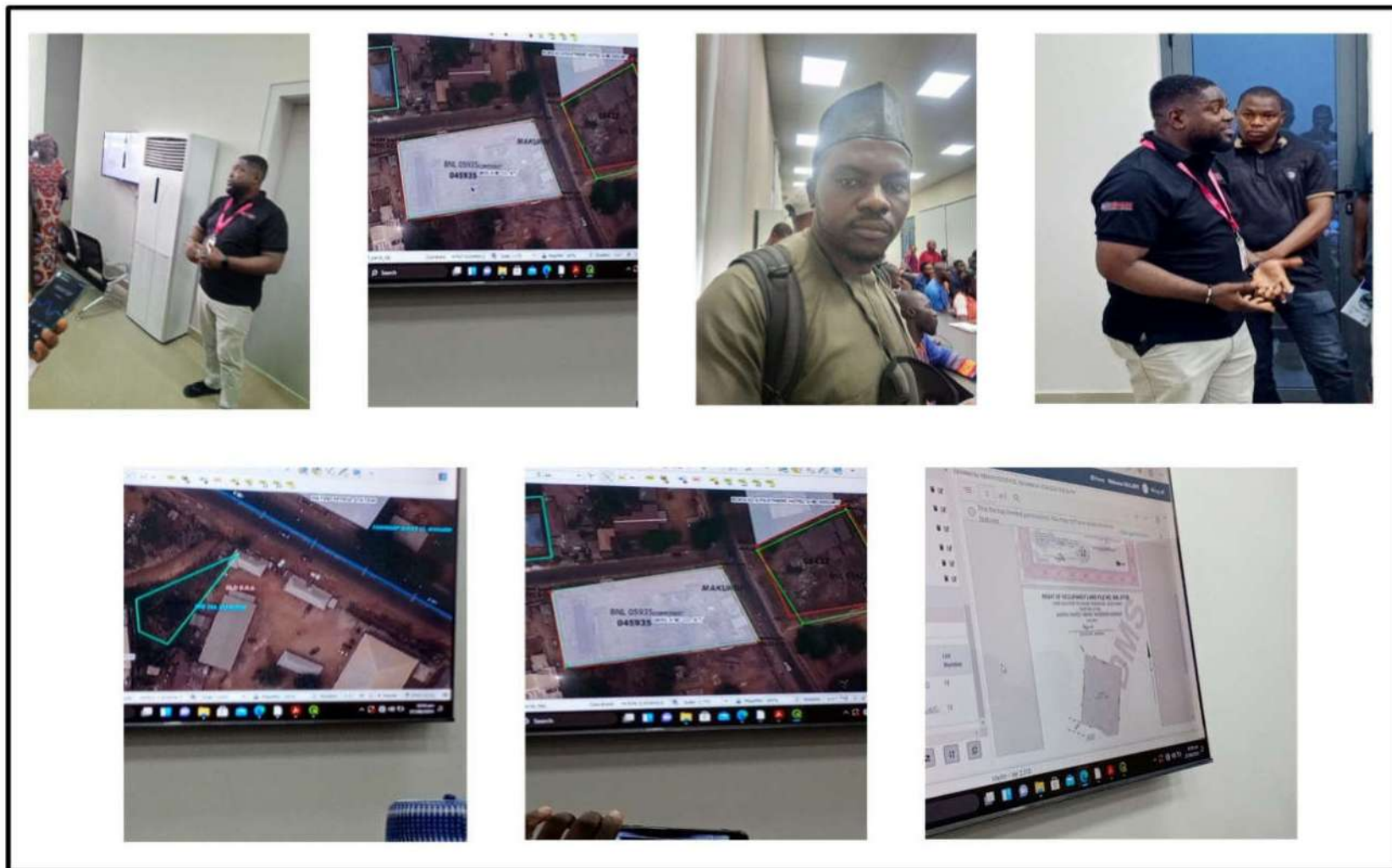


Figure 10: Pictures of some of the activities at BENGIS

3.2 Visit to Benue state Urban Development Board (BUDB)

At approximately 1:00 PM, we arrived BUDB situated along Kashim Ibrahim Road, Makurdi. We were privileged to be welcomed by the representative of the honorable commissioner on lands and mineral resources. A brief orientation about the services of the board was delivered to us. Where we learned that primary service offered by the BUDB is Land/Build Development Approval (also-know-as Building Permits).

Afterwards, we were guided to the old Makurdi settlement specifically at Anguwan Jukun along the River Benue banks situated within latitude $7^{\circ} 44' 04''\text{N}$ and longitude $8^{\circ} 32' 35''\text{E}$ (Figure 8). We learned that it was at this location that the present city of Makurdi started. The Jukun tribes' men whom are preoccupied with fishing activities started the settlement know as Makurdi today. It was at this location we observed the 'river gauge' that serves as early warning to the local community whenever River Benue is rising. Our field observations at this location indicated that the river gauge attained its maximum height of 74.97 meters in 2012. The second highest recorded level was 73.65 meters, which occurred in 2015.

Next, we proceeded to visit the new township layout. This is where you will find the new Makurdi settlement with obvious planned building layout structures. The predominant tribe in the new settlement are the Tivs.

Benue State Urban Development Board is a creation of the Urban Development Board Edict No. 8 of 1986 to plan, promote & secure the physical development of Benue. The organizational breakdown structure is presented in figure 9.

Some of the photographs taken during the activities at BUDB are presented below (Figure 11).



Figure 11: Pictures of some of the activities at BUDB

CHAPTER FOUR

4.0 Day Three

4.1 Visit to Oracle Business Limited

On the third day, we visited Oracle Business Limited at latitude $7^{\circ} 42' 15''\text{N}$ and longitude $8^{\circ} 28' 01''\text{E}$ (Figure 8). Oracle Business Limited engulfs Oracle farm, printing press, Shea butter & feed mill, Oracle plastic, Goshen water and driving school. Specifically, we visited the Oracle farm, Oracle plastic and Oracle feed mill.

4.1.1 ORACLE PLASTIC

At the plastic production section, we were conducted on a guided tour by the production manager, who led us through four distinct departments/units within the plastic production process namely: -

- a) Sack department
- b) Polyvinyl Chloride (PVC) department
- c) Extrusion Machines department
- d) Injection Molding Machine department

Plastic is a term that refers to a set of materials that can be made from either natural or manufactured resources and can be used to make a variety of products. Some of the plastic products at Oracle are: sacks, chairs, spoons, toys, various plumbing pipes, etc.

See figure 12 and 13 for some pictures of Oracle plastic products.

4.1.2 ORACLE FARM

At Oracle farm, we were privileged to have access to various units within the agricultural complex, including rice fields, a poultry farm, a piggery, a cattle paddock, rabbit hutches, and a fishery.

4.1.3 ORACLE FEED MILL

This is the section where all the animal feeds are being produced (figure 19). We were made to understand that 90% of the raw material used for the feeds production comes from the Oracle farm byproducts. For example, the rice husk is used to produce fish feeds.

4.2 Departure from Makurdi to Keffi

The field trip concluded at approximately 2:00 PM on Wednesday, August 30, 2024, with Professor J. I. Magaji delivering a comprehensive and insightful closing address. In his remarks, Professor Magaji summarized the key findings and observations of the field trip, he highlighted the significance of writing a field trip report for future research and development. He also expressed his gratitude to the participants for their active engagement and contributions throughout the expedition.

Subsequent to our departure from Makurdi, we arrived in Keffi at approximately 6:00 PM. To God be the glory.

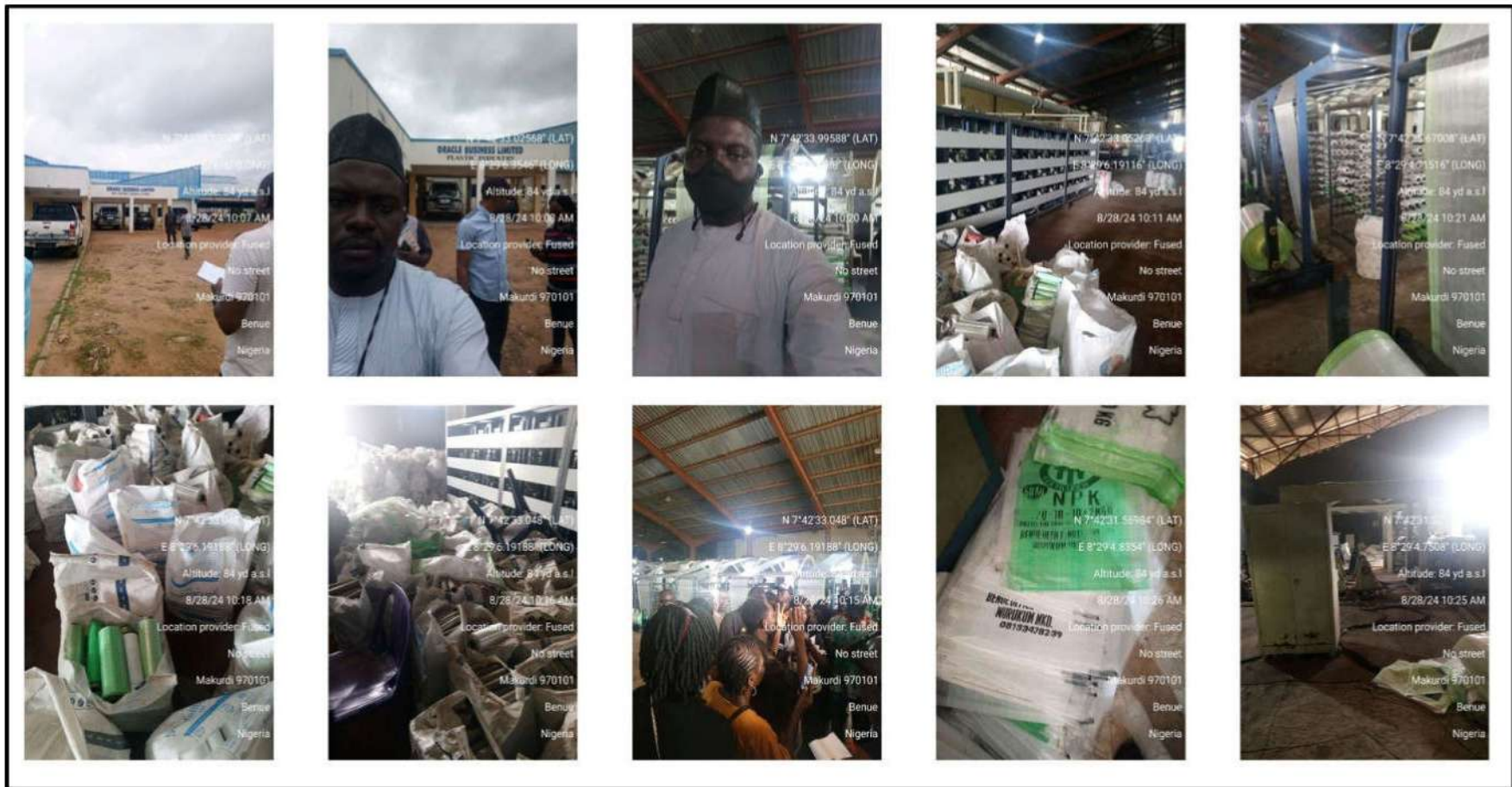


Figure 12: Pictures of some products/activities at Oracle Plastic - 1

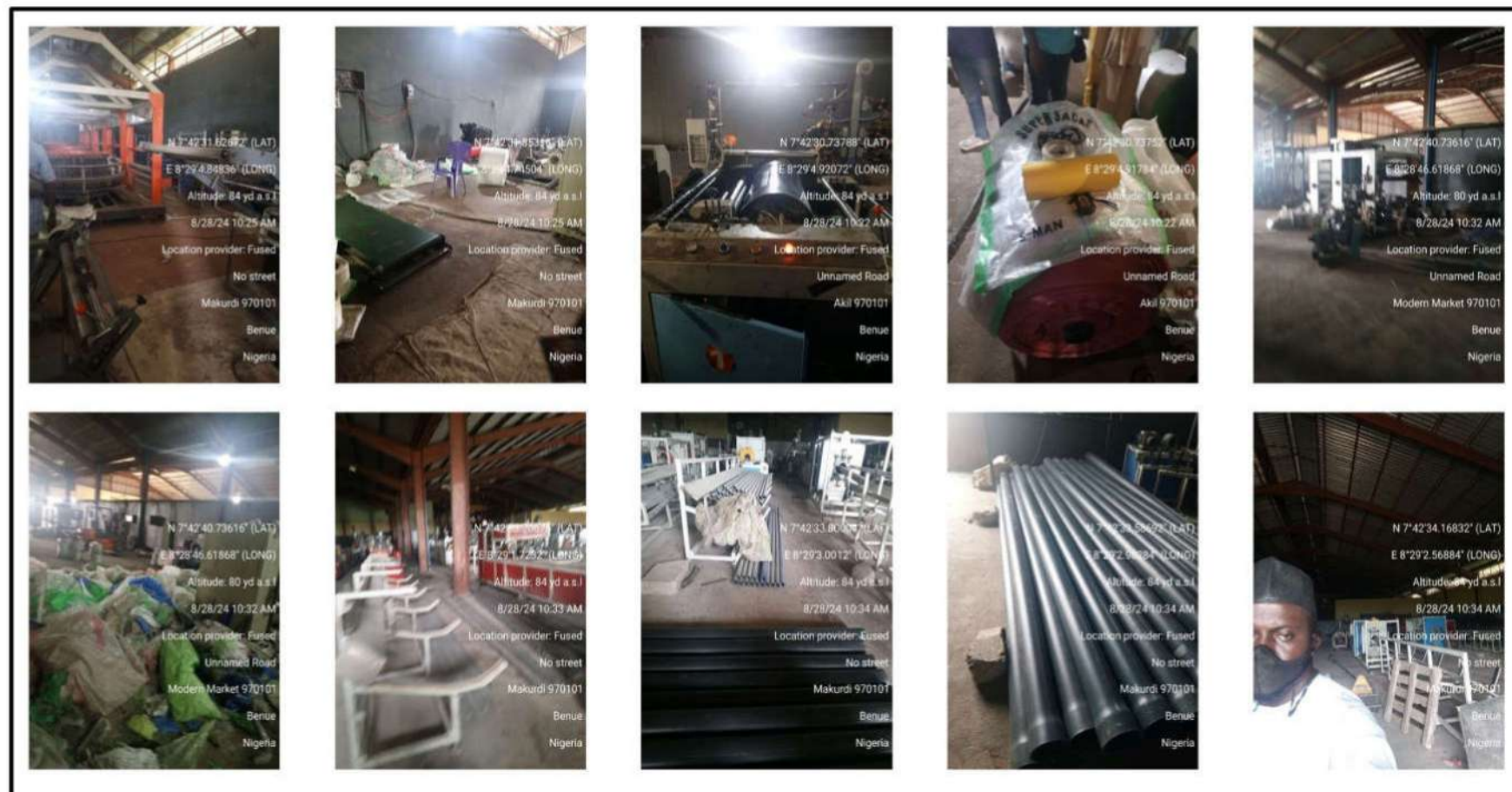


Figure 13: Pictures of some products/activities at Oracle Plastic - 2

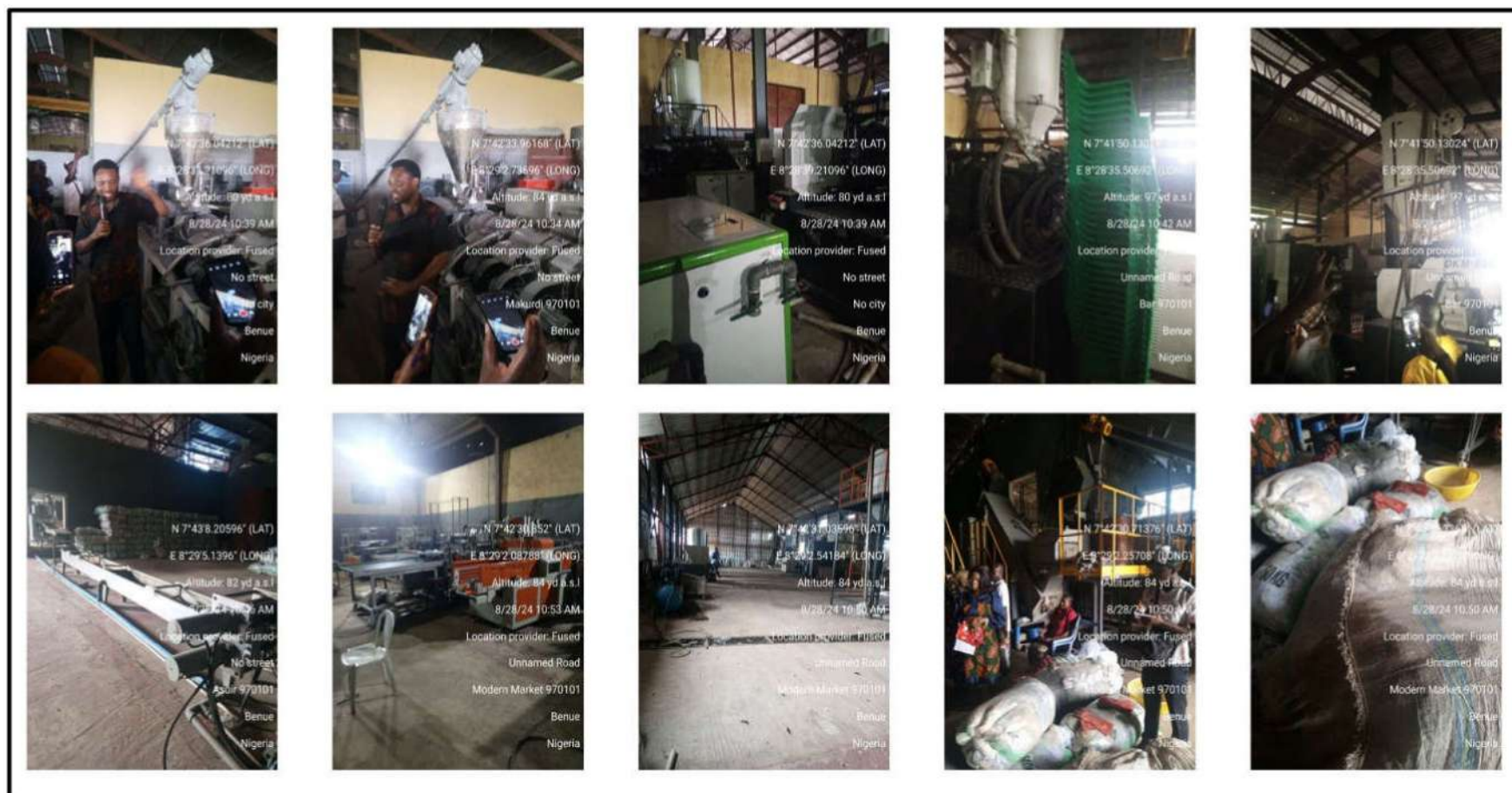


Figure 14: Pictures of some products/activities at Oracle Plastic - 3



Figure 15: Pictures of some products/activities at Oracle Plastic - 4



Figure 16: Piggery at Oracle Farm



Figure 17: Poultry at Oracle Farm

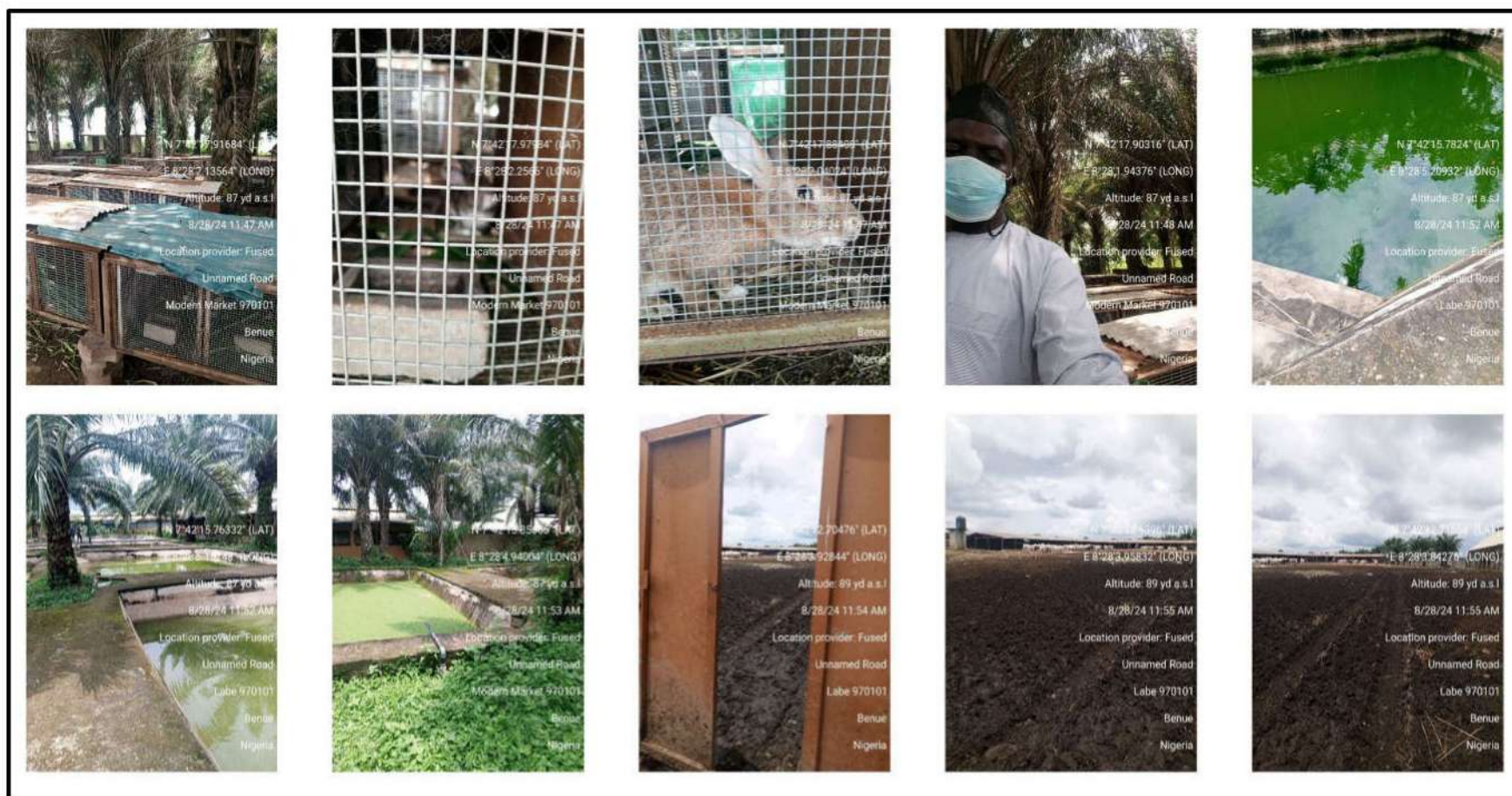


Figure 18: Pictures of Rabbit Hutches, Fish Pond and Cattle Paddock at Oracle Farm

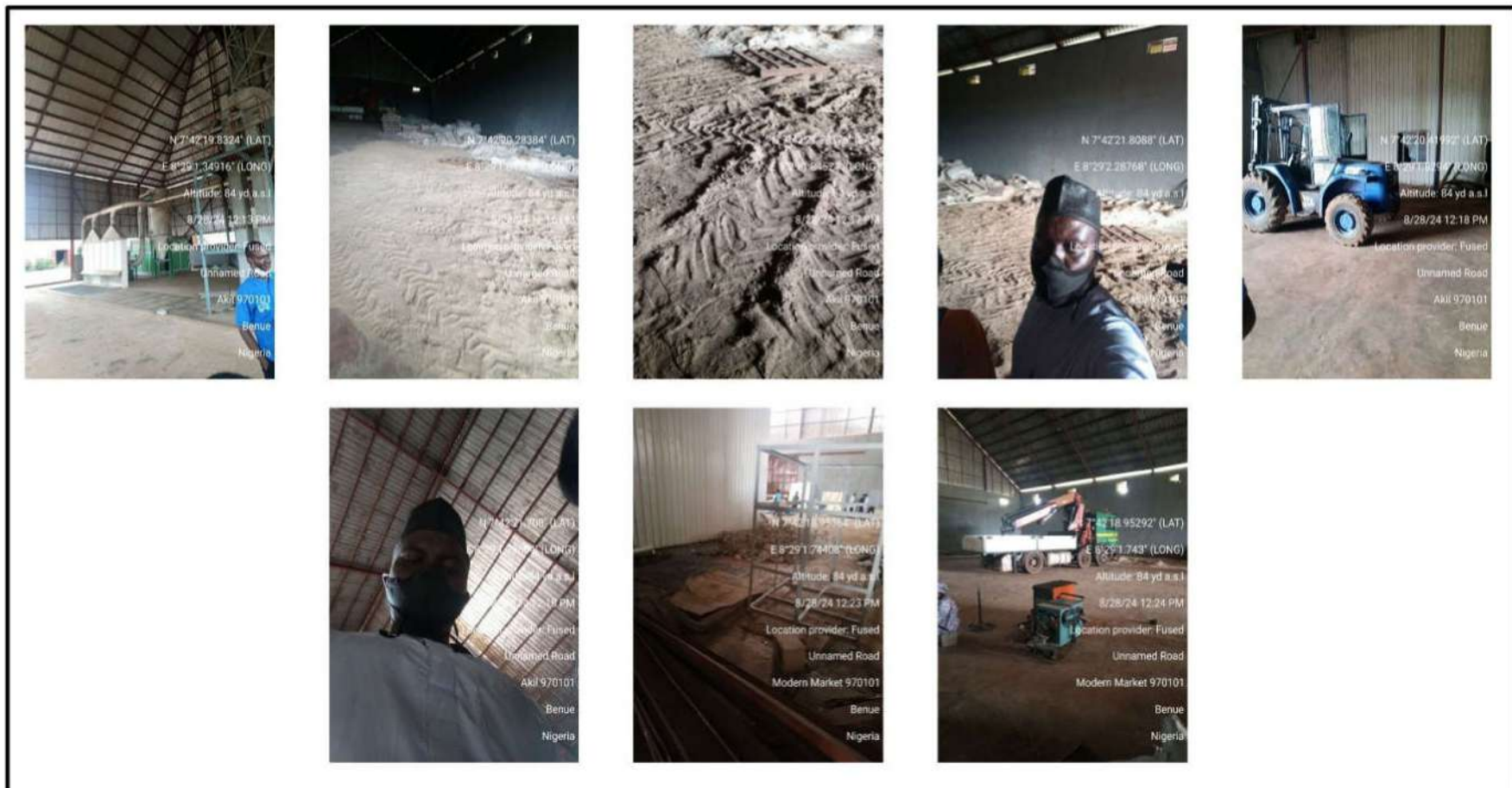


Figure 19: Pictures of activities in the Feed Mill at Oracle Farm

CONCLUSION AND RECOMMENDATION

The field trip to Makurdi, Benue state provided valuable insights into BENGIS, BUDB and Oracle Business Limited respectively. Despite facing challenges such as limited telecommunication networks along the journey route, cultural and language barriers, the trip successfully captured key geographical characteristics.

To enhance future field trips and ensure more comprehensive data collection, the following recommendations are proposed: -

- a) A more flexible itinerary should be developed that allows for earlier departures and additional stopovers along the trip route.
- b) Prior to the field trip, an assessment of telecommunication network coverage along the route should be conducted to ease data collection and transmission at stopovers.
- c) The bus driver should be communicated clearly regarding the importance of stopping at designated stopovers and moving at a relatively slow speed to allow notetaking, taking of pictures and other data captures along the route.
- d) Field trip participants should be provided with basic language training or be attached to local guide who is fluent in the local language and culture. This will minimize spelling errors when writing place names and other cultural names.
- e) Finally, a transparent payment procedure for field trip is recommended including providing breakdowns to all participants well in advance to avoid misunderstandings and ensure that everyone is aware of their financial obligations.

REFERENCES

- Agbu, A. D., Zhema, S., & Useini, B. (2019). Jukun-Tiv relations in the benue valley region: The 2019 scuffles in Southern Taraba State, Nigeria. *International Journal of African Society, Cultures and Traditions*, 8(1), 1-20.
- Bello, I. E., Ufuah, M. E., Rilwani, M. L., & Ogah, A. T. (2020). A Paradigm Synthesis of The Relevance Of Fieldwork In Geographic Research. *American Journal of Geographical Research and Reviews*, 3(16), 1-12.
- Ohiaeri, M. B. (2020). A multi-criteria analysis of adapting the Tiv traditional hut to climate change: a case study of the Kanshio community, Makurdi, Benue State, Nigeria.
- Umar Y., (2024). Field Trip Map from Keffi to Makurdi. Available online: <https://umaryusuf.com/nsuk/fieldtripmap>

Appendix A - Field Trip Itinerary

NASARAWA STATE UNIVERSITY, KEFFI FACULTY OF ENVIRONMENTAL SCIENCE DEPARTMENT OF GEOGRAPHY



Vice Chancellor: Prof. Sa'adatu Hassan Lima

P.M.B 1022, Keffi

Registrar: Bala I. Ahmed II, MNIM, FCAI, CIM

Nasarawa State, Nigeria

HOD: Prof. D.U Sangari

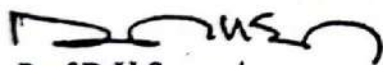
Our Ref: Your Ref: Date: 14th-August, 2024

FIELD TRIP ITENERY TO MAKURDI, BENUE STATE

S/N	DATE	ACTIVITY	TIME
1.	Monday 26 th - August, 2024	A. Departure from Nasarawa State University, Keffi to Makurdi/ Study other relevant geographic features on the way. B. Students settle at the lodge	10:00am 5:00pm
2.	Tuesday 27 th -August, 2024	Visit A. Local rice mills in Gboko. Benue State B. Dangote cement factory Gboko, Benue State	9:00am-1:00pm 2:00pm-4:00pm
3.	Wednesday 28 th -August, 2024	A. Oracle Farms B. Oracle Plastic Company C. Oracale Feed Mills	9:00am-12:00pm 12:00pm-2:00pm 2:00pm-4:00pm
4.	Thursday 29 th -August, 2024	A. Benue State Ministry for lands, survey and solid	9:00am-1:00pm

		minerals, Makurdi B. Benue State Geographic Information System (GIS Program only) C. Benue State Urban Development Board, Makurdi (All Programs except GIS) D. Benue state environmental sanitation authority, Makurdi (All Programs)	9:00am-1:00pm 9:00am-1:00pm 1:00pm-4:30pm
5.	Friday 30 th - August, 2024	A. Test/Examination B. Departure from Makurdi to Keffi	8:00am-10:00am 10:30am

Signed:



Prof D, U Sangari
HOD, Geography

14/8/24

Appendix B - Field Trip Payment Receipt



NASARAWA STATE UNIVERSITY, KEFFI

Faculty of Environmental Science
Geography Department

P.M.B. 1022, Keffi, Nasarawa State

Cash Receipt

Date 30/5/2024

No 01659

Received from Umar Yusuf

The sum of five thousand Naira
only

Being payment for field trip

N 17000 **K**

Receiver's Signature



NASARAWA STATE UNIVERSITY, KEFFI

Faculty of Environmental Science
Geography Department

P.M.B. 1022, Keffi, Nasarawa State

Cash Receipt

Date 30/5/2024

No 01660

Received from Umar Yusuf

The sum of five thousand Naira
only

Being payment for field trip

N 5000 **K**

Receiver's Signature

Appendix C - Field Book

Start 26/08/24
1:20 pm

1:35 pm

Stop to topup fuel at Kerkira

Lat/long: 8.848697
7.968167

2:00 pm

We reached Gudi/Km

Lat/long: 8.844267
8.114512

2:05 (32 km to Akwanga)

Arrived Told Gade

Lat/Long: 8.843949
8.119718

Kubere Village
Junction of 29 km to
Akwanga

Badugu village (2:09 pm) 27 km
to Akwanga.

2:14 - Gudi town (where
we saw the rail
crossing).
Lat/long 8.75647
8.265512

Stoppage at
* Faculty of Engineering -
Gudi Campus

Lat/long: 8.897906
8.262388

Time: 2:19 pm

Makurdi - 145 km

Lafia - 71 km

Akwanga - 14 km

Stoppage After Margaretha

Pinze. Time: 2:29

Lat/long: 8.913155
8.324417

Purpose: To fix a vehicle with
minor fault.

Bridge at 7 km to Akwanga

02:39 pm - Arrived at
Akwanga Lat/long: 8.919335
8.379942

stoppage: 02:48 pm

Major stoppage to fix a faulty
car/vehicle. Lat/long: 8.911091
8.391140

3:10 pm
Journey Continue

Students were relocated
from the faulty vehicle to a
new one.

Wulko village [3:26 pm]

Lat/long: 8.837059
8.452575

Endi Hills 3:29 } Location
Lat/long: 8.835079 } of the
8.452758 } place
College

Wogem village within the hills

Toll Gate [3:35]

Lat/long: 8°50'6"
8°27'9"

38 km to Lafia

Angwan Chigawa

34 km to Lafia

3:40 pm

Gidan Waya

8°44'21"
8°32'24"

Nasarawa Egon

3:45 pm

8.716610

8.541542

Azuba Centre

Lat: 8.652732 3:53 pm

long: 8.556823

Lafia [4:00 pm]

8.570002

8.556801

Ombi

8.548

8.5359

Fed. Uni Lafia

4:17 pm 82 km to Makurdi

Agyeragu 4:26 pm

8.4569

8.5601

77 km to Makurdi

Akalekin 8.3388
4:33pm 8.5676

Aderi [Toll Gate 1km]
8.3207
8.562534

Akanga
8.25217 68km to Makurdi
8.564083

Sakin Nema 4:42pm

Kadarku 4:43pm
8.234901
8.572271

Yelwafa 4:51pm
8.257729
8.573161

Igban 5:00pm
32km to Makurdi
8.155507
8.555537

Ukwal 5:02pm
8.0367W
8.554688

Oke se 5:05pm
8.005641 28km to Makurdi
8.556838

Dandu (Market) 5:12pm
7.912517 20km to Makurdi
8.584636

Toll Gate 5:22pm
7.81316 8km to Makurdi
8.570388

Benue Bridge 5:30pm
7.70001
8.55140

Day 2

9:30am

Start Stakeoff point was
at Old GRA beside Tata/Shell

BENGIS 9:43am

8-7745203

8-528844

*Application Submission Unit
(ASU)

*Title tracking Mergit
Office [FIMO]

*Survey General Office

*Planning Office

*GIS Unit for entry and
capture.

MerlinWeb Search User

Urban Development

The server as approval
of building/Land for development
That development Control

Old town plan 2

New town plan 3

Original/Initial settlers

Tukus are the first settlers

The river gauge highest
point was in 2012 at 74.97m
second highest was 73.65m in
year 2015

Ungwan Tukun [River side]

In the New Settlement, what
is common is called Land surveying
because the Tiv don't give Land
easily

Day 3
Oracle farm [rice mill]

Oracle Business

— They are into many activities including:—

- ① Plastic
- ② Animal

Oracle Plastics ^{Established 2012}

4 dpts

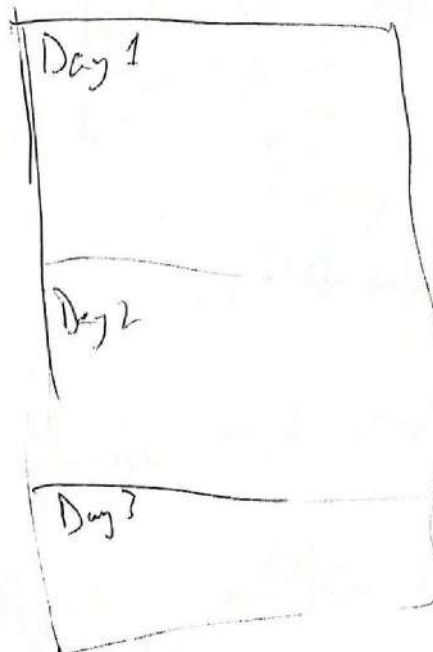
- ① Sack dept
- ② PVC dept
- ③ Extrusion dept
- ④ Injection Molding

* Polymeric chloride [PVC]

Oracle Farm

Dpt or Units in it including
— Pig farm (3k per kg)

- Fresh
 - poultry
 - Rabbitary
- Rice farm 3500 Ha



Oracle
Feed Mill

Here all kind of feeds are produced for different animals and their sub classes.

1:00pm

Field trip activities terminated

Journey Back

- Telhara — 45 km to Lufiya
- (Bakan) village — 38 km to "
- Kadarko — 37 km to "
- Sakhar Noma — 33 km to Lufiya
- Alkanga — 25 km to Lufiya

Toll Gate — 23 km to LF

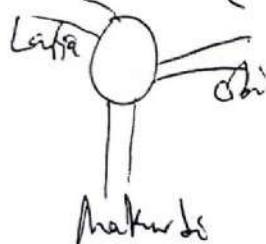
Aderi — 25 km to LF

Akaleku — 24 km to LF

Agyaraga — 18 km to LF
2:43 pm

Bukan Kwaju — 9 km to

Makurda (Laba/Obi) LF



Stoppage of "Agricultural
Equipment Institute"

~~Spotted~~

(Spotted)

Per Purpose

Name

Time

Km to Destination

Activity

(Agriculture)

Shere — 47 km to Akw

Azuba — 42 km to Akw
Center

Nas Egan — 32 km to Akw

Hill — 29 km to Akw

Gidan waga — 28 km to Akw

Anguman Chigawa
— 23 km

Toll Gate
"Abrashen" — 20 km to Akw
4:04 pm

Nowgem — 12 km to Akw
no GPS signal

Endeku —

Akwanga : 4:18 pm

Arushi 4:22 pm

Marereban
Rinze 4:27
53 km to Keffi

29 km to Keffi
stoppage at Garaku
to change Car. Time
5:27 pm

Cuda 4:30 km to Keffi

Stoppage 4:36 pm

At Lat/Long: 8.868128
"Maraba Arusu" 8.24893
to fix faulty car issue
(fan belt)

Stopped again to
4:50 pm fix fan belt
8.861838
8.183565

Toll Gate Garaku 5:14 pm

Appendix D: Interactive Web Map of The Field Trip

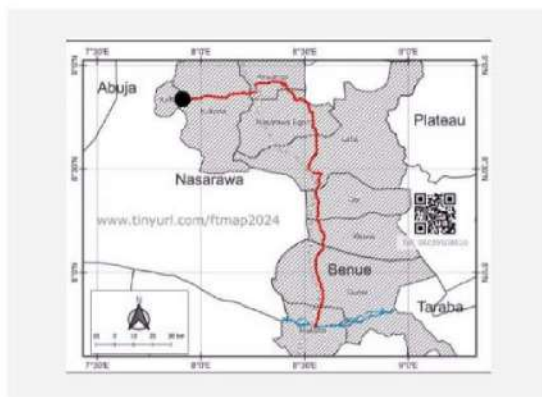
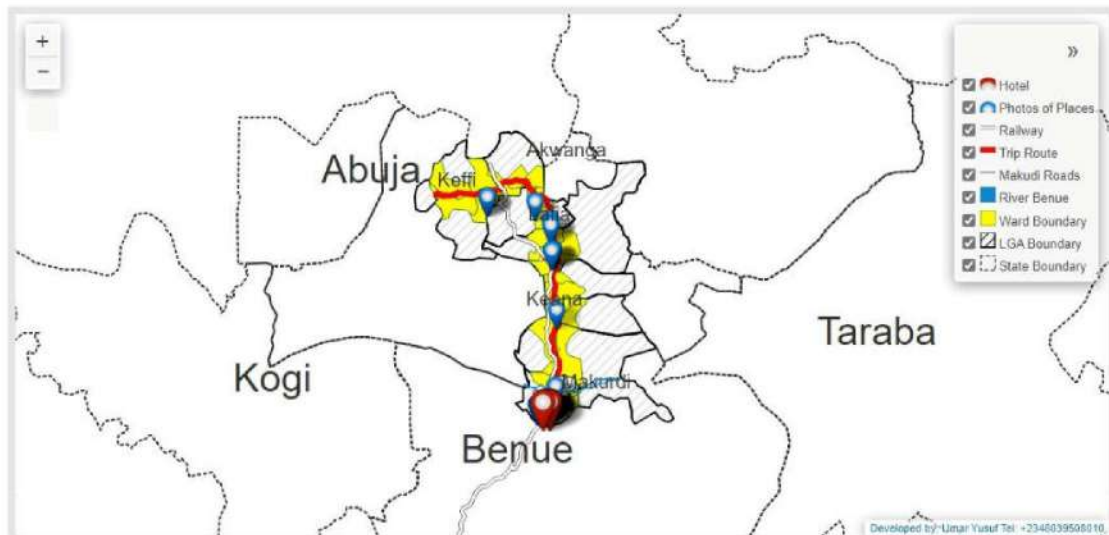
Website Address: <https://umaryusuf.com/nsuk/fieldtripmap>

Field Trip Map from Keffi to Makurdi

Monday, August 26, 2024 to Friday, August 30, 2024

Other Maps >>> [Departure](#) | [BENGIS](#) | [BUDB*](#) | [Oracle Business Ltd](#)

*Benue state Urban Development Board



How to cite: Umar Y., (2024, September 5). Field Trip Map from Keffi to Makurdi. Available online: <https://umaryusuf.com/nsuk/fieldtripmap>

Umar Yusuf Tel: +2348039508010