CONFLICT, VIOLENCE, AND ABUJA MARKETS: A SPATIAL ANALYSIS OF IMPACT



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DECLARATION

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the preface and specified in the text. It is not substantially the same as any work that has already been submitted, or, is being concurrently submitted, for any degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the preface and specified in the text. It does not exceed the prescribed word limit for the relevant Degree Committee

……..
Stephen B. Ajadi

Publications

Certain aspects of this work have been published as follows:

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ABSTRACT

At least over the last century, the world has been growing increasingly unstable in the social sense. Though so many forces have contributed to this, it is obvious that conflict and violence are a major part of the world's reality. Since 2016, sub-Saharan Africa (SSA) has been the epicentre of the world's conflict, violence, and terror. In 2016, SSA was responsible for only 38% of the world's violence-driven internal displacement. Since 2021, SSA is now home to at least a staggering 80.4% of the global share. Nigeria is generally seen as the major hotspot of SSA with the African state consistently placing among the world's worst 3 countries in terms of deaths related to terror between 2015 and 2020. Since 2009, most of the conflict in Nigeria has been in the north-eastern region. In northern Nigeria, most of these incidents occur in open space. This includes farms, forests, and informal markets. This is where the typology of the informal market becomes a centrality of the study. At an estimated average put at 57.7% of the nation's GDP, Nigeria has the third largest informal economy in the world coming behind Zimbabwe and Afghanistan. A majority of the country's 217 million people rely on the informal sector for livelihood. This is primarily through the informal markets. There is therefore not only a social need for markets to be safe, but also an economic need as well. Over the past decade, conflict in the north has caused serious disruptions to markets in terms of food flow, market size, as well as trade within and outside the region. Spatial studies on conflict and violence in Nigeria have not been as robust and sophisticated as needed to sufficiently appraise the social developments. Markets have received even far less attention. When spatial studies of conflict are done in Nigeria, space is largely treated as material and insights derived are often devoid of deep appraisals of social phenomena. In the wake of the instability in the northern region, it is increasingly imperative to socio-spatially understand the vulnerability of certain spaces to conflict with the aim of informing better development decisions. With their high aggregation of people and their role in the informal economy, markets become a very important space in this regard.

Using a mixed methods approach of spatial analysis driven by ethnography; this thesis looks at the spatial impact of conflict and violence on markets in Northern Nigeria. Abuja—Nigeria's Federal Capital Territory (FCT) is chosen as a primary city of study because it is the country's capital. Also, due to the government's presentation of it as an urban fortress, it has not been thoroughly investigated, with respect to conflict and violence. Abuja is also the center of power in Nigeria, and it plays a primary role in the narrative of conflict and violence in the country, especially in the leadership of defence and counter-violence. The study employs ethnographic and spatial data from the field to engage notions of conflict impact and vulnerability in Abuja markets. Spatial data is gotten from the following: government authorities, a full embedment as an actor in a market, and interviews across the city that include focus groups across two major markets strategically selected as cases. About 1641 interviews were physically conducted in Wuse and Nyanya markets. An extreme case comparison is also made with markets and spaces in Maiduguri, Borno state, a region that has been the epicentre of conflict and violence in Africa since 2009. Abuja is

compared with data from 5110 physical interviews carried out in Maiduguri across all of its neighbourhoods during the time this study— the largest of its kind in city.

The study shows noticeable spatial variations of vulnerability across markets in Abuja, especially from spatial standpoints like boundaries, interstitiality, layout and social structure. It reveals a bias of government attention to markets in the city as opposed to the periphery. It is seen that the public perceive vulnerability in some similar ways to the markets and their actions in response are capable of impacting the socio-economic form of Abuja markets and the FCT at large. Findings also show that the contiguities of Abuja also pose additional threat to the FCT's safety and under extreme cases, markets can see potential danger as the new normal, which can stagnate development efforts to increase resilience and security. For the first time, there is overwhelming evidence of not only the fact that Abuja is very vulnerable to conflict and violence, but also the ways in which the spatiality of its vulnerability is at play. The study presents practical formal and informal intervention pathways from the government and the community to sustainably develop Abuja markets. It argues that hybrid collaborations from the government and the community at various levels of policy is needed to reduce vulnerability in Abuja markets, and possibly eliminate violent attacks in the FCT as we know it.

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For
Àbẹ̀bí, Caroline, Mother.
Far beyond the ritual of birth…I am, because you are.

Child:
River bird, river bird.
Sitting all day long
On hook over grass,
River bird, river bird.
Sing to me a song
Of all that pass
And say,
Will mother come back today?

Bird:
You cannot know
And should not bother;
Tide and market come and go
And so shall your mother.

Streamside exchange, J.P. Clark 1967

TABLE OF CONTENTS

Declaration		ii
Abstract		iii
Acknowledgement		v
Dedication		vii
Table of Contents		viii
List of Tables		xii
List of Figures		xiv
List of Plates		xvi
Chapter One		
1.	Introduction	1
1.1.	The Troubling Notion of Space	3
1.1.1.	African Space and Space in Africa	5
1.2.	An Introduction to the Theory of Conflict	6
1.3.	The Spatial Study of Conflict	7
1.4.	Research questions	7
1.5.	Thesis Overview	8
Chapter Two		
2.	Conflict, Vulnerability and Markets	11
2.1.	The Theory of Conflict: Origin and Forms	11
2.1.1.	Conflict Theory: The Material Approach	13
2.1.1.1.	Game Theory and The Material Approach	16
2.1.2.	Conflict Theory: The Social Approach	16
2.2.	Relevant Notions of Space in Conflict Discourse	19
2.2.1.	The Material and Social: Marcel Fafchamps and Polly Hill	20
2.2.1.1.	Hybridizing the Material and the Social: Appraising Fafchamps and Hill	22
2.2.2.	Interstitiality and Conflict: Theoretical Possibilities	24
2.3.	Vulnerability and Space and Conflict	24
2.4.	Conflict and Vulnerability Across the World	27
2.5.	Vulnerability in Markets: A Regional Overview	31
2.5.1.	Informality, Vulnerability and Markets	31
2.5.2.	Vulnerability and Markets in Europe	34
2.5.3.	Vulnerability and Markets in Latin America	35
2.5.4.	Vulnerability and Markets in Aisa	36
2.5.5.	Vulnerability and Markets in Africa	38

2.5.6. Conflict and Vulnerability: Gaps for Development 41
2.6. Theoretical Framework 41

Chapter Three

3. A New Way of Looking 44
3.1. Conceptualising The Spatial Method 44
3.1.1. The Spatial as Afrocentric and African 46
3.2. Methodology 48
3.2.1. Spatial Ethnography 50
3.2.1.1. Spatial Ethnography: Justification of Methodology 50
3.3. The Mixed Methods Approach 52
3.3.1. Mixed Methods and the Study of Conflict 54
3.3.2. Ethnographic Survey and the 'Local Turn' 55
3.3.3. Geographical Information Systems (GIS): The Mixed Methods Component 56
3.4. How to Look at African Markets 57
3.4.1. Where to Look: Abuja Markets 60
3.4.2. Selecting the Site 62
3.5. Filed Study 65
3.5.1. The Investigation Process 66
3.5.2. Mutations of The Investigation Process 67
3.5.2.1. Scope of Study Area 68
3.5.2.2. Study Team 68
3.5.2.3. Local Partnerships 69
3.5.2.4. Questionnaire and Survey Process 69
3.5.2.5. Data Collection Technique 70
3.5.2.6. Covid-19 Pandemic 70
3.5.3. Data and Analysis: Codification and Confidence Levels 71
3.5.3.1. Scope of Interviews and Respondents 73
3.5.4. Reflection on the Ethnography Experience 75
3.5.5. Lessons Learned: A New Approach to Ethnography 76
3.5.6. Ethical Considerations 77

Chapter Four

4. Study Area 79
4.1. A Brief Theoretical Background of Urbanism 79
4.2. Urban Land of Northern Nigeria Through Maps: A Spatial Analysis 81
4.3. Abuja: Understanding the Spatial Setting 91

4.3.1. Descendants on the Run 91
4.3.2. Abuja's First Masterplan: The Wards and the Market 92
4.3.3. Abuja in the Time of Nigeria 93
4.3.4. Abuja: The Center and the Periphery 97
4.4. Markets in Africa: A Theoretical Background 99
4.5. The Spatial Nature of Markets in Nigeria 101
4.6. Markets of Northern Nigeria 102
4.7. Abuja's Markets 105
4.7.1. Abuja Markets Today 106

Chapter Five

5. Violent Conflict and Vulnerability in Abuja 111
5.1. Appraising Conflict Through Vulnerability 111
5.1.1. The IEP's SPI and Spatial the Problems of Vulnerability Analysis 112
5.2. A Theory of Interstitiality for Conflict 114
5.2.1. Fuzzy Boundaries 115
5.2.2. Interstitial Latency 118
5.3. Abuja: Spatial Aberrations and Mutations 121
5.3.1. Land Use Change 122
5.3.2. Overlaps of the FCC Cadastral Zones 125
5.4. Conflict in Abuja: A Socio-Spatial Analysis 127
5.5. Conflict, Violence and Vulnerability in the contiguities of Abuja 132
5.5.1. Markets of Abuja, Markets of Maiduguri 134

Chapter Six

6. Spatial Vulnerability in Abuja Markets 139
6.1. Safety of Markets in Abuja: A Macro-Spatial Analysis 139
6.2. Fuzzy Boundaries & Vulnerability: Sprawls of Abuja Markets 144
6.3. Recorded Market Attacks: A Spatial Appraisal 151
6.4. Nyanya and Wuse Markets: Spatial Studies of Vulnerability 153
6.4.1. Wuse Market (WM): A Socio-spatial Overview 154
6.4.2. Nyanya Market (NM): A Spatial Overview 157
6.5. What Does Security Look Like? A Comparative study of MFM 160
6.6. Wuse-Nyanya: Perceptions of Safety and Vulnerability 163
6.6.1. Perceptions of Vulnerability Across Gender in the Markets 164
6.6.2. Confidence Levels Across Different Sellers 166
6.6.3. Visibility and Shop Layouts 168

6.6.4. Vulnerability within Wuse and Nyanya Markets 169
6.6.5. Confidence Levels in the Government and the Community 171
6.7. Resilience of Abuja Markets 173

Chapter Seven

7. Pathways for Development 176
7.1. Conflict in the North and the Nigerian Government 176
7.1.1. Responses of Government and Community 177
7.2. Abuja Markets and The Policy Entanglement 181
7.2.1. Inefficiency of the Implementation Chain 182
7.2.2. Exclusion of Markets in Policy and Governance 184
7.3. Securing Markets: Ways Forward 185
7.3.1. Reconfiguring Settlements 186
7.3.2. Reconfiguring Market Spaces 188
7.3.3. A Hybrid Approach to Policy and Leadership 191

Chapter Eight: Conclusion

8. Conclusion 193

9. References 197
Appendix 222

LIST OF TABLES

Table 2.0:	A broad categorisation of conflict theory	18
Table 2.1:	Global share of deaths due to terrorism: Worst 5 countries 2015 - 2021	30
Table 2.2:	Global trajectory of displacement footprints	31
Table 2.3:	Global review of terror attacks on markets (2015-2022)	37
Table 3.0:	A selection of conflict studies using mixed methods.	54
Table 3.1:	Site selection criteria	61
Table 3.2:	Site selection parameters and weighing	63
Table 3.2:	MCBA ranking: Top and last 10 of the 94 appraised	64
Table 3.4:	Sample statements uttered by respondents during interviews	72
Table 3.5:	General response typology and frequency	72
Table 3.6:	Specific response typology and frequency	72
Table 4.0:	Land Change in Northern Nigeria: 1904-1996	90
Table 4.1:	Coup attempts in Nigeria since 1960	93
Table 4.2:	Planners of Abuja	94
Table 4.3:	Employment by sector in Abuja city and the FCT	98
Table 4.4:	A general categorisation of markets in Nigeria	102
Table 4.5:	Market routes in early 19th to 20th century Abuja	124
Table 4.6:	Market density in the FCT area councils	108
Table 4.7:	List of primary and secondary markets in Abuja	109
Table 5.0:	FCT satellite towns: spatial access to markets & FCC	121
Table 5.1:	Violent conflict in Abuja by casualties: 2010-2022	128
Table 5.2:	Summary violent conflict in Abuja by casualties: 2010-2022	128
Table 5.3:	Perception of safety and Governance in Maiduguri	135
Table 5.4:	Perception of safety (SP) in Maiduguri markets by gender	136
Table 5.5	Perception of safety (SP) in Maiduguri by job typology	136
Table 5.6:	Perceptions of safety: Abuja and Maiduguri	137
Table 5.7:	Buyers' poll of safe and unsafe markets in Abuja	138
Table 6.0:	FCT markets and security response spaces	139
Table 6.1:	Marketers' confidence level in efficiencies	143
Table 6.2:	Market Sprawls in Abuja	145
Table 6.3:	Known attacks on markets in Abuja: 2010-2022	152
Table 6.4:	Perceptions of Safety: Maitama Farmer's Market	162
Table 6.5:	Perceptions of Safety: Nyanya & Wuse Markets	163
Table 6.6:	Perception of Safety by Gender: Nyanya and Wuse Markets	164
Table 6.7:	Test for Normal distribution of SP(n) and SP(w)	164

Table 6.8: Null and alternative hypotheses for gender: NM 165
Table 6.9: SP (n) Mean, median mode of gender 165
Table 6.10: Mean rank: NM 165
Table 6.11: Mann-Whitney U values: NM 165
Table 6.12: Null and alternative hypotheses for gender: WM 165
Table 6.13: SP (w) Mean, median mode of gender 166
Table 6.14: Mean rank: WM 166
Table 6.15: Mann-Whitney U values: WM 166
Table 6.16: Perception of Safety by Seller Typology: Wuse Market 167
Table 6.17: Perception of Safety by Seller Typology: Nyanya Market 168
Table 6.18: Seller relationships and Shop interstitiality: Nyanya & Wuse Markets 168
Table 6.19: Variation of Vulnerability within Wuse Market 170
Table 6.20: Variation of Vulnerability within Nyanya Market 171
Table 6.21: Perceptions of Safety & Attack Concerns: Nyanya & Wuse Markets 172
Table 6.22: Government Safety Efficiency & Attack Concern: Nyanya & Wuse Markets 172
Table 6.23: Community Safety Efficiency & Attack Concern: Nyanya & Wuse Markets 173
Table 6.24: Some market changes during the pandemic 174
Table 7.0: Community and Government Response to conflict in Abuja: 2010-2022 178
Table 7.1: Spatial reorganisation pathways for Abuja markets 190
Table 7.2: Avenues for a hybrid effort towards market security 192

LIST OF FIGURES

Figure 2.0: Deaths from Terror: A Regional Juxtaposition 39
Figure 2.1: Deaths from Terror attacks and decline market activity NE Nigeria 40
Figure 2.2: Theoretical framework 42
Figure 3.0: Gradients of mixed methods 53
Figure 3.1: Initial field study plan 67
Figure 3.2: Population density and corresponding interviews in Wuse Market 74
Figure 3.3: Framework of preparation for ethnography in a volatile space 77
Figure 4.0: Global Urbanization Trend 79
Figure 4.1: Position and cross analysis of land of Maps 1887, 1996 88
Figure 4.2: Position and cross analysis of land of Maps 1887, 1904 & 1996 89
Figure 4.3: Abuja Master plan 98
Figure 4.4: Locations of Markets in Abuja 107
Figure 4.5: Phases of Urban development in Abuja 108
Figure 5.0: Interstitiality in Market Vulnerability: Theoretical Framework 115
Figure 5.1: Most important city systems to the people of Maiduguri City 118
Figure 5.2: Interstitial Latency in the FCT 119
Figure 5.3: Progress of road development in Abuja 120
Figure 5.4: Land Use discrepancy for Wuse market, Abuja 125
Figure 5.5: Discrepancies of FCC cadastral zones in the FCT plan 126
Figure 5.6: Detail planning aberration in FCC Zones: 5 instances 127
Figure 5.7: Violent conflict in Abuja: 2010-2022 129
Figure 5.8: Violent conflict in Abuja: 2010-2022 (Regions Combined) 130
Figure 5.9: Violent conflict in Abuja; 2010-2022: Geo-locations 131
Figure 5.10: Violent conflict in Abuja; 2010-2022: Gradient map 131
Figure 5.11: Violence in Abuja's contiguities: 2010-2021 133
Figure 5.12: Attacks on markets in Borno 12-2014 to 11-2016 135
Figure 6.0: Police stations in Abuja: Density map 141
Figure 6.1: Military bases in Abuja: Density map 141
Figure 6.2: Other Defense units in Abuja: Density map 142
Figure 6.3: Total response units in Abuja: Density map 143
Figure 6.4: ETA mapping of Police stations in Abuja 144
Figure 6.5: Area councils related to sprawl dynamics A 146
Figure 6.6: Sprawl dynamics in Abuja: Growth and Mergers 146
Figure 6.7: Sprawl dynamics in Abuja: Growth direction 147
Figure 6.8: Sprawls in Abuja Markets (1-16) 148

Figure 6.9: Sprawls in Abuja Markets (17-32) 149
Figure 6.10: Sprawls in Abuja Markets (33-47) 150
Figure 6.11: Sprawls in Abuja Markets (48-57) 151
Figure 6.12: Wuse Market (AMML) 154
Figure 6.13: Product and service typology across Wuse market 155
Figure 6.14: Nyanya Market 158
Figure 6.15: Maitama Farmer's Market 161
Figure 7.0: Government and community effort towards conflict in Abuja: 2010-2022 179
Figure 7.1: Collective government and community effort towards conflict: 2010-2022 180
Figure 7.2: Leadership Framework of Abuja 183
Figure 7.3: Bridging isolated settlements in Abuja 187
Figure 7.4: Layout of proposed conflict resilient market, Borno 189

LIST OF PLATES

Plate 3.0 Dry Informal Sector: Wuse Market 58

Plate 3.1: Shuwarin, Jigawa, Nigeria 28-03-2022 59

Plate 3.2: Kasuwan Kwari, Kano, Nigeria 16-01-2022 59

Plate 4.0: Map of the region of Nigeria 13-02-1888 83

Plate 4.1: Map of Northern Nigeria 05-01-1904 86

Plate 4.2: Capitol Hill Washington DC and Abuja FCT 97

Plate 4.3: Trade routes of Western Sudan: 16th century 104

Plate 4.4: Trade routes of Northern Nigeria: 19th century 105

Plate 5.0: Mpape sprawling market, Abuja 117

Plate 5.1: Land Use Plans: FCC and Phase 1 123

Plate 7.0: Visual illustration of conflict resilient market (group-level cluster), Borno 189

Plate 7.1: Visual illustration of conflict resilient market (market-scale cluster), Borno 190

1

Introduction

> "It is funny that you get to witness what I just explained to you. Don't be scared. The sergeant will guide you quietly out of the building. Backup will soon arrive. Go to the admin building, stay inside, but pay attention".[1]

These were words spoken to me on the 24th of December 2019, when Wuse market was under a 'mild' attack as I was ironically interviewing the head of the police station within the market. He literally just explained the response step-by-step process the police states when a market or an open space is under attack. Just as he was concluding his explanation an officer stormed into his office and informed him of an impending attack on the market. About 300 Shi'ite youths were enroute the market and they were less than 600 seconds away. Their target was the police station within Wuse market, one of the two markets I studied in-depth. It seemed that they had a score to settle with the police for not settling a matter that happened in the market in favour of one of their people. This was probably a trigger for a larger narrative at play as the Shi'ite Muslim sect (The Islamic Movement of Nigeria-IMN)[2] had been in significant friction with the Government for about 3 decades (Alao, 2020, pp. 72-75). The agitations had escalated since their leader, Sheikh Ibrahim Zakzaky, had been held in custody in Abuja since 2015. Various marches like this had ended in much bloodshed. Among many deadly encounters, was the massacre of 2015 when 347 Shi'ites were killed by soldiers in a protest in Zaira (Alao, 2022, p. 73).[3] The event was, therefore, very serious. Based on the interview with the police officer, the response process of the police was in a number of stages that can be summarised as follows:

a. Verification of threat.
b. Determination of the technical nature of the threat e.g., scale of attack, time of impact, estimate of possible damage to lives and property.
c. Juxtaposition of threat with the resources at the station to determine if backup is needed.
d. Call for back up with a detailed description of threat and a suggestion of the scale and nature of backup.

[1] Spoken by the station chief of police at Wuse Market during regular visits and interviews at the police station during the reconnaissance phase of my field study. See appendix for interview schedule.
[2] IMN was banned by the federal government of Nigeria in July 2019.
[3] A city in Kaduna, a contiguity of Abuja (see figure 6.0)

e. If need be; use of back-up feedback information to work up a response strategy to the threat.
f. Response to threat.

All these stages take between 5-8 minutes on average. In this case, it took about 5 minutes. In times of attack, every second counts. Wondering why the station head used the word "funny" for a situation that could escalate to mass killing, I rushed to the administrative hall of the market about 15 meters from the police station. The market was still going on as usual. The back-up team arrived under 5 minutes, they reinforced the 5 policemen and intercepted the group. They formed an armed barricade on their path and in about half an hour, they were talked out of the attack. The youth disintegrated into the streets in minutes and the day was as normal as it was 40 minutes prior. I returned to the office of the station head, and he was kind enough to give me a near-technical 'de-brief'. This was at the very beginning of my field study. The most interesting observation about this occurrence is the fact that almost nobody in the market knew that about 300 young men armed with knives, rocks and machetes were less than 10 minutes from storming into the market and wreaking havoc. The news would later go around the market but not for another two days. When I ask people who eventually found out, they say things like:

"It is one of those things" or "May God continue to help us".

Since then, there have been more violent-prone protests of the Shi'ites in Abuja, [4] among many other very different incidents of violence.

This was in my first phase of field study. It was my introduction to the spatial study of vulnerability in the markets of Abuja and it is also how I begin the introduction to this thesis. which looks at the spatial impact of conflict and violence on market spaces in the Federal Capital Territory (FCT) of the country Nigeria. This excerpt from my ethnography highlights the impact of conflict and violence on markets in Abuja, showcasing the city's unique security measures, characterized by a substantial presence of police, military, and para-military forces. The government's efforts to fortify the city has been in play since 1985 under the head of state, General Bàdàmosí Babangida, emphasizing Abuja's perception as the most protected space in Nigeria, even amidst the broader instability in northern Nigeria. Despite being politically presented as neutral, Abuja is part of northern Nigeria, and since 2009, the region has faced heightened challenges with insurgency and violence, extending its impact to neighbouring countries like Chad, Cameroon, Niger, and Mali. These developments have left urban and rural space quite vulnerable especially with the contestation of open spaces, and territories based on issues of natural resources, religion, or ethnicity (Alubo, 2011; Buba 2021; IEP, 2020, 2021, 2022). Generally, there has been very few spatial studies of conflict in comparison to the general study of conflict (Starr, 2003; Björkdahl, & Buckley-Zistel, 2016). Moreso, there has been even fewer spatial

[4] Another protest of Shiites in Abuja (2020); as reported by channel news: https://www.youtube.com/watch?v=riNF6b3ByYQ.

studies on conflict in Nigeria. Even the majority of the spatial studies on Nigeria focus strictly on quantitative metrics of land use through remote sensing and similar means. There is currently little to no attention paid to a robust socio-spatial interrogation of space with respect to conflict in Nigeria. To even narrow further down, markets of northern Nigeria are spaces not much is written on exclusively. Markets of southern Nigeria, however, have enjoyed more specific formal studies as far back as the western visits of Hodder (1959,1961) in the 1950s up to as recent as Grossman's (2021) study of Lagos markets. This study takes a spatial view of the impact of conflict and violence on markets from the standpoint of vulnerability with the aim of creating pointers for the development of markets that can be sustained in the urbanism of northern Nigeria.

Through a mixed methods approach of ethnography and spatial analysis; this thesis presents this study in a journey of time and space as it explains conflict from the global scene working through regional levels of space till it narrows down into the discourse of Abuja. This spatial approach should not be seen as a mere geographical 'zoom-in'. It is a process that enables discussions of social activities to be connected to their corresponding larger arenas to bring about a more sophisticated understanding of certain discourses. In this thesis, the nature and dynamic of conflict is broken down across regions and scales till it gets to the immediate spatial context of Abuja. For the first time, the security reputation of Abuja is set aside and the spatial impacts of conflict and violence in northern Nigeria is interrogated across its space with extensive attention paid to its informal markets. For this study to be understood in the most meaningful way, it is imperative to understand the social idea of space as well as the notion of interstitiality. This is important as it is the lens and language through which this study takes place. What is even more important is the understanding of the space of Africa and how the study seeks to look at the social problem set in African spatiality as opposed to the Americanised Afrocentric perspective. The notion of the African space jettisons westernised or imperialist ideologies. Ideologies that try to appraise and measure situations in Africa based on standards that have little to no compatibility with the region and its people.

1.1. The Troubling Notion of Space

This thesis starts off by explaining the importance of the problem and the way it is approached. But very quickly, a simple but justified question emerges: Why space? Why study the impact of conflict in northern Nigeria through space? To answer this one must first understand space, especially from the social standpoint.

To set the conceptual pace for this study, it will be necessary to understand the notion of space through various positions and to clarify the complexities of its multiple perceptions. Space is complicated as it is a discourse in many domains of knowledge (Soja 1980, 1989; Foucault 1991, p. 244). In the western discussion of space, two main approaches stand out, though they have been presented in many dimensions. This theoretical excursion will work briefly with these primary

arguments and opinions of the spatial upon which other secondary and auxiliary buttressed opinions are based and have evolved.

There is a more popular orthodoxy to space which defines it as material form and then a social form, separately (Soja, 1980). This dichotomy often creates an isolation in which the focus is shifted mainly to the notion of physical space where parameters like length, breath and height are principal. This material form of space claims to be social. It is even used to explain the social but, in the process, it is either consciously or unconsciously objectified. Harvey (1973, pp. 13-14) categorises this theoretical approach as physical space (space as basic physical form), relative space (space in as relationship between objects) and relational space (space embodying within itself a relationship to other spaces or objects). Harvey is presented here as an ambassador of the materialist group. In Harvey's approach, there is still an underlying objectification at play. A kind of theoretical rhetoric that engages the discussion of space from the material.

The 'spatial turn' brought about a new direction of looking at space (Soja, 2009,1989; Withers, 2009). This shift was characterised by a rethinking of the spatialization of social production in addition to material space, beyond the social empiricism pushed by Harvey (1973, p. 13, p. 306; 1990) and Castells (1977, p. 115). In Harvey's approach, he pushes the Marxist motive of approaching space, showing gradations of class and unconsciously materialising space. This is buttressed by Castells (1977). The spatial turn takes a deeper interrogation of the ideas of Foucault (1986, 1991) in terms of his heterotopia (space as 'other'; a space where every notion is valid, space in many layers) and Lefebvre's triality of space (1991: p. 33, pp. 38-39) as, conceived, perceived, and lived. Foucault expresses heterotopias as a new space (Soja, 2009), a more advanced space of compiled complexities that transcend pure material and pure social space. This became even more evident as time went on, with the advent of new technologies like GPS and GIS. Then, space began to take on an even more political stance as social production could be mapped directly on material space (Soja 2009). Foucault (1991, p. 244) states:

> "With the birth of these new technologies and these new economic processes, one sees the birth of a sort of thinking about space that is no longer modelled on the police state of the urbanisation of the territory, but that extends far beyond the limits of urbanism and architecture."

Soja (1980) starts with advancing his idea of the socio-spatial dialectic in which he builds on Lefevre's (2009, p. 33, pp. 187-189) idea of space as political and ideological. He eventually arrives at a notion of 'the third space' where the real and the imagined exist together (Soja, 1996, p. 57). According to Soja (1980), the 'first space' is the physical space of the built environment, it is quantifiable and embraces the laws of physics. The 'second space' is the imagined space. It is abstract. It is the social space, the space born of how humans perceive and behave in an environment. Soja's

'third space' collapses both (first and second) previous spaces into a single experience where the physical informs the social and the social in-turn informs the physical in a complex continuum. Partly because space is usually seen physically, Soja often referred to this space as the 'socio-spatial'. By doing this, he raises awareness of the social in the discourse of space. This idea of 'third space' is also partly built on Lefebvre's triality of space. i.e., perceived space, conceived space and lived space. These space typologies engage the physical and also the abstract in a process Lefebvre calls social production, in which the discussion pushed further position space as political and therefore social (Lefevre, 1978). Soja (1980) states that the 'third space' is not close ended as it has an inherent heterogeneity that welcomes other aspects of space in itself and to itself (Soja, 1980, 1996). This phenomenological perspective of space brings about the idea of experience, which Withers (2009) attempts to argue as place. Place he debates, is spatiotemporal and in connection to space and time. Here, he brings in temporality into the discussion of the socio-spatial i.e., the 'third space'.

The idea, therefore, that place is a location in time in which space happens creates an entry point for conflict to be studied spatially (or socio-spatially). This is so since conflict is socially produced and social production which Soja (1980) argues is in continuum with space. Space is brought about by social production which in turn, creates space. The understanding of this reinforces the idea of space as not mere physical geography but of a complicated embodiment of social production.

1.1.1. African Space and Space in Africa

There is however something very troubling in the notion of space. It is mostly seen through the western lens and therefore western theory (Mkabela, 2015). This is where the deviation from mainstream spatial theory begins. One may lazily claim that space is space, and all space is the same therefore, why should the African space be different? This will however be going against the notion of space as social production and therefore social activity which varies across space. The African space is very complex. We should be careful so as not to unduly homogenise the most socially diverse continent in the world (Fearon, 2003).[5] But space can encapsulate social diversity in the sense that there is a spatial hierarchy of variations in which spaces are seen to contain spaces and at the same time be a sub-space of a macro space. This in fact does not homogenise the African space but further accentuates its complexity. But there are variations and identities in space at a more detailed level and at the same time, there is a larger identity of the African space. The movements and oscillations between these variations in the context of culture is what Bhabha (2012, pp. 52-53) tries to explain by presenting us with a new typology of heterogeneity that brings about a third space. This is not totally as Soja (1980) puts the third space, it is put forward as an idea of locating culture. However, moving up the spatial hierarchy; in this collective space, Africa behaves largely as one. This is driven by general social forces like macro-

[5] This buttressed by studies from the world population review among other numerous sources: https://worldpopulationreview.com/country-rankings/most-diverse-countries

cultures, climate which has similar impacts on social activity and also by the impact of external social mutations like colonisation which has altered the socio-economic trajectory of the continent and therefore the space. In this regard, the African space exists. An example will be in the structure of colonisation in which Africa is seen in the spatiotemporal sense of pre-colonial, colonial and post colonial. Once again, culture is located within this liminality. This is what Kalua (2009) argues as a third space of Africa's identity by building up on the argument of Bhabha (2012). Now, we know that there is an African space and there are spaces within Africa, and they all have clear-cut peculiarities to Africa in terms of identity.

We can now move deeper into the dynamics and nature of the African space. The African space is diverse and rich. At this spatial level, the detail of the spatiality with respect to culture is difficult to follow through only theoretical study without encompassing more immersed approaches like ethnography. Even this poses its own danger as some of the ethnographic studies are carried out through the lens of other norms and cultures which distorts or misrepresents experience being studied as will be seen in this thesis. As discussed, the African space comes with an intimidating level of cultural diversity (Fearon, 2003) and the variations that this brings about is so complicated that western theories of space that assume certain generalisations of space will not work for the African space. Even ideologies that recognise heterogeneity cannot cope with the African space (Mugambiwa, 2021). There is therefore caution, even for Africans, in the interrogation of the African space. This study is mindful of this volatile socio-spatial heterogeneity, and it takes it into account not only in the design and conceptualisation of its methodology, but also in the approach of its analysis and its recommendation of development strategies.

1.2. An Introduction to the Theory of Conflict

Since theories of conflict are so numerous, various scholars have attempted categorisations. Vahabi, (2009) categorises conflict theories based on rationality and assumptions of the phenomenon. Kimbrough et al. (2020) categorise analytically based on definition, methods, and models. Obershcall (1978) famously goes topical by categorising theories into structural sources, conflict group formations and Conflict dynamics. This thesis will proceed by categorising from the root central themes of the theories rather than an enumeration of the theories. Thematic categorisations will be made and briefly appraised in the context of spatiality for the direction of the study.

In western scholarship, so many definitions and theories of conflict have been developed even before the 20th century (Ellis, 1919, p. 44), Ellis' seminal modern work attempted to create a 'new' philosophy of conflict over 100 years ago. Much prior to this time, western scholarship had largely dealt with conflict through ancient philosophies of the western world. Upon study of various theories, it has been deduced that these many approaches of conflict can be grouped into two broad domains of literature. There is a social approach and an economic (materialist) approach. This is argued further:

1.3. The Spatial Study of Conflict

It is a key observation that conflict is one of the most destabilizing phenomena in modern society. However, investigations and discussions of conflict, peace, and violence in the context of space has not largely been the topic of sophisticated discussions (Björkdahl & Buckley-Zistel, 2016, p. 5). When it is, it is usually problematised as a disconnection between space as material/physical and space as social occurrence (Chojnacki & Engel, 2016). As previously explained, there seems to be an epistemic bifurcation of space as a physical/material medium and as an agency of social production. Social production in this sense is described as human activity at the level of the individual, the group, and cross-relationships of both. Developmentally, the analysis of conflict and peace progressing from the standpoint of space is gradually becoming a recognisable development in the discourse (Bräuchler, 2018, p. 22; Colins & Watson, 2018, p. 93). Space in the context of this study extends beyond the physical (material) scope to include social production. Soja's 'space' (1980, 1996, 2009) which brought the socio-spatial and socio-political into the meaning of space has been supported by Björkdahl & Buckley-Zistel, (2016, p. 3), Massey (1999) and Chojnacki & Engel, (2016) amongst others, in the context of conflict.

1.4. Research Questions

From the description of the problem so far, the study proceeds to engage three primary questions that speak to the impact of conflict and violence on markets in Abuja:

a. In the context of conflict and violence, what is the spatial nature of vulnerability in Abuja Markets?
b. How can it be studied?
c. How does the government and the community respond to conflict and violence in Abuja, what are their inhibitions and development pathways?

The answers to these questions are in no way simple. In fact, they embody the engagement of other sub-questions leading to the parent inquiries. For instance, the second question—though presented at the scale of Africa, is strategically unpacked into the spaces of sub-Saharan Africa (SSA), northern Nigeria and then Abuja which becomes the focus of study. It addresses the question of methodology and theory in the understanding of conflict in Africa, particularly in the space of the market. For instance, a breakdown question (a) unfolds into the following sub-questions:

i) What are the factors or dynamics of conflict that make Abuja markets vulnerable?
ii) How does vulnerability vary across the markets of Abuja?
iii) How vulnerable or confident are the market people in Abuja markets and why?

In the case of understanding the spatial nature of market vulnerability in Abuja, the question encompasses an understanding and presentation of a theory and a methodology through which inquiry is carried out.

In response to these questions this thesis lays claim to the argument that spatial reorganisation can bring about development, this stems from the theory of Akin Mábògùnjé, (1989, p. 68). In the engagement of the questions, the study puts forward a comprehensive understating of not only the vulnerability of Abuja's markets to conflict and violence but of the city as a whole. It reveals vulnerability across scales from that of the city as a whole to the forces affecting the smallest markets. The nature of these vulnerabilities is revealed in the social activities and confidence levels of the market traders and the buyers as they respond to the impacts of conflict and violence as well as the leadership of the government as it regards urban security. In terms of method, it practicalises the theorisation of spatial ethnography by calibrating the approach of the markets of the African space. For the first time spatial analysis and ethnography are simultaneously employed at a city-scale to study the vulnerability of spatial typology in Africa. The study also develops a framework of using this method in areas of current or imminent instability in the context of conflict and violence. Last but not least, the study reveals the responses of the state and communities to insecurity in Nigeria, uncovering the dynamics, strengths, and shortcomings of both macro-agents. It also unveils core lapses in the leadership and policy architecture of Abuja as it uses the evidence of its findings of vulnerability and urban insecurity to map out strategic pathways towards development in the city.

1.5. **Thesis Overview**

This study moves systematically through space as it engages conflict and its relationship with vulnerability in markets. It starts by taking a global outlook, and it proceeds up to the spatial context of Abuja where the study is primarily situated.

Chapter two opens with a comprehensive understanding of what conflict is. It explains the theorisation of conflict from the nature of the phenomena to the instabilities of the epistemologies in terms of identity and nomenclature as it surveys existing theories. It then introduces the notion of vulnerability, its philosophy and its connections with conflict and violence. The literature then begins to approach the spatial typology of the study by engaging informality, its relationship with the formal and how markets and their vulnerability are situated in the discussion. Conflict is then surveyed at a global scale with major regions covered across the world. A global survey is also done on the vulnerability of markets by focusing on major regions, highlighting the current occurrences of violent conflict and shedding light on the nature of the regional vulnerability of markets. Through a survey of the spatial data and arguments, it submits that Africa is the epicentre of conflict and violence in the world. It then presents the region of Africa as the primary area of study as it proceeds to explain general global responses for development and their current inadequacies. It concludes by presenting a

theoretical framework that posits that spatial reorganisation can bring about development in markets within the context of their vulnerability to violent conflict.

Chapter three unpacks how the study is carried out. It conceptualises the spatial method and then takes an Afrocentric perspective of the spatiality of method. The chapter continues by presenting the methodology of the study as a combination of ethnography and spatial analysis termed 'spatial ethnography'. It makes the argument for the legitimacy of this method as an emergence that embodies the strengths and non one the weaknesses of both material and social approach to the study of conflict. In this argument, relevant notions of mixed methods, ethnographic peace research and Geographical Information Systems (GIS) are raised. In addition to pushing for the study of all the major markets in the FCT, a criteria-based system is set up to narrow down deeper study of the markets to two spaces. Wuse market and Nyanya market. This is followed by discussions on the nature, scope and technique of the study including the variations in the research design that occurred during filed study period. The methods section concludes discussion on the meta-data that involve ethics and the development of a research team to cover the targeted scope.

Chapter four is the first major shift towards the region of the study. It explains in detail, the spatiality of Abuja, the study area in the context of its urbanism and its markets. The discussion flows through to the space of Abuja. Abuja as a territory and as a city is discussed in detail with two histories of the city's orchestration from two different times. First, from the initial formation of Abuja in 1828 and then the making of Abuja city and the FCT from the Aguda committee in 1975 to date. The spatialities of Abuja is discussed which includes various layers of spatial asymmetries as well as the western and northern Nigerian influences in its design and implementation. This is followed by the spatial nature of markets in Nigeria in which the first classification of markets in Nigeria (and by extension, Africa) is presented. The nature and role of markets in northern Nigeria is studied through centuries of Nigeria's history. This culminates in the markets of Abuja, their spatial taxonomy and how they will be engaged in the spatial study of conflict and vulnerability.

In Chapter five, vulnerability is unpacked in terms of its nature, and measurability. It challenges the first global study of vulnerability by the Institute for Economic Peace (IEP, 2022c) in which significant gaps of spatiality are identified. An argument is made about how the gaps are avoided or improved in the study. The thesis proceeds to present the theory of interstitiality for conflict study in which fuzzy boundaries, interstitial latency and the reorganisation of space are presented as theories of the spatiality of African markets using the markets of Abuja as a spatial synecdoche. The analysis of the data starts from macro discussions of the northern region and the scale of Abuja as a whole. Macro spatial studies of Abuja and its contiguities i.e. Kaduna, Niger, Nasarawa, and Kogi are appraised to bring more insight on vulnerability in the Federal Capital Territory with respect to conflict and violence. Vulnerability is analysed across communities and markets of Abuja, uncovering spatial isolation

situations and forces that can improve or exacerbate vulnerability at urban and peri-urban parts of Abuja. At the market level, perceptions of safety of the traders and buyers in Abuja are juxtaposed with areas of more active conflict and violence in the same region to understand how the perception of conflict and violence changes within the northern Nigerian space as the intensity of violence varies. Hence, Abuja markets are compared with the markets in Maiduguri, in Borno, the epicentre of conflict and violence in Nigeria. Comparisons are made in terms of perceptions of safety and how susceptible to harm the states are. The juxtapositions show similarities and divergences of conflict dynamics as well as how vulnerability can degenerate to conventional and even institutional norm. The safety of Abuja is generally appraised by juxtaposing insights from the public and the buyers in the market. The roles of the government and the community in the vulnerability of Abuja markets and the city at large are discussed through a comprehensive analysis that appraises policy dynamics, governance, and general leadership across both groups. The study presents practical formal and informal interventions from the government and the community to sustainably develop Abuja markets.

Chapter six goes deeper starting with spatial analyses of vulnerability in the morphologies of all the main markets of Abuja. Sprawls, market membership and infiltration possibilities are analysed and discussed. The study proceeds to focus on the two selected markets (Wuse and Nyanya markets) in which deeper spatial ethnographic study is conducted. In this chapter, the idea of vulnerability at the market and trader level is extensively dealt with. Cross demographic spatial analyses are carried out across market space, trader typology and buyers. The developed theories are continuously used as a basis for analysing markets in Abuja in which insights on vulnerability are presented across macro and micro spaces. The findings are then harmonised with the insights developed in the pervious chapter to chart definite pathways for development.

In conclusion, the last chapter takes stock of the study, and further discusses the pragmatics of the development avenues and opportunities presented in the thesis. It revisits the research questions and shows how they are answered across scale by presenting the original contributions to the spatial discourse of conflict study in Africa. It responds to the questions of the nature of vulnerability in markets, how they can be studied and the role of government and communities in the process. It argues for the legitimacy of spatial study in the discourse of markets through the method and theories presented in the study. It also comments on possibilities of extending the study to other African space as it closes with how the study can turn the tide of the vulnerability of markets and other open spaces in northern Nigeria and by large, Africa in the current predicament of instability of peace across the region.

2

Conflict, Vulnerability & Markets

Though this study focuses on the impact of conflict on markets. It is critical that the survey of existing literature starts with the exploration of the meaning of social conflict. This involves a theoretical and spatial overview within the development domains, emphasizing form, context, and scale. Firstly, on a brief scrutiny of the etymological philosophy of the word "conflict", it is observed that general literature is overrun with the habit of etymologically tracing a word to its Latin and Greek roots. Some of the work cited in this thesis on space take similar stances be it works of spatial approach (Wright, 1957) or even in pedagogy (Robertson, 2005). However, it is noticed that etymology is not sufficient for determining meaning when confronted with the spatial construct of social activity. Where a word comes from begs the question of spatial heterogeneity. This is because Language sometimes varies with culture, and culture varies with space (Triandis, 2000). For instance, the English word 'conflict' comes from *'confligere'* which means a collision of ideas or issues. This is primarily communicated as two entities in disagreement. This is different from the Arabic-based term "فتنة", pronounced "fitnah", as used in northern Nigeria where this thesis is situated. 'Fitnah' etymologically signifies 'disorder' or 'persecution' (Kamali, 2002). Lifintseva and co (2015) also show that it also can mean a force against the oppression of religion (Islam). In this meaning of conflict, a side has already been taken and a narrative is set. This is a contrast to the Greek rooting of conflict which is more neutral. 'Fitnah' on the other hand is influence by culture and religion. Ting-Toomey (1982) presents conflict as a communication and cultural phenomenon, asserting that vocabulary and social meaning in conflict are shaped by diverse perceptions across different spaces. De Groot (2011) builds upon this heterogeneity by demonstrating the connection between conflict, spatial contiguity, and linguistics, particularly in the African context. This supports the idea that spatial considerations are integral from the very origin of understanding the meaning of conflict. Space is therefore seen as not only an influencer of language but of how people understand and experience conflict.

2.1. The Theory of Conflict: Origins and Form

If the complexity of conflict's nomenclative meaning can be understood from sociolinguistics, the next step would be to see how the notion of the meaning is interrogated to evolve new ideas. This is theory. Conflict has been approached through a number of lenses, some approaches are positioned directly or indirectly through the lens of space holistically, they include: Weidmann & Ward (2010), Maogoto & Freeland (2007), Lehtovuori, (2016), Bjorkdahl & Buckley-Zistel (2016), Carter *et al*

(2019). Other works focus on conflict through aspects of space like scale e.g. Cai & Fink (2002), Wilson (2003), and Stewart et al. (2002). Some are presented from a spatial discourse of contiguity (Maoz & Russett, 1992; Senese, 2002), or culture through space (Stonequist, 1937; Markus & Lin, 1999; Chiozza, 2002; De Groot, 2011), or religion (Atran & Ginges, 2012, Alao, 2023). While all these are spatial engagements, there are other elaborate explanations regarding conflict. Each of these key definitions point to the central denominator of conflict being a friction in human activity. Conflict is a complex, ever-changing phenomenon, this makes the theorisation of it a very complicated ritual (Ho-Won & Eleftherios, 2008). But where does conflict theory come from? This complex question broaches epistemological in which time and space cannot be excluded. When it comes to tracing the origins of conflict theory, the oral is the first call. This is because knowledge was first curated in speech before text (Sharpless 2008, p. 7). Though this study centres mainly on Africa, the continent coincidentally has one of the largest predominance of the oral tradition (Appiah-Thompson, 2019). In finding origin, the easiest route would be to look back on written work, however, this cuts off an older source of narrative. The dominance of the written over the spoken has been a global norm except in Africa as a continent (Appiah-Thompson, 2019; Scheub, 1985). African oral tradition is a valid form of epistemology and philosophy with its own logic of knowledge accumulation and transmission in which it stays intact and updated across temporality through everyday life, and it varies across space (Ndubuisi, 2014; Wiredu 1996, pp.113-114). Generally, the written has not cared much for the oral as a standalone pathway of knowledge, especially in western scholarship (Gyekye, 1987, pp. 3-6; Sharpless 2008, p. 8; Appiah-Thompson, 2019; Abiodun, 1998). With this in mind, it is imperative to deliberately proceed with a consciousness of the oral, as we trace the origins of conflict theory. In Africa for instance, the oldest forms of thinking around conflict can be evidenced in proverbs, religious divinations like Ifá of the West African Yorùbá people and of course, religions across the vast heterogeneous cultural space. Moving beyond Africa, Sharpless (2008) identifies some of the oldest oral thinking around conflict. He traces origins back to the oral sayings of conflict philosophy of the Zhou Dynasty (1122BCE – 256BCE), and the ancient oral Greek thinking of Herodotus and Thucydides (5BCE) emanating form the Persian and Peloponnesian wars. Sharpless (2008) also states that the oral was only brought back into conflict scholarship in the 20th century. Although Ellis (1919, p. 44) shows that many definitions of conflict have been put forward in the 19th century, the 20th century required the need for developing conflict theory further in new ways (Simmel, 1908). One of the earliest seminal theories of the time is Ellis' philosophy of conflict as War where he argues against pacifism as presented by the Novicov (1893), insisting that war is the path to development, a notion also supported by Barnes, (1921). Decades into the century, the rise of the categorisation of began. Clinton Fink (1968) was a central voice in this phase of theory. With the rise of conflict theory, there were very many theories and the literature got really heterogeneous and messy. The early scholars did not see this as a good thing (Fink, 1968). They were obsessed with the epistemic unification of theories found in scientific scholarship and therefore wanted a unifying theory of conflict (Merton, 1957; Fink 1968).

This obsession led to the bifurcation of the scholarship into two major schools of thought: The holistic (generalist approach) and the eclectic (idiographic approach). The generalist approach argued that a conflict theory could be amalgamated into a single standpoint based on society's structure. Campaigners included: Dahrendorf (1958), and Merton (1957, 1967, p. 51). The idiographic approach generally believed it was impossible to unify conflict under one theory as macro-factors like religion and culture varied across the world and influenced conflict. Scholars holding this fort included Sorkin (1928), Janowitz (1957), Chase (1951), LeVine (1961) and Hager (1956, 1965). But the emergence of these schools of thought brought about the realisation of another problem; the need for conflict to be appraisable in any social discipline. To engage this problem scholars like Bernard (1950), Rapoport (1965) moved for more holistic classifications as they realised a complete homogeneity of theory was largely impossible. Fink (1968) shows their attempt at holistic classifications went all the way back to modern foundational genres of thought and they referenced foundational thinkers of modern social friction and inequality like Karl Marx (1867, 1885, 1887, 1894, 1959) as they tried to start from a standpoint of 'social' conflict. Many groupings were tried e.g. sociological, psychological, and semanticist groups (Bernard, 1957). The drive for a more holistic classification continued over the years. Contemporary advances included Obershcall's (1978) seminal idea of categorising theories into structural sources, conflict group formations and conflict dynamics. More recently, Vahabi (2009) categorised conflict theories based on rationality and assumptions. Kimbrough et al. (2020) made an analytical categorization based on definition, method, and models.

As seen through these attempts, conflict theory was, and can be classified in various ways. Since this thesis focuses on the impact of conflict on informal markets in Africa, and the African market is a space of commerce and communal living, the general category of the material and the social come to fore. In this study, conflict is therefore approached through these main themes.

2.1.1. Conflict Theory: The Material Approach

Conflict based on the 'material' or 'resource' as a perspective was first taken very seriously around 1845 leading to Friederich Engels' project on the working class of England (Engles, 1887, 2005) where he metaphorizes the deprivation of workers by the government as "disguised, malicious murder" (1887, p.95). This position of friction was expanded to a discussion of class in his seminal collaboration with Karl Marx (1867,1885,1887,1894,1959) in which inequality and scarcity was seen as conflict. While their work is not proper conflict theory, it sets a stage for an economic angle of conflict study. Turner (1975) shows how the discussion has progressed from class struggles (Marx, 1867,1885) to an abstraction of social production and ensuing friction (Simmel, 1908). In mainstream economics of the 20th century, conflict evolved to focus on two specific areas: Inequality and trade. The central idea became the pursuit of 'gain' through goal-achievement in economic conflicts. Post-Marx, there emerged a perspective suggesting that economic conflicts towards the attainment of goals are inherently solvable. This view is rooted in the foundational work of the Russian economist Lerner (1972, p. 259). But is

solving an economic problem equivalent to solving a political one? While economics can have political implications, the discourse requires greater sophistication. Examining studies on inequality and trade reveals the complexity of economic conflicts, particularly within political contexts. Inequality and conflict vary across space (Lichbach (1989) because the toleration of inequality varies from one society to the other (Cramer, 2012). Deiwiks et al (2012) however found that that inequality within federations increases the likelihood of both economic and political conflicts at the sub-regional level. The resolution of conflict dynamics becomes more comprehensible as the focus shifts from regional to local considerations. It is found that the more countries trade between each other, they lesser they are to resort to armed conflict (Polachek, 1980). This is exemplified in the historical tensions between China and the USA, where increased trade has mitigated full-blown armed conflict. Further studies, however, show that while this international trade may even foster peace (Barbieri, 1996), countries still go to war despite trade relations (Żuk & Żuk, 2022) as can be seen in the recent developments of NATO, Russia, and Ukraine. This is however more noticed in the global north. These discussions, predominantly focused on the global north, prompt a crucial examination of Africa, considering the nature of this study.

In discussing economic conflict in Africa, scholars like Collier and Hoeffler have traditionally adopted a focus on only resource economics. Their macro-studies, particularly the global economic study of the causes of civil war (Collier & Hoeffler, 1998), framed conflict predominantly as an economic phenomenon, simplifying cultural and socio-spatial dynamics. The realist political approach to conflict theory also links conflict to competition over scarce resources (Ho-Won & Eleftherios, 2008), a view observed in Africa as well (Alao, 2007). Conflict is recognized as an economic activity, with Hirshleifer's (2001, pp. 7-18) calling it 'dark side' of economics.

Collier, a prominent figure conflict research in Africa, has contributed extensively, emphasizing traps such as poor governance, economic isolation, mismanaged natural resources, and armed conflict hinder African development (Collier et al., 2008a, p. 8). However, the limitation of his work and that of his cohort, lies in the spatiality of their studies and a bias towards purely material perspectives, deliberately neglecting a comprehensive exploration of social forces. Even when addressing social costs, their studies tend to present numerical reports of casualties rather than delving into the actual impact on people's lives across different spatial and temporal dimensions (Collier et al., 2003, pp.17-19, p. 39, 41). The psychological and social impact is crudely quantified, lacking qualitative exploration of how war influences society (Collier et al., 2003, p. 29). This one-dimensional orientation persists in their study of greed and grievance in civil war, where political and social variables are dismissed as having "little explaining power" (Collier & Hoeffler, 2004). For instance, in a study, they measure ethnic and religious fractionalization as a "probability that two randomly drawn individuals from a given country do not speak the same language" (Collier & Hoeffler, 2004, p. 595).

Collier's approach to understanding conflict in Africa focuses heavily on quantifying economic factors, particularly poverty, as the main driver. He argues that poor countries are more likely to engage

in conflict, expressing the cost of internal conflict in monetary terms (Collier et al., 2008a, p. 9). Studies show that coup attempts have often set the stage for civil wars that have claimed millions of lives in Africa (Powell, 2014) with examples in Nigeria, Rwanda, Congo, and Cote d'Ivoire to mention a few. To Collier, these lives are expressed in monetary value as earlier stated. There have been 200 coup attempts in Africa alone between 1970 and 2008 (Collier et al., 2008a, p. 28). Between 1952 and 2012, 88 coups were successful (Souaré, 2014). While Collier cites these occurrences of wars so boldly as primary evidence, what he fails to understand is that a significant number of these coups are directly or indirectly supported or even engineered by the western world to keep the continent unstable for ease of exploitation (Sachs, 2021; Shannon et al., 2015; Gerard & Kuklick, 2015. pp. 135-145, 195-200; Asuelime, 2018). Europe has been seen to be noticed as invested in the instability of Africa largely for resource control (Momtaz, 2020; Shannon et al., 2015), they have also pursed this subduing and resource control through closed market strategies (Chang, 2002, pp.58-68).

In spite of this overwhelming evidence, Collier and his cohort overlook the role of the West, in Africa's conflict. The bias towards material thinking is evident in Collier's reliance on GDP data and a global model (Collier & Hoeffler, 1998, 2000) that associates conflict in Africa primarily with poor economic performance (Collier & Hoeffler, 2002, p. 14). Like their generalist predecessors, they hint at trying to homogenise the theory of conflict across space through a 'global model', taking the notion of space's heterogeneity out of the discourse, to them, it is simply a question of economics. In 2002 Collier and Anke Hoeffler open their main argument by saying:

> "We show that over the period from 1965 to 1999, the incidence of conflict in Africa is well explained by a global model: there is no mysterious "Africa effect." (Collier & Hoeffler, 2002, p. 1).

This viewpoint is challenged by the ongoing Ukraine-Russia-NATO war involving economically stable nations. While Collier makes valid points about the desperation of the poor leading to conflict (Collier et al., 2008a, p. 10) and the economic consequences of civil wars through GDP appraisals (Collier et al., 2003, p.14), his analysis lacks a holistic understanding of conflict, ignoring various deadly occurrences like insurgency, territorial disputes, and ethno-religious conflicts and culture clashes. The literature tends to focus on large-scale material events, overlooking nuanced social and local dynamics. His approach therefore focuses squarely on material parameters while excluding the social (human) side of the discourse. Furthermore, the material-focused development economic thinking is often directed towards the West, framing solutions in terms of what the West can do rather than promoting collective efforts among nations. O'Brien (2007) shows that is motive drove the launch of Collier's (2008b) "*The bottom billion*" project. World Bank (2011, pp. 11-17) studies suggest that building public confidence in institutions and the transformation of the institutions collectively, are crucial for reducing fragility and violence. Overall, a more comprehensive and spatially sensitive and

holistic approach is needed to understand the multifaceted nature of conflict beyond purely economic factors.

2.1.1.1. Game Theory and The Material Approach

As an extension of thing about conflict in material terms. We look to game theory. Game theory, originating from mathematics and positioned between material and social categories of conflict theory, serves as a valuable tool in understanding the economic dimensions of conflict. Developed by von Neumann and Morgenstern (1944), game theory models strategic interactions and has been extensively utilized by economists in studying conflict (Schelling, 1958; Jones, 2000; Vhahabi, 2009; Leonard, 2010; Rapoport, 2012; Kimbrough, et al., 2020; Aghmashhadi et al., 2022). This approach highlights the emergence of agents and agency in economic analyses. New models within the theory incorporate alternative assumptions about preferences and information processing in decision-making processes related to conflict (Beck, King, & Zeng, 2000; Colaresi & Mahmood 2017; Hegre et al., 2019; D'Orazio & Lin, 2022). Though proven useful in scenarios involving direct spatial comparisons and competitions between land-use types, its application in spatial studies, such as informal markets, encounters limitations. Aghmashhadi et al. (2022) argue that game theory is less suitable for studies of land development issues in spatial planning because land issues are complex and vary drastically across space.

2.1.2. Conflict Theory: The Social Approach

Social conflict is a group struggle for a common cause. It centres on friction as a result of differences. This sense of difference is a key denominator in social theories. The review categorizes conflict theory into social and material themes (see table 2.0), revealing the intricate complexity as domains splinter into narrower sub-domains. It has also been shown that both themes can merge in the domain of the socio-economic (Lerner, 1972) with the material demonstrating strong manifestations in the pure social activity. This is further implied in Dugan's (1996) nested theory, that argues conflict theories are domiciled in each other, which attempts to unify conflict theory, but also underscores its multi-level nature. It is a complex interrelationship.

Game theory and public choice theory, rooted in economic determinism, inadequately address social conflicts, as they overlook societal intricacies, norms, and historical dependencies, limiting their understanding to a rational economic framework (Vahabi, 2009, 2010). Social conflict arises from tensions between societal differences at various scales, as discussed in the interplay of actors and theories, exemplified by Acemoglu & Robinson's concept of the "Shackled Leviathan," highlighting the struggle between state control and societal liberty, a delicate equilibrium hard to maintain due to diverse societal aims (Acemoglu & Robinson, 2020, pp. 64-65, pp. 402-403). The complexity of being different extends beyond individuals to encompass changes in nature over time, driven by various factors, distinguishing social conflict from economic conflicts. Social conflict, distinct from economic conflicts,

involves cultural, power, and domination dynamics, operating at a communal scale beyond individual struggles. The spatial and diverse operationalization of conflict across groups, shaped by culture and upbringing, emphasizes the significance of understanding both the social approach and its limitations (Vahabi, 2010; Cai and Fink, 2002).

Conflict is not necessarily a bad thing. It can spur development across various differences, such as religious tensions. Atran & Ginges (2012) note that religious friction, while potentially intractable, can offer sustainable avenues for conflict resolution. Ting-Toomey (1982) views conflict as a communicative form that can be functional within cultural norms and values, emphasizing the importance of respecting differences in socially heterogeneous settings. Huntington (1993) theorizes that conflicts are more probable between groups of different civilizations or ethnicities than those with diverse classes or income levels, suggesting that future conflicts will predominantly arise between distinct civilizations (1996, pp.28-29). This is contested by Chiozza (2002), who asserts that conflict between different social classes remains very probable. The complex nature of difference and heterogeneity in conflict underscores the need for careful handling, as it can also drive development if approached with justice and equity (Fainstein, 2005).

Social theories of conflict, encompassing classification and deeper aspects of human experience, are numerous. Rather than an exhaustive list, the focus here is on a theory deeply embedded in the social fabric, addressing the multifaceted nature of differences in social conflict. Merton's strain theory (1957), rooted in the works of Novicov (1893), Ellis (1919), Singer (1948), and Bernard (1950), is a prominent conflict theory, particularly in criminology. It posits that societies consist of cultural goals and institutional means to achieve them, when strain arises in achieving these goals, conflict can arise. This strain plays out in frictions across social domains such as religion, ethnicity, culture, and social class, and explores how these differences manifest activities such as violence.

Social theory has not holistically developed as some may assume. It has had its own share of poor arguments. The most obvious are aspects like feminist theories of crime and violence that are barely three decades old and still very much in development. Renzetti (2008) attributes this lag to the late emergence linking women to violence in conflict studies as their capacity for violence have been grossly under-estimated. This contrasts with some parts of sub-Saharan Africa where women play strong roles in activities of warfare, terror, and other forms of violence (Turner, 2016; IEP 2020, p. 21). The discourse is gradually changing, and gender is now taken more seriously as an agency factor crucial in shaping conflict dynamics. Another poor assumption of social theory is the archaic theory of physiognomy, linking criminal behaviour to physical appearance. This dates back to ancient times, influencing views on crime tendencies based on gender and bodily features (Renzetti, 2008). This theory of course has been found to be baseless even though practices like racial profiling are very much still at play today.

Table 2.0: A broad categorisation of conflict theory with study instances (Source: author's own)

Theoretical Domain	Overview	Attempts on Theory (sources)
Material	Conflict from the standpoint of the economy of service and products and the hierarchicalisation of the agency producing the aforementioned avenues. This can be outlined as a theory of conflict from the standpoint of modes of production and economic classes.	Engels (1887, 2005), Marx (1867, 1885, 1887, 1894, 1959), Turner (1975).
Economic Theories of Conflict		Lerner (1972), Polachek (1980), Lichbach (1989), Barbieri (1996), Hirshleifer's (2001), Collier et al. (1998, 2000, 2002, 2008a, 2008b), Alao (2007), Vhahabi (2009), Deiwiks et al. (2012), Souaré (2014), Kimbrough et al. (2020), Żuk & Żuk, (2022), Tosun & Eshraghi, (2022), Aghmashhadi et al. (2022).
Game Theory	Conflict from the standpoint of competition and interactive decision making in various context of the economy or social life in general.	Neumann & Morgenstern (1944), Schelling (1958), Killingback et al. (1996), Jones (2000), Hirshleifer (2001), Vahabi (2009, 2010), Leonard (2010), Rapoport (2012), Liu et al. (2015), Beck, King, & Zeng, 2000; Colaresi and Mahmood (2017), Hegre et al., (2019). D'Orazio & Lin, (2022).
Social	Conflict based on the friction of human identity, culture and the structures directly or indirectly born out of it in isolation or in relation to social or non-social extended factors.	Libiszewski (1991), Gleditsch (1998), Senese (2005), Galtung, (2009), Weidmann & Ward (2010), Kurtz & Credo Reference (2012), Bjorkdahl, A., & Buckley-Zistel (2016), Christensen (2016), Appiah-Thompson (2020).
Culture and Identity		Stonequist (1937), Dugan (1996), Triandis (2000), Cai & Fink, (2002), Bucholtz & Hall (2005), Ho-Won, & Eleftherios, (2008).
Governance and Power		Cohen (1955), Burton (1997), Chiozza, (2002), Walter (2003, 2006a, 2006b), Sambanis et al. (2018). World Bank (2011).
Law and Order		Renzetti (2008), Warner (1992)
Religious/Theological		Atran & Ginges (2012), Lifintseva et al. (2015), Alao (2022).
Environmental		Alao (2007), Carter et al. (2019).

The development of social conflict theory, rooted in understanding human behaviour, has faced challenges and shortcomings upon scrutiny. Cohen's (1995) status-frustration theory, attributing crime to lower social class upbringing, lacks consideration for systemic oppression, power asymmetry, and economic bias. Examining secession upon conflict, Walter (2003, 2006a, 2006b) suggests that governments resist when separating regions are perceived to grow in land, resource, and diversity. The Biafran war in Nigeria is an African example (Fálọlá́ & Heaton, 2008, p. 175). Sambanis (2018), however, counters this with data from 1945-2012, showing there are few cases where this is true. Despite a number of inconsistencies, social theories provide a human perspective, delving into the complexities of human activity influenced by diverse and ever-changing cultures. Notably, there's a

tendency in conflict theory to focus on actors, conflict types, and sources rather than the actual conflict process. Scholars like Warner (1992) emphasize the importance of considering the process to understand intricate dynamics, while Starr (2003) highlights the neglected aspects of space and temporality in conflict theory, a focus addressed in this thesis.

2.2. Relevant Notions of Space in the Conflict Discourse

The relevance of some notions of space to conflict in this section not only applies to the material-social dichotomy but to the specific space of the market that is the primary point of study in this thesis. Examining conflict theory through material and social lenses reveals a tension in space and scale (Chojnacki & Engel, 2016). The material lens focuses on macro-space, emphasizing economic impacts at the scale of nation-states, often studied by scholars like Polachek (1980), Collier & Hoedffler (1998, 2003, 2004). These macro-space conflicts, due to their prolonged duration, offer more data. In contrast, the social lens, closer to human activity, operates in macro space too (Fafchamps, 2003; Walter, 2003, 2006a, 2006b; Chojnacki & Engel, 2016). However, the social lens narrows more into the meso-space and micro-space (Cohen, 1995; Chojnacki & Engel, 2016; Burton, 1997) exploring human interactions in culture and religion. However, data in sub-Saharan Africa, is often not neutral and is highly susceptible to national and regional forces of politics, economics, and development discourses (Jerven, 2013). The material and the social approach have been explained and their weaknesses and strengths have been revealed. While the material thinking seems to avoid or neglect the intricacies of human activity at levels like culture and space, the social does not really have holistic view of macro-agents at play. The social also does not get too involved with the 'numerical' flow of materials and services in the process of conflict which promises more resolution to the understanding of conflict. A proper approach will take these contrasts to note and develop a more sophisticated lens. The thesis, focusing on the spatial impact of conflict on markets in northern Nigeria, navigates these tensions and contrasts between both approaches, legitimizing both material and social perspectives, capitalising on their collective strengths.

Some studies have laid a foundation for this kind of enquiry, mostly from a social perspective. Their arguments often lay out paths to delve into material discussions from the social than vice-versa. This is because when conflict in human activity is investigated from the standpoint of norms, conventions to levels of institutions, it serves as a build up to arguments that call in the material as will be seen. The approach to the study of a space is therefore important in how discussions of conflict can emerge from it or be found in it. Studies of markets are not left out as how determine how human activity in and around them is understood, even in the context of their relation to conflict. In the case of Africa, especially west Africa, as is the focus of this study, there have not been many studies done to extensively investigate the market. Only a few major campaigns of enquiry standout. Chronologically, there has not been may studies between the spatial-origin studies of markets done by Hodder (1959,1961,1965a,1965b,1980, 2018), Polly Hill's ethnographic studies of the lives of traders in Ghana

and Nigeria (Hill, 1963, 1966a, 1966b, 1970, 1982) and the social studies of networks, communications, credit systems and innovations in markets of Africa by Fafchamps (1994, 2001a, 2001b, 2003a, 2003b, 2010, 2015). These three major scholars have punctuated the period of 1950 to 2015. There are however many inquires that take secondary scopes of markets within other larger discussions e.g. Mábògùnjẹ́'s studies of urbanisation (1968) and Fáloĺá́'s work on violence and regional histories (Fáloĺá́, 1998; Fáloĺá́ & Heaton, 2008). There are other more contemporary studies like studies of organisations in markets by Ikioda (2014) and Grossman (2021).

Of all these studies Fafchamps and Hill show the most depth into the study of the market as they approached their topics qualitatively and studied foundational issues like communications, trading activities, organization, and of course, opened up possibilities for discussions of vulnerability. Both scholars are therefore discussed in a bit more detail.

2.2.1. The Material and Social: Marcel Fafchamps and Polly Hill

Since both scholars employed qualitative methods as their means of study, it is only imperative for their background to be highlighted in a build up of their study as an understanding of their trajectory speaks to how they have come to understand their study of space. Fafchamps and Hill did not study conflict primarily, but their scholarship serves as the transition point where the discussion of conflict meets the markets of Africa, where this thesis is situated. The material and the social need to be discussed in the context of the impact of conflict on the vulnerability of markets. This of course broaches Fafchamps and Hill as they are two of the most contextually relevant to this study in terms of space and approach.

Marcel Fafchamps, born in Belgium in 1955, holds degrees in Law and Economics from the Université Catholique de Louvain. He worked for about five years at the International Labour Organization in Ethiopia, garnering insights into rural development across Africa through extensive travels covering over 20 African states. Fafchamps furthered graduate school in 1986 finishing a Ph.D. in Agricultural Economics from the University of California at Berkeley in 1989. His research journey included time in Hyderabad, India, providing a comparative perspective on living conditions in Africa. Between 1989 and 1996, he studied agriculture at Stanford, later working at the World Bank (1998-99) and Oxford University (1999-2013), focusing on formal and informal markets in Africa. His living experiences, particularly in Africa and India, significantly influenced his research on African markets, aid his deep engagement of the economics of Africa. Fafchamps however did not focus on informal markets, the closest his work mostly got to this domain was through the study of agricultural trade where he studied how traders in different countries transacted various crops (Fafchamps & Gabre-Madhin, 2001; Fafchamps, 2003b). His entry point of thought was majorly from the legal perspective owing to his foundation pedagogy received. In his career of studying markets in Africa, his studies spanned about 20 countries across sub-Saharan Africa making his research holistic in nature. His studies were therefore more cross-national juxtapositions than in-depth especially in the 1990s to early 2000s

(Fafchamps, 2003b). This however has slightly changed gradually in recent years. His research was not designed along deep qualitative approaches like hardcore ethnography, instead worked with mass surveys. Almost all of Fafchamps research between 1994 and 2010 is based on mass surveys with most of them not even collected by his personal study. In fact, his surveys of Burundi, Cameroon, Cote d'Ivoire, Ghana, Ethiopia, Kenya, Tanzania, Zambia, and Zimbabwe came from the world bank's Regional Program of Enterprise Development (Fafchamps, 2003b, p.39). This had its shortcomings as his work does not show much resolution into the everyday life of informal markets (or even firms) as it was difficult for respondents in open markets to engage surveys without proper conversations. Instead, his work focused on firms, from manufacturing companies to small and medium enterprises across the continent (Fafchamps, 2003a). Fafachamps researched majorly the networks, conflicts, and risks of business between firms in African market institutions (Fafchamps, 2003b). His research delved into notions of relationships between firms and traders and within each group, where he studied legal and procedural conflicts (Fafchamps, 2001, 2003b, Fafchamps & Gabre-Madhin, 2001). He studied business transactions and their risks (Fafchamps, 2003b, pp.137-155), conflict of interests and trust (Fafchamps, 2003b, pp.156-171), industrial structures of firms and enterprises (Fafchamps, 1994). He also did more social studies of investigating the impact of factors like gender, ethnicity, and religion on the birth of firms, their growth, and their transactions (Fafchamps, 2003a; 2003b, p. 368).

As much as his work carried a noticeable body of theorical arguments and mathematical expressions, his work recognised the diversity, legitimacy, and uniqueness of the African space and how his findings were contextual to the countries he studied unlike the arguments of Collier. He also tried to use the data he worked with to describe the day-to-day life of firms and traders. This part probably came from his physical experience of commerce in almost two-dozen African states. While his work had much more depth and sophistication in terms of the understanding of the African markets in contrast to Collier and similar scholars, his work does not dig deep to trade and market vulnerabilities to the levels of conflict and violence that very much thematises Africa. His work only stops at risk studies unlike the in-depth conflict studies of Collier and his cohort. As a result, his work does not shed light on the vulnerability of informal markets in the face of conflict and violence.

Polly Hill (14 June 1914 – 21 August 2005) on the other hand, was highly anthropological, in the true sense of the word. Her background is a bit different from Fafachamps', but it overlaps in their visits to across Africa and India. Geographically, she places more relevant to this thesis as a large part of work is set in Northern Nigeria, the exact primary study area of this thesis. Polly Hill had a significant impact on changing the western scholarship economics, particularly in Northern Nigeria. Her upbringing in a scholarly family and at Cambridge influenced her perspective on education (Hill 1996). Her father was a Nobel laureate in Medicine and physiology and her mother's father, and siblings were the Keynes economists. Despite her roots in the University of Cambridge, her departure from the university to Sri Lanka and India reflected her dissatisfaction with the university's pedagogy of a quantitative approach to economics. Polly excelled academically, earning a BSc in Economics and a

PhD in Social Anthropology from Cambridge. Her scholarship matured in the mid-20th century at during the second world war, focusing on labour studies of women (Hill,1940), the gender-based discrimination she faced in Cambridge drew her study to overlooked and unseen people in Africa (Hill, 1996). She later delved into anthropology and staring in 1963, her ethnographic skills were evident in her studies of migrant cocoa workers who arrived in Ghana in 1897 (Hill, 1997). She also explored the economics of traders in Northern Nigeria (Hill,1963), addressing their conflict with formality. Additionally, her studies extended to Sri Lanka and India, continuing studies of overlooked groups and employing comparative methods similar to slightly Fafchamps' (Hill 1982).

In terms of method, the very identity of Hill as an anthropological development economist is presented. She went against the material 'mathematical' approach of studying certain spaces as they did not account for detailed social parameters which she argued were the most important means of understanding the informal economy of Africa (Hill 1966, 1970). Her thinking congealed into an approach she termed '*Indigenous Economics*' (Hill, 1966). She defines it as "concerned with the basic fabric of existent economic life, with such economic activities" in relation to or of a place and its people (Hill 1966, 1970, p.3). In her book "Studies in Rural Capitalism in West Africa" (Hill, 1970), her first chapter is "A Plea for Indigenous Economics: The West African Example", but through out the book, Hill is not pleading, she comes out swinging consistently, with a rhetoric of brutal honesty packed with intellectual heft. She continues to show how little the grasp of material thinking is on issues of the local, even in domains of trade and agriculture (Hill,1970, pp. 3-7). One of the shortcomings of Hill, is evidently her personal refusal of the material approach in her work that it is cut out almost completely which affects her larger studies of juxtaposition as she continued to employ deep ethnography even in discourses of juxtaposing macro-spaces of markets. This brings us to an argument of how this thesis is to be approached in study. To explain this, I overlap both approaches through the works of Fafchamps and Hill, two of its primary advocates while drawing across the opinions of others in each camp.

2.2.1.1. Hybridizing the Material and the Social: Appraising Fafchamps and Hill

In the scrutiny of the material-social relationship, two main discussions emerge. The understanding of the space, and the method of study. In the understanding of space, Fafchanps and Hill have a similar standpoint of the heterogeneity of space through the lens of Soja's spatial turn (Soja, 1980, 2009). Unlike Collier & Hoeffler, (2002), they understand that social phenomena like conflict, risk, and market structures vary across space and also that Africa is very different in the context of these themes. In Hills' theory of indigenous economics, she shows that spaces are different and must be seen through the lens of the social activities in the spaces (Hill, 1966). She shows this in her studies of markets in West Africa. On the markets of Africa, Fafchamps also sees the space contextually and like Hill (1970), points out the inadequacy of the western approach which is largely material in apprising African markets. He states:

> "Yet we know little about how (African) markets operate in practice. Perhaps the best measure of this lack of knowledge is our propensity to call ''informal'' everything that is not of Western inspiration. The truth is that market activity in Africa is not without form; it is only without economic formalization". (Fafchamps, 2003b, p. 4)

This brings us to the idea of method. Hill is obviously the most antagonist of the material approach. She proves quantitative methodologies in the study of the local is grossly limited (Hill, 1963, 1966a, 1998). She responds to the perception of western economic thought in viewing anthropological data as "myopic, trivial, irrelevant and disinclined to generalise" (Hill 1986, p. 31). This approach she says, has been a huge loss for economic thought focused solely on material parameters pushed by people like Collier and Hoeffler (1998, 2003, 2008a, 2008b). This repulsion of the material thinking was an unconscious movement, as other scholars were at work in the same lane, like Keith Hart (1970, 1973) who was looking at the adverse effect of western thinking on urban employment studies in Ghana. There was also Mábògùnjẹ́ (1968) who was conceptualising and explaining the west African city through historical ethnographic accounts of markets, trade, culture, and urban politics. These waves of thinking centred the people and 'local' in ways that material thinking could not. While Fafchamps largely agrees with Hill's understanding of African Space, his study is wider, covering about 20 countries and he opts for the use of large-scale surveys to capture data at the scale. The problems of this approach have already been discussed. His data eventually loose spatial resolution as he channelled his study to macro discussions.

The primary take-away from the review of this dichotomy of literatures therefore is the understanding that the while the material approach of studying conflict is suitable for wider large-scale studies it lacks resolution and depth into a close-up narrative of human activity. It is also very powerful in unpacking large scale systems of resource ownership and the tensions that come with them. The social approach, however, focuses on parameters that are difficult to numerically measure but expresses profound detail in understanding human activity that border on culture, conventions and the identity and behaviour of certain institutions. A hybrid approach is therefore preferable, as it capable of studying macro-spaces while keeping a high resolution of the local and also presenting a measurability of the parameters even at the level of culture, conventions and the identity and behaviour of certain institutions. Such an approach is presently practically for the first time in the methodology of thus thesis.

2.2.2. Interstitiality of Conflict: Theoretical Possibilities

Another notion of space that is imperative to broach is the idea of space in-between spaces. This comes to play in response to the perceived nature of markets in northern Nigeria (and West Africa generally) as existing with a high level of informality as Hill (1963) has observed. It is therefore necessary to understand the existing knowledge around spaces that behave this way. Interstitiality as spatial thinking is not new, but it is not an old notion either, especially in urban studies. It began to emerge in mainstream spatial study less than 30 years ago. It has been attempted by scholars from different perspectives. Upon close observation from a spatial perspective, it is noticed that there are two main types of engagements to the idea of 'in-betweenness'. The social-leaning theories and the material-leaning theories. The social-leaning theories are those that do not lean much into the domain of physical space, they dwell on the construct of social activity but with little reference to physical space. In this category, physical space is seen as an arena of manifestation and not part of the theory itself. Some of these theories of interstitiality are in the works of identity conflict in which some people are neither 'here' or 'there' in terms of belonging (Bow, 2007). It is also in contexts of positions occupied in between upper and lower levels of power in society (Birk & Fallov, 2021; Arrigoni, 2022; Burns & Welker, 2023), and in firms operating in-between formal and informal ways (Laguerre, 1994). Material-leaning theories, though rooted in the social, focus on the manifestation of interstitiality in physical space. Examples include intermediary powers of commerce in city making (Burns & Welker, 2022), also, there is the study of 'in-betweenness' and the spatiotemporality of 'pop-shops', that are fleeting and do not belong to a definite land use (Harris, 2015). A steady observation is that these theories stay in their lane. The socially leaning ones do not veer off much into the physical. The physically leaning ones however, extended their underpinnings to the philosophical and sometimes the social. This notion of interstitiality has been noticed in the spatial study of conflict. This study eventually establishes it as a theory of conflict. This new perspective began to emerge in my study of Durumi IDP in camp Abuja (Ajadi, 2022, p. 131) where IDP camps were 'hidden' in plain sight, tucked in between spaces of high-income earners in Abuja. This discovery of these hidden spaces and how they impact vulnerability becomes an eye-opener in how the certain spaces in northern Nigeria should be approached and appraised. This notion as a whole has led to the development of a new theoretical approach to conflict which is discussed in the analysis phase of this thesis.

2.3. Vulnerability and Space and Conflict

Upon an introduction to the nature of conflict, and the main approaches to its theory, this study draws a philosophical connection and by extension, an analytical procedure of one of the most direct or implied notions in relation to conflict: vulnerability. But we cannot just spring up with this connection. Why vulnerability? Apart from the fact that this study sets out to relate vulnerability with conflict in the context of markets, is there already a valid relationship? Adger (2006) defines Vulnerability as:

> "The state of susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt" (2006, p. 1)

More deeply, he continues to show rather significantly, that vulnerability is a tool, a very powerful one at that, for describing the states of entities or systems' susceptibility to harm. Adger's philosophy treats vulnerability not as a notion but as an analytical tool. This philosophy has also been operationalised by Ligon & Schechter (2003), Cutter (2003) in which vulnerability is measured and seen as a scientific method of engagement. More recent studies not only also recognise it as a tool (Hufschmidt, 2011; Birkmann et al., 2022), but extend further to show that an understanding of vulnerability can aid development planning in the context of macro-threats like climate change and violence. In the review of literature, it has been noticed that vulnerability as a discourse is more studied in the context of (or in relation to) environmental threats (Adger 2006; Ligon & Schechter, 2003; Birkmann et al., 2022, Von Uexkull, 2014; Smit, B., & Wandel 2006; Morrow,1999; Eakin & Luers, 2006). The environmentalists seem to be more concerned and (or) interested with the concept of vulnerability as a pointer to show the impact of environmental harm. Though social vulnerability is also a proper discourse, it often proceeds as a by-product of environmental impact in somewhat recent literature (Von Uexkull, 2014; Alwang, et al., 2001; Hufschmidt, 2011; Eakin & Luers, 2006). More lucidly, Eakin & Luers (2006) trace the contemporary lineage of vulnerability to reveal three main branches: risk-hazard, political economy/political ecology, and ecological resilience. It is clear in their work how conflict and violence come into play in the historic study of vulnerability investigation, especially in the ecology of political economy. They never, however, forget to imply linkages with the availability of scarce resources (some of which may be natural) as driver for conflict and cause of vulnerability. This perspective has been found to be consistent in the holistic attempts of Alwang, & co, (2001), Hufschmidt (2011), and Ide & co (2014). There are, however, works that look squarely at the social dynamics of vulnerability. The World Bank's development report (2011, pp.12-21) expresses vulnerability in terms of societal fragility with respect to conflict as it delineates the recurrence of conflict across regions. Kirby (2006) also explains vulnerability from violence resulting in certain forces of globalisation. There are also studies on vulnerability with respect to human identity (Kottow, 2005; Calvo & Dercon, 2015). Having discussed the nature of vulnerability with its leanings and shifts within research, it is imperative to see where conflict theoretically comes to play, in the narrative. The most holistic connection found is in the philosophy of Kottow, (2005, p. 282) in which he states that all humans share vulnerability and the idea of protecting them is real:

> "As they stand, vulnerability, dignity and integrity are descriptive features of humanity, in themselves not being ethical principles, though they may serve as a scaffold for the ethical mandate of protecting them".

If the notion of vulnerability spans across humanity in terms of applicability, and it can in fact be a tool, then the case is made for the imperativeness of looking through it as a lens when dealing with how conflict affects various groups of people. However, Kottow (2005) warns that there is the unconscious tendency to think of vulnerability as only applicable to people near harm or related to harm. To think otherwise would be spurious as everyone is in one way or another, vulnerable. The extent of vulnerability just varies across space. This why Birkmann & Wisner (2006), argue that vulnerability is very difficult to measure. This ushers in the gradient principle that conflict affects everyone directly or indirectly but also differently. Hence if vulnerability can be a spatial denominator (as it affects everyone), the variation of it is also spatial. This is one of the points that underlies this study.

There is therefore a necessity for a positioning to understand the vulnerability of the world to conflict holistically and also across various regions. This will aid in the evolution of better responses towards global and regional development. Since the past two decades the push for peace in terms of conflict and violence has finally been revisited as a global priority. In 2011 conflict was such a global priority that the world bank's World Development Report (WDR) focused on conflict, security, and development (World Bank, 2011). The report opens by presenting insecurity as a primary problem (World Bank, 2011, p.1). As mentioned, the need to break the continuous cycle of violence was stated as priority. There is also a conclusion that unemployment was the primary cause and there is a high imperative to strengthen necessary institutions and governance across the world in order to achieve security and justice (World Bank, 2011, pp. 6-7, p. 9). One of the setbacks of this report was that there was no strong sense of spatiality to its address of conflict and vulnerability. Conflict and vulnerability were holistically appraised as "competing economic interests, gang-based violence and organized crime" (World Bank, 2011, p. 9, 39). Though some summary regional discussions were made on development strategies (World Bank, 2011, pp. 34-38), the measures for ending cycles of violence were presented with a certain level of holisticism. This approach did not speak to specific spatial conflict typologies and measures of eradication or remediation. Hence, connections and clear juxtapositions of conflict and vulnerability across the world were not really lucid in the report. Other reports of conflict like the Global Terrorism Index (IDMC 2018-2022; IEP 2015-2022) dealt with specific types of conflict (e.g., terrorism) in detailed spatially conscious ways as presented in this thesis. These reports and other literature are therefore reviewed and analysed to present a global but regional appraisal of just how vulnerable different parts of the world are in the context of conflict and violence.

2.4. Conflict and Vulnerability Across the World

The shifts of conflict at the global scale can be likened to a pendulum over the last nine decades overlapping into the 21st century. Through the last end of the 20th into the 21st, conflict across the world has shifted from more international wars involving macro territories to violent conflict across smaller non-state areas and also across more complex lines of ethnicity, religion, and economic friction (World Bank 2011, pp. 2-4). However, only in the last decade, more international friction has begun to emerge, resulting in armed conflict between multiple nation-states, often over the ownership of land. The current volatility with the Russia-Ukraine conflict and the Israel-Palestine conflict are both primary examples as they continue to draw a host of international states across the world into their narratives. Conflict across smaller non-national regions is known to spread rather more quickly, bringing about vulnerability in spaces of contiguity (IEP, 2023, p. 5, 49). Now there is a return to the macro-spatial format of nation-states being drawn into armed conflict as result of various economic or diplomatic allegiances and goals.

Conflict across the world is mostly appraised through two main manifestations: the development and propagation of violence and the displacement of people (Adhikari, 2013; Van Den Berg et al, 2006, p. 8, 29, 31). Among others, war and terror are the main markers of extreme violence across regions. There are a number of ways to understand terror and human damage (from conflict) across the world, they include deaths, damages to property (or economic loss) and displacement. The Global Terror Index by the Institute for Economics and Peace (IEP) rank terror using information on their human damage i.e. incidents, fatalities, injuries, and hostages/abductions (IEP, 2023, p. 86). It is the most comprehensive and holistic benchmark available, and it is therefore reviewed in the context of this study. While war is primarily friction between two formal (mostly legitimate) groups, terror is usually defined based on the set of agencies causing it. Substantial studies have shown that this is valid in the sense that an agenda of terror is set by various agencies of extremism (IEP, 2018, 2019, 2020, 2021, 2022, 2023), war has also been known to create terror in the rural and urban inhabitants. This review therefore takes terror and war as one of the primary consequences of extreme violence (i.e. that aims to bring about loss of life) across space and its intensity varies across regions. In conflict, the workings of terror have been noted as the most powerful driver of violence and death, GTI measures by the IEP over 20 years show that since the year 2000 to 2018, 99% of the deaths from terror have occurred in countries in conflict and political instability (IEP, 2017, p. 4; 2018, p. 42). Studies have also shown that wars have strong overlaps with terror as an occurrence and impact (Findley & Young, 2012). Though wars are not defined as acts of terror, people are terrorised by it and it and can be seen through this lens in some contexts.

Regionally, Asia has experienced a lot of deaths over the last decade (see table 2.1). In the Aisa Pacific region, the countries experiencing the most terror in terms of incidents, fatalities, injuries, and hostages are Myanmar, Philippines, Indonesia, Thailand, and New Zealand in descending order (IEP,

2023, p. 44). Asia pacific is a much passive zone with only Myanmar and Philippines (9th and 18th in the world respectively) being of major concern in terms of proliferation of violence. Russia spanning Northern Asia and Europe brings the discussion of conflict to Europe. Europe on the other hand has only recently spiked in violence. There have been a number of conflicts at the national levels some of the political and economic friction have also led the United Kingdom to leave the European Union (Dhingra et al, 2017). However, most conflict have hardly broken down to violence. Europe has largely been the most peaceful in terms of macro-violence until the territorial conflict of Ukraine with Russia degenerated to full blown war. In the past two years in Asia-Pacific, Europe, and North America there has been a minimal increase in death cases from mainstream terrorism. Although Europe started with smaller numbers, having 8, 27 and 17 deaths in 2021, 2022 and 2022 respectively occurring in Türkiye. North America increased in terminal causalities from 7 deaths in 2021 to 11 in 2022 (IEP, 2023, p. 13).

It will however be a less than a half-narrative to only look at mainstream terrorism as the only cause of instability and regional vulnerability in Europe and Aisa. This relatively minimal conditions in these regions change significantly if wars are to be taken into consideration. The United Nations report (2023) shows that between February 2022 and November 2023, there have been at least 10,000 deaths in Ukraine alone with 5% of them being children. The war has triggered an exodus attempt of nearly 50% of the country's population. At 16.9 million, the 2022 displacement in Ukraine (IDMC, 2023, p. 87) is one of highest in recorded history. This has set in play a macro-series of vulnerability conditions across sectors as all the major systems of the country have been shut down at least once since the 2022 escalation. Health systems have been significantly affected with a heavy loss of infrastructure and medical personnel. Law and order are significantly affected, most transportation and manufacturing systems have also been destroyed. In addition to these vulnerabilities, the economic impact has also brought about vulnerability in terms of food flows, but it has extended risk of food scarcity and finance deregulation across trading partners of Ukraine and Russia to a global scale (Guénette *et al*, 2022).

Countries in Asia continue to stand out in terms of loss of life, with states like Iraq, Afghanistan, Syria, and Pakistan taking high ratings (table 2.1), but as at 2022 Africa is now the new hotspot of death (table 2.1). Even in terms of internal displacement the epicentre shifted from Middle East and North America (MENA) to Sub-Saharan Africa (SSA) since 2016 and has remained even till 2022 when it was reduced by the displacement of the Ukraine and Palestine (table 2.2). In Asia, the Israel-Palestine war has also been a major global hotspot of conflict and violence. The conflict has been a play for well over a hundred years even before the 1947 when the UN endorsed Resolution 181 (the partition plan) that divided the British Mandate of Palestine into a land of Arab and Jews as states, a process that eventually gave birth to a new Israel and led to war (Tessler, 2009; Gelvin, 2014). The United Nation's

OCHA[6] (2023) showed that within a space of 3 months, the Gaza region of Palestine had witnessed over 23,469 deaths, with about 60,000 injured people. A significant share[7] of both numbers are children. In addition to the large human loss, over 65,000 buildings have been destroyed with over 1.9 million people displaced. In Israel the report shows over 1,200 deaths along over 5,431 injured. There is also a loss of physical infrastructure. In Palestine, most of the targeted spaces include hospitals, refugee camps and informal commercial spaces. The vulnerability of the region is high, and it is across all their sectors. A common part of the wars in Europe and Asia is the multi-state agency involved, as both the two major wars have drawn in secondary allies who are directly or indirectly involved in the armed conflict. This spreads a large gradient of vulnerability across the world, with the high points of it in Palestine and Ukraine. Though studies show that countries can participate in conflict without being affected themselves, especially at the level of the economy and displacement *(*Davenport, Moore & Poe, 2003; Melander & Öberg, 2006; Adhikari, 2013), diplomacy has broken down among many countries and macro-trade connections are disrupted triggering conflict-induced scarcity of products like conflict is the (Guénette *et al*, 2022; Handayani, 2023).

Africa, the space where this study is situated is arguably more complicated as there are many cases of conflict and violence happening simultaneously. Over the last decade, the conflict typology of Africa has come to be the epicentre of terror activities (IEP 2018, 2019, 2020, 2021, 2022). The Shael (including the region joining Africa) has however, in particular, made a recent sharp emergence as the epicentre (IEP, 2023). The conflict theme in SSA and also the north of the continent has been religious and ethnic extremism. The IEP reports over the years have shown that Islam and ethnicity surrounding it has been the main link to terror through violence. Currently, over 41% of all Islamic state attacks occur in Africa (IEP 2022, p. 77). Also, it is very obvious from the IEP reports (2018-2023) that almost all violent religious groups in Africa are Islamic. Further studies corroborate these factors of religion and ethnicity (Blanton et al., 2001; Basedau et al., 2011; Basedau & Pierskalla, 2014; Berman, 2021; Williams, 2016; McCauley, 2017, p. 25). The modern spread of religion-based violence has been linked to the rise of Islam in SSA and the North African region since the 1970s. The clash of Islam and postcolonial struggles has led to the proliferation of Islamic revolutions which has spawn extreme anti-westernism. This has been evidenced in the founder of Al-Qaida in 1987 who has also led as an inspirational precedent for the evolution and rise of similar structures in Maiduguri, Tillabery, and Arlit (IEP 2020, p. 80). As such, there are certain strong human figures of terror that catalyse proliferation in regions they choose to physically reside in, even if it is just for a part of their lives (IEP, 2020, p. 80). In SSA, globalization as a phenomenon also had some major effects on terror as it catalysed mergers

[6] United Nations Office for the Coordination of Humanitarian Affairs. Report of numbers since October 7, 2023. https://www.ochaopt.org/

[7] Actual numbers unknown

between groups internationally that led to mega-factions and networks some of which could not sustain their newly found homogeneity and as a result broke down to new sub-factions (IEP, 2020, p. 101).

The spatial clustering phenomenon has not totally changed even in the most recent years as seen in the analysed data in table 2.2. The global terrorism index which shows countries with the most terror activities also reflects this narrative with Burkina Faso making a rather sudden and conspicuous entry beginning in 2015 but reaching global highs in 2021 and 2022 (table 2.1). The fact that Nigeria features prominently in the narrative of terror is taken seriously in the course of this thesis as will be revealed. Vulnerability in Africa in the context of conflict is mostly perceived as an 'unfortunate norm' since the region has always been known to be unstable. While a noticeable share of the conflict is started by local friction of ethnicity and religion, scholars have shown that some of these conflicts are induced by the west and are masqueraded to set up systems of resource exploitation like the unethical extraction of Tin, Tantalum, Tungsten, Gold, and Cobalt in the Congo (Sachs, 2021; Shannon et al., 2015; Gerard & Kuklick, 2015. pp. 135-145, 195-200; Asuelime, 2018). Vulnerability is therefore more severe and external agencies are sometimes not positioned for mitigation, rather, harm is increased. The corruption and poor economy of the countries involved have also made it difficult for self-help.

Table 2.1: Global share of deaths due to terrorism—Worst 5 countries 2015-2021. (Source: author's own)

Death shares of worst 5 countries analysed using GTI (%)								
Year	*Deaths from Highest 5*					*Total deaths (top 5)*	*Total global deaths*	*Highest 5 Combined deaths (%)*
2015	Iraq	Afghanistan	Nigeria	Pakistan	Syria			
	6960	5312	4940	1086	2761	21062	29376	71.70
2016	Iraq	Afghanistan	Nigeria	Syria	Pakistan			
	9765	4574	1832	2102	956	18073	25673	70.39
2017	Iraq	Afghanistan	Nigeria	Syria	Pakistan			
	4271	4653	1532	1096	852	12404	18814	65.93
2018	Afghanistan	Iraq	Nigeria	Syria	Pakistan			
	7379	1054	2040	662	537	11672	15952	73.17
2019	Afghanistan	Iraq	Nigeria	Syria	Somalia			
	5725	564	1245	517	569	8620	13826	62.35
2020	Afghanistan	Nigeria	Syria	Somalia	B.F			
	1252	839	724	666	658	4139	10000	41.39
2021	Afghanistan	Iraq	Somalia	B.F	Syria*			
	1426	524	599	732	488	3769	7142	52.77
2022	B.F	Mali	Somalia	Pakistan	Afghanistan		---	
	1132	944	755	643	633	4107	6698	61.32

GTI: Global Terrorism Index *2021: Nigeria (6^{th}) 448 B.F: Burkina Faso

Table 2.2: Global trajectory of displacement footprints. (Source: author's own)

Global footprint of regions in terms of conflict-based Internal displacement (%)					
Year	*Highest*		*Second Highest*		*Others*
2015	MENA	56.09	SSA	25.71	18.2
2016	SSA	38.0	MENA	30.7	31.3
2017	SSA	46.4	MENA	38.1	15.5
2018	SSA	69.1	MENA	19.8	11.1
2019	SSA	53.7	MENA	30.0	16.3
2020	SSA	69.4	MENA	21.2	9.4
2021	SSA	80.4	MENA	7.0	12.6
2022	SSA	45.0	MENA	18.0	37.0
SSA: sub-Saharan Africa; MENA: Middle East and North Africa Analysed data is from IDMC (2016-2023); UNHCR (2018-2022); IEP (2016-2023)					

For all regions of the world refugees are also a pointer of vulnerability. There are twice as much IDPs as there are refugees (UNHCR 2018, p. 5; 2019, p. 7; 2020, p. 4; 2021, p. 4). Between 2019 and 2021, refugees and their corresponding IDP. Refugee: IDP, (in millions) were in the ratios 26.0:45.7, 26.4:48.0 and 27.1:53.2 (UNHCR, 2019, p. 2; 2020, p. 2, 2021, p. 2). Despite this smaller number, refugees were evidence of high territorial vulnerability as people could not find safety in their own countries. Sometimes international displacement might be as a result of proximity to the borders, other times, there are as a result of continuous internal displacement that eventually spills over international borders. Whatever the scenario, vulnerability of people is evident and the spread of additional responsibilities to neighbouring (or destination) countries puts strain or their economic and security resources which increases their vulnerability in these aspects. In some cases, the acceptance or rejection or refugees create political stances which can affect the diplomatic positions of certain states that might in turn increase or decrease their diplomatic power.

2.5. Vulnerability in Markets: A Regional Overview

While it is beyond the scope of this review to detail markets across the world and appraise their vulnerability, this section attempts to exhibit through literature how markets across the world may be vulnerable and the responses that have emerged towards their vulnerabilities. To do this, one or more markets are selected in each relevant region and is briefly surveyed in terms of its urban (or rural) nature, possible vulnerability to conflict, and the mitigative forces that have engaged the vulnerability. Before this is done, we must first understand the kind of market being discussed in this study. Informal markets are the primary context, this draws in the discussion of informality and how it varies across space, for this reason, it is first briefly discussed.

2.5.1. Informality, Vulnerability and Markets

Informality varies across the world. At least half of the economy of most developing countries are informal, the share goes up significantly in African countries (La Porta and Shleifer, 2014). Informality in Aisa and Africa is the highest in the world with some countries recording up to 90% of their employment informal sector as far back as 2002 (ILO, 2002). On average it is around 65% in

Southeast Asia and about 60% in the Middle East and North Africa, this a stark contrast to the 25% - 40% share of proportion in developed countries of the west (Chen and Doane, 2008). Throughout scholarship, informality has been a subject of strikingly varying approaches, while some think it reflects the failure of the formal sector (Loayza, 1996; Vuletin, 2008) others think it is a manifestation of culture, norms, and conventions of different people (Hill 1966, 1970; Fafchamps, 2003b). However, the discussion is a lot more sophisticated than a straight polarisation or dichotomy. Previous studies have argued that informality 'generally' arises out of poverty and their firms have low productivity and poor-quality products (La Porta and Shleifer, 2014). Fafchamps warns that the viewing of the informal through a derogatory western lens is dangerous as it may not grant a full understanding of the informal (Fafchamps, 2003b). This is also stressed by Evers and Seale (2014). Looking deeper, McFarlane and Waibel, (2016) introduce their project that meticulously unpacks the complex and complicated relationship of the informal and the formal. While they delineate and explain various angles of thought, theories that resonate with vulnerability include their explanation of the formal-informal relationship as notions of dynamism, resilience, and strategic policy. They show that informality and formality are dynamic and coexisting dispositions in urban life, subject to constant redefinition and negotiation (McFarlane and Waibel, 2016). This means they not only vary across space, but they vary with temporality and within their own contextual spaces. In the discourse of vulnerability, informality is situated as negotiable value in a number of ways. As the relationship of the informal-formal is seen to change, they present an idea of 'Conceded informality' as a tactical approach where the state tolerates or ignores certain functional informal practices, either formalizing or banning them based on their perceived acceptability or economic use. This also changes with the aims and objectives of both spaces including their responses to vulnerability over time.

In the context of vulnerability, the negotiation of value in the formal-informal relationship also speaks to the territorialisation and the resistance of informality to certain unwanted pressures of the formal. While the formal has often imposed structures on the informal, the informal has been known to fight back. Upon exposure to direct or indirect threats, the informal has been noticed to respond to vulnerability by developing strategies, coping mechanisms for its survival. The work resonates with De Certeau's (1984) focus on tactics and strategy in the everyday city in which individuals, especially those without significant power, deploy tactics to negotiate, resist, and subvert the structures imposed by the powerful (or the formal). James Scott's (1985) further shows this in his exploration of 'weapons of the weak', as he reveals covert resistance to vulnerability in the informal as marginalized urban populations or peri-urbanity, facing various forms of inequality and exclusion, use subtle and often covert ploys to resist or negotiate with more powerful forces of the formal.

In informal spaces, particularly those that include markets, powerful instances of the responses to vulnerability can be seen in the case of the leather-making market community of Dharavi, Asia's largest slum with significant diversity. Faced with problems of overcrowding, stereotyping, exclusion,

and relatively poor economic performance, Saglio-Yatzimirsky, (2013), through her ethnographic study, shows how Dharavi's residents have been able to achieve social mobility within the caste system through various social strategies. They include, redefining their leather-making economy by embracing more global approaches and reimagining their products, particularly the large leatherworking market community[8] who also use what is called 'Sanskritisation' strategies which involved reconfiguring their ideologies of customs, rituals, and lifestyles for vertical mobility towards higher castes to level up their identity, craft, and business (Saglio-Yatzimirsky, 2013, p. 142-143). They have also paid attention to education (Saglio-Yatzimirsky, 2013, p. 137, 214-215, 287), as well as political participation as a way of accelerating inclusivity and catalysing collaboration and resisting unwanted impositions (2013, p.334). This is also noticed in my studies of Durumi Camp in Abuja, the direct study area of this thesis, in which IDPs in the city situate themselves interstitially in high income zones, and carry out innovative improvisations of architecture, agriculture and land economy to survive in their new reality (Ajadi, 2022a).

Informal markets often find ways to sustain themselves in the face of challenges (Evers and Seale, 2014). In the case of theft of agricultural produce in African informal societies Famfchamps studies revealed certain spatial mechanisms of the reputation of informal agricultural firms in Ghana, Kenya, and Zimbabwe. In the 3 countries, trading trust was developed through repetition of trial transactions (Fafchamps, 2003b, p. 294). This method however, varied in implementation and they proved to be effective as a response of reducing vulnerability in trade through heterogenous reputation mechanisms, with notable variations across the countries (Fafchamps, 2001, 2003b, p. 185). It was also found that disputes arising from breaches of trust in trade (trader-to-trader and trader-to-buyer) were not settled by legal means e.g. only 13% and 6% of payment disputes went legal in Ghana and Kenya respectively (Fafchamps, 2003b, p. 66), market leadership worked through these conflicts sorted differences. The informal economy has its own way of people which is steeped in cultures contextual to the spaces in question (Ajadi, 2023a).

The vulnerabilities of informal markets do not stay the same, they change in intensity or (and) typology altogether (Saglio-Yatzimirsky, 2013), some informalities rise to the task. The primary question of this study yet again comes to fore, how do informal markets respond to extreme conflict and violence and how are they impacted by it. The subsequent reviews of the subsequent literature show that their responses have not been holistically effective in saving lives or preventing attacks. This thesis therefore engages this question in the markets of northern Nigeria.

[8] 25% of Dharavi (Saglio-Yatzimirsky, 2013, p.4)

2.5.2. Vulnerability and Markets in Europe

In western spaces like Europe, markets that a large amount of people visit are domiciled as malls and supermarkets with formal architectures and economic systems to them. Even though regions like Europe have markets with certain levels of informality like farmer's markets (Brown & Miller, 2008), most of the people in European cities buy or 'shop' online or (and) in formalised systems of markets inside streamlined, formal architectural typologies. They are not even referred to as 'markets', they are often called by their architectural typologies ('mall', 'supermarket', 'department store', etc.). This is not to assume that there are no markets in Europe and the north Americas with a high level of informality in form, process, and leadership. They are, however, spatially homogenous in location as they are often concentrated outside urban centres or in the peri-urban areas because the proximity to farms to ease transport of goods to the cities (Brown & Miller, 2008; Tong et al, 2012). Studies show that in Europe markets are also found informally on streets, as well has historic or political sites, they also have night markets (Hiebert et al, 2015; Dimitrovski and Crespi-Vallbona, 2018). While formal markets are very safe in Europe, the open-air (or informal markets) are vulnerable as they are periodic and lack proper structure. Christmas markets are a good example. Table 2.2 shows how Christmas markets have been attacked in Germany (2016) and France (2018), both by agencies of terror. It also shows that even though Dimitrovski and Crespi-Vallbona, (2018) cites safety as one of the perceptions of the tourists as they visit open markets in European cities, they are in fact not only more vulnerable to mainstream urban crime than their peri urban counterparts, but they are also targets of extremist agents. Egresi and co (2021) imply that their level of safety can be linked with the denser space of the city in comparison to the farmsteads and peri-urban spaces.

Relatively, the vulnerability of markets in European cities are better managed as the continent is seen to have more rapid police responses and other security measures in comparison to other spaces like Aisa, Latin America, and Africa, where the crime rates are higher, and the urban spaces are much larger and denser. However, this is not so in the case of war. Certain open-air markets in Russia and all the informal markets in Ukraine are under extreme threats of violence from the armed conflict between the two nation states. Soukand and co (2020) show that certain informal markets can be found in the interstitial space of both countries. These market typologies are one of the most vulnerable in Europe. The 'babushka[9] markets' as they are called are made up of very old women traders (often termed 'grannies') who sell home made products and herbs. The displacement of Ukraine has had a detrimental effect on the markets as most of the women have fled. As with many other markets across Czech Republic, Slovenia, Slovakia, Poland, and Hungary, the markets also hold a very old cultural heritage specific to various spatialities across the countries which are part of the generative forces of informal markets in Europe (Sik and Wallace, 1999). In the case of the markets between Russia and Ukraine,

[9] "babushka" typically refers to an elderly (old) woman or a grandmother in Russian and other Slavic languages.

there are cultures of herbs and traditional medicine (Soukand et al., 2020). The culture is now at risk of erasure due to the war and there is no resilience in the markets to confront the destruction in the spaces.

2.5.3. Vulnerability and Markets in Latin America

Though Latin America is one of the most crime-prone regions of the world with consistent activities of widespread petty and organised crime (Heinemann & Verner, 2006; Bergman, 2018), it does not measure high in terms of extreme violence from conflict leading to terror. In terms of deaths from terror, there have been only 1,919 deaths from terror in the whole of South America between 2007 and 2022 (IEP, 2023, p. 48). The IEP reports (2018-2023) show that though activities of terror are increasing gradually over the decades, they are still relatively much lower than in continents like Asia and Africa. However, countries like Argentina, Chile Ecuador and Venezuela are increasing in terror activities, Columbia remains the most impacted Latin American country by terrorism between 2012 and 2022 (IEP, 2023, p. 48). Crime is so widespread in Latin America that there are what Flom (2022) refers to as 'criminal markets'', where complex value chains of banned and illegal products exist. He also shows that while this renders the cities vulnerable to more crime and drug abuse, the city has informal ways of dealing with it, even though they have not been summarily effective.

Latin America has a vibrant informal economy with informal employment getting as high as 60% in some countries (Chen and Doane, 2008). It is existing in one way or another across the states of the region. Over the 1990s to the 2000s, informality has emerged in resistance to excessive government taxes and poorly implemented policies (Loayza, 1996; Vuletin, 2008). This response of informality is also noticed in the markets as they trade in various goods whose trade have not been very formalised in the local peri-urban spaces, especially for the benefit of the low-income classes. Latin America is home to a rich set of informal markets that vary spatially in their social structure, products, services and of course their culture. In Mexico City, Mercado de la Merced is a large space with a large covering that extends to the streets on all its sides, here a wide variety of good and services are traded including traditional products. The Mercado Central in San Jose, Costa Rica, is not an open-air market but it is a wide-open space in a large building. There is a clustering of various stalls under the tall roof. Peru's San Pedro Market has more permeability as it is a large giant structure but unlike Mexico's city Mercado or Chile's La Vega Central, it is a shed with openings along its perimeter. This market in Cuso is a dense meeting point for trading in products from the locality which includes a mix of local products, textiles, and Andean cuisine. Moving to Brazil, the Feira de São Joaquim is a large outdoor market renowned for its trade of preponderous agricultural products, handcrafts, and religious objects. It also has items of Afro-Brazilian culture and Bahian cuisine. Fights have been known to break out in some of the Brazilian markets but there have been no known major attacks on the markets by defined agencies of violence. In Santiago, Chile, the expanding La Vega Central Market (also called the Feria Mapocho) is one of the largest trading spots where agricultural produce are mainly sold across 60,000

m2 of stalls. Using data from the country's internal revenue service Schlack her team (2017) estimated 1,041 individual stalls in the market registered to 889 traders, in addition to 2100 other traders with an additional 400 working in the whole sale section that service about 20,000 customers daily. Schlack and her cohort (2017) identified 3 main threats on the market. The first is tourism which has forced up prices of certain goods that are also purchased by the general indigenous public. This has led to the second threat which is the commodification of cultural authenticity. Most aspects of the originality of the people's culture are re-conceived as a trade product in response to the economic opportunities that comes with tourism causing parodies of their culture to spread across the market. Thirdly, the first two threats have triggered gentrification forces through government polices with high-income people moving into the area shooting up prices of goods and services and also threatening the real estate of the market. In response, the people of the market have embarked on strategies of inclusivity to keep low-income people in the space. They leave leftover sales of vegetables and food for the neighbourhood's poor and the immigrants to pick for free, they provide a balanced share of stalls to new rich and poor traders. More importantly, they push for policies of inclusivity by the government to prevent a displacement of the poor by the incoming rich traders and inhabitants (Schlack et al., 2017)

Though gentrification and suppressing policies from the government seem to be common across markets in this region, in the context of this study, the large common denominator of vulnerability of Latin American informal markets is petty and organised crime. There are activities of some groups who sell contrabands. Deliberate attacks on markets, if existing, is not a mainstream concern. Since Latin American markets however have their informality set up in ways that resists the perceived inequality or tyranny of formal policies (Loayza, 1996; Vuletin, 2008), it is very remedial in nature. This extends to the leadership of these markets that manage their local security with various accountability groups across the markets to main control and communicate safety to tourists.

2.5.4. Vulnerability and Markets in Aisa

Asia is the largest continent in the world in terms of land mass and population. There are obviously a lot of markets in the space across the nation states. In this space (as well as Africa), the intersection of extreme conflict and violence with the informal market becomes more defined. In section 2.4, it has been explained how Aisa as a continent has been active in terms of extreme violence and terror. Of the countries on the continent, states like Cambodia, Nepal and India have the most informal share of non- agriculture informal employment. India has the largest population in the world and comes 3rd among these with 75% (ILO, 2018). Even more recently, Mehrotra and Giri (2023) showed that firms with 1-5 employees make up at least 97% of firms in India and they are not only informal but are mostly found in informal markets. The vulnerability informal spaces and by extension informal markets is therefore imperative for an Asian state like India that has the 5th largest economy in the world with the highest population. India has its fair share of conflict attacks with almost all of

them in the border areas of the country making markets along the northern and southern borders vulnerable (IEP, 2023, p. 41).

Table 2.3: Global review of terror attacks on markets (2015-2022). (Source: author's own)

*Significant Terror Attacks on Markets: Global Review						
Year	Market City	Country	Region	Attack	Casualties	Perpetrator
2015	Bani Saad	Iraq	MENA	Suicide bomb in market	121	ISIL
	Maiduguri	Nigeria	SSA	Suicide bomb-10-year-old girl in market	20	Boko Haram
	Baga	Nigeria	SSA	Massacre of 16 villages and their markets	2000	Boko Haram
2016	Mastaba	Yemen	MENA	Saudi-led coalition air strike	97	Multinational Government
	Near Al Mukalla	Yemen	MENA	Rockets fired on market	17	Houthi Extremist
	Berlin	Germany	EU	Suicide bomb-Christmas market	13	ISIL
	Baghdad	Iraq	MENA	Car bomb in market center	346	ISIL
	Davao	Philippines	SA	Bombing of night market,	15	ISIL Coalition
	Mdagali	Nigeria	SSA	Female bomber in market	59	Boko Haram
2017	Zaki Biam	Nigeria	SSA	Mass shooting in market	73	Fulani Extremists
	London	UK	EU	Car-hitting & stabbing	8	?
2018	Strasbourg	France	EU	Shooting and stabbing-Christmas market	5	?
	Maiduguri	Nigeria	SSA	Suicide bomb	12	
2019	Hazar Ganji	Pakistan	MENA	Suicide bomb	20	Lashkar-E-Jhangvi
2020	---	---	---	---	---	---
2021	Solhan	Burkina Faso	SSA	Burned down market	160	?
	Nord	Burkina Faso	SSA	Shooting of traders	41	JNIM
	Baghdad Governorate	Iraq	MENA	Bombing of Shia majority market	35	IS
	Baghdad Governorate	Iraq	MENA	Suicide bombing	32	IS
2022	Anka and Bukkuyum	Nigeria	SSA	Arson, mass shotting, massacre for 3 days across villages including markets	200	Bandits

*Terror Incidents with global attention; ISIL: Islamic State of Iraq and The Levant; JNIM: Jamaat Nusrat Al-Islam Wal Muslimeen; IS: Islamic State;

So far, the presence and impact of violent conflict is already known in areas of Afghanistan and Pakistan (see also table 2.1 & 2.2) After these countries India comes 3rd as the most impacted with terror south Asia also coming 13th globally, a position that has been rather steady over the last 2 years (IEP, 2023, p. 8, 48). In 2022, Maoist group operating in India had the 12th largest share of deaths, attacks and injuries attributed to them (39, 61, and 30 respectively). A worrisome juxtaposition is that of globally impacting groups like Boko Haram and JNIM[10] who made 64 and 77 attacks last year

[10] Jamaat Nusrat Al-Islam wal Muslimeen

respectively with the latter coming 4th in destructive impact (IEP, 2023, p. 12). India is certainly one of the most attacks states in the world (IEP 2018-2023). Currently, the most vulnerable markets in the hotspots of Kahsmir, Punjab and Assam. Building on the 2008 Mumbai attack, den Heyer (2023) cites that the slow response of police to places like open spaces and markets have left them more vulnerable. In response, markets along these regions have become very vigilant of 'outsiders' or new frequent faces in the markets. This is also reflected by Schoenecker (2023) who shows that street vending in some parts of India is concerned abut notions of identities. Emphasis is now on who is selling, this has increased practice of informal 'Hafta' security levies which is also sometimes a system of extrusion on the traders.

Beyond India, there are more severe situations of market vulnerability to violent conflict in Asia, informal markets in countries like Afghanistan, Pakistan, Iraq, Yemen, and Palestine are under more serious threats. Table 2.3 shows markets in Iraq, Yemen and Pakistan recording significant casualties upon violent attacks. These are in no way the full narrative as most attacks is not even recorded or communicated to authorities. In highly unstable areas, local market management stand only a little chance of resistance except to be vigilant of intruders and new faces. They set up local security who usually are not as strong or trained enough for their threats, slow police response, poor security policies and the government's disregard for informal spaces are general reasons. In instances of war, informal markets like the 'Firas' informal market in Gaza (est. 1954), that supplies food produce to a large part of the city have had to rebuild many times because of the continuous destruction of interstate armed conflict.

2.5.5. Vulnerability and Markets in Africa

Even with the current developments in Europe and Palestine, Africa still remains the epicentre of extreme conflict and terror in the world (IEP, 2023, p. 9). It has also since taken over from MENA that had double the displacement of SSA back in 2015 (IDMC, 2016, p. 9) due to the large displacement in Iraq, Syria and Yemen which continued in 2017 (IDMC, 2016, p. 29; IDMC, 2018, p. 22). In 2021 displacement had grown in SSA to 80.4% of the global share, and still ahead of MENA in 2022 despite the conflict spike in the region and Europe (table 2.2). This is also reflected in the number of deaths from terror since 2007 as seen in figure 2.0.

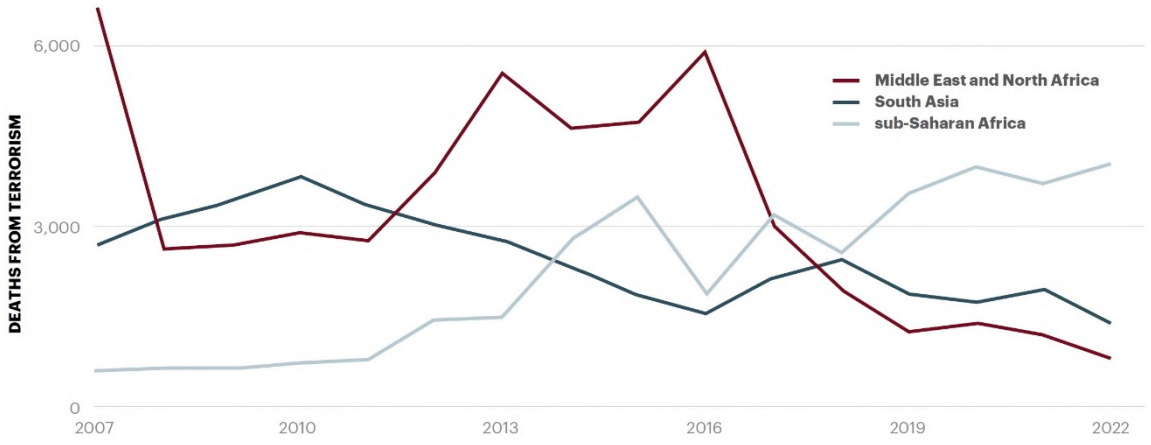


Figure 2.0: Deaths from Terror: A Regional Juxtaposition (IEP, 2023)

Since Africa is the space in which this study is situated, this section only introduces the African market and its vulnerabilities as it is extensively unpacked later on in the study. As much as there are informal markets across the world, the study of African markets has been detached from mainstream economics unlike other regions (Hill, 1963). Early western studies of African market were more from the motive of culture studies. This is biased and racist standpoint is what Polly Hill pushed against in her theory of indigenous economics. To this approach of western economics on the study of markets she argues:

> "The hesitations of economists are understandable. What evidence have they got of the possibility of obtaining respectable intellectual satisfaction from studying that which they have always been obliged to regard as primitive?" (Hill, 1963, p.1)

She also pointed out poor methodology as one of the secondary reasons as western economics could not understand African markets through the lens of quantitative analysis that was picking up momentum in the 20th century (Hill 1966; Hill, 1970). African markets have suffered more severe attacks of violent conflict than any other region, at least between 2015 and 2022 (IEP, 2016-2023). Table 2.3 shows that the most severe attacks within this period were on markets in Africa, with Nigeria and Burkina Faso being hotspots. Market vulnerability in Africa varies with the presence or close proximity of violent conflict (Van Den Hoek, 2017). By taking a look at conflict across Africa, markets in various countries with possible significant vulnerability can be identified. The constant presence of Nigeria in the data of market vulnerability as well as general activities of violent conflict and terror (see table 2.1) is one of the main arguments of this study. From the macro-massacre of Baga in 2015 to the market at Solhan in Burkina Faso in 2021, markets have been at under significant threat in Africa. One of the major impacts of conflict on African markets is economic, it's a decline in market activity. While this may be common in other regions, what makes the this a serious vulnerability is Africa is the size of the informal economy and the fact that market decline from attacks also trigger further decline in other markets not attacked.

This is due to the spread of terror or the dependence of certain markets on each other i.e. primary markets service as product source for secondary markets. This is validated by Van Den Hoek's (2017) mapping of market activity and attacks in Northeast Nigeria one of the most attacked spaces in the world (figure 2.1).

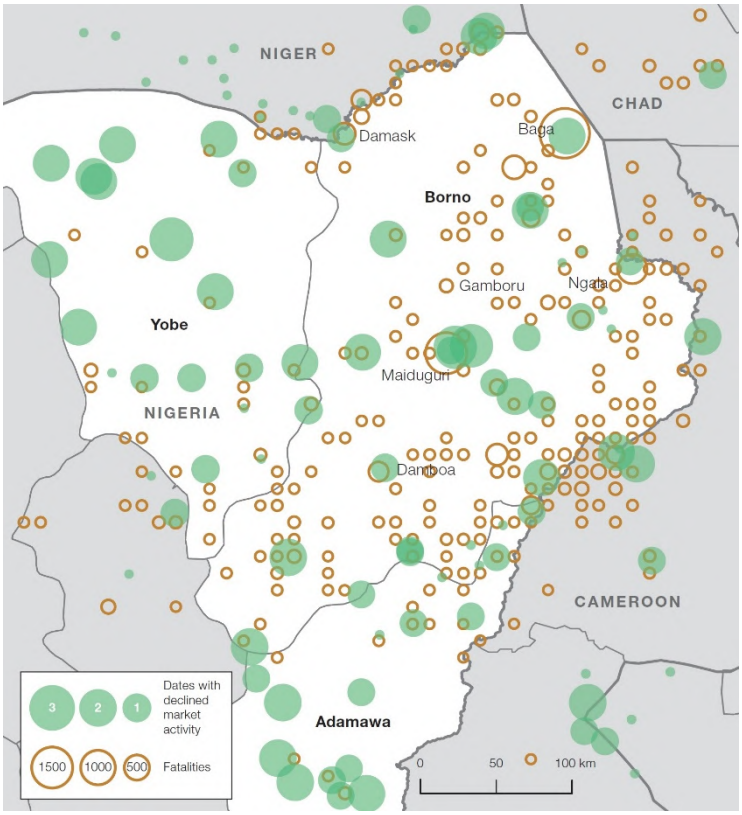


Figure 2.1: Deaths from Terror attacks and decline market activity NE Nigeria (Van Den Hoek, 2017)

From figure 2.1, it can be seen that decline in market activity due to attacks holds true in Nigeria, Niger, Chad, and Cameroon. The state of Yobe also records significant decline in market activity even without attacks in some of the markets. In addition, loss of life and property, African markets are vulnerable to fluctuations in market activities, and in countries that usually have poor policies to support the poor, the impact is severe and spatially wide. Violent attacks on market, particularly terror-based attacks are carried out principally to expand fear in a region, however the choice of markets as a typology in Nigeria is often strategic. Africa being the most culturally diverse continent also has its diversity mirrored in its markets, from the products sold in the markets, objects of art, religion and craftsmanship are often direct indications of the various cultures in the markets (Dupire, 1962; Hodder, 1965; Dorjahn 1962). Alao (2022) shows that since markets are a boiling point of diversity in African cities, attacks on them are bound to cut across a wide range of age, religion, and ethnicity. This helps spread terror faster. Markets also hold food that can be looted to sustain agents of terror (Van Den Hoek, 2017; Awodola & Oboshi, 2015). They also have high density (Ikioda, 2014) which maximises damage per attack. This study goes further to uncover more spatial dynamics at play.

2.5.6. Conflict and Vulnerability: Gaps for Development

There have been various responses towards conflict and violence in the world over the past two decades. Global organisations of countries have tried diplomacy and state-specific policies to tackle local cases (World Bank, 2011). This has hardly worked. Migration and displacement are the theme of the WDR of 2023, in this report conflict-based displacement is planned to be met by controlled migration with a sense of responsibility and empathy from destination countries (World Bank, 2023). This has not been the case so far.

The effort of policy has also not been effective in counteracting conflict. The WDR of 2011 suggested various ways of accelerating development like partnerships across regions and policy designs (World Bank, 2011, pp. 34-38), however there are no real considerations on spatial peculiarities of conflict across space. The UN has shown plans and effort many times, as a global unit, to end conflict but very little has been achieved over the decades (IDMC, 2017, p. 5, 70). The roles of the government and the community has also not been really spelt out even though they are continuously mentioned as significantly important in turning the tide. One of the setbacks at the global scale is the development strategy of the Millennium Development Goals (MDGs). Comprehensive studies have shown that the MDGs were slightly narrow in scope, and they were directed largely to underdeveloped and developed nations with an implied stance that these spaces where the ones pulling the whole world back from development (Kumar, et al., 2016). This is evident in the lack of diplomatic inclusion in the WDR of 2011. World Bank (2011, pp. 11-17) studies as well as other policy findings suggest that building public confidence in institutions and the transformation of the institutions collectively, are crucial for reducing fragility and violence. However, corruption, war, and poor leadership has not fostered public confidence across countries of the world. A lot is still left to be done.

2.6. Theoretical Framework

Having reviewed a large body of literature around the themes of this study, a theoretical framework is developed. This thesis on conflict and vulnerability in markets is spatial, therefore the orchestration of its theoretical framework is unquestionably so as well. The theoretical framework solves the problem of how space comes into the discourse of conflict and vulnerability in markets in such a way that a study can be possible through space. A validating theoretical argument for the spatial study is found in the theory of the father of African modern geography (Briggs, 2022) himself; Akin Mábògùnjé, (1989, p. 68). In his seminal text *'The development process: A spatial perspective'* he puts forward that Spatial reorganisation can serve as a process of development. And even more deeply, that spatial reorganisation is itself, a form of development:

> "Spatial reorganization is seen as synonymous with development in the sense that spatial forms represent

> physical realizations of patterns of social relations". (Mábògùnjé 1989, p. 68)

His views are African in orchestration. He explains that spatial reorganisation is so important that a failure to realise that development inevitably comes with it, is the reason why there are "tremendous distortions and despair" in the planning process of neo-classical development effort in under-developed countries (1989, p. 28). Unlike most reports and studies on conflict, he extends his arguments to rural spaces across Africa to solidify his stance.

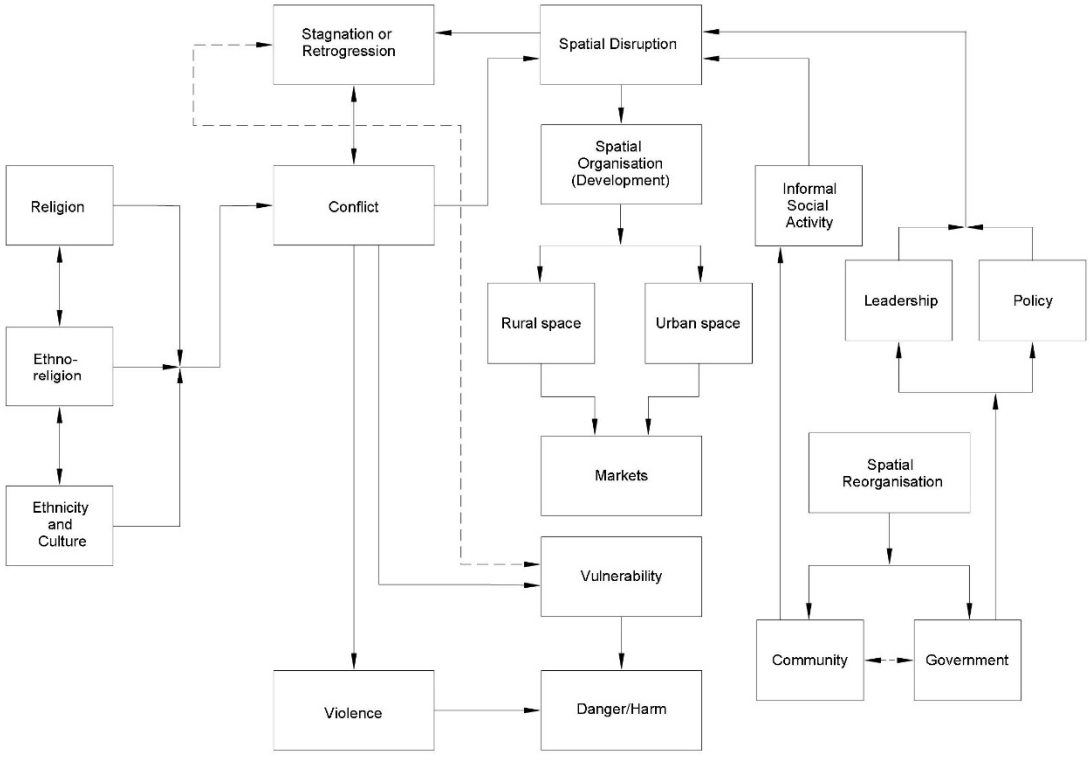


Figure 2.2: Theoretical framework (Source: author's own)

On the possibility that his theory can be operationalised to engage conflict, he presents a confidence of the possibility, but he warns of the danger of taking space literally which may not be enough to fully explain the spatiality of conflict.[11] By this position he implies that urban (or rural) development can be achieved by interventions of spatial reorganisation. This study interrogates his theory and extends it in the context of space.

There is a strange simplicity to the description of the moving parts of this framework but on closer observation; the very articulation of the components is very complicated as will be extensively demonstrated in the course of this treatise. The framework is primarily based on the space of Abuja. This study introduces the notion of spatial disruption and differentiates it from spatial reorganisation in

[11] Interviews and conversations with Akin Mábògùnjé (March -December 2020)

the context of conflict. The position presented here (figure 2.1) is that spatial disruption can come as a result of conflict (and violence) or a development process, both of which are almost fully opposite forces. It also posits that violence-based conflict in the region of the study is mainly driven by religion, ethnicity, or a hybridity of both.

Knowledge on the theory and nature of conflict has been extensively reviewed even in the context of space to show that conflict is driven by various factors and these factors vary in space. In SSA and Nigeria, studies of displacement, violence and death have shown how ethnicity and religion are prime factors in the narrative. In northern Nigeria, the drivers of conflict are presented as three. Religion, ethnicity and combination of religion and ethnic forces. These three drivers are primarily related to violent conflict in northern Nigeria (Salawu, 2010; Alao 2022). When they do not result in violence, they spur vulnerability and affect the confidence levels of people in relation to many rural and urban space. The violence and the vulnerability bring about harm which is linked strongly to the fragility of states (World Bank, 2011, p. 12). There is also a linkage with vulnerability and retrogression or stagnation in terms of development and states and regions have been known to suffer this because they seem likely or are prone to conflict. Instability in terms of violence has been seen as a determent to foreign direct investment among other economic development avenues (Bandyopadhyay, 2014).

The framework presents spatial disruption not as a negative effect but as an indicator of rural or urban change which may or may not be rapid. Spatial disruption can be brought about by the implementation phase of policies and leadership activities by the government which can in turn, be brought about by spatial reorganisation. It can also be brought about by activities of the community which also includes informal markets in the case of this thesis. Informal social activities by the community are a broad domain and it is spatially studied in this thesis in terms of the impact of conflict on it and also as a possible pathway for development. Spatial reorganisation through disruption can occur in the rural space or the urban space, either at the same time or as cascades of events, depending on the nature of the disruption, the driver of the disruption and the agencies at play.

The framework of the study centres on two key agents, the community, and the government, proposing that development within markets can occur in both rural and urban contexts. It stresses the interdependence of development processes in urban and rural spaces, presenting the impact of conflict on markets in northern Nigeria and acknowledging the dual role of spatial disruption in both causing danger and fostering development. Throughout the thesis, this framework remains the primary theoretical perspective, consistently under scrutiny.

3

A Way of Looking

So far, the foundational discussions on conflict, violence, vulnerability, and informality, all in relation to markets, have been established. From philosophical considerations to interplays in material and social activity at global, regional, state and market levels, conflict and vulnerability have been explored. The review has produced various insights about the thinking of conflict and violence, how they relate to vulnerability and how vulnerability plays out across various regions of the world, in particular, the spatial typology of markets. It is known that the vulnerability of markets to conflict is a big challenge, and even though informal spaces are known for some resilience mechanisms, not much has been seen in the case of conflict and violence and their impact on informal markets. The study proceeds to narrow down to northern Nigeria, Abuja in particular, as the spatial site of the research. Having reviewed the weaknesses and strengths of the material and social approaches to conflict study, this section presents a new way of looking at conflict not only from the standpoint of methodology but also at the level of methods as well. In this journey of a spatial way of looking at the impact of conflict on African space, there are emerging contemplations. Three questions are immediately presented to us: What then is the spatial method? Is it method imbued with the spatial or an approach inherently spatial in existence? Can the spatial even be a method if it is a way of looking at the whole idea of social activity already? The answers to these questions lie in the theoretical assembly of the spatial turn where material space as presented by Harvey, (1973, p. 13) and Castells (1977, p. 115), meets social space which is re-imagined as a new space (the socio-spatial) as argued by Soja (1980, 1989, 2009) and Withers (2009).

3.1. Conceptualising The Spatial Method

The spatial is an embodiment of the complicated interplay of the physical and the social space which shows that it has the capacity of knowledge interpretation in both domains of space. The spatial is not the only approach to seeing social activity, there are economic and religious approaches among others (Chang, 2008, p. 12, 2011). However, since it is a theory, it embodies the possibility of testing. This very logic is where spatial analysis is situated. Hence its legitimacy as method. This notion is carried through the movement of spatial theory in the domains of international relations and politics where the progression of the spatial turn has opened more portals of spatial analysis for peace and conflict than is being currently exploited or studied (Björkdahl & Buckley-Zistel, 2016). The spatial

method is therefore the analysis of social activity through the lens of space and not just its conceptualisation or viewing.

Now that it has been pointed out that the spatial can in fact be a method, in addition to what it even is, two of the three questions posed above have been answered. The most complex of the three is however left to be engaged. Is method imbued with the spatial or the other way around? There are at least two facets of response to this question. One is quite simple i.e., there is really no 'imbuing' as spatial theory itself provides a means for investigation. Method exists within it. The other side considers the advancement of the spatial turn to further interrogate how universal notions of space are, in the investigation of social activity. This brings to fore the idea that culture varies across space and since conflict is cultural, spatial inquiry must take this into account. Therefore, conflict varies across space and time (Reychler, 2015, p. 2; Jeong, 2022). This positionality of method is in contrast to the approach in which cutting edge statistical based analyses like machine learning sieve conflict activity into numerical data disconnected from the social narrative context and dynamic to enable compatibility, simplicity or even a 'comfort' of analysis. In the study of conflict, this is very obvious, for instance, in the quantitative approach, especially more recently in the evolution of machine learning in the world of conflict study (D'Orazio & Lin, 2022; Beck, King, & Zeng, 2000; Colaresi and Mahmood 2017; Hegre et al., 2019).

Weather in the very recent predictive automated investigative approach of machine learning by D'Orazio & Lin (2022), or back through the decade-old logistic regressions of Goldstone and his cohort (2010), the narrative is fairly constant. Weather through the neural networks of King and Zeng (2001) or Lagazio and Marwala (2006) conflict data is approached through the similar lenses of 'pure numbers' disconnected form a wide range of social implications. Even the predictive random forest analyses of Heagre and his group (2019), or the expected dependency calculations of Gallop and Minhas (2020) still orchestrate an investigation where the social context of the data is lost in the predictive modelling of the numerical reports of conflict. In quantitative approaches to conflict, there seems to be this obsession of predicting conflict, as if the prediction of a conflict is more important than aligning understandings from the bedrock of the social domain where it can be solved, reducing the need for future predictions. Conflict is not like the weather, its is a complex interaction of humans (and animals) with an extremely complicated structure of volition steeped in even more complex systems like culture, space, and time. Despite the dynamic modelling of D'Orazio & Lin (2022) which tried to inculcate the spatiotemporal properties of a set of conflict reports. Their prediction of violence and conflict in Africa for Oct 2020 to March 2021 totally missed the '#endsars' violent protest which was the largest violent protest in Africa physically and online for the month of October and November 2020. This is because the data of conflict is disconnected form the complication of humans—the agency producing the data.

So even though space is engaged in their work their notions seem to ignore theories of communication and other social dynamics (Kühn, 2015). This is seen in Kikuta's (2022) idea to more accurately estimate and (or) predict areas of conflict zones, that can allow for instance, conflict in space

‘A’ also be the root cause and mostly the same conflict in space ‘B’ in a situation where space ‘A’ and ‘B’ are not even close to being contiguities. It is evident that the new level of pure quantitative spatial analyses does not thoroughly engage the socio spatial. In this kind of space, the social shrinks or even totally metamorphosises into new natures which carry singular quantitative stories of the space under study. ‘People’ are reduced to ‘agents’, streets, houses, and communities become ‘cells’…devoid of cultural identity. This again is one of the reasons why space as the socio-spatial has been chosen as a theoretical foundation for this study. The spatial method therefore needs to go beyond the quantitative.

3.1.1. The Spatial as Afrocentric and African

If conflict is friction in social activity, and social activity can vary by culture then the spatial method should adjust to culture and the spatiality of conflict. This ushers in the domain of African-ness in the approach of research. Africa and most of the global south has always been written out in the narrative of research. Systems and methods of looking strictly from a western perspective have been used on phenomena in Africa (Mkabela, 2015). With science, a universal approach can be argued as pure scientific phenomena to hold consistency across the world in terms of nature and investigative method. Human activity on the other hand, is not consistent. The investigation of social issues in Africa through a western lens runs the risk of inaccuracy and misinterpretation. More dangerously, it creates false impressions that feed conscious or unconscious hierarchialisations of knowledge constructs.

Afrocentricity is the philosophy, and theory of seeing, studying, interpreting, and generally thinking about Africa through the lens of Africa and Africans devoid of any hegemonic influence of any other culture or imposed reality which most often is western (Asante, 1980, 1987, 1988, 1990, 1991; Mkabela, 2015; Mugambiwa, 2021). As a way of studying and learning, there are two ‘African’ ways to see Africa in pedagogy and research, though both ways are African, they are very different. There is the way it is seen by Africans in the diaspora. And there is the way it is seen by Africans in Africa.

The former is where Afrocentricity comes from and it has a shorter history of inception where its primary scholar, Asante (1987), attributes the initial hint at the development of Afrocentricity to C.G. Woodson (1915, 1933) in which an initialisation is seen as sparked from the 1920’s. Afrocentricity as the name implies is a call for a re-centering of African ideologies within the discourse of the human experience of Africans (Mkabela, 2015; Asante, 1980, 1987, 1988, 1990, 1991, Akoto, 1992; Bishop, 1998). Asante primarily focused on the American experience, Afrocentricity is opposed to the dominating perspective of the west (non-Africa) that goes even further back in scholarship than the period of Hegel’s racist spatial exposé of Africa in his modernism project (Hegel, 1956; Ajadi, 2022) in which he positions Europe as the center of Africa. Western Scholars have always implied an off-center position for Africa even in the explanation of Africa (Shockely, 1992). Some scholars have also claimed that a study (and lived experience) of Africa through African lens can bring about fragmentation

of a beautifully homogeneous way of thinking. Schlesinger (1992), among others, argues this fiercely but spuriously in his book '*The disuniting of America*', as he positions citizenship as greater than culture and America as greater than the reality of space. Generally speaking, Lee (2022) further goes to prove that the study of culture in contemporary academics and research only got more streamlined and seriously considered "about 20-30 years ago", especially for the study of conflict.

On the other hand, from the perspective of the African in Africa, Afrocentricity is not an emerging theory, but the system of culture and thinking in itself (Asante 2003, p. 3). The thinking of indigenous Africa is therefore not Afrocentric, it is African because it already embodies the theory that Afrocentricity is fighting for (Mugambiwa 2021). The Afrocentric state of mind sees Africa as heritage and ownership, but Africa is seen by the African in Africa as current reality. While both perspectives are valid, they are different. To buttress this, Africa had always seen the development of itself through itself before the advent of spatial mutations like colonisation which imbued and enforced on the continent a different way of looking (Mkandawire, 2011; Mkabela, 2015). The review of literature from the standpoint of the oral already explains how far back and how deep the way of African thinking is. The shifting of Africa from the center of its own interrogation is therefore an externally initiated agenda and it has nothing to do with African epistemology. In the case of Nigeria, the earliest known 'comprehensive' text is perhaps Mungo Park's narration of his journey through West Africa 223 years ago (1799). In this narrative, the deliberate hierarchialisations are not only clear but also include the erasure of selected history and chronology of space by truncating it in the name and rhetoric of 'discovering' it.

The study of conflict in Africa like all other phenomena in Africa needs to be studied from the context of Africa (Bishop, 1998). The reasons for the resistance to this stance is as explained, due to the spatial dynamism of culture and also the current misreading of Africa in academia as a 'whole' region. The very notion of summarising the continent as a singular space —a very popular stance in western academia is in itself the most obvious example of simplifying the most culturally and ethnically diverse continent on the planet. On this, Mugambiwa (2021, p. 655) calls for the need to take the dynamism and diversity of the continent into serious consideration when studying the space. By accentuating diversity, and 'movement' across the African space, Mugambiwa (2021) lays out very clearly, the conceptualisation of the spatial in African knowledge as an investigative effort situated in its own thinking. This stance gradually ushers in the argument for the ethnographic as the central methodology for this thesis. On the ritual of research in Africa, Mkabela (2015, pp. 180-186) states:

> "The researcher must have some familiarity with history, language, philosophy, and myths of the people under study… Thus, the African-centred research requires a re-definition of the nature of the relationship between the traditional researcher and the researched."

While this is true for Afrocentric thinking, it is also true for indigenous African thought. The knowledge of the African culture in research is imperative not only to know the truth about Africans but to recalibrate the future generations of African researchers (and researchers of Africa). Santos (2016) explains that knowledge takes different forms in Africa and the architecture of Africa's knowledge does not need to be within the template of the west. For instance, almost all west African cultures store and curate knowledge using the oral tradition which is prioritised over writing things down. As discussed in the review of literature, knowledge is more spoken than written in sub-Saharan Africa (Santos, 2016). Owusu-Ansah and co (2013) also make a substantial evidence-based argument for the necessity of African knowledge, African thinking, and research by Africans. They also highlight the exclusion of the African lens as well as the misrepresentation of Africa by the western lens in research and scholarship. Knowing Africa to study Africa is important. The "familiarity" Mkabela (2015, pp. 180-186) speaks of, helps the researcher understand what is being studied. The researcher therefore must start learning about Africa before the study, this is directly implied in the method strategy presented in this thesis as a learning outcome from the field study. The spatial method for conflict therefore argued in this thesis takes footing on African thinking in the space of Africa. The African lens can see itself and in contrary to western Hegelian thought, it can also critique itself. For instance, through the domain of art and literature, Mgbeadichie (2015), in his extended study of Afrocentric thinking critiques the marginalisation of women in Nigeria through the outcast system in eastern Nigeria, and the Yoruba (southwest Nigerian) festival (Orò) that women must not see. Although what Mgbeadichie employs here is more of Afrocentric thinking, through his approach, he further pushes the theoretical concepts of an African the perspective as a discourse that challenges not only external (mostly western) forces of oppression but internal (African) forces as well.

This thesis therefore chooses the second of approach which moves away from the westernised and the Afro-American Afrocentric thinking to an African way of thought that sees Africa through its own lens. This very motive is carried into the investigation of this thesis as the space of Abuja and that of its markets is thoroughly interrogated through the lens of Africa culture itself. This, as explained, pushes for a shift from the more dominant, shallow, and ubiquitous methodologies to one in which spatial scales of the native individual and community as cradles of culture is positioned to influence the ritual of investigating, critiquing, and communicating Africa's phenomena.

3.2. Methodology

Having established the knowledge gap in the study through extensive review of literature, the nature of the gap is used to set forward methodological directions for the study. All along, the approach to the study of conflict has largely been a dichotomy of the material and the social approach. Considerable discussions have been made on both approaches. This chapter presents a new approach that brings both approaches to the fore in the context of the investigation of conflict. This is where the notion of a mixed methods approach stems from. In the context of studying the impact of conflict on

markets, the depth of human activity involved (Hill, 1963), the spatiality of the knowledge gap, its elusiveness, complexity, and the scarcity of data in Nigeria prompts the requirement of a field study. Also, the evaluation of the field data is also imperative, and this requires at least one other method. The methodology therefore shifts from a singular approach in order to have a full grasp of the research questions at hand. Since field study is a primary consideration, the methodology also accounts for change in the processes of inquiry as conflict study can be unpredictable, especially in the case of ethnography. Various studies have shown that many pre-designed processes change during field study, based on unforeseen and even foreseen circumstances and parameters (Hannerz, 2003; Seligmann, & Estes, 2020). The methodology therefore is a spatial approach that attempts to engage the social and the material in the study of the impact of conflict on informal market space with a consciousness of not just time but how contextual circumstances can alter the trajectory or even technique of inquiry.

In explaining the methodology, there now arises the next question of 'how', which though question of method, it speaks to the approach motive. How do we study conflict and vulnerability in space? How do we study it in the space of a market, an African market? How do we spatially collect data? Lastly, how do we process the data in a way that does not erase the importance of the socio-spatial? How do we avoid the pitfalls that have challenged the studies of previous scholars like Collier and Hoeffler? These are many questions of method and yet they are all necessary in this thesis. The question of vulnerability in the context of space needs to be answered in the contextual narrative of the market and at this point, theory, and existing knowledge shift to take on allowance for the pragmatics and logistics of social inquiry. This, of course, comes with its own philosophy and knowledge. The very discourse of inquiry cannot be tabled let alone tenable with an exclusion of method that specifically enables the inquiry (Williams & May 2000; Crossan, 2003; Druckman, 2005). Method is beyond a style of finding, it is the philosophical positioning of how a question, or phenomena is approached (Crossan, 2003). It comes from a methodology. In the case of this study, it is focused on space and more specifically, the space of the market. The theoretical premise (a spatial approach) and the social context (the informal market) call for not just a particular method typology but a specific orchestration of its deployment in order to achieve the aim of deriving the right set of data. In view of this, this chapter also introduces an approach that takes into consideration, the culture and identity of the people in the discourse. The methodology is therefore an approach that attempts to deal with the social and the material, the quantitative and the qualitative, the hybridity of Fafchamps and Hill as discussed in section 2.1.4. This proposed spatial approach, though ethnographic carries with it a quantitative aspect that appraises the data inquired. The mixed method of the more quantitative GIS in combination with the qualitative approach of ethnography is sought as a way of studying conflict in Nigeria without leaving behind the 'humanness' in space…Without overriding the human belief, culture, intention, and general activity in the numbers of pure quantitative data.

3.2.1. Spatial Ethnography

In the direction of the methodology put forward for this study, an approach is presented termed 'spatial ethnography'. Now, spatial ethnography as a theoretical construct is not new. It has as its theoretical foundation in the evolution of space as a social reality in the wake of the spatial turn that brought with it, the idea of seeing space as social (Soja, 2009,1989; Withers, 2009). This development centralised human activity as a primary agent and embodiment of space. The rethinking of the spatialisation of social production as a development to material space and temporality is used as a driver in of the ethnography. Even though the spatial turn centralises space as a factor of social production itself, we must not forget the argument of social empiricism by Harvey (1973, p. 13, p. 306; 1990) and Castells (1977, p. 115) in which they see space through observation of social activity. Harvey and Castells' idea of the observation of social activity is not fully encompassing of the socio-spatial, but it manifests a connection of the socio spatial with the ethnographic in the sense that space is not in the evidence of social activity, it is social activity itself and the evidence of it is a process of enquiry to understand space. Scholars have engaged this idea of spatial ethnography from a number of standpoints. The project of Chari and Gidwani, (2005) builds on the work of Lefebvre (1991) by extending spatiality to labour. They present spatial ethnography in the workspace. They argue that in ethnographic enquiry, the environment and human creativity or cultural production should be given commensurate attention. That the ethnographic epistemology of work should recognize its variation of cultural and cosmological forms, in such a way that they are situated in a notion of lived experiences. Berg and Sigona (2016), point out that diversity is a primary factor in spatial ethnography as it encompasses the differences in social activity and identity across space.

In spatial ethnography, the account for diversity is probably the most important thing to note in terms of methodology. At the level of method, it is also very imperative, especially in the deployment or implementation of its methods. Spatial ethnography is the practice of ethnography driven by the philosophy of space which not only focuses on the culture and identity of a people but how they vary across space.

3.2.1.1. Spatial Ethnography: Justification of Methodology

Traditional ethnography is usually localised in scope and scale, and the studies are used as a sort of synecdoche for the whole spatial context. The notion of diversity focuses on encompassing the variation of culture, identity, and other heterogeneities in order to show how they react, interact, and vary across space. This is discussed later in this chapter when the 'local turn' of ethnography is discussed. Since this study looks at the impact of conflict and violence on informal markets. It will be important to appraise the justification of the methodology for the thesis at hand. Spatial Ethnography has been shown to be applicable in showing variation but not just material or physical variation, the notion of space that drives the ethnography enables it to engage not only the differentiation of culture and identity, but their variation and dynamic of change and interaction. Conflict, being friction in social activity and identity

is a compatible phenomenon that can be studied through the approach of spatial ethnography. Setha Low, the American anthropologist completed one of the most focused projects on Spatial Ethnography. In her monograph "*Spatializing culture: The ethnography of space and place"* (2016), She opens her introduction by declaring that:

> "The ethnographic study of space and place is critical to understanding the everyday lives of people whose homes, and homelands are disrupted by globalisation, uneven development, violence and social inequality". (Low, 2016, p.1)

This situates this study well in the domain of spatial ethnography and makes a case for its justification. Low's position finds its foundation partly in Lefebvre's foundational argument of space as being political as it is shaped by history and natural elements which is a political and ideological process (Lefebvre and Enders, 1976, p. 31). Low further shows that spatial ethnography's ability to show changes in development, asymmetries of power, which then can be analysed by looking at contested spaces makes it not just ideal for the study of conflict but for the most effective way in understanding the experience of conflict and as well as its movements across space (Low, 2016, p. 75; Low, and Denise Lawrence-Zuñiga, 2003, p. 18).

In addition, it is imperative to note that the deployment of this methodology carries with it a dual intention as a result of its inherent philosophy. Spatial ethnography can engage experience as well as the variation of that experience over time and across space, it becomes a hybridity of 'depth' and 'width' in the spatiality of scale when it comes to method. On this note, we recall our ambassadors of the material and spatial approach of conflict study when it comes to markets i.e. Fafchamps and Hill respectively. While Fafchamps goes wide using survey data of about 20 African countries (Fafchamps, 2003b, p.39), Hill goes deep with her indigenous economics approach (Hill, 1966) through which she makes in-depth studies of markets and the everyday lives of the people in them. These two approaches carry their own pros and cons. While Marcel Fafchamps can make sophisticated juxtapositions and cross-examinations of markets across countries and varying spatial contexts (Fafchamps, 2001, 2003a, 2003b), he loses resolution on the experiential study of the market. And while Polly Hill goes deep into the experience of the market and its people (Hill, 1963, 1966, 1986, 1997), she loses the power to formulate advanced narratives across various space. Spatial Ethnography bridges this gap at the level of method as it goes deep through ethnography, but the spatial approach allows the ethnography to be deployable in such a way that it captures variation and change of the experience of the market and its people. This has not been attempted before at the intended scale of this study. This makes the analysis of this thesis the first-time spatial ethnography is used to simultaneously engage the 'width' and 'depth' in the study of conflict and vulnerability in the market space. While the methodology is well explained, the organisation of a method is just as complex. This dual intention can only be achieved by a mixed methods approach, but a mixed methods approach of this nature is much more sophisticated than just

using two or more methods after each other. The combinations of scope and intensity and the hierarchialisation of the methods matter in order to bring about a spatial ethnography sufficient for the research questions. It is therefore needed to engage the mixed methods approach.

3.3. The Mixed Methods Approach

In this mixed-methods approach, two broad methods are chosen for depth and width. Ethnographic methods are chosen for depth while GIS methods are chosen for with. Ethnography is chosen not only to have a first-hand understanding of the lives of all the actors involved, but a close-up experience as well. Using ethnography, the intension is to see—by personal interaction, how the ideas of conflict, market and vulnerability relate in the FCT space. GIS is then put forward to interrogate the resulting data while developing analyses of its own to elucidate the insights from ethnography. Before more is said about the mutualistic framework of both methods for the study, it will be helpful to understand the very idea of the mixed methods approach.

The western discussion picks up in the period of the seminal work of Campbell & Fiske (1959) who created a shift in the ways social science can be investigated from multiple means through a process of "triangulation of methods" (orchestrating the application of multiple methods) as also pushed by Jick (1979). Mixed methods research has been on the rise in the field (Johnson *et al.*, 2007). This includes conflict studies (Thaler, 2017). Before an argument is made for this position, it will be helpful to explain the raison d'être for mixed methods and how conflict as a phenomenon can be measured from its conceptualisation at various levels. Sartori (1970) implies that what can be sequentially conceptualised in the context of society can be measured in some way. A breakdown of the various entry points of qualitative and quantitative philosophies towards the engagement and measurements of concepts is therefore imperative (Thaler, 2017). Since the impact of conflict (in society) is the primary discourse of the proposed study, the theme of explanation is set in comparative politics and sociology. One of the most formative opinions of western comparative politics (Sartori, 1970) dichotomises conceptualisation into 'theory' and 'method'. In the study of conflict, conceptualisation itself is just as important as measuring the manifestations (or dynamics) of the concept. In the approach of concepts such as conflict, the social scientist runs the risk of being over-conscious (focusing more on the methods without understanding a concept) or unconscious i.e., only theorising without being able to measure societal changes/shifts in a concept (Sartori, 1970).

A balance needs to be achieved in the investigation of social science. Some scholars point to the notion of 'pragmatism' as a standpoint for achieving this balance, they see the operationalisation of this pragmatism in the merging of quantitative and qualitative approaches to the measurement of concepts (Morgan, 2007; Onwuegbuzie et al., 2005, 2009; Johnson et al., 2007; Thaler 2017). Goertz, & Mahoney (2012a, 2012b) argue that the methodical understating of a concept is inherent in is its very existence (ontology) and in the knowledge of it and about it (epistemology). Each of these thoughts can

be appraised quantitatively and qualitatively. When approached qualitatively, the ontological idea engages a concept semantically by seeking out the most generalising inherent phenomenon about it (Sartori 1970, 2004; Collier & Gerring, 2009). Epistemologically, qualitative approaches tend to seek out how accurately the definition of a concept is interpreted. A quantitative perspective differs. Ontologically it approaches a concept through variables and indicators that can be measured to give judgement about the concept. Epistemologically, quantification focuses on 'errors' of deviation from a chosen 'true' value of knowledge that the concept is thought to embody. This classification (also supported by Thaler, 2017; Goertz & Mahoney, 2012, 2012b; and Sartori, 1970) reveals the shortcomings of both purely quantitative and qualitative approaches. This is noted especially in studies that are dynamically varied with complex manifestations of change that require a more holistic perspective. As Hall (2003) has noted, there is a tendency to blur differences between epistemology and ontology to have more holistic views. Further to this, Goertz and Mahoney (2012a, p. 209) argue:

> "Qualitative scholars need to think more about measurement and aggregation. They should not be content with default aggregation and dichotomous measurement. Quantitative scholars need to think more clearly about concepts and their defining dimensions and what that implies for measurement."

Johnson and his cohort (2007) created a diagram (Fig.3.0) to show that there are gradients of quantification and 'qualitativeness' upon their mixture, synergy or overlap in social science. The domination of either approach depends largely on the nature of the concept studied—The research questions, and the emergent data to be engaged.

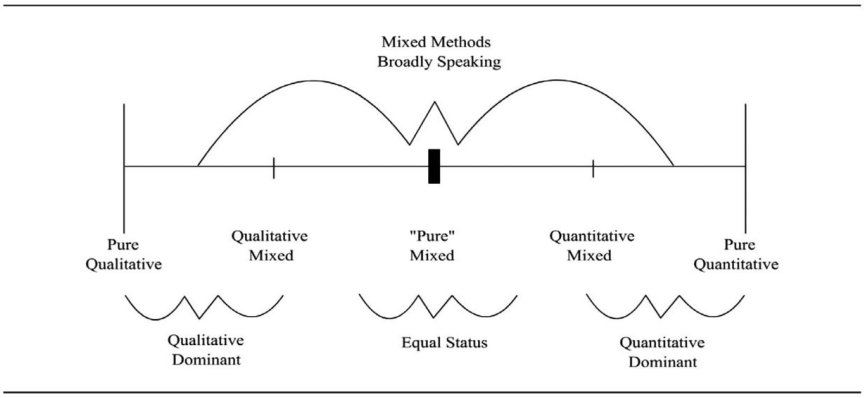


Fig. 3.0: Gradients of mixed methods (Johnson et al., 2007)

3.3.1. Mixed Methods and the Study of Conflict

More recently, there has been a general perception that studies of conflict, especially in terms of agitation and the legalities of human rights do not hold much rigour in terms of method (Coomans et al., 2010). This general perception is dying as the approach of conflict study through mixed methods is on the rise. Conflict is multilevel and trans-scaler in occurrence and proliferation. It occurs at the level of the individual up to that of the society/community (Thaler, 2017). There are many levels to its workings. These workings can also be simultaneous. An individual can be at conflict within 'self' and also be part of a collective conflict at the same time. This is even beside the themes of the conflict itself which may be territorial, ethnic, religious, political, or even a combination of some or all of the mentioned and more. Holistically keeping track of these multiple layers of complexity requires a sophisticated system that can capture the full narrative. Some research focus on systems and cultural natures of conflict while others focus on the manifestations of conflict (in terms of violent occurrences, casualties etc.) in other words; pure qualitative or quantitative. However, the studies go, a mixed methods approach is well positioned to properly unpack conflict. There has been quite a number of research on conflict that have combined both (using mixed methods research) over the years, the number is actually suddenly on the rise for instance generally with Pham & Vinkc, (2018) showing a rising trend in human rights study. Table 3.0 shows a few across conflict discourses. Thaler (2017, p. 59) presents extensive arguments for the use of mixed methods in conflict studies, he argues:

> "As we study the motivations and behaviours of violent individuals, groups, and states, it is beneficial to use all the methods at our disposal to understand violence and conflict and to work toward the normative goal of reducing the incidence of violence".

Table 3.0: A selection of conflict studies using mixed methods. (Source: author's own)

Project	Mixed Methods	Author
An analytical breakdown of war and violence in the dynamics of civil war to show that violence is more logical than it is previously thought of as an outburst of emotions and ideologies.	game theory + archival studies+ statistics	Kalyvas (2006)
A study of variations in violence across space, time, and methods in the history of Indonesia. A look at the Hindu-Muslim conflict among other occurrences of violence.	ethnography+ pure statistics	Varshney (2008)
A study of ethnic riots that focus on the people in protest and the agencies of violence during a riot.	ethnography+ pure statistics	Scacco (2010)
A mixed methods study of violence during dating of college women. With quantitative and qualitative methods focused on different questions within the study.	ethnographic survey + Conflict Tactile Scaling-CTS	Edwards et al. (2012)
A mixed methods study of the effect of aid on community cohesion in post-war Liberia. Community development reconstruction via giving of funding grants to various villages is used as a method with basic statistical feedback to	public engagement practice + statistics	James et al. (2009)

see how development can be catalysed in post war settlements.		
Identification of mutually reinforcing drivers of conflict and violence in rural and urban communities in central Nigeria. GIS & remote sensing is used to determine locations of interviews for focus group study in Benue and Jos states.	qualitative study + GIS analysis + remote sensing	Ojewale, (2021)
A study of how and why some mass school shootings in high schools of the USA have been averted successfully.	Content Analysis (Archives + Statistics)	Cowan et al., (2022)
Spatial study to find relationships between civil war and terrorism using georeferenced data to check zones of terror and war. This is followed by a study of selected cases.	qualitative study + GIS analysis	Findley et al. (2012)

Technically, quantitative, and qualitative methods optimise each other when used together (Luyt, 2012; Glynn & Ichino, 2015). In this thesis, the spatial studies rely heavily on ethnographically derived data (from the field) to present a full social spatial narrative of the study. The ethnographic data is then analysed spatially using the GIS approach before further processing.

3.3.2. Ethnographic Survey and the 'Local Turn'

Since this study has chosen ethnography, it will be helpful to understand certain crucial developments of the method. Ethnography can be said to be an organised strategic way of studying people and their culture. The goal of ethnographic research is to understand the context and pattern of human lives (Fife, 2005, p. 14). It is a way of approaching an idea through a set of methods (Hammersley, 2014, p. 2). It is therefore more than a tool, it is a philosophy (Bräuchler, 2018, p. 24). As this study focuses on conflict. It will be helpful to customise ethnography as an approach to conflict and peace issues. Gillard (2018, p. 1) introduces 'Ethnographic Peace Research—EPR' as ethnography that seeks to understand conflict and peace, and the oscillations between the two. EPR is highly open to the constructive collaboration of other methods in investigation and analysis (Millar, 2018, p. 10). This clarifies the legitimacy of its use in this project's mixed methods approach. However, there is a leaning more to its use in conflict and vulnerability.

EPR is positioned to analyse and understand conceptions of peace, conflict, and violence at various levels: the local, regional, national, and international. The 'local' has become a growing significant standpoint of viewing conflict and peace situations ethnographically (Millar, 2018, p. 6; Theidon 2000; Bräuchler, 2018, p. 22; Colins & Watson, 2018, p. 93). Bräuchler, (2018) describes the arrival of the 'local turn' in the ethnography of conflict as a movement that is characterised by the study of conflict at the local level, investigating human life and culture at smaller scales. This is gradually replacing the 'national' or 'state' level of ethnographic study as small spaces of study have always been representations for larger spatial domains in the first place (Millar, 2018, p. 2). Following the appraisal of the local; this study engages conflict in sub-Saharan Africa, specifically West Africa and Northern

Nigeria but focuses on the city of Abuja. Markets are of course the spaces of deliberation. It can be noticed that the study funnels in spatially from a larger space to a smaller space, while keeping the study aim. This is consistent with the spatial turn as the ethnographic approach to conflict and peace field study now takes note of spatial hierarchies and activities of people within it (Cole, 2018, p. 237).

Space and Place matters in the process of ethnographic study and they contribute to the nature and validity of the feedback (Sin, 2003). In conflict research, places and territories have a propensity for measurability that are tangible and can be related to space (Björkdahl & Buckley-Zistel, 2016, p. 28).

3.3.3. Geographical Information Systems (GIS): The Mixed Methods Component

This is the other method chosen for this study. GIS is a space-conscious platform designed to mine, accumulate, organise, manipulate, analyse, and store data (Chainey & Ratcliffe, 2005, p. 37). For the purpose of this study, it is used in connection with ethnographic survey. It works in visualising and analysing data as space, hence creating a unique and sophisticated understanding of conflict and its dynamics in Abuja. Ever since GIS shifted to the platform of the computer for regional planning, it has undergone a series of evolutionary stages (Lü G. et al., 2019). The unique characteristic of GIS for studying conflict or crime is its ability to reveal various social and geographical phenomena/activities in the context of physical space i.e., location (Chainey & Ratcliffe, 2005, p. 39). This is usually done in layers. Various geo-spatial scenarios can be layered (stacked) on a GIS platform, making cross-referencing and analytical inferencing easy across various domains of systems and data sets. Its suitability for this project is in its propensity for inter-linkages with other techniques of enquiry (Chainey & Ratcliffe, 2005, p. 40).

As much as this shows GIS's suitability for cross-lateral use with other methods, in contrary to Chainey & Ratcliffe (2005), it is usually not a straightforward process as GIS is yet to fully embrace newer technologies of presentation, auto-dynamic inquiry, and analysis (Lü G. et al., 2019). Recent research into conflict have paired the use of GIS with other tools like Machine learning (Ding et al., 2017; Hao, M. et al., 2019; D'Orazio & Lin 2022), and statistical analysis (Python et al., 2019). In this study, spatial and socio-spatial data generated through ethnographic survey will be fed into a GIS platform to contextualise the dynamic and non-dynamic actors of conflict spatially and spatiotemporally.

Vector and raster data types are generated in this study building from the field study as will be seen in the following chapters. In this study, it must be noted that raster data is more interrogated right from the ranking of markets to the point of studying interstitiality in them as a spatial discourse in conflict. Over two decades ago, raster data, was initially not considered much as a suitable data type for analysing violence and crime (Chainey & Ratcliffe, 2005, p. 43) as it relied on pixel-packed data that mostly was used to show just colour feedback. However, more recent research on conflict and terrorism has used more referenced raster data, packing information in the pixels through more

advanced analytical operations including machine learning (Ding et al., 2017; Hao, M. et al., 2019; D'Orazio & Lin 2022). The mixed methods approach of ethnography and GIS in this study follows suit in the use of raster data for analysis.

3.4. How to Look at African Markets

Equipped with the understanding of spatial enquiry and how it addresses Africa, we push forward to the method of approaching the phenomena that is the market space. Now, markets are different across the world, as previously explained. They are places of buying and selling and places of very complicated communication. The way people buy and sell vary across the world reflects culture, technological advancement, and the general development of the economy of land and space. As explained in the literature review; in Africa, markets are different. The most obvious characteristic is the fact that they sit firmly in the informal economy. However, this is not the only thing that sets them apart from markets of the west. The socio-spatial nature of markets in Africa as a research field is a broad discussion. Holisticising Africa in this context will be falling into the 'single-narrative' trap of Africa as a single place all over again. The markets across the 54 states are vast in collective scale and also in differences. Culture obviously plays a huge role in this variation as well as the structure of the economy of the states. In general, it can be said that markets in Africa have a general sense of informality to them. This currently creates incompatibilities with the formal economy architecture of the African city as seen in a number of large economy states, especially in regard to taxation and similar economic policies (Farazi, 2014; Dell'Anno & Adu, 2020). Informality is a character in African markets which needs to be carefully unpacked in various spatial contexts, especially across the geography of the continent. However, the economist Polly Hill conducted studies across West African markets between the 1950's and the 1970's and here is what she (Hill,1963, p. 444) had to say of the African market:

> "... an African market is one of the most uncomfortable and inconvenient places in the world in which to conduct respectable fieldwork…It is not so much the heat, the glare, the bustle, the overcrowding, the noise, the shouting (and consequent hoarseness) ... The difficulties are rather the extreme fluidity and complexity of the undocumented situation and the need to trouble informants at their moment of maximum anxiety, when they are concluding transactions."

It must also be taken into consideration that the markets she studied are in Northern Nigeria, the same region studied in this thesis. She continues (Hill,1963, p. 444):

> "…Gaining access to traders who are often wary of researchers and often quite uncooperative when conversations other than business transactions are presented before them, managing

ethnic diversity, recording data in very noisy and cramped open marketplaces and working with an extremely limited literature will be critical issues that researchers have to consider when conducting work on Nigerian marketplaces."



Plate 3.0: Dry Informal Sector: Wuse Market (source: author's own). [12]

Over 70 years later, I can still confirm the continuous presence of these bottlenecks in the field. The very sensitive nature of the topic to be studied (conflict, violence, insecurity, and vulnerability) makes the task increasingly difficult. My Initial reconnaissance shows to a high degree of complex informal systems of communication between traders and buyers, and within the groups of buyers and traders as well. Stalls may not necessarily correlate numerically but they have an 'organisation'. Plates 3.0 and 3.1-3.2 show a visual description of one of the fields of study (Wuse) and other markets of northern Nigeria respectively.

[12] 12:56PM, 23-12-2019) 22 hours before an attack attempt.

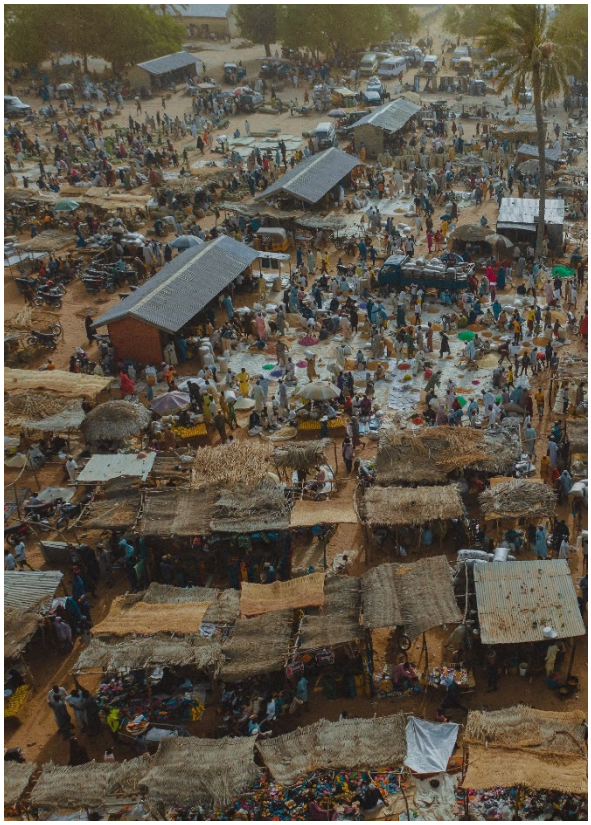


Plate 3.1: Shuwarin, Jigawa, Nigeria 28-03-2022[13]



Plate 3.2: Kasuwan Kwari, Kano, Nigeria 16-01-2022

As one can see, there is a complexity of pedestrianism in the market. The outdoors or semi-outdoors in the tropical climate means they are very hot at most times of the day (see Plates 3.0-3.2). These are considerations that should be taken very seriously when studying a market in northern Nigeria. But how do we approach the study of the African market? Well, it can be seen that typical quantitative methods cannot even come to play at least at the initial stage. There is almost no ready-made data of markets in northern Nigeria. Moreover, the complicated data of social activity at play in a market needs a far more immersive approach. As earlier explained, only a method which consistently embeds a researcher in the day-to-day events of the market space is sophisticated enough to capture the main and nuanced characters of the agency, setting and dynamics of the market space. This must be done with an understanding of the cultures and the space from the standpoint of seeing them as themselves and not through the lens of an 'other'. For this reason, ethnography is put forward in a spatial way to be followed up by a more traditional spatial analysis through Geographical Information Systems (GIS).

[13] Images 3.1 and 3.2 by Moha Sheik from Markets of the North: Forms and Spatiality an on-going study by myself and Moha Sheik

3.4.1. Where to Look: Abuja Markets

As explained, following the growing discourse of the 'local turn' in ethnographic peace research (Bräuchler, 2018, p. 22; Millar, 2018, p. 2). There is a need to select the space or spaces in which to narrow down investigations based on the establishment of existing gaps of knowledge. Knowing where to look therefore becomes the next task of the thesis. The selection of a space (or set of spaces) in which the research questions can and should be deployed can only be systematic and strategic since there are already established parameters of inquiry. The selection needs to be systematic because the site selections based on a predetermined format and set a of inquiry requires relevant processes to achieve high compatibility (Walford, 2001; Willoughby, 2016). It also needs to be strategic because the feasibility and pragmatics of the study needs to be put into account as a study is only as good as the feasibility of the logistics and conditions for study (Walford, 2001).

Druckman (2005, p. 122) argues that in ethnographic survey, the most important contribution of method is not only in the sample selection but the process of arriving at the sample. Therefore, for this study, the selection of study area in Abuja has a process. Abuja is a large territory of over 6 million people with about 3.65 million people in its metro area. Abuja — the only fully planned city to be a national capital and the only formal city in Nigeria of the last half century (Abubakar, 2014) is planned in spatial hierarchies. The space levels, start from the neighbourhood to the district, to the sector, to the central areas. As mentioned, the spatial hierarchical form of the city plan designates 30-45 families for a neighbourhood. There are markets at each level of spatial hierarchy which means each neighbourhood has a neighbourhood market. These neighbourhood markets are usually small in scale as they service only 40-50 families at most. They are also spatially flexible, highly informal, and some have poorly defined boundaries. This study considers them as spatial instances of informal trade rather than formal market typologies. They are too numerous to track let al.one study qualitatively. The study of such quantity makes spatial analysis via remote sensing and image study a herculean task. The study therefore opts to investigate markets that have socio-spatial influence across districts sectors and central areas. Human activity across these large spaces informs more about the impact of conflict and the notion of vulnerability. As discussed, the idea of the local in qualitative study is that the data produced should be capable of informing insights directly or indirectly at larger scales. The markets selected should be positioned to provide data for Abuja as a general territory. Nevertheless, this class of markets are also very numerous. With this level of potential variety, it is important to collate a set of criteria based on which a sample set can be studied to bring about the best data representation based on internal and external validity (Walford, 2001; Hannerz, 2003; Willoughby, 2016; Wutich & Brewis, 2019).

The general selection of the markets is therefore selected based on:

a. Their service scope across space (mostly districts and higher)
b. Their popularity in terms of consumer need (demand and use must transcend neighbourhoods). This is spatial as consumer need varies in typology and scale across Abuja.

c. Their location in the context of the FCT. Collectively, the market selection pool must geo-spatially span the entire region of Abuja.

Table 3.1: Site selection criteria. (Source: author's own)

	Criteria	Justification/Indicators
1	Safety for study	In ethnographic research, especially in endeavours that are potentially dangerous like violence-based conflict, the safety of the researcher is of paramount importance even in military surveys (Morgan & Pink, 2018; Ugwu, 2020). Though internal and external validity to data is derived (Baird, 2009, 2018), it is always avoided if possible. The indicators of this criteria are therefore terminal and the most important i.e., classified as 'safe' or 'unsafe'. The latter is chosen at the slightest evidence of potential danger to the researcher and his team.
2	Experience with conflict	These are markets that have had a history of violent conflict. Conflict manifests in space in many ways (Björkdahl & Buckley-Zistel, 2016). Markets are principal in the narrative of conflict in northern Nigeria (Laya, 1992; Hassan & Na'ibi, 1962). For the purpose of this study, markets that have experiences some form of conflict and violence (in the past) are prioritised so vulnerability can be studied experientially.
3	Administration control	How a market is controlled contributes immensely to its sustained growth and security (Hill, 1963; Omobowale & Omobowale, 2019; Onyeonoru et al., 2022, Grossman, 2021). Abuja operates a government-run management system (the Abuja Market Management that manages 18 markets), a hybrid PPP system and a fully private system of local management. Markets will be chosen based on these indicators.
4	Size	As much as the socio-spatial does not speak entirely to physical size alone, the size of a market or any other public facility often implies that it services many people. Notions of the ethnographic turn which lean towards the local as a standpoint for discourses of larger space (Millar, 2018, p. 6; Theidon 2000; Bräuchler, 2018, p. 22) show that size and space matter for more relevant studies. The size of the market is therefore taken into consideration in the selection of a study area.
5	Location	Abuja like most cities is divided into urban and peri-urban regions. Like a majority of modern cities (Saghir & Santoro, 2018), most people do not even live in the city center (Abubakar, 2014). These regions vary in inclusivity and power with the center being more powerful (Jones, Leimgruber, & Nel, 2007). Markets will be chosen from the two sub-urbanities to bring about a holistic experience across markets by location. In addition, studies from thesis have shown that vulnerability varies in Abuja (Ajadi, 2022).
6	Security Outlook	Security can be organic i.e. develop with a part of a city or inorganic, as in, added to a space by external forces (Ogbozor, 2016).Though the presence of police does not imply security (Akinlabi, 2022), in Nigerian urban space, the presence of police has been seen as the primary indicator of security (The appearance of security in the market is a criterion (Alemika, 1988; Akinlabi, 2022). The presence of police however shows policy at play. Proximities of markets to police are therefore used as an indicator in order to investigate the impact of state on market security.
7	Food Flow	Food has played a key role in conflict, it has been weaponised (Messer et al., 1998) in war through markets. The Nigerian civil war is an example of how food scarcity artificially generated through markets as a weapon (Taipale, 2017; Itiri, 2020). In Africa most food is gotten from informal markets and violent conflict significantly affects the production and flow of food in markets, which in turn affects cost and hence the micro or macro economy depending on the impact and scale of the conflict (Van Den Hoek, 2017; Awodola & Oboshi, 2015; Fudjumdjum et al., 2019). The movement of food through markets helps shed more light on a market's vulnerability to conflict and violence.
8	Product/Service Variety	Conflict disrupts the flow of products generally. Markets that sell single products or a variety of products can have different impacts on the larger society when they are disrupted. This section attempts to check for these impacts (if available) the markets of Abuja.

Upon survey, 94 distinct markets across Abuja fulfil the conditions. 62 of the markets were visited upon reconnaissance study. This process is not particularly aimed at ranking the criteria but to designate importance to the motive of the primary study. Since the primary aim is to assess the spatial impact and role of conflict in markets as well as the contextual notion of vulnerability across space, some criteria systematically become more significant in juxtaposition to others. A Multi Criteria Based Analysis (MCBA) is run to select the site for study. The MCBA process proceeds by weighing 8 criteria for selection of study and mapping them across all 94 markets that were observed during the reconnaissance process. The criteria are presented in table 3.1 above. The criteria also speak to the feasibility and logistical parameters of conducting research in the areas. The taxonomy of markets discussed in the next chapter feeds into the criteria design in terms of the aggregation of sites that will most effectively speak for the whole.

3.4.2. Selecting the Site

For the MCBA, the weighting was listed in nominals of 10 based on levels of importance to the project.

After the MCBA ranking of all 93 markets with the 8 weighted criteria (see tables 3.2 & 3.3), the two markets: Wuse Central market and Nyanya main market were selected as the primary study sites. They have the same MCBA index score, and they fulfil the set criteria in the following ways:

a. *Safety for study:* Upon reconnaissance survey, they have both been found to be safe. There are formal transportation routes to their locations and the management have shown initial support for studies that this project requires.

b. *Conflict affiliation & security outlook:* Both markets have been linked with varying levels of conflict. Nyanya market for instance has been a site of a major attack. One for the first major bomb blasts in Nigeria occurred in the transport node of the market on the 14th April 2014, killing over 200 people. Wuse market's affiliation is slightly different. In contrast to Nyanya's experience, Wuse has fended off various types of attacks over the past 10 years despite it being the most popular market in Abuja. Upon initial observation, the markets have different security proclivities. Wuse's security outlook is highly formal while Nyanya's is very informal. The contrasts of these affiliations of conflict and security operations show high propensities of relevant and spatially encompassing insight for the study.

c. *Administration control:* Wuse is government controlled (AMML), while Nyanya has an organic non-governmental civic leadership system.

d. *Size:* Both markets are large, and they attract buyers and traders from across the entire FCT. Some sellers come to Nyanya from other west African countries. Human activity at large scale can be studied relatively in more robust ways through both markets.

e. *Location:* They are both examples of urban (Wuse) and peri urban (Nyanya) spaces

f. *Product/Service Variety:* Both markets have a huge variety of products, however Nyanya is sectionally thematic with each row or area of the market focusing on a single product/service typology. Hence product/services-based studies can be carried out in both spaces.

g. *Food flow:* Both markets command a very elaborate network of goods coming from as far as international spaces and intra-national flows span as far as the peak north right down to the south-south of the country. This range of product flows (including food) allow for more encompassing studies of conflict and vulnerability in relation to the open markets in Abuja.

Table 3.2 Site selection parameters and weighting (Source: author's own)

s/n	Parameter	Weight	Indicators
1	Safety for study	80	Safe=80; Not safe=0
2	Experience with conflict	70	Affiliated with conflict=70; not affiliated=0
3	Administration control	60	AMML or PPP controlled or local controlled=60; No clear control=0
4	Size	50	(In m^2) <100,000 =50; 100,000-50,000 =40; in progression to 10
5	Location	40	For urban or per urban space: servicing *center scale* = 40, servicing *sector scale*=30; servicing *district*=20; servicing *neighbourhood*=10-0
6	Security Outlook	30	Police presence (a); Close proximity <10 minutes(b); non-presence of Police (c). c=0; b+a=30; a=15
7	Product/Service Variety	20	Product + Service variety=20; Service variety or product variety only=10; No variety=0
8	Food flow	10	Product from outside Abuja =10 Product from within Abuja=0

Table 3.3: MCBA ranking of the top 10 and last 10 markets of the 94 appraised. (Source: author's own)

s/n	Market	Area (m^2)	Interstitial urban Sprawl(?)	Proximity to Police (Mins)	Safety for Study	MCBA Index	Ranking
1	Garki International Ultra-Modern Market	133524.04	no	5	yes	0.986	1
2	Nyanya Market	77919.25	yes	1	yes	0.972	2
3	Wuse Market	111671.98	no	7	yes	0.972	2
4	Gwagwalada Main Market	75290.03	yes	2	yes	0.944	4
5	Garki Model Market	87014.69	no	7	yes	0.931	5
6	Kubwa Modern Market	86563.53	no	6	yes	0.903	6
7	Wuye Ultra-Modern Market	66854.60	no	1	yes	0.903	6
8	Dutse Market	61508.61	no	8	yes	0.875	8
9	Lugbe Main Market	38076.65	yes	1	yes	0.861	9
10	Karu Market	41151.91	no	8	yes	0.847	10
85	Kuchbuni Market Garden	609.72	no	23	no	0.097	80
86	Market Near Kuchiyako Extension	7802.60	yes	27	no	0.097	80
87	Akori Market Abuja	311.34	no	87	no	0.069	87
88	Dakaa Market	627.53	no	132	no	0.069	87
89	Gadabiu Market	9561.36	no	70	no	0.069	87
90	Kassanki Village Market	5482.07	no	67	no	0.069	87
91	Kudiri Market	1232.76	no	135	no	0.069	87
92	Market Izom	322.81	yes	52	no	0.069	87
93	Market Near Kaima	1734.30	no	51	no	0.069	87
94	Market near Kuduri	1890.01	no	123	no	0.069	87

It will be noticed that Wuse market is chosen over Garki International. This is due to Wuse's denser population and it being the most visited market in the FCT city center. It also has more conflict and violence accounts than the Garki international market. In addition, the coincidental identical score with Nyanya makes a stronger argument for juxtaposition study. The plan of the site selection is to use the largely polarising parameters as a basis for the argument to study at most two markets. This is because of the pragmatic scope of the study given the limited field duration and resources allowed by the project. An auxiliary market is also selected as a control in terms of security, location, food, and other characteristics that will be discussed later in the thesis. The farmer's market at Maitama, is a very small market. It is however situated in one of the most secured neighbourhoods in the entire FCT after Military camps and the presidential villa. Asides from the interstitial military presence, the proximity of high-profile personalities in the neighbourhood who have multiple security details create a

formidable environment for the market. The tiny 2011.43m^2 market has very unusual peculiarities of security and patronage that it is used as a control and also an additional case for studies of vulnerability.

3.5. Field Study

After the desk studies at the university, preparations were made for field study. A risk assessment of the field study exercise was carried out in the department which aided the department to decide on the feasibility and pragmatics of the study with respect to my abilities and experience. Being a study of conflict, violence and vulnerability, extra care was taken to ensure my safety and constant communication. I arrived in Abuja and a reconnaissance phase was planned to understand the actual situation on ground. After the reconnaissance period which took place between 14 October 2019 and 30 January 2020. The field study commenced on 10 February 2020 before it was truncated on 20 March 2020, resumed in June 2020 and the last studies which was at Maitama Farmers' Market, were completed in July 2021. The main field study was focused on the following exercises:[14]

a. Interviewing traders and buyers in the selected markets, covering all the spatial contexts, demographics, and typological varieties available.

b. Carrying out surveys to the general public of Abuja.

c. Embedding myself in one of the markets as a regulatory worker, thereby gaining first-hand knowledge of the market's workings. Baird (2009, 2018) has shown that an ethnographer must 'fit in' a field context, otherwise social cohesion will be difficult. The job of regulatory officer was chosen as it matched my perceived 'status' and skill set based on markers like my age and charismatic control as commented by the manager of Wuse Market at the time. There was therefore no noticeable reaction of non-conformity or alienation in the market studied in this way.

d. Regular visits to the other market as well, including a control market that exhibited the highest level of security in the entire FCT. i.e., *Maitama Farmers' Market.*

e. Collecting spatial maps and other quantitative data from the Abuja Geographical Information Systems (AGIS) and similar parastatals. The data requested were not available, so they had to be analysed and derived upon request. I had to collaborate with the relevant unit to produce the data to the requirements of the study.

f. Interviewing key members of the established agency in Abuja. These interviews were longer, semi-structured interviews and direct electronic documentation was largely prohibited as well.

[14] See appendix for interview schedules.

As can be noticed, all the activities listed needed physical attention, reinforcing why the field study had to be unexpectedly extended. The field study was concluded in July 2021. During the whole period, 1843 detailed structured and semi-structured (or unstructured) physical interviews were conducted with 756 respondents in Wuse Market and 417 from Nyanya Market. 97 traders in Wuse Market were interviewed at the peak of the first wave of the COVID-19 pandemic and the conflict that ensued with it. 299 buyers in both markets were interviewed. As a control case for security, 18 people were also interviewed in Maitama Farmers' Market, often called 'Farmer's market' which has 18 shops. 26 semi-structured interviews were also conducted in domains of policy and technocracy. In addition to the physical interviews, 256 members of the general public were digitally surveyed.

Apart from the markets in military establishments, *Maitama Farmers' Market* has the closest proximity to military and police force as it is situated close to the Inspector-General of Police's residence as well as a cluster of embassies. The lower numbers of respondents in Nyanya speak to the higher density of the market and the complexity of its spatial organisation and not the size of the market. This is explained more in the techniques of interviews. The data was spatially holistic as interviews were made in all the grid points of the markets. The study also involved focused groups and recurrent observation exercises as well as experience from my 6-month role-play as regulatory officer in the market.

3.5.1. The Investigation Process

The investigation planned changed on site and new decisions had to be made after the reconnaissance phase. These changes are discussed in the next sections, but a full overview of the investigation process is first given. The chasms established in the literature review has led to the development of questions to be operationalised in the field. Apart from the literature review on the themes of the study as covered in chapter 2, the context of Abuja was also studied as a prospective field for ethnographic research. This is evident in the following chapter that delves deeper into Abuja as the study area. Social, political, and economic requirements were established for a prospective ethnographer and the requirements of meeting were sought.

Socially, it was asserted that language, religion, and ethnicity could be potential barriers of embedment and interaction in Abuja. This is because of the diversity of culture in the markets as well as Abuja being regarded a northern state therefore having high significant of Muslims and northern cultures. These gaps were engaged by planning ahead to get assistance in translation and also a representative or a guide for religious spaces, even within the markets. Politically, reconnaissance showed that there was a conscious or unconscious bias towards the Fulani herdsmen in the northern part of the country who carried out violent land contestation through their grazing habits that resorted to significant loss of lives (IEP, 2019), the herdsmen have been one of the most lethal groups of terror in the world since 2014 (IEP, 2015) and the fact that none of them were convicted or even properly arrested has a strong indicator. There was also a potent fear of police and the Department of State

Security (DSS) in the city which was partly driven by political bifurcations. These conditions of political forces at play were factored in the plans for ethnography. And precautions were planned to avoid highly politically charged spaces during the interviews in the markets. Socio-economically, it was noticed that some markets attracted high income people while others catered to middle-to-low-income customers, these markets were included in the study pool as much as the MCBA could allow in order to have a holistic narrative in the study. They were also visited for more observation before the actual in-depth studied. The investigation process was initially designed to proceed from a literature review to identifying research questions to a selection of a research method and then preparations for field which involved preparing questionnaires, planning a risk assessment and then the actual field study as shown in fig. 3.1. However, the reconnaissance exercise changed a number of key aspects of the investigation process. These mutations are hereby discussed.

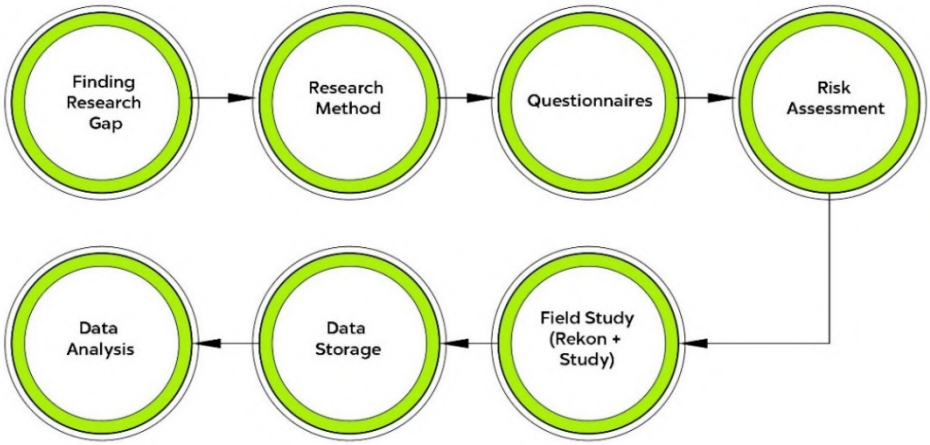


Fig. 3.1: Initial field study plan (source: author's own)

3.5.2. Mutations of The Investigation Process

Upon the completion of the economic, social, and political appraisals of the field study's feasibility. The new information derived was helpful in choosing contacts to assist with the study on the field and also to estimate more accurately, the resources needed for the exercise. This feedback allowed for a better revision of the risk assessment which included holistic plans for entry and exit and possible evacuation from prospective sites. It also helped in estimating the duration of the ethnographic process. Changes to the investigation process were noticed in the scope of the study area, the research team, the process of developing partnerships, the questions and the questioning, the data collecting technique and the analysis of the data and its storage. These changes created a rethinking of field study strategies in the investigation of conflict and violence in African space. The changes are hereby discussed:

3.5.2.1. Scope of Study Area

Prior to field study, the spatial funnelling of the study took the discussion of conflict and vulnerability in markets from a global scale to Africa, to SSA and then to Nigeria. The narrowing down continued to northern Nigeria and eventually to Abuja. At this stage, the initial plan was to closely study all the 'major' markets in Abuja. It was discovered that there were about 94 distinct markets in the FCT. Visits were made to 62 of them. After the single visits, it was very clear that the initially planned scope was not feasible. In response to this, the most important criteria for an optimal study output of the knowledge gap were set up and weighted (see table 3.2). Using a Multi-Criteria-Based Analysis (MCBA), the markets were ranked according to suitability for study. Two markets that had the best evidence-based potential for representing the discourse of markets in Abuja were selected for study (see table 3.3). The multi-site dilemma has been a significant topic of discussion in ethnography over the last century (Dingwall, 1980; Hannerz, 2003). There is an argument for juxtaposition over depth. Choosing both sites increased the possibility of depth for ethnographic embedment in both markets and more extensive and deep surveys even in terms of juxtaposition as both sites contrasted and complimented each other as shown in the analyses ahead in thus study. The other markets were surveyed using GIS. This approach allowed an easier study of the markets in Abuja within the timeframe of the project and the resources available.

3.5.2.2. Study Team

Being a solo research project, the field study was not initially perceived to need an elaborate team. Based on preliminary satellite images and desk research, some of the markets that were planned to be studied were seen as 'easy to engage'. The logistics of the ethnographic processes was underestimated. Upon reconnaissance, the physical experience of the market populations and the share size of the markets was a surprise. This was as a result of the poor-to-no data on markets in Northern Nigeria to start with. The difficulty of navigating the extremely dynamic space of the market was not anticipated. A solo effort would require substantially more time than allotted. A team was therefore set up to increase the scope and depth of my study. The team needed to be fully brought up to speed with not only the research questions but the whole idea of the study as recommended by Woods & co (2000).

A call was made for researchers through education and humanitarian spaces across the FCT. Referrals were also sought. The selection was made based on the following criteria:

a. Informal background check: Due diligence to see that the prospective team members were of good moral standing and had no ties to sinister groups.
b. Academic and intellectual capacity
c. Teamwork skills
d. Proficiency in main languages spoken in the markets in addition to a good use of English.

e. Maturity and composure under pressure
f. Experience of the city as a long-term resident
g. Gender: Muslims of northern Nigeria take gender bifurcation seriously (Makama, 2013). It was important to have the human resource for same sex (and even religion) conversations in the field.
h. Passion*:* A deep intertest in the activity was very important as it determined the level of rigour at which the studies will be conducted.

The team, selected based on specific criteria, underwent thorough preparations for a field study. Indemnity statements were signed due to potential risks, and health and welfare sources were confirmed. Two workshops and field trials were conducted for hands-on guidance. The team engaged with Wuse and Nyanya markets, consisting of 16 researchers from diverse cultural and religious backgrounds and a wide scope of linguistic proficiency. Initially planning a single translator and contact per group, the study's expanded scope necessitated adjustments, requiring additional resources.

3.5.2.3. Local Partnerships

Studies have shown that the culture and social belonging of a researcher can be an advantage in ethnographic studies (Mkabela, 2015). I therefore had so much trust in my nationality as a Nigerian and the fact that I grew up in the country and spent over 30 years largely resident in it. This was not the case. I noticed the markets and other spaces of study showed some hesitation upon initial visits. This hesitation was attributed to the growing ethnic divide in the country causing varying levels of conscious and unconscious bias (Çancı & Odukoya, 2016; Ogu & Areji, 2022). As a result, permissions and local partnership turned out to be very complicated with numerous formal processes and bureaucracies needing intricate navigation. In response to this, networks were sought from levels of higher authority which accelerated many processes and cleared bureaucracy. In retrospect, this should have been anticipated in the field study plan and it should have been a process before even arriving at the field.

3.5.2.4. Questionnaire and Survey Process

Studies show that removing or reworking the formal structure of the questioning processes have proven helpful in revealing useful data not expected in social inquiry (Druckman, 2012, p. 133). Asides from a direct embedment in the markets, questionnaires were chosen to be used in physical interviews as an additional qualitative method. The questionnaires were prepared from the university and taken to the field. Upon reconnaissance, there were needs to rearrange and reframe the questions. Questions of identity like religion and ethnicity were easily embraced and setting them first made respondents more comfortable to answer more personal questions e.g their levels of vulnerability in the market. Buyers also require more structured and fewer questions as they had less time and patience to engage the field researchers. These adjustments were made for different groups in the markets.

3.5.2.5. Data Collection Technique

Apart from an embedment in the market, the main techniques planned for collecting data was through interviews (short and long), focus groups, and questionnaires. As mentioned, I volunteered to work in one of the markets as an 'informal' supervisor for 6 months. Some words were quickly noticed as triggers. Once the words like 'conflict', 'violence', 'safety', and 'vulnerability' were mentioned (in any language), people became defensive and private. This was because of how the expressed hostility of the government to criticism or divergent opinions (Amnesty International, 2019; Presse, 2020). The strategy had to change. Almost everyone rejected being recorded so notes had to be taken on site by everyone through a secured collective data base installed as a mobile app. Over time, common phrases were subsequently generated and matched to future respondents through a keyword technique devised, (see section 3.4.3). The short notes eventually helped in a quicker process of data analysis. It must also be added that a few unstructured interviews allowed recordings, however, for uniformity of data, the recordings were processed the same way with other data. Please see the appendix for the schedules of ethnography. It must also be added that the 6-month embedment was used as fact checker as well as a spatial calibrator for the numerous interviews. The feedback from the interviews were given more depth and experiential resolution across space based on my embedment in the market. This helped infer narratives behind the responses of the traders for instance based on my on-ground experience in the market for over a period of time.

3.5.2.6. Covid-19 Pandemic

By far the most unanticipated development of the field study process was the first wave of the COVID-19 pandemic in Nigeria. The pandemic originated from China (Fanelli & Piazza, 2020) and spread across the world. It was first registered in Nigeria on the 27th of February 2020. Since then, it spread across the country. By 30th March 2020 Lagos, Ogun, and Abuja were on full lockdown. The field study that was planned to last from September 28, 2019, to April 17, 2020, was no longer possible within the period. Even though the markets were opened, they were only opened on Mondays and between 7:30AM and 3:00PM. The shorter working period meant that markets were racing against time to trade as much as possible as the number of people in the market was controlled based on social distancing rules. This made field study more or less impossible. The lockdown also sparked serious protest across the entire country including Abuja. This made any form of study quite dangerous in markets during the period. The protest for palliatives during the lockdown birth multiple clusters of large angry crowds breaking into government warehouses to forcefully loot hidden palliatives. This triggered mass urban violence and as a result, loss of life. The lockdown was later eased starting May 5, 2020. Abuja and Lagos were the hardest hit throughout most of the period (Ibrahim *et al.*, 2020). Being the center of power, the polices proceeded from Abuja to other parts of the country. Implementation was therefore very draconian at the FCT. The allowances granted the field team was immediately rescinded. Very stringent rules for public movement were operationalised. The pandemic

limited field study totally from March 2020 to September 2020 before possibilities of investigation in the market started to open up gradually. This time lag extended the field study by over a year, eventually. This inevitably also contributed to the overall duration of this study and the difficulty in phase-by-phase publications as data was not ready as projected. There was however a special study exercise conducted during the lockdown. The study was able to get special permission to continue for just a week (starting 11 April 2020) to capture the new experience of the traders in the market during the pandemic. The process was very expensive as it required bespoke transportation and protective gear. Due to this counter response, data looking at notions of security and vulnerability of the traders in the market during the pandemic was captured. They are introduced in chapter 5.

3.5.3. Data and Analysis: Codification and Confidence levels

In this study, it must be reiterated that the constraints of safety in conflict ethnographic research, coupled with the highly dynamic and complex nature of the markets have rendered the use of certain techniques of ethnographic inquiry ineffective or dangerous (or both). The requirement of studying opinions of conflict and related social activity related to security, conflict and violence makes respondent conversations delicate and private. As a result, 99.8% of market respondents refused to be recorded. Conversations could therefore not be directly transcribed and analysed via direct text. If these techniques are forced, the data derived become inaccurate and artificially homogenous as many are in fear of speaking their mind about the government. Apart from the 'climate of fear' in the study area, further technical factors were also responsible. One is the noise of the market which makes recording very difficult even if permitted. Another reason is the highly dynamic nature of the market in which many people are busy, and respondents don't have an extensive continuous time with the ethnographer (see Plate 3.0 to infer). This means that the ethnographer has to break a single conversation to many short instances and lengths before a full interview can be made.

However, complicated the research field in this study may seem, it is usually imperative to migrate the data to a realm where it can be quantified. This calls for ethnographic codification (LeCompte & Schensul, 2013). This project organises the ethnographic feedback (notes, isolated statements, and insights images etc.) into codes for more organised qualitative and quantitative analysis in conjunction with GIS. This increases quantification of ethnographic data which can even be optimised via systems theory which in turn helps orchestrate a sophisticated map that links data trails with key issues (LeCompte & Schensul, 2013, pp. 140-145; Close, 2018, pp. 191-193).

The codification in this case, is made possible by creating and isolating key phrases (or statements) and classifying various opinion typologies. It was devised because conversations could not be recorded. These important opinion typologies are then marked out and isolated in plain categories and also in Likert scales if applicable. The isolated statements, insights and patterns are largely an output of the reconnaissance phase in addition to the literature review on the subject matter of the study. The codification process is followed by data analysis. Statistical techniques are employed in engaging

the data either directly, or through GIS spatial appraisals as will be seen in the following chapters. For clarity, a simple example of the process is given:

Table 3.4: Sample statements uttered by respondents during interviews (Source: Author's own)

Classification	Statement
A_0	"I monitor the movement of goods in the market."
A_1	"I work as a driver in the transportation of goods in the market."
A_0	"I supervise the transportation of goods in Wuse market."
A_0	"When it comes to goods transport in this market, I am the boss!"
B_0	"I don't speak Hausa."
B_1	"I speak Hausa."
C_0	"I haver a good relationship with the workers, and I am willing to protect them."
C_1	"I haver a good relationship with the workers, but I am not willing to protect them."
C_2	"I do not have a good relationship with the workers, but I am willing to protect them."
C_2	"I and the workers don't really talk much, but I will protect them, it is my job after all."
C_3	"I do not have a good relationship with the workers, and I do not even care what happens to them."

Similar statements with key information sought for can be coded and jotted during an interview. The interviewers know the codes and they can also cross-check the code list on site. The code lists are numerous, and they change based on what is being sough for in an interview. The codes are made from the feedback during the reconnaissance. New unanticipated statements also have their codes, and they are written out as briefly as possible. These codes are easy to covert data to quantitative data. The most basic quantification is the frequency check as seen below:

Table 3.5: General response typology and frequency (Source: Author's own)

General Response	Frequency
A	4
B	2
C	C

Table 3.6: Specific response typology and frequency (Source: Author's own)

Classification	A_0	A_1	B_0	B_1	C_0	C_1	C_2	C_3
Frequency	3	1	1	1	1	1	2	1

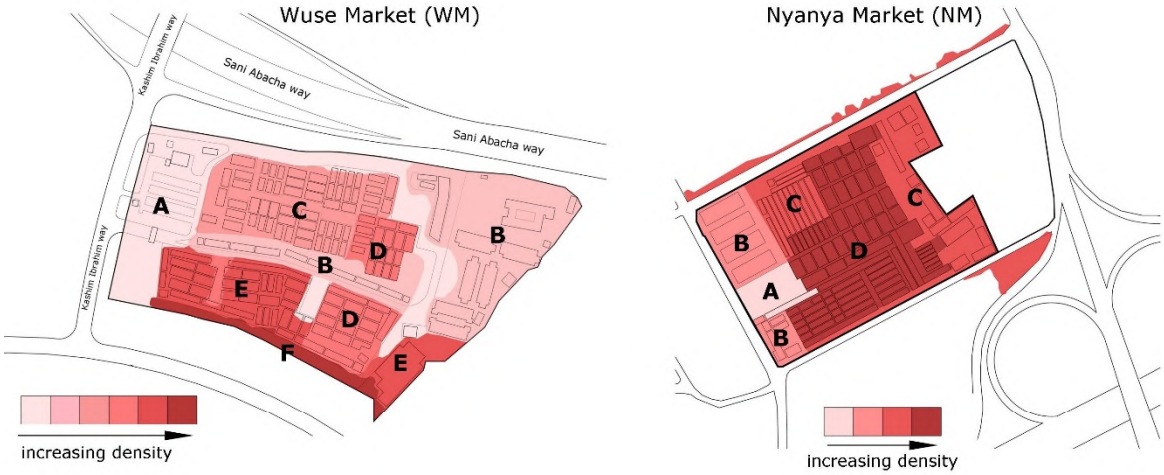
These classifications as seen in tables 3.4-3.6 can now be used to measure various social activities and change. It can also be used to describe a respondent in the context of a research inquiry e.g. respondent #21 (male): $A_0 + B_1 + C_2$= A Hausa-speaking transportation inspector/monitor in the market who does not really relate with his co-workers but actively looks out for their safety. This method was majorly used in unstructured interviews where feedback is open-ended.

In the analysis of data, there are a number of instances where 'confidence levels' or 'perception of safety' of various groups of people were measured. They are derived from a Likert scale used during interviews. After explaining the ramifications of safety to the respondent, they are asked to express how safe they feel about a parameter (e.g., the market group, the government effort, community effort etc.). on a scale of 1-10 (or 1-5 as the case may be). These figures are then used as levels of confidence or perception markers concerning an issue and they statistically interrogated to for further insights at scale.

These types of feedback are more than just guesses; they are structured opinions inquired after establishing an assurance that the respondent understands what the questions really mean. They are also reminded to answer for themselves and not give levels that they think their friends would approve of. The shop stalls and the fact that everyone is busy in the markets, make privacy during the interviews possible. Much data of this type is seen in chapter five.

3.5.3.1. Scope of Interviews and Respondents

It must have been noticed that the field study amassed a significant number of interviews and corresponding respondents. We recall: 417 people were interviewed in Nyanya market, 756 in Wuse Market, 97 were additionally interviewed during the pandemic, 299 buyers were spoken to in both markets in addition 256 from the general public, 18 interviews were also conducted in the 18 shops of the Maitama farmer's market. This brings the total number of interviews to 1843. At this scale of interviews there arises questions of scope. How are the numbers of interviews determined in each area? How are the respondents picked? The scope of the interviews is focused on coverage rather than a quantitative target of numbers. Because the approach is spatial, the interviews are carried out to cover the spaces in the markets while adjusting to the densities and diversities across the site. In terms of density, for example, if a market has three regions of high, medium, and low density, the amount of people interviewed in each region of the market will adjust to this density, hence there will be more people interviewed in the areas of high population density than in the areas of low density depending on the area of the various regions. Figure 3.2 shows interviews based on the population densities in Wuse and Nyanya markets respectfully. The data of the diagram shows how the number of respondents were chosen in near proportion to contextual spaces. Nyanya market is difficult to estimate in terms of population and the market management offered no estimate as they deemed it private information. Also, in terms of diversity, the number of interviews adjusted to the diversities that should be covered.



	Area (m²)	%	n(R.T)	n(i)	(I/R.T)%
	28217.86	25.25	120	36	30.00
	32314.03	28.95	241	72	29.88
	19036.75	17.05	362	108	29.83
	11835.34	10.60	482	144	29.88
	16190.39	14.50	603	180	29.85
	4077.61	3.65	724	216	29.84
Σ	111671.98	100	2535	756	

	Area (m²)	%	n(i)
	2828.54	5.68	24
	8011.06	16.09	67
	17379.27	34.90	146
	21580.84	43.34	181
Σ	49799.71	100	417

n(R.T)= Estimated number of registered traders (not necessarily equal to the number of total traders)
n(i)= Number of interviews (of traders only) in the area
(I/R.T)%= Interviewed traders as a percentage of estimated registered traders

Fig. 3.2: Population density and corresponding interviews in Wuse Market (source: author's own)

For instance, if a region of the market contains 70% and 30% women, the respondents selected will be in a ratio of 7:3 for men and women. For the field study, gender, product type, and seller type were the criteria used for interviewing the traders. The observed gender ratio of men to women[15] is deliberately reflected in each region of the markets interviewed so that the interviews throughout the market reflect the same ratio of men to women in the market. This is done to ensure that holistic feedback is gotten across genders. Seller typologies are also reflected in study, four categories were noted: shop owners, owner representatives, open air sellers, and hawkers. These four groups were all represented according to their frequency in each part of the markets. It must however be stated that each market poses unique conditions and dynamics of social activity. Conditions like the density and frequency of trade transactions and the population density of people contribute to how many people can be accessed by the field researchers. This is a common challenge of carrying out fieldwork in markets, even as far back as the ethnographic studies as also observed by Polly Hill in the 1960s (Hill, 1963, p. 444). This contributes to the number of respondents. For instance, Nyana market had much higher trade frequency and the respondents were there busier with trade, it was therefore more difficult to garner more respondents in contrast to Wuse market. Interviews were generally carried out to approach a scale of 1 i.e. 100% of available respondents, hence the interviews went on as much as was allowed or made

[15] Note that in Nigeria, there are only two legally and culturally accepted genders (Male and Female).

possible. Interviews hence stop when the density and chosen diversities have been achieved and there is also difficulty in getting more respondents. All the regions of the markets were covered, and opinions were drawn from the selected diversities. The spatiality in the scope of the interviews makes it easier for intra and inter-market statistical analysis as each set of respondents reflects the market in context, as a whole. Hence internal and external accuracy is ensured. This spatial approach to the scope of the interviews is also helpful especially in informal markets where the population of the market cannot be determined, it enables a proper data narrative to be buildable from the selected respondents as they represent the spatial diversity and density of the markets. This is of course, is why the number of physical respondents in a northern Nigerian market is largely unpredictable.

3.5.4. Reflection on the Ethnography Experience

As explained already, the ethnographic study featured activities of interviews and focus groups. It also involved my embedment in the Wuse market in the month of January 2020 to February 2020, and October 2020, to January 2021. The process of ethnography was truncated by the pandemic. The agreement was made with the manager (at the time) who allowed me to take on the duties of an inspector without the pay and official feedback. In the context of this methodological approach, the primary aim of the ethnography to continuously appraise the feedback of the respondents through the lens of my experience in the markets. I also studied the data from the numerous interviews as they unfolded to note if there were deviations from the feedback of the people. i.e., I was watching out to see if people felt or behaved differently from their feedback on various issues. There was full consistency in this regard. My related experience can be explained in the following points:

a. The market staff are always confronted with opportunities to take bribes and break some laws to enable the market people sell better and longer. This may include allowing some hawkers to linger around even though they are not allowed in the Wuse market.
b. I felt safe in the market as I came to know that other staff watched out for me. I was therefore keen to see if the traders felt the same way.
c. The shops, though small and informal, held very valuable goods. For instance, Wuse market has the second largest gold ‘market’ in Nigeria. A typical jewellery shop around $9m^2$ had goods worth well over $10m.
d. There was some ethnic and religious tension in the market, however, it never got out of hand as the police and some elder traders helped in ending squabbles before they got out hand.
e. I noticed very strong bonds between some traders but not all across the market.

These and other insights helped in guiding the other collected, not in a way of forcing conformity but to see how accurate the interviews were during the phase.

3.5.5. Lessons Learned: A New Approach to Ethnography in Volatile Areas of Africa

This chapter has presented spatial ethnography as a methodology for the study and argued for a mixed methods approach that combines spatial analysis and ethnography as methods. However, the course of the field study the setbacks and surprises have presented insights that can contribute to developing a more effective framework for ethnography in sites that are volatile or exhibit strong tendencies for instability. As mentioned, sites with conflict activities such as this are preferred to be avoided. However, the conflict in the areas may last too long and intervention studied may be needed to induce development which may have possibilities of saving lives and properties. Therefore, a technical approach to carrying out ethnographic studies in volatile regions is needed. There have been studies on ethnographic studies in volatile regions (Druckman, 2005), much is always said about the holistic process of ethnography, but little attention is given to how the field study. Key technical nuances need to be highlighted, especially in the process leading up to the preparation of the actual field study. The experience of this field study has led to the development of processes that can help optimise the process of ethnography and while ensuring the safety of the researcher:

a. Specific studies should be made about the study area before ethnography, the studies should go beyond the site in relation to the research aim to practical notions of safety for the researcher. Social, economic, and political dynamics of the site should be studied. The compatibility of the researcher with these three types of dynamics is very imperative and the requirements and resources to safely engage and handle these dynamics need to be researched and acquired before field study.
b. Feasibility studies need to be made based on the data of the site as well as its contiguities.
c. Strong and reliable connections on site and the contiguities of the site should be established even before arrival on site.
d. It is also imperative to study the contiguities of the site as the forces acting on the site may come from its immediate surroundings. In addition, a detailed understating of the contiguous spaces can help make valuable plans for evacuation.
e. Risk assessments should be made after reliable and current data about the site and the contiguity of the site is acquired and authenticated.
f. The risk assessment should precisely develop holistic evacuation strategies and also scenario-based evacuation strategies based on information on the site and its contiguities.
g. The developed risk assessment should practically suggest a time and strategy of entry and exit for site before arrival for the field study.
h. The risk assessment needs to be revised after the reconnaissance survey to confirm and doublecheck on the social, economic, and political dynamics of the site, the reliability of contacts and the confirmation of the exit strategy in times of evacuation.

A framework of preparation for ethnography in a volatile space is prepared in figure 3.3.

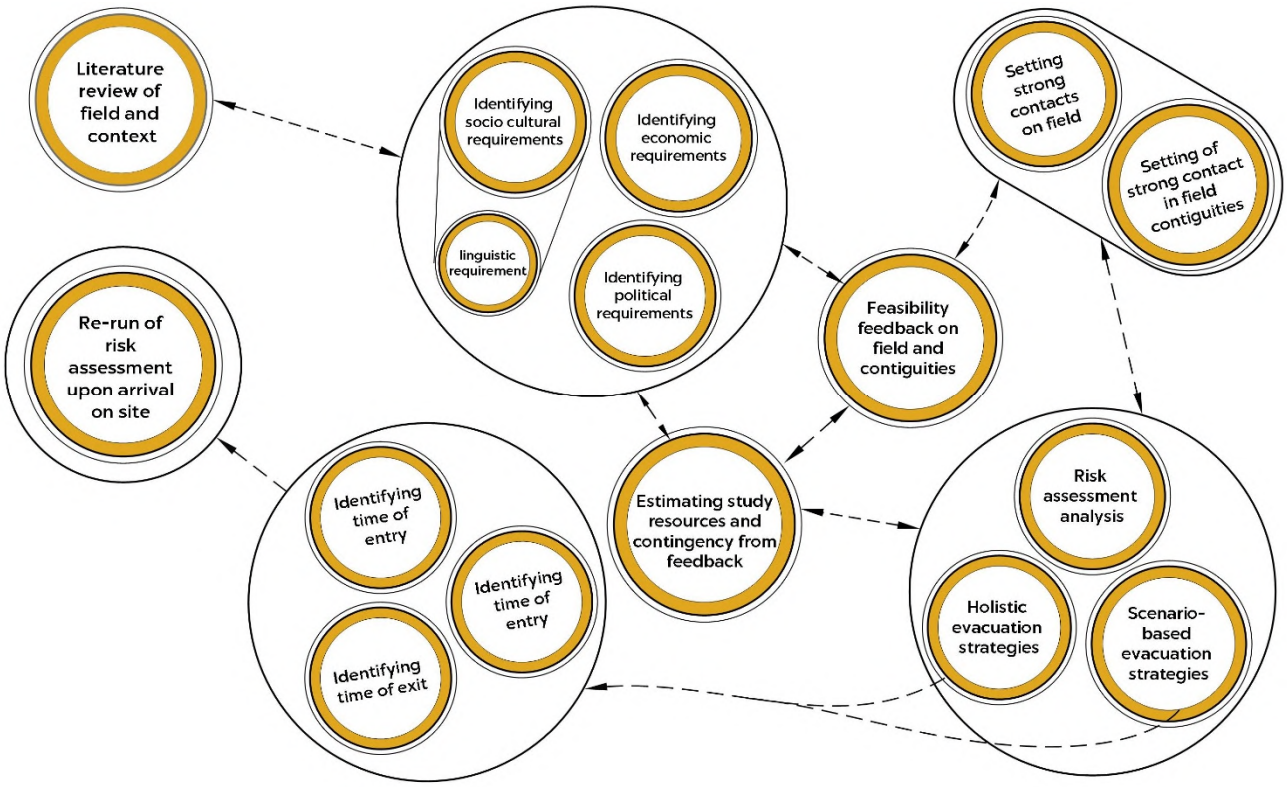


Fig. 3.3: Framework of preparation for ethnography in a volatile space (source: author's own)

3.5.6. Ethical Considerations

Ethical dilemmas are often unpredictable as social activity can take extemporaneous turns in the field. The domain of conflict, violence, and vulnerability in this study itself further strengthens the need to discuss ethical considerations in the process of the study. Ethics has been a very important part of ethnography; however, some argue that more attention is being put on how data is derived rather the morality of it (Atkinson, 2009). In conflict study one of the most common problems is 'fitting-in' (Baird, 2018; Homan,1980). Dingwal (1980), was one of the early ones to fully discuss this. Terming it as "Impression Management", he states that an ethnographer has to 'pretend' however slightly on the field. In the same period, Homan (1980) argues that while this may in fact be the case sometimes, too much of it may alter the morality compass of the ethnographer depending on the duration of field immersion. It may also categorise the ethnographer as dishonest in the eyes of the people he/she is studying and hence making subsequent studies in the area difficult for future ethnographers among other consequences. As noticed in the unfolding of this chapter, a number of ethical challenges were faced.

a. In dealing with respondents of extremist views, ethnographers maintained neutrality even where their personal opinions were sought re-explaining the academic purpose of the work.

b. The selection process of the team though very strategic as explained was not biased in terms of religion, gender, or ethnicity. These three categories were sought solely to have the diversity robust enough to engage a wider set of respondents. The mental health of the researchers was monitored, and they got to rest when they were experiencing too much pressure. Fraher (2011, p. 187) has pointed out a decentralising authority technique as a significant survival tactic for teams in risky social terrains. They were therefore split in groups of 4 and 8 with tactical real time feedback methods. Their safety in the field was paramount.

c. Issues of privacy and confidentiality matter a lot in ethnography (Homan 1980; Goodwin et al., 2003). Ethnographers were trained not to betray the trust of the respondents. Feedback was always anonymous and private. This is even reflected in this study as micro levels of vulnerability are not shown upon the request of some respondents. Confidence levels are shown in groups that use anonymity to protect respondents.

4

Study Area

For the purpose of clarity at the social, philosophical, and spatial level in this thesis, a proper introduction of the space to be studied is necessary so the engagement of the research questions can be understood from the standpoint of the city. The socio-spatial study of northern Nigeria is imperative to usher in a proper spatial understanding of markets not only in Abuja, but in the northern region of the country. It will be difficult—especially for a reader not familiar with African cities, to adequately grasp the urbanity of Abuja and its markets without having a parent understanding of Nigeria's urbanism and the spatiality of the northern cities since Abuja is essentially in northern Nigeria. The work sets a foundation that leads to a better understanding of the spatial analysis of markets that follow this chapter.

4.1. A Brief Theoretical Background of Urbanism in Africa, and Nigeria

We are at the fastest times of urbanisation than we have ever been as humans (Mábògùnjẹ́ 1968, p. 19). Even though, urbanisation is not at a uniform rate around the world (Davis, 1955), it is nevertheless on the rise. There are distinct peculiarities of urbanisation in the global north and south. Angel and his co-authors (2005) studied 3,943 cities with populations more than 100,000. They found that densities of cities in developing countries were 300% higher than densities in cities of industrialised (developed) cities. However, densities across the world were decreasing all together as the footprint of buildings increased in the cities. People are still moving into cities at very high rates. In 1800, only 2% of the global population lived in cities. In 1900:15%, 1950: 30%, 2007: 54%...in 2050, the projection is 72% (Zhang, 2016; UN, 2018). Figure 4.0 shows that in 2007, the urban population of the world surpassed the global rural population.

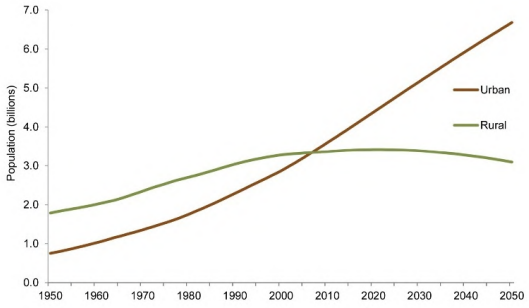


Figure 4.0: Global Urbanization Trend[16] (UN, 2018)

[16] From UN Department of Economic and Social Affairs, 2018

A very important thing about this global phenomenon is that most of the urbanisation will be happening in developing countries. Fuller and Romer (2014) show that most of the cities where humans will live by 2100 do not even exist now. This is accentuated by Shepard (2019) & McCartney (2022).

Cities have come a long way since the time agriculture domesticated humans to aggregate (Harari, 2011, pp. 91-92). In the narrative of urbanisation, Africa sits at the epicentre because it produced the first communities (Harari, 2011, pp. 91-92) and it is the fastest growing continent on the planet with the fastest urbanisation rate (Güneralp et al., 2017). This means Africa is the urban canvas of the future, the 'clean' slate upon which the new typology of human urban civilisation will be written. This is why the urbanism of Africa is very important. Urbanisation does not come without its problems. It has been linked to housing shortage, job paucity, food, and transportation issues (Saghir & Santoro, 2018), air quality (Fenger,1999) and there are concerns of management risks of conflict (Büscher, 2018).

The behaviour of Africa has attracted macro-entrepreneurs, policy makers, and real estate brokers who want to ride on the wave of the need for new cities on the continent (Saghir & Santoro, 2018; Côté-Roy & Moser, 2019). From the Akon city in Senegal to the Eko Atlantic city in Nigeria, the new wave of cities seems to be driven by capitalism to produce spaces for the super rich who do not need the housing, especially in the SSA (Watson 2015, 2020; Côté-Roy & Moser, 2019; Ajadi, 2023b). The design approach is often not robust enough and their projected proposals often do not demonstrate inclusivity or an understanding of Africa's informality (Watson, 2014, 2015; Shepard, 2019; Ajadi 2023b).

Mábògùnjẹ́, the 'father' of modern African urbanism (Briggs, 2022) once declared that "No formal theory of urbanism exists" (Mábògùnjẹ́ 1968, p. 33). He further expatiates by implying that no theory is consistent with every urbanism in the world. While Mábògùnjẹ́ may imply that it is difficult to have an urban theory that is consistent with every city in the world, some theories can in fact hold strong arguments in spatial contexts. As previously discussed, it is important to pick-out imperialist opinions of scholarship in any discourse on Africa. Childe (1946) and Sjoberg (1960) hold that a group of people need to develop a form, structure, and culture of writing to be called a city. They both believe that the major characteristic of an urbanising society is writing. That urbanisation cannot happen in a space that cannot write things down (its story, its innovation, its beliefs etc.). This is a subtle exclusion, as it has been explained in the review of literature how strong the African continent holds the oral methodology. It is not just a primary means of passing knowledge in Africa, it helps preserve identity and the interrogation of norms, conventions, and institutions as Mugambiwa (2021) states and Ruth Finnegan (2012) explains in her study of African oral literature in the early 60's. She also extensively explains this notion of exclusion of the oral in the anthropological appraisal of the rural and the urban. She shuns the assumption that the African space must function like the western space in terms of not just communication but artistic expression. She pushes back on notions like those of Childe (1946) and Sjoberg (1960) to show that literacy cannot be determined by one culture as a yardstick for all others, especially in how they navigate their expression and at large, their existence (Finnegan, 2012, p. 504).

On the other hand, Mábògùnjẹ́ (1968) suggests that the urbanisation of Nigerian cities can be approached via two main urban theories. The first one is the theory of functional specialisation; an idea that cities arise when people fully divide roles of innovation, production, power, and protection (Mábògùnjẹ́, 1968, pp. 34-37). This theory was not found to holistically hold in Nigerian cities. For instance, some cities may arise through specialised labour by group but may never be distinct from a food producing group. Everyone may innovate and produce food as well. As a matter of fact, Abuja, the primary area of this study had its earliest markets run by people who also picked up arms to fight for the city's protection (Hassan & Na'ibi, 1962, p. 9), even though they had an army.

This leads to the interrogation of the second; the theory of urbanisation indices (Mábògùnjẹ́ 1968, p. 40). This was based on the notion of solving the difficulty of the first theory. The argument was that if a system cannot explain all cities in quantitative terms, attributes that serve as an index of urbanisation can be delineated to show cities that are urbanised and those that are not. This is where Childe and Sjoberg come in as they operationalise this theory by stating the development of writing as a criterion for space to be called 'urbanised' (Childe, 1946, p. 107; Sjoberg, 1960, p. 33). They both see societies that do not write as mere evidence of civilisation rather than urbanisation. It should also be noted how far apart their works are to show how consistent the thinking was of western thought in African urban literature.

Nigeria like all of Africa is very diverse. As a result, it is also categorized in many ways, from standpoints of culture, geography to politics, the variations vary quite sharply. For instance, Nigeria has 36 States and its Federal Capital Territory (FCT), Abuja. It also has 6 geopolitical zones: North Central (NC), Northeast (NE), Northwest (NW), Southwest (SW), Southeast (SE) and South (SS). The country is also home to 300 distinct cultural ethnic groups and 520 distinctly different languages organically occurring in the country (excluding foreign languages in the county). As much as this complicates the study of Nigeria's urbanity, the nation is mainly dichotomised into two halves when it comes to the appraisal of its cities (Mábògùnjẹ́ 1968, p. 44). These parts are the northern and southern parts of Nigeria. Our study is situated in northern Nigeria. In summary, we can now notice the following: urbanisation is global but not uniform, Africa is the fastest at it, new cities are becoming an agency for capitalism, early western urban theories of Africa are heavily flawed, and Nigeria's diversity complicates its urbanity.

4.2. Urban Land of Northern Nigeria Through Maps: A Spatial Analysis

As we narrow down into cities of Northern Nigeria and then Abuja, it is necessary to take an initial spatial look at the space that is now known as Nigeria in terms of the evolution of its land and the accompanying political economy. For this, I look to maps. This section is where my emerging methodological notion of spatial ethnography in this study begins to manifest. Here, I spatially engage history through a partly forensic appraisal of how the urbanity of the north has transformed over time. To understand this short journey through maps that explain the transition of northern Nigeria to a

colonial era, it will be helpful to introduce the Royal Niger Company (RNC). In the process, it is also important to note the role that trade, and informal markets played in the formation of colonial northern Nigeria. All three countries were proceeding rather swiftly in their plans for establishing trade deals with the local authorities. While the French and Germans pressed with strategies that focused on land, the British took a slightly different approach. They took a more business-oriented step by granting a Royal charter to George Goldie's National African Company (NAC) in 1886. Goldie had amalgamated 4 major British businesses in the west African region to from the United African Company in 1879 which was then renamed as the National African Company in 1881 and then the Royal Niger Company (RNC) in 1886 as the charter came. The activities of Sir George Goldie's chartered RNC were instrumental in gaining ultimate control of the Niger and Benue for the British. The British struggle for Niger and Benue area (coloured yellow in plate 4.0) came largely from the plans of Macgregor Laird, the surviving expeditioner of a group of explorers in the 1830s (Baynes, 1902). Laird funded expeditions in the mid 1800's and operationalised William Balfour Baikie to set up the Lokoja trade foundation in 1857. However, it must not be forgotten that the explorer Richard Lander had also set up a steamship company at the confluence of the rivers of Niger and Benue in 1832 (Baynes, 1902). In fact, it was from this expedition which took the lives of 40 of the 49-person company that Laird came into the story. As a survivor, he began to fund subsequent visits. The Royal charter was given to the NAC which was later named the Royal Niger Company. It granted the power to take over the political administration and trade policies of any local territory that signed legal treaties with the company. The trade activities were permitted if they did not disturb the local religion and culture of the people, slavery was also not allowed as per its abolishment by the British in 1807. These conditions for political administration and trade, however, were not fully adhered to. Yet, trade continued.

Now that we have some backdrop knowledge, two key maps are presented. The maps come as the result of deliberate archival search in Nigeria and abroad for documents that forensically create links to the creation of Nigeria in ways that have almost never been considered. Though several maps that fit this category were found, two maps stand out in new ways. The first one (plate 4.0) is a very significant artefact. A 320mm X 300mm parchment sheet of an area that will later be called Nigeria. It is assumed that the early charting of these areas is linked, at least in part, to explorers like Richard Lander and Macgregor Laird and subsequent visitors like William Balfour Baikie. It may well be as a result of visits or data from visits related or in temporal context with the explorations of the mentioned explorers. This may have been forged from diagrammatic and text-based ethnographic accounts of the mentioned individuals or people related to them.

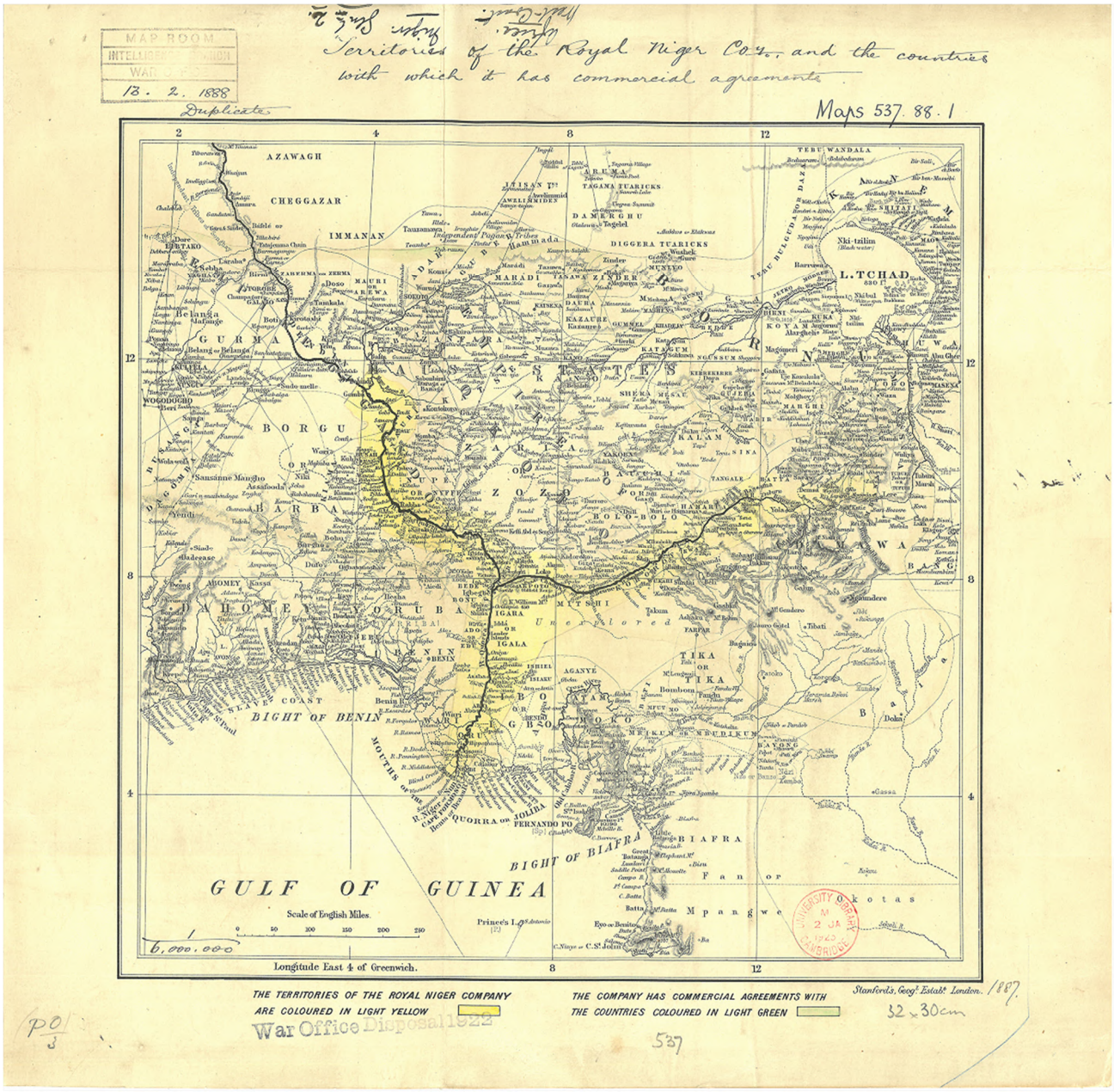


Plate 4.0: Map of the region of Nigeria 13-02-1888. (Source: University of Cambridge Map Archives)

. It is arguably the rarest colonial map in relation to Nigeria.[17] It is the only known copy with meeting minutes (notes) on it that sheds more light on the spatiality of the plots. It is interesting to deduce from the notes on the map that it was made in 1887 for the War Office of the British Intelligence

[17] It is expected that there will be copies around in the UK, as a matter of observation, it is a "duplicate" as stated on the upper left of the map. However, it is the only known copy with key notes on it that point to more details of Nigeria's creation. It lays deep in the permanent archives of the map room of the University of Cambridge in a section of declassified maps of the Central Intelligence Agency. It has been in the University records since 02-01-1922. There is also a map index number on the upper right: map 537.88.1. It is sadly written in ink and the texture of the markings proves hand strokes that is conversant with hand writings of the first half of the 20th century. The 32cm X 30 cm parchment sheet was prepared by Stanford's Geography, a map making company in London (lower right of map). It was made in 1887. It appears in this study with permission of the University Library for the purpose of academic research within the university of Cambridge. There is still room for more extensive evidence-based cartography, but it falls outside the scope of this thesis.

Division. This was months after the Royal charter was granted to George Goldie by the British Government. It has the following description written as the 'heading' as seen on the map:

> "Territories of the Niger company and the countries with which it has commercial agreements" (Plate 4.0)

Upside down on the heading are the words:

> "Africa", "near-coast", "signed", "Sen. L 2".

Much can be said about these writings; however, the study will focus on the observation that shows the particular interest of the British to water bodies and the commercial agreements that were essentially with the informal markets of the time. This is corroborated as well, by the rivers shaded in yellow (plate 4.0). With an understanding of the Royal charter given at the time, and the stiff competition with France and Germany even at the Berlin Conference (Fálọlá & Heaton, 2008, p. 98) where Africa was essentially shared, one would expect the use of force to be on the table in governance deliberations.

It is also safe to deduce that this map must have been spread out in meetings of the British Intelligence with the RNC as possible strategies of governance, commerce and land economy were explored. The 'Y' shaded yellow region confirms previously mentioned accounts of the British seeking trade and business structures along the rivers Niger (left divergence of the river) and Benue (right divergence) right from their confluence at Lokoja. This is just below the region of Abuja where this thesis is situated. As a matter of observation, the map shows that these regions have already been 'acquired' by the RNC for commercial activity. They eventually integrated with informal markets across the rivers. The initial interest by the British in water bodies is strongly linked to the deaths of many Caucasian explorers as they all died of malaria (plasmodium falciparum) after being bitten by the mosquitoes in the area. This plasmodium type is found mainly in sub–Saharan Africa and it is the deadliest specie of plasmodium known to man (Joy et al., 2003; Maier et al., 2019). People indigenous to this area of study (Nigerians) did not die of malaria as their bodies had built immunity over the centuries (Hviid, 2005). The other areas currently under negotiation (coloured in light green) for commerce is the central north of the map[18]. The regions stretch from Libatko on the northwest to the Ader Guber region all the way to the Zinder area. These areas were in contiguity with French controlled space. Both regions (yellow and green) look coloured in and not printed with the maps, hence the artifact deduced as an object in British Intelligence negotiations (or meetings) as they were the only ones who made such strategies in the UK at the time.

[18] Upper central part of the map (plate 4.0)

The second map is a slightly more recent—1904 (plate 4.1)[19]. It is a map of northern Nigeria made 17 years after the first map and it shows the northern region of Nigeria under full acquisition of the British 5 years after it had revoked the charter of the RNC that had already been dissolved in 1899 (Fálọlá and Heaton 2008, p. 101). These two maps, therefore, bring to full circle, the chartered life of the RNC. In this particular map, the operationalisation of the monopolistic strategies for trade dominance by the RNC with the aid of the British government most probably through the British intelligence comes to light. A summary of their strategy is put forward by Fálọlá and Heaton (2008, pp. 100-101):

> "The RNC established high tariffs on imports and exports, which had to be paid upon entering or exiting the Niger at the company's base in the Delta town of Akassa. Furthermore, in order to trade at all, foreign traders had to pay £100 for a license and an additional £100 if they intended to trade in alcohol. Such restrictions effectively excluded all small-scale traders, who would find it difficult to raise the capital necessary to get started. To prevent larger firms from trading, the company set import duties on war materials and alcohol at near 100 percent, making it unprofitable for firms other than the RNC to import these goods. Guns and alcohol had become the accepted goods through which trade negotiations were initiated with local rulers on the Niger, and without them foreign firms stood little chance of establishing trading relationships on the Niger or Benue. Such policies made the RNC extremely unpopular…"

The boundary lines in the map are sharp, definite, and inorganic at the northern ends and the eastern ends. These were areas of contention and competition with the French and the Germans respectively.

[19] Also discovered in the special archives of the map room at the University of Cambridge. Indexed: Map 538.90.5. It is made under the geographical journal in 1904. This is a less rare map but very much also out of exhibition and circulation by all major archives in UK, and in Nigeria.

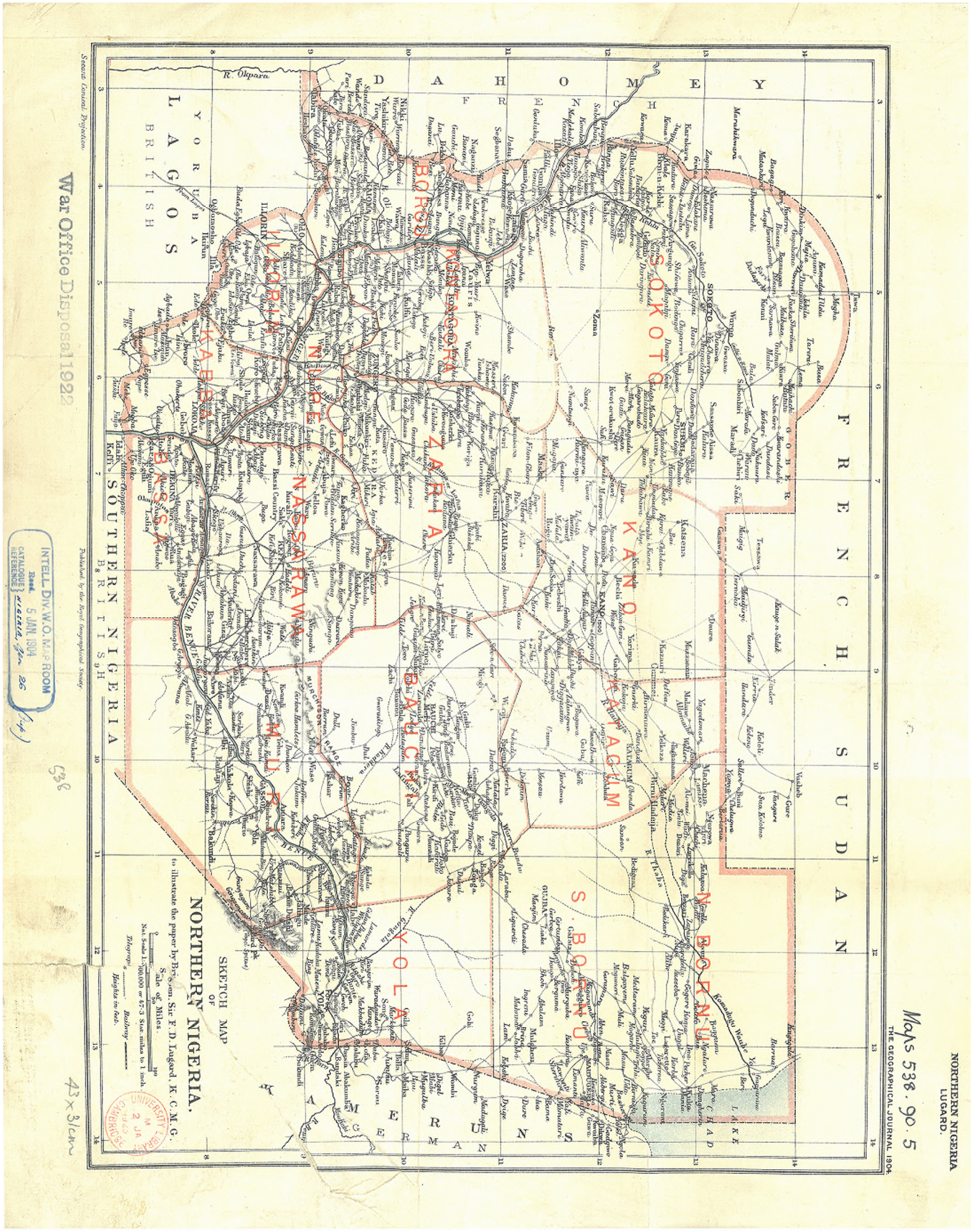


Plate 4.1: Map of Northern Nigeria 05-01-1904. (University of Cambridge Map Archives)

Straight boundary lines in maps of Africa or lines of definite shapes e.g., slanted, or circular, often suggest man-made violently forced divisions, mostly operationalised by the Berlin Conference. The Berlin Conference (1884-1885) was a gathering where European superpowers shared the whole of Africa using a ruler and a pencil on a map such as the ones shown in this thesis. These two maps presented were most likely documents involved in the process of the activities of the conference. Fálọlá and Heaton also confirm this:

> "The borders of modern-day Nigeria were drawn arbitrarily in the late nineteenth century by Europeans, during the Berlin Conference of 1884–5 and in line with other mutual agreements between the United Kingdom, France, and Germany, as part of the colonization of west Africa." (Fálọlá and Heaton 2008, p. 244)

Further, a spatiotemporal analysis shows how the region has changed over the last 135 years punctuated by three maps: 1887 map of the region (Map 1887), the 1904 map of Northern Nigeria (Map 1904) and the current map of the country (Map 1996) as seen in plates 4.0, 4.1 and figures 4.2, 4.3. The sharp ends of the 1904 map show contention across the regions previously plotted in the northern part of the 1887 map. The words "NORTHERN NIGERIA, LUGARD" as seen on the upper right corner shows the process of Lord Lugard's amalgamation program in the north before he left the region for the south in 1906 in a series of steps that would lead to the amalgamation of the entire region in 1914 (Fálọlá & Heaton, 2008, p. 117). In the 1904 map, the position of Abuja (FCT) in Nasarawa is also noted (see figure 4.2) and it is seen as a region in close proximity to the confluence of the two rivers (Niger and Benue) where the RNC spread business towards the north. Based on their structure of using local markets and the farmers and workers in them as spatial and commerce catalysts for their trade (Adebayo, 1992; M'baye G. & Adu Boahen, 2000), it can be deduced that the trade passed through the spaces of Abuja and therefore its open markets. The products traded included guns and alcohol as previously revealed. To explain this deduction: It was previously noted in the review of literature that Abuja was founded in 1828 (Hassan & Na'ibi, 1962, p. 8). However, upon further analysis, I noticed that the date given by Hassan and Na'Ibi (1962) is the 17th day of the Hijri month of Rajab, 1828. This is actually 17th Rajab 1244, completely in the Hijri format. This is the 22nd of January 1829. This falls on a Thursday as chronicled by Hassan and Na'Ibi. Abuja was therefore 58 years old when the first map (plate 4.0) was made. Hassan and Nai'Ibi also state that farming and markets started at the same time with city (Hassan & Na'ibi, 1962, p. 9).

The northern Nigerian map (plate 4.1) shows clear cut lines, especially in the north which shows forced boundaries. The establishment of these lines were through military action, (Fálọlá & Heaton, 2008, p. 103) especially in Borgu area as seen on the map (plate 4.1). This further explains why the maps were logged in the war office of the British Intelligence Division. These definite clear-cut lines would later give way to a more organic territoriality as shown in figure 4.1 & 4.2. Analytical diagrams

of figures 4.1 and 4.2 show how the northern end of the country has grown and shifted slightly further south and east over the last century.



Figure 4.1: Position and cross analysis of land of Maps 1887, Map 1996 (Source: author's own)

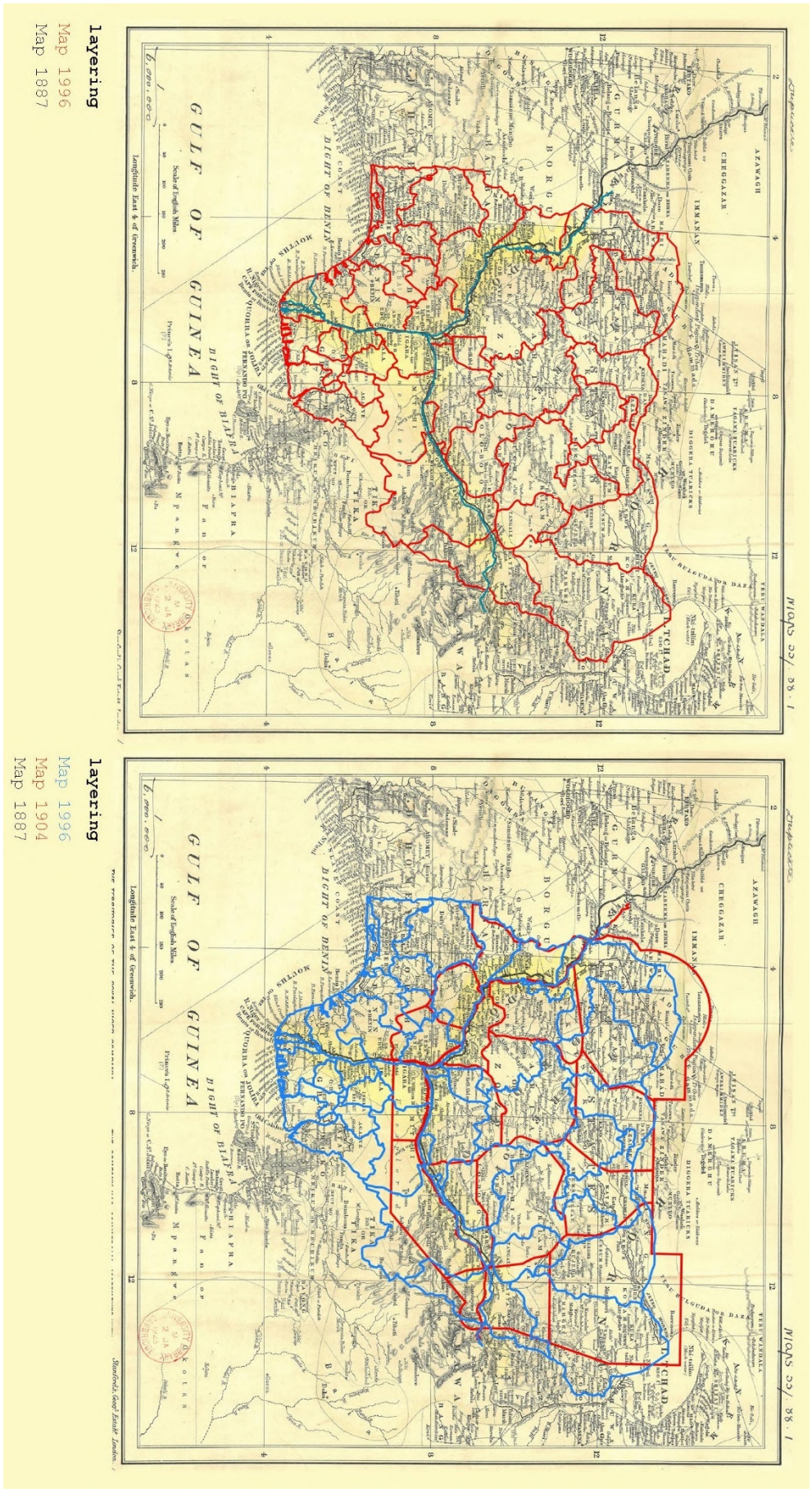


Figure 4.2: Position and cross analysis of land of Maps 1887, Map 1904, and Map 1996 (Source: Author's own)

As dramatic as the changes were internally, the whole northern mass only underwent a total +1.5 % increase (see table 4.0) as the colonial-forced spatialization gave way to organic city growth over the next 92 years (1904-1996).

Table 4.0: Land Change in Northern Nigeria: 1904-1996 *(Source: author's own)*

State	1904 Area (Km^2)	State	1996 Area (Km^2)	% Change
Sokoto	106,282	Sokoto	24,736	-76.73
Kano	43,618	Kano	19,745	-54.73
Katagum	38,229	Jigawa	21,169	-44.63
Borno	104.832	Borno	66,588	-36.48
Yola	38,758	Adamawa	33,326	-14.02
Muri	59,472	Taraba	52,806	-11.21
Bassa	15,854	Kogi	26,124	-64.78
Kabba	18,172	Kogi	26,124	+43.76
Ilorin	15,500	Kwara	31,057	+100.37
Borgu	30,457	Niger	66,996	+11.97
Kontagora	34,472	Niger	66,996	+94.35
Zaria	49,756	Kaduna	40,198	+19.21
Bauchi	55,891	Bauchi	43,795	+21.64
Old North	670,054	New North	660,100	-1.5

It can be seen from the table (4.0) above that most of the urban territories in 1904 shrunk significantly to new versions of themselves. Density increased slightly for the regions and significantly for cities like Kano. Ilorin doubled in space to form Kwara as territories of Ilorin collapsed into Borgu resulting in 100.37% increase in land. Sokoto underwent the most drastic change as it shrunk by 76.73% with the states Zamfara and Kebbi coming out of it. There were also some increases. The Kingdom of Zaria grew by 19% into the state of Kaduna. Kontagora and Borgu merged to form Niger state, which is now the largest state in Nigeria and a north-western contiguity of Abuja. All this while the growth of the markets progressed without drastic mutations in territory occupancy. The location of Abuja (tagged FCT) in the spatial analysis (figure 4.2, also carved out in figure 4.3) is deliberate. It is obvious Abuja did not take this territorial form up until the early 1980's after its planning. The current form is however inserted in the diagram to retroactively show how the space that is now Abuja fared during the period of colonial tussle, and market exploitation.

The result of the RNC policies and business strategies were clear in motive and brought about a lot of confusion and spatial damage to the organic urban development of the region. This laid a foundation for the spatial policies that followed. Further down the line, Cooper (2019) also shows that in the late 1930s and 1940s colonial rule and trade that brought with it an operationalised spatial agenda that boxed up the African space deliberately into tribes to keep them non-unified and in conflict (Cooper 2019, p. 27). The transition of land size and form between the two maps tells a complex spatial tale of how Nigeria was once an object of business transaction by the British. It also emphasizes the role of the informal market, not only in changing colonies and cities, but also in catalysing colonial rule in Africa and congealing it through a dark private-public 'partnership'.

4.3. Abuja: Understanding the Spatial Setting

Humans have existed in Abuja for a long time. There have been findings of iron ore technology in Abuja used by the Nok civilization in 600 BCE (Fálọlá & Heaton, 2008, p. 19). There are many narratives of Abuja but they all reference two main sources, the Kano chronicle translated by Palmer (1908) and the historical work of Alhaji Hassan and Mallam Shuaibu Na'Ibi (1952)[20]. All studies on the origins of Abuja refer to these two highly influential texts as they are the only two major texts of such age and knowledge known to the English world[21]. To trace the Origin story of Abuja, it will be helpful to funnel it down from the chronicles of the Hausa States from these two sources. The first reason for this is that it provides spatial context, and it is consistent with the approach of this thesis. The second reason is that Abuja is linked to the early descendants from Zaria called the Habe. The tale of the formation of Abuja traces the spatial path of a people fleeing conflict southward from Zaria. The historical foundation is important to understand how Abuja was spatially set up.

4.3.1. Descendants on the Run: An Abridged Tale of Abuja's Formation

In the beginning, there were 7 Hausa city states (Hausa Bakwai): Daura, Katsina, Rano, Kano, Gobir, Biram and Zazzau (Zaria), (Hatch, 1971, p. 43). The states spatially grew in influence and 7 other states emerged as secondary areas that the Hausa Bakwai greatly influenced. These states were called the 7 Banza Bakwai (Bastard states) as considered in Hausa land: Zamfara, Kebbi, Gwari, Yauri, Nupe, Ilorin, and Kwarafafa (Crowder, 1962, p. 30; Hatch, 1971, p. 44). The story of the 7 Hausa states is thematised with a lot of running and fighting. It is a story more of displacement than migration. It starts with Bayajida dan Abdullahi and his wife Magira who fled from the ruler of Bornu to escape death. Bayajiada was said to have fled from Baghdad where he fought the Ziduwa and scattered them. He fled Borno with his men and his wife when they became outnumbered in the city. He fled to Biram and left his wife there as she was pregnant and couldn't continue. He arrived in Daura, killed the snake that terrorised the town, and the queen married him. He had 6 sons for the queen who with his first wife's son in Biram became the rulers of the 7 Hausa states. Gugunguma was the son who ruled Zazzau…60 leaders after him came Mohammed Makau. In 1804, the Fulani rebellion led by Usaman Dan Fodio sparked a revolution leading to the Sokoto Caliphate which started in Gobir. The Fulani chased Makau from Zazzau to Karu. He was refused in Karu and fled to Kajuru. Still being chased, he fled south to Zuba where he temporarily pushed back the Fulani in 1807. From Zuba, he went to Jiwa to wage war, then he went further south to Panda, then Toyo, then Gulu, then Gwarri and later Lapai where he finally destroyed the Fulani chasing him. But his people betrayed him during the battle at

[20] Believed to be written by a Mallam Barka

[21] Further texts include those of Sharīf Ibrāhīm Ṣāliḥ, Maje Ahmad Gwangwanzo, Ādam al-Ilūrī, and Ahmad Bahago. However, they will not be cited as they are not only fully in Arabic, but also heavily thematised in religion. This makes it difficult to tell if such writing shifts or mutate spatial narratives of the space now known as Abuja. The writings are, however, very sophisticated, and also align with the primary historical texts referenced in major aspects of both chronicles.

Lapai for refusing to take prisoners for slave trade when they were at Jiwa. Makau was left with a warrior named Musa, and his very own brother Abu Ja—a 5'6'' tall man with a stout stature and a very fair skin which earned him the nickname 'Ja' (the red). Makau died at Lapai in 1825 after telling his brother to flee. Makau's brother—Abu Ja, fled to Izom, the same year and was made Emir. 3 years later, he went farther south near a stream called Wuchichiri and built a town he named after himself. Farthest from the center of power (Gobir) Abuja was the southernmost part of the seven Hausa states. It was never fully conquered until the British arrived because of the northward direction of major conflict since the 1600s until the campaign of Usman Dan Fodio that was cut short by the British (Laya, 1992; Ajayi, Crowther, 1976).

The truncation of Usman's campaign has been read by some as a conflict that started a clandestine bias by the imperialists favouring Muslims which created a power asymmetry that eventually left the north in power following independence. Fáḷọlá (1998) argues this in his book 'Violence in Nigeria: The crisis of religious politics and secular ideologies'. However, for the space of Abuja, the conflict scholar Abiodun Alao (2022, p. 27) challenges this stance through qualitative studies in the Islamic pedagogical space of Abuja in which some Islamic scholars claim the opposite. To them, the British truncation of the campaign extends to continuous notions of limiting Islam pedagogy and growth. What is clear however, is that Abuja fought relentlessly at the period, and they repelled wave after wave of attacks from the Fulani and the people of Nasarawa (Ajadi, 2022). The conflict with the Fulani people at this period ironically shows that the people of Abuja were initially resistant to the Islamic campaign.

4.3.2. Abuja's First Masterplan: The Wards and The Market

In the same year (1828), the construction of the city walls began. About 17 various wards were built: The ward for the queen mother (near the great gate), the ward for the men of Gayen, ward for the chief eunuch, ward for the horsemen, ward for the Beriberi men of Bornu, ward for the emir's sons. Then there was the ward for the guardian of the emir's girls, ward of the warriors, ward for the prayer ground, ward for the learned, and the ward of the mosque. In addition, the ward for the imam, ward for the scribes, ward for the butchers, ward for the heirs, ward for the Uguri, and ward the Barwa and Momon. Compounds of chiefs were also built with their own set of slaves. Whoever succeeded a chief moved his family to the official compound to live. These wards show an early distribution of labour that recalls the theory of functional specialisation that Mábògùnjẹ́, (1968, pp. 34-37) spoke of as one of the major ideas that drove urbanisations in Nigerian cities.

From the chronicles, it can be deduced that in the early design of Abuja, wards were allocated to various people according to class, group, gender, and skill. There were also religious spaces. It is not revealed how these spaces interacted, but the market was supported by the farm that was located outside the walls of the city. Crops farmed include a cereal called Achacha (A kind of rice). They also farmed and sold yam and millet. The market also produced craftmanship of cloth making and dyeing,

there were also tailors. Ox skin leather was harnessed for the making of weapons including shields, harness for horses and shoes. Wood was cut for axe handles. Framing hoes were made from iron ore. This was not the first-time iron was used in Abuja. This was in fact not the earliest time Abuja was formally inhabited. In the markets, grass was plaited to make trays, cages, and sieves. There was a central market in front of the compound of someone named Barde (a chief). Apart from the central market, there were smaller markets all over the wards. And they all traded amongst themselves. Various food types grew in various places around the city, and this also determined some of the locations of the markets.

4.3.3. Abuja in the Time of Nigeria

Nigeria gained its independence from the British on October 1, 1960. It became a republic in 1963. And 3 years later it began to experience a bloody tussle for power in form of coups (table 4.1). The first two coups stemmed from serious ethnic friction between the Hausa, Yoruba, and the Igbo groups (Fálọlá & Heaton, 2008, p. 173). This eventually led to the country's civil war between July 6, 1967, and January 15, 1970, claiming at least 2 million lives.

Table 4.1: Coup attempts in Nigeria since 1960 *(Source: author's own)*

	Coup	Date	Power Transition	Bloody?	Success?
1	1966 coup	15-01-1966	Kaduna Nzeogwu, to take out Major General Johnson Aguiyi Ironsi	Yes	Yes
2	1966 countercoup	28-07-1966[1]	Lieutenant Colonel Murtala Muhammed, to take out Johnson Aguiyi Ironsi[2]	Yes	Yes
3	1975 coup	29-07-1975	Colonel Joseph Nanven Garba to take out General Yakubu Gowon[3]	No	Yes
4	1976 coup	13-02-1976	Lieutenant Colonel Bukar Suka Dimka, to take out Brigadier Murtala Muhammed	Yes	No
5	1983 coup	31-12-1983	Major General Muhammadu Buhari, to take out Shehu Shagari	Yes[4]	Yes
6	1985 coup	27-09-1985	Major General Ibrahim Babangida to take out Major General Muhammadu Buhari	No	Yes
7	1985 coup	22-12-1985	Major-General Mamman Vatsa to take out Major General Ibrahim Babangida	No	No
8	1990 coup	22-04-1990	Lieutenant Colonel Gideon Orka to take out Major General Ibrahim Babangida	No	No
9	1993 coup	17-11-1993	Several miliary officers to take out General Sani Abacha	No	No
9	1995 coup	?-07-1995	Obasanjo et al to take out General Sani Abacha	No	No
10	1997 coup	?-12-1997	Lieutenant General Oladipo Diya to take out General Sani Abacha	No	No
11	2004 coup	?-04-2004	Several miliary officers to take out President Sani Abacha	No	No

1. 28-07 to 1-08 in 1966; 2. Lieutenant Colonel Yakubu Gowon was appointed; 3. Brigadier Murtala Muhammed was appointed; 4. Brigadier Ibrahim Bako was shot during the arrest of Shagari;

Ten days after General Murtala Muhammed signed the Act to create the Federal Capital Territory in Abuja, he was killed in a coup led by Lieutenant Colonel Buka Suka Dimka on the 29th June 1975 (see table 4.1). This was the birth of Abuja. Due to the volatility of the ethnic tension, the

history leading to the making of Abuja and indeed the country's bloody past has been suppressed by the government over the years. The suppression extended to the banning of history education form all non-tertiary pedagogy in 2007 till June 2019 when the ban was repealed and later implemented in the 2020/21 academic session. This has not helped matters as supressed memory has been noticed to distort history and increase hatred that may lead to a reawakening of the conflict (Bird & Ottanelli, 2017; Christensen, 2016, p. 28; Tint, 2010), even in Nigeria. The country has survived many violent power tussles (table 4.1) which has been pendulum-like, shifting the spatiality of national power in Nigeria from decentralised to a centralised and back since independence: 1960 (centralised), 1966 (centralised), 1979 (decentralised), 1984 (centralised), 1999 (democratic decentralisation). The making of Abuja as the FCT can be linked to the reconciliation processes following the war but it also seemed that it really was the north trying to create a sense of power asymmetry at a national scale, in their favour. It is always said that Abuja is in the center of the country. This is geometrically so, as seen in figure 4.4, but spatially, Abuja resides in the north (see figure 4.2 and 4.3).

Table 4.2: Planners of Abuja (*Source: author's own)*

Years	Designer	Design	Design Influence
1976-79	WRMT[1] and IPA[2]	Planning of Abuja City	Biophysical approach and modernism
1981-84	Kenzo Tange Urtec (KTU)	Planning of the city center	Japanese metabolism and modernism[3]
1983-84	MKDC[4] + FCDA[5]	Continued planning of Abuja city	British contemporary
1986	AS+ P[6]	Review of KTU's work	Following existing design language
2019	JICA[7]		Eclectic plus existing design language

1. Wallace Roberts MacHarg and Todd LLC,
2. International Planning Associates
3. Post war architecture that referenced biological growth in its design approach. It was not biomimicry.
4. Milton Keynes Development Corporation
5. Federal Capital Development Agency
6. Albert Speer and Partners
7. Japan International Cooperation Agency (JICA) in collaboration with: Yachiyo Engineering Co., Ltd., and Nine Steps Corporation

In 1983, Dr Tunji Adejumo, who is now a Reader in Landscape Architecture at the University of Lagos in Nigeria attended a conference lecture at Syracuse by Ian MacHarg (of Wallace Roberts MacHarg and Todd-WRMT), one of the designers of Abuja. At the lecture, he said:

> "Abuja will fail as a city…The mistakes of Oscar Niemeyer in Brasilia can be corrected, but the mistakes in Abuja cannot. There is so much ethnic bias, the north is creating a place to rule over others, there will be so much conflict"[22].

[22] Interview with Dr Tunji Adejumo, 2022

He went on to describe how the Islamic hub was trying to impose itself on the country through the orchestration process of the city[23] .

Extending this narration from the review of literature; it is commonly said that the Justice Akinola Aguda Committee established by the military government in 1975 appraised the capacity of Lagos to remain as the country's capital. The committee reported on 20th December 1975 that the capital be moved to a region in the 'geometric middle' of the country. This was due to strong spatial constraints which included a need for more land in Lagos and the homogeneity of the Yorùbá ethnic group there (Fálọlá & Heaton 2008, p. 190; COHRE, 2008, p.16; Moor, 1984; Nwafor, J.C 1980). A new capital was therefore sought for reasons put forward as ethnic and spatial neutrality in addition to an availability of material space. It must be noted that the report did not contain the design or even a proposal of a new city, only reasons for moving the capital (Tobin, 2017, p. 35). A location was not even exactly specified. The country's government accepted this report, made a few alterations and on February 4th, 1976, it became the Federal Capital Territory Act (No.6) of 1976.

This is the popular story. The narrative of Abuja, however, is very complicated spatially, there were so many moving parts in its orchestration as outlined by Nnamdi Elleh (2016). and economics. To engage this story, interviews were carried out with architects, urban historians, development planners and policy experts in Abuja and around Nigeria. Some of the respondents work in the administration of the city. This section will focus on the spatial orchestration of Abuja and how it relates to the pathways of the study which include conflict, power, vulnerability, and the notion of markets. It is somehow poetic how post-colonial African governments wanted new state capitals to rid themselves of the painful legacies of conflict and colonialism. They sought for new spaces as a blank slate to start a new trajectory for themselves (Hayuma 1980; Abubakar, 2014; Rego, 2021). However, they called American and British architects to design the cities for them with little or no input from the African governments and design professionals. At the time, it was initially seen in areas like Tanzania (Dodoma) and Nigeria (Abuja). The city was designed and orchestrated by a series of foreign minds and opinions that did not care for the contextual social dynamics and the history of the space (Rego, 2021; Elleh, 2017), see table 4.2.

Following the result of the Aguda committee in 1975 president concluded that a new capital was necessary. In 1976, WRMT led the IPA and produced the first masterplan of the city that was submitted in 1979. It was based on by McHarg's ecological approach to the ideology of modernism (McHarg, 1992), pushed by Le Corbusier since 1928 which focused on sleeping working playing and transport as the primary functions of a city (Le Corbusier, 1973). In this system, architects spatially outline the characteristics of a land, map it out and then overlay it with a system that represents the contextual biosphere (Tobin 2017, p. 6). WRMT felt the Eco-geographical attributes had more importance than the culture of the people (Elleh, 2017). This was in line with modernist ideas of city planning that had

[23] Interview with Dr Tunji Adejumo, 2022

already led to city blueprints of cities like Brasilia and Dodoma, that favoured natural and scientific laws over the social science of a place (Scott, 1998; Marcinkoski, 2015, pp. 25-26). This approach is consistent in WRMT's design of Washington DC. A juxtaposition of Capitol Hill and Abuja shows that they did not care about social contexts (plate 4.2). Their design pushed indigenous people away and only focused on 8% of the 7315 Km^2 land mass of Abuja. In 1981, KTU later came in and designed the city center: Supreme Court, National Assembly, and of course, the Presidential Complex. KTU renamed WRMT's 'central zone' to 'three arms zone'. KTU worked with Senior Members of the MKDC[24] also joined the FCDA as consultants till KTU was discontinued in 1984. When Gen, Ibrahim Babangida took over in 1985 he was afraid of another coup and fortified the central zones with military barracks, overriding the masterplan (Tobin 2017, p. 65). In 1986 AS+P was brought in to review KTU's plan, nothing of importance is known of this review even through descriptions on their website[25].

The latest review was in 2019 when yet another foreign body was brought in. This time, another Japanese organisation; the Japan International Cooperation Agency (JICA) in collaboration with: Yachiyo Engineering Co., Ltd., and Nine Steps Corporation. Their effort was however largely on data collection and analysis. It is not fully known how much influence they have on the new masterplan. In May of 2019 they completed their final report of data collection across the FCT (JICA, 2019). Their summary of findings shows slow urban development in the FCC, rapid population increase. They also revealed that the region outside the FCC didn't get much attention and even the government planned markets were neglected half-way through construction (JICA, 2019, p. 215). Their primary motive was however focused on the FCC and the other regions were presented indirectly as a distraction or at best a need to show some administrative benevolence.

[24] Interview with Alhaja Hajiya Zaliha'u Ahmed. Former Executive secretary of the Federal Capital Development Agency (FCDA).

[25] https://www.as-p.com/projects/project/ueberarbeitung-des-masterplans-fuer-abuja-14/show/

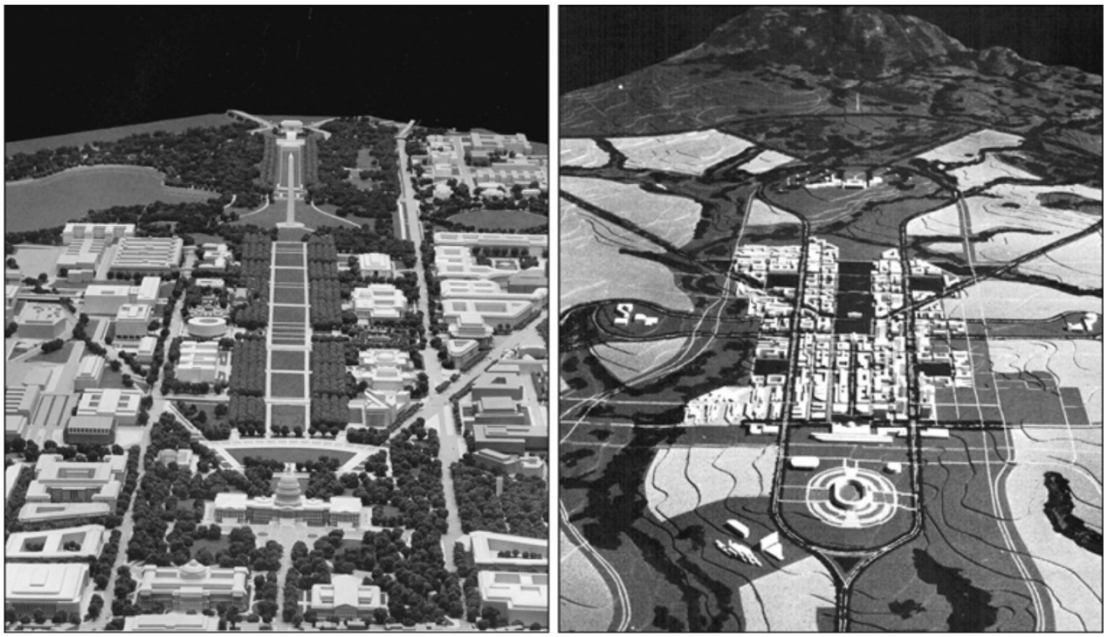


Plate 4.2: (left Capitol Hill Washington DC and (right) Abuja FCT, both by WRMT (Elleh, 2017)

This is not surprising. It is easy to notice that the larger Abuja area is not part of the FCT design. This is because Abuja was mostly treated as if it was met blank. This is certainly not true, apart from the fact that human activity in the area dates as far back as 500BCE, the Gwari (or Gbagyi) and other tribes had inhabited the area for centuries. The masterplan eventually led to forced relocation as they were pushed backwards with each completed phase. The phase 1 initial FCT plan saw about 50,000 people from 264 settlements forcefully resettled (CHORE, 2008). However, in the JICA report only 7 settlements were 'presented' for development (JICA, 2019, p. 63) in contrast to about 200 spots (not settlements) they pointed out with 'evidence of urbanisation'.

4.3.4. Abuja: The Centre and the Periphery

Abuja is at latitude 9.07N and longitude 7.48E, with an elevation of 840m. Abuja is situated in the geometric center of Nigeria. It is usually perceived as a marker to delineate the north and the south. The soil supports a relatively wide range of crop for farming. The climate is of course tropical, and the geography consists of a fairly levelled topography with two major monoliths: Aso rock and Zuma rock as earlier explained in the second chapter. However, this center of a city has its own center. As designed by WMRT, the city has a center that was planned for the rich and powerful.

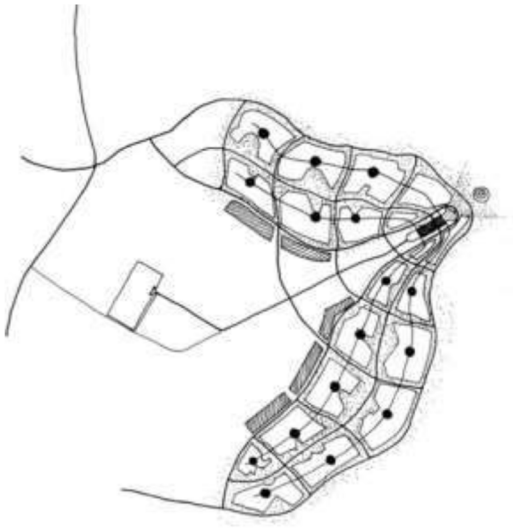


Figure 4.3: Abuja Master plan (IPA, 1979)

For a country reeling from a civil war, WRMT had failed to create a national city that can foster unity in terms of class, ethnicity, and religion. This was a crucial failure because Nigeria and indeed Abuja have a high share of people in the informal sector. The informal sector is very huge; be it in the city center or in the satellite area (see table 4.3). About 83% of the working people in the satellite towns are in the informal business sector. Most of them are traders in open markets. The problem is that there are a lot of people in the satellite towns and the build-up rate is extremely high. Less than a decade ago Abubakar (2014) put the population growth rate in the sub-urban area at a staggering 20% per year. With growth rates reaching 8.32% in the city area, Abuja city itself is the fastest growing urbanisation in Africa (Abubakar, 2014; Levan & Olubowale, 2014; Myers, 2011). More alarmingly, Boumphrey (2010) showed by using UN data that it is the fastest growing city in the world moving into the 21st century, and between 2000-2010 its population had exploded by 139.7%. Like most parts of Nigeria, there is little data about the population growth in Abuja, but the metropolitan area was put at 6 million in 2016. Currently, there are about 3.652 million estimated to be in the 'planned' city. The city does not provide a proper socio-spatial connective framework for the people outside the city. It cuts them off. This brings us into the discussion of the center.

Table 4.3: Employment by sector in Abuja city and the FCT (Abubakar, 2014)[26]

Options (occupation)	Abuja municipal area	Satellite Areas: Abaji; Bwari; Gwagwalada, Kwali, and Kuje	Total FCT
Salary or wages	347 (30%)	463 (15%)	810 (19%)
Self employed	748 (66%)	2608 (83%)	3356 (78%)
Others	13(1%)	13 (0.03%)	26 (1%)
None	34 (3%)	45 (1.4%)	79 (2%)
Total	1142	3129	4271

[26] From the FTC MDG office, 2009

The planned part of Abuja is spatially hierarchialised into sectors, districts, and neighbourhoods each of these levels have their corresponding centres The centers at these levels hold non-residential spaces that are collectively used by the inhabitants of the contextual space. i.e., a sector center has the largest school in the hierarchy and a large hospital, the same scale applies to the market, places of employment, government offices etc. The dark 'dots' in figure 4.3 are sector centres, often servicing 4 districts. The district center has small schools, a health clinic, a district market and so on. This scale trickles down form the district to the neighbourhood. This spatial taxonomy does not extend beyond the boomerang-shaped Abuja City.

4.4. Markets in Africa: A Theoretical Background

Buying and selling is driven by culture (Ikioda, 2013; Hill 1963) and culture is produced through social activity which varies across space (Lefevre, 2009, p. 33, pp. 187-189). This is why informal markets vary across the world even though sometimes they have similar outlook. African being the most diverse continent only points to the high diversity of market settings that exist in the continent. Though markets with more contemporary settings have enjoyed more research than more traditional informal markets over the last two decades (Ikioda, 2013), it imperative to avoid the trap of seeing African markets though the lens of western theory. This unfortunately has been a large practice informal market theory (Ikioda, 2013; Hill 1963). Informal markets have played major roles in Africa's economy in contrast to markets elsewhere They were the lifeline of the continent's economy coming out of the second world war (Cooper, 2019, p.135). One of the reasons might be the high ubiquity of the informal market in Africa and how people's daily lives are anchored in them. Developing countries have the most informal markets (Grossman, 2021, p. 18). In 500 years of Africa's market what makes them unique apart from their culture is their trade routes and the entry of colonialism which became a pathway to the continent's exploitation (Cooper 2019, p. 138). But if we are going to look at the trajectory of African market, the theory of its formation is very important.

The early theories of African (open) market as institutions are covertly condescending and racist. Perhaps the two most significant ones reflect in Hodder's (1965b) work where he points out that markets in Africa are based on two theories:

a. The theory of barter: That a market is formed in Africa based on the local notion or will, to exchange goods at the scale of an individual to another individual (Polanyi, 1945; Hodder 1963, 1965).
b. The theory of external trade: That markets cannot exist within a community except it is inter-communal (Hodder, 1965b).

For the first theory, Hodder (1963) draws from Polanyi (1945) and reinforces that barter is impossible as a primary cause of markets. He implies that African communities are too small and

primitive to sustain a ritual of buying and selling among themselves except they have eternal trade collaborations that is most likely from outside Africa. This takes him to the second theory. Building on Adams' (1823) observations of foreign goods in Yorùbá markets, he continues that the existence of foreign goods (among which he erroneously or ignorantly mentions cowries[27]) in sub-Saharan markets is a pointer to their reliance on the west. On the contrary, the findings of Mábògùnjé (1968) in pre-colonial Nigeria show that markets have existed long before in smaller scales before they connected to trade routes and upscaled. Even in relation to this study, it has been shown that markets started in Abuja as soon as it was set up and trading started first among them even as they fought off enemies, (Hassan & Na'ibi, 1962, p. 9). As mentioned, there was this westernised thinking of the market. To western scholars, a market needed to be of a certain size, with a certain scale of product/service, and most importantly, it had to be trading with a foreign country (preferably them) for it to be a valid market. As such, small markets were not markets to them. They had to see some levels of 'busy-ness' and 'product variety' for their own validation. Even Hodder himself spoke about small markets in his studies of Yorubaland (Hodder, 1965) most of which largely traded in nuclear fashions before they connected with a larger trading grid or a major trading route. Polly Hill responds to these emerging assumptions of African markets by western economists and the economists in Africa who shared similar patronising ideas. She writes (Hill, 1963, p. 441):

> "…Traditionally they have been almost entirely concerned with the economic relationship between Africa and the West, with the import trade: The colonial situation was, in a sense, all that interested them."

To buttress this, Fálọlá & Heaton (2008, p. 97,147) show that the British were unapologetically ruthless in trying to gain control of informal markets to generate income. In the same instance, Hill (1963, p. 441) links their stance to racism and a poor understanding of the method of ethnography and how it can enrich the discourse of development economics:

> "…The hesitations of economists are understandable. What evidence have they got of the possibility of obtaining respectable intellectual satisfaction from studying that which they have always been obliged to regard as primitive?"

In fairness however, Hodder and is cohorts of market studies in western Africa (1961, 1965, 1965b; Hodder & Ukwu, 1968)—who are extremely few, show spatially, early market activities and links with trade patterns. Though their maps are questionable as they show great approximations, they show how markets spring up near trade routes with larger nodal markets that feed into other smaller

[27] Cowries were the primary conventional representation of value in West Africa in the period he was referring to. They were found n Africa and used as money by Africans.

markets eventually, especially during trade with distant lands, especially the west. In summary, markets in Africa have been defined by trade routes and colonisation, they also have been largely misinterpreted by most of the early economists, especially in the spatial context of scale and typology. From farming and bartering of products and services, some without even human interaction, they have over the centuries distilled into even more complex densities of trade. Now they have even more social activities of religion, art, commerce, and other communal practices.

4.5. The Spatial Nature of Markets in Nigeria

Zooming into Nigeria, in furtherance to discussed specific theories of African markets, a theory of centrality rears its head in the discourse of Nigerian markets. The 'central' place theory of Smailes (1953) builds on the seminal philosophical foundation of Christaller (1933). The theory which positions that cities and towns exist solely to dispel some certain functions to surrounding spaces, is relevant to the narrative of the spatial development of markets in Nigeria. In the case of Nigerian cities, Mábògùnjẹ́ (1968) shows that the functions that Smailes (1968) is talking of would be trading and manufacturing (1968, p. 137). He also notices the fact that manufacturing was "relatively unimportant" (1968, p. 137) in Nigeria prior to 1952. This is also largely due to the exploitative socio-economic structure of the British in Nigeria up until that period. Based on this spatial theory, and Mábògùnjẹ́'s observations, markets (trading) emerge as the main spatial driver of Nigerian urbanity. They are however catalysed in proliferation by transportation (Mábògùnjẹ́, 1968, p. 158). We also move to the further work of August Lösch (1954) on central place theory who opines that cities exist mainly from an economy of trading (Fischer, 2011).

The idea of proliferation is based on a hexagonal periphery of transport notes that connect to other cities in direct dependence via trade. If the central place theory therefore states that cities are born of trade. Then it would seem that the main argument is being too hard on Hodder (1965b) and his band of economist theorists on African markets. That even though Hodder (1965b) does not call into fore, the theory of central place, his arguments suggest it. This on the contrary would be false as it furthermore pushes the counter argument of racialised and exclusionary spatial perspectives of urbanity. This is because it will mean that the entire markets in Nigeria are dependent on the western market in their evolutions at the turn of the 20th century. It will also mean in accordance with Hegelian thought (Hegel, 1956, pp. 100-111), that the western cities are the center of African cities in a network of spatial hierarchialisation. In addition, Vining (1955) also argued that central place theory is flawed as new transport solutions tamper with the city-hierarchy aspect of the theory. Vining suggested that the trade area or 'reach' of the cities were complex, and in some cases, contiguous cities can share little influence on each other in terms of trade. He also used his concept of statistical equilibrium to show that new power asymmetry can arise to make some cities break the hierarchy chain, such as in the case of colonised African cities in Nigeria.

Table 4.4: A general categorisation of markets in Nigeria (Source: author's own)

Category	Type	Examples (in Abuja)
Space		
Macro Space context	Urban Markets: Markets situated in urban space characterised by high cost of good and services and situated in spaces of higher income levels (Ikioda, 2017).	Wuse market
	Rural Markets: They are in sub-urban regions or on the fringes of urban spaces. The products are services in are influenced by farmed crops in the contextual areas. They often serve as supply nodes to urban markets (Adebayo, 1992).	Nyanya market, Kuje market
Micro space context	Facility-Activated: Markets activated by the presence of facilities that usually attract a lot of people as a destination or as a transit zone. These clusters zones (railways, roads, other big facilities) for people also attract potential customers/buyers and therefore catalyse the occurrence of markets near them (Ikioda, 2016)	Idu train station mini market
	Culture-Activated: The position of markets is sometimes based on cultural beliefs. In the Yorùbá culture, there is always a market close to the King's place called "Oja Oba" translated "the King's Market". The Royal family is not expected to venture far from the palace to procure goods and services. This cultural definition of space has also been found in cultures of Northern Nigeria (Hassan & Na'ibi, 1962).	Garki old market
	Need-Activated: Some markets are born out of the collective need for readily available goods and services by a particular area. E.g., in gated communities.	Farmers' market, Maitama
Boundaries	Hard Boundaries: Markets that have clear physical boundaries with controlled entry and exits paths Fuzzy Boundaries: Markets with no clear boundary. They often merge into other urban contexts, usually residential zones. This classification of market boundaries plays a significant role in the argument of the theory of interstitiality that is explained in chapter 5	
Time		
Full-time Markets	Markets that open 24 hours all days of the week or at least at all working days.	Wuse market
Varying-time Markets	Markets that open only at certain days of the week. There are night markets that open at night or overnight only. Some of these markets may also be open other days of the week but their formal days of peak trade called "market days" are usually at certain times of the week or month or year (Sada et al., 1978). Some market's function/open based on certain festivals or special events.	Nyanya main market has its market day on Tuesdays.
Process		
Organic	Organic Markets emerge based on the unencumbered progression of socioeconomics in a region or area.	Nyanya main market
Induced	Induced Markets are deliberately created out of a sync with social and economic forces. They may be sudden and (or) based on policies driven by governance and politics (Porter et al., 2005) and emergencies. Some external actors can be PPP arrangements.	Garki ultramodern market
Hybrid	Some markets emerge organically and are then mainstreamed by formal and controlled influence.	Garki old market
Theme		
Mono-theme	Single-themed markets are known for a particular (predominant) good or service. Some of them are named after what is being sold there.	Farmers' Market Maitama
Multi-theme or non-theme	Markets not known for the trade of a single predominant product (very common).	Wuse Market
Shifting theme	Some markets shift in theme either by routine or mostly by periodic need or supply.	

Nigeria, Africa's largest economy and population (UN, 2019)[28] with about 400 ethnic groups (Omotosho et al., 2020) and about 500 languages, having a growing urbanised area of 50% (Bloch et al., 2015) has a complex set of markets. Lagos alone has over 400 public markets and 502 private ones (Ikioda, 2016; Grossman, 2021, p. 24). The complexity of the typologies and actives need to be classified for easier understanding. This is doe in table 4.4 for the first time. The classification can also apply to African markets at large. In the table examples are drawn from Abuja markets to shed more light on the study area. The table for the first time, sets a strategic avenue to spatially describe markets in Nigeria based on a set of spatial parameters.

4.6. Markets of Northern Nigeria

The case of markets in the northern part of Nigeria must be engaged to understand well, the system of markets in Abuja. As have been implied more than once in this chapter, studies keep showing that trade was at the center-point of the development of urbanisation in the north. But what does trade mean in the north? What did it mean then? What does it mean now?

[28] About 2020 million people in 2022

To engage these questions, we must understand that Land is a huge factor in the idea and nature of the market, and it is very necessary that it is considered as one of the reasons markets are the way they are (Mábògùnjẹ́, 1997, p. 207). The earliest significant western take on this piece of discourse is the concentric system of Von Thunen's 'isolated state' theory (1826). Here, a market in a 'central city' is linked with other economic parameters like land for farming, cost of production/product, profit, and the distance of the land from the farm. This notion of agriculture, land, market, and the city, is very well connected to the central place theory pushed by Christaller (1933) & expanded by Lösch (1954) as it places the city and the market in the center. It shows how land can affect the market's economy, even at the informal level. Even though Von Thunen's isolated state idea has a number of assumptions, like homogeneity across the city, circular expansions of space from the center, flatness of geography for access and stable prices, it has shown various levels of relevance across the world and even in Africa. Examples of consistencies include the spatial organisation of agriculture in Indian villages (Blaikie, 1971), and the concentric state of Addis Ababa (Horvath, 1966). However, studies show that the parameter of land cost with distance from the market (also transport cost) does not hold for rapidly urbanising African cities as agricultural patterns can often increase in intensity as they get farther from cities (Sinclair, 1967).

Now that we have dealt briefly with the spatial nature of markets and the basic connection of trade and land, we can use this thinking structure to view trade in northern Nigeria. In the case of northern Nigeria, the concept of trade is the market. This is deeper than the expected simple analogy of "trade must happen in a market. At least as far back as the 16th century (plate 4.3), caravans came in thousands, bringing and taking goods from northern (and southern) Nigerian markets. This contributed to Hodder's assumption that trade routes and periodicity were the main characteristics of markets in Nigeria (Hodder, 1965, 1965b; Hodder & Ukwu, 1969). This simple but elaborate framework of many centuries ago does not even tally with all of the 'isolated state theory'.

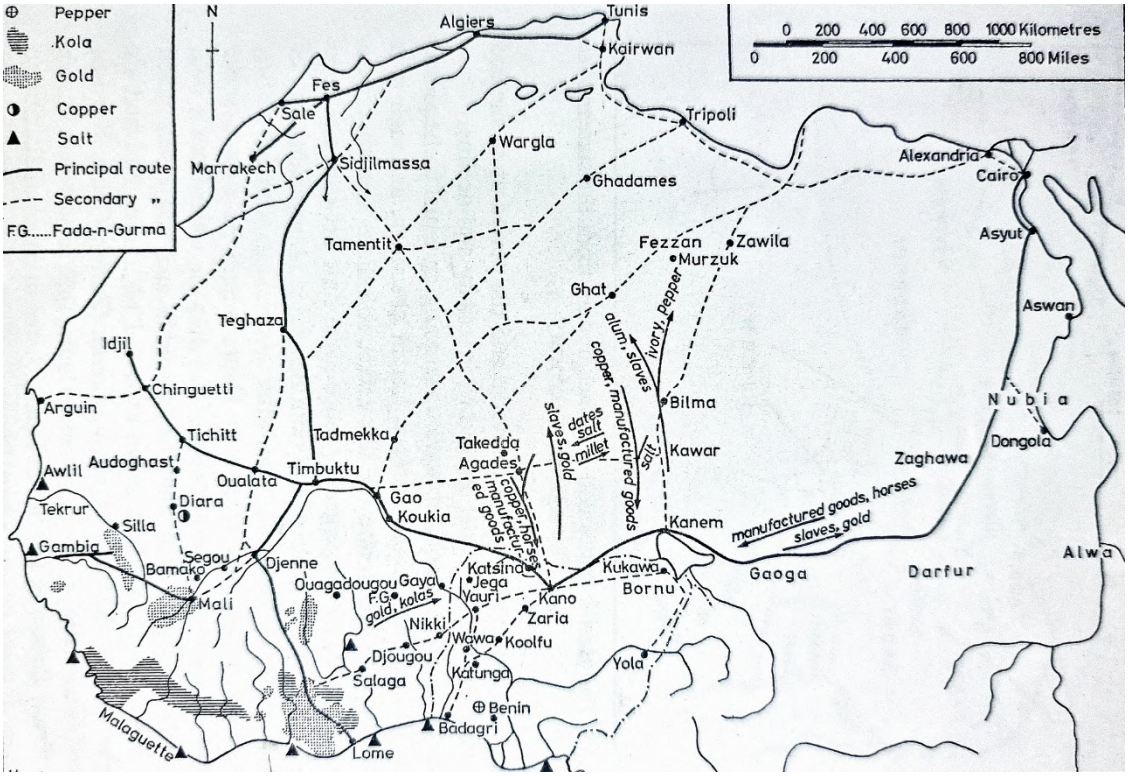


Plate 4.3: Trade routes of Western Sudan: 16th century (Mábògùnjẹ́, 1968)

Distance was not the only parameter that determined cost. Service and product cost was tied to more intricate social interactions and the availability of certain goods (and services) which was in turn tied to how much it was in need by either party of the trade. We have seen how guns and drinks were key products of trade in the early colonial space of Nigeria as they sought it for war (Fálọlá and Heaton 2008, p. 100). Northern Nigerian markets were nodal points in these routes of trade (see plate 4.3 & 4.4). In the medieval times, the markets of the north have been found to trade as far as the Mediterranean markets in the ports of Naples, Venice, Genoa, Pisa, Marseilles, and parts of Castille (Mábògùnjẹ́ 1968, p. 45, 57). Other points include Manchester, Solingen and as far as Saxony, including Arabia's Tripoli and Syria. All these places fed into the Kano market even till as recent as the 1800's when single batches of camel caravans and slaves still numbered over 2500 as at 1824 (Barth, 1857). Shortly prior to the 19th century, the impact of northern Nigerian markets was fuelled by contiguous trade activities from the Songhai and the Kanem Empires (see plate 4.3 & 4.4). The trade processes lasted months as donkey and camel caravans took 70-90 days across the Sahara (Fálọlá and Heaton, 2008, p. 33).

Northern markets also played a key role in the wars of the period as weapons were being imported and distributed through them as far back as the 16th century (Fálọlá and Heaton 2008, pp. 46-47) till as recent as the mid 19th century (Denham et al., 1831). Markets in Kano continue to show evidence of weapons sale as recent as the 1980s and even till date (Fálọlá and Heaton 2008, p. 208) which has which has been linked to the spread conflict to Abuja (Akinbi, 2015; US Homeland, 2013).

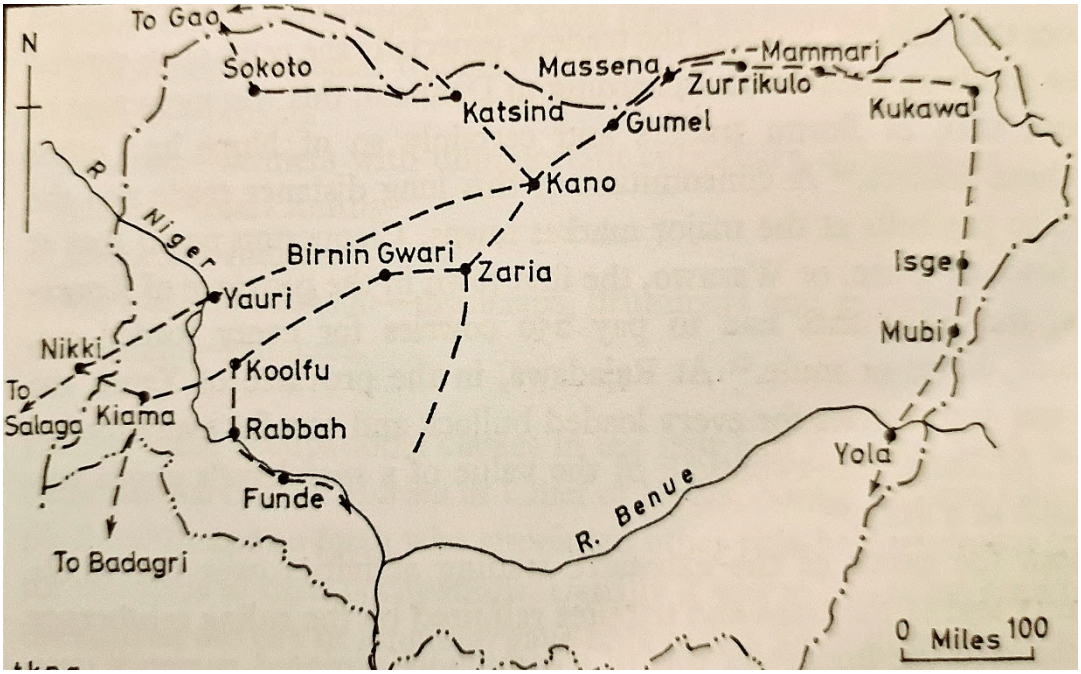


Plate 4.4: Trade routes of Northern Nigeria: 19th century (Mábògùnjé, 1968)

In current times, various cities of northern Nigeria have heterogeneously shrunk and expanded (see figure 4.3 & table 4.0). Their markets have also shrunk with them in spatial juxtaposition to the earlier days. Today, technology has phased out the caravans by efficiency, and the northern urbanity has developed rapidly to meet up with the south (Mábògùnjẹ́, 1968, p. 44; Bloch et al., 2015, p. 17), a more complicated informal economy that has affected markets of today in terms of social heterogeneity and density.

4.7. Abuja's Markets

In the 19th century, trade contributed to the population explosion of the cities (Mábògùnjé, 1968, p. 64), with Sokoto and Kano climbing to over 100,000 people. The populations were heterogeneous and stratified according to class. The traders occupied sperate areas and were second in prestige only to the Koranic scholars. In the early 20th century, farming and selling were the main activities of commerce in Abuja. The people were also very good with pottery, and it was commercialised. In this period, most important markets along the region of the north were the Abuja market, Madalla market in Zuba (now within Abuja), and the market at Diko. Seven important trade routes passed through Abuja (table 4.5) and the following were traded in transport along them (Hassan & Na'ibi, 1962, p. 52; Mábògùnjé, 1968):

Table 4.5: Market routes in early 19th to 20th century Abuja *(source: Author's own)*

	Market route	Products traded
1	Bida route	Mats, sheanut-oil, and honey to Bida, bringing back hena and plaited straw, woven baskets and harness for horses, lamps, including clay kettles and many European goods.
2	Katcha route*	Rice beans, locust beans to Katcha. Kolanut, palm oil and other European goods were brought from Katcha.
3	Konton Karfi - Lokoja route	Cattle, Mat, sheanut-oil, peppers, benniseed. Kolanut, fish and other goods will be brought from Karfi.
4	Keffi route	Kolanut from Minna, farming hoes and crude salt is brought back.
5	Minna route	Peppers, honey, with kolanut and European goods taken to Minna.
6	Zaria route	Soap, calabashes, mat, ginger, pepper, kolanut are taken to Zaria. From Zaria Kolanut, cattle sheep, goats, dogs, large white robes, and turbans. There is a Jos route that has the same flow of products as Zaria.
7	Jos route	To Jos; Honey, pepper. From Jos; kolanut and European goods.
	* Through Badeggin-Lapai	

Now it must be known that during the early formation years, Abuja still had to repel continuous attacks from the Fulani until the last invasion in 1893 (Hassan & Na'ibi, 1962, p. 18). Farming and markets continued throughout this period and the war dictated the trajectory of craftsmanship of the people as they had to make weapons and fortify horses. Farming continued outside the city walls and the farmers and traders were also sometimes soldiers. A fallow method was adopted by the farmers in which farmland was left for about 3 years before they were revisited. The people also reared cattle outside the city gates, the hide for their leatherwork came from them.

4.7.1. Abuja Markets Today

In current times markets in Abuja have taken a new outlook. This has been primarily due to the masterplan set up for the city. The concentration of planning in only one part of the FCT has made it difficult for a development that is at least in progress in all of the FCT. There is surely no expectation that the city should be developed at once. Even the theories discussed in this chapter suggest that development starts from a localised space and grows out. An initial spatial appraisal shows that Abuja city still occupies mainly 7.9% of the entire FCT (table 4.4). This is consistent with the land mass at the development of the masterplan.

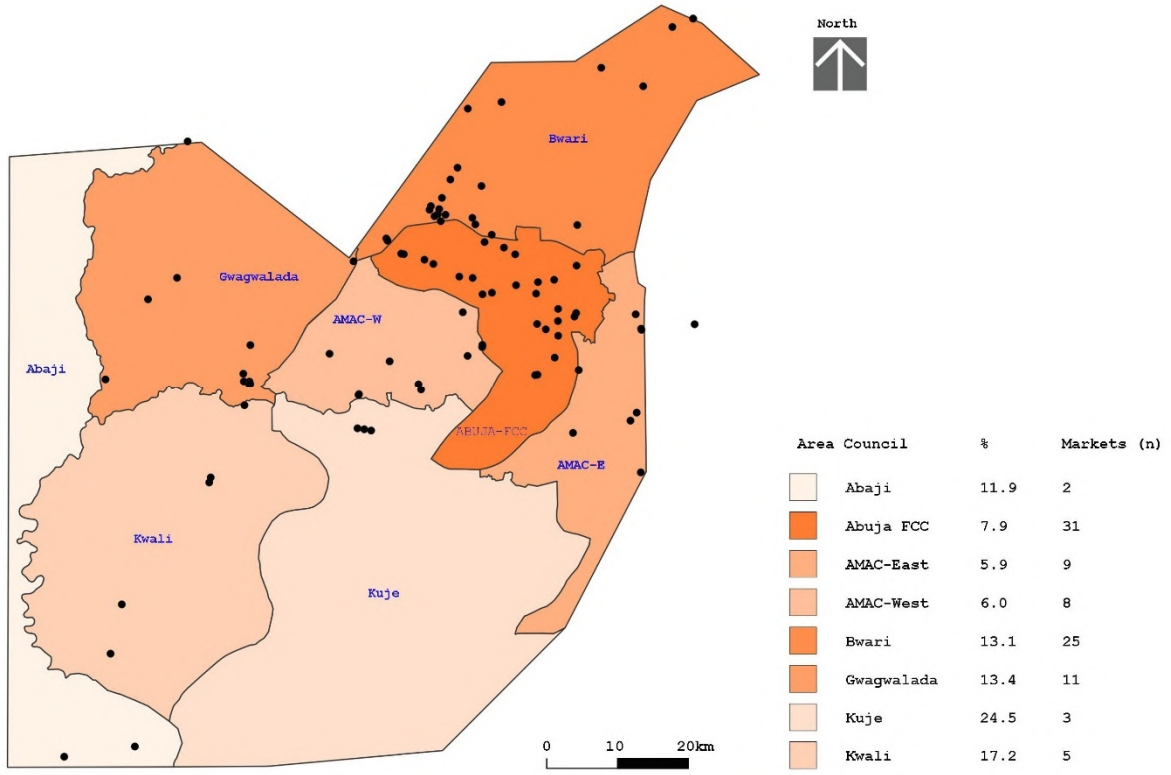


Figure 4.4: Locations of Markets in Abuja (Source: author's own)

There are, however, some dynamics going on in the FCC membrane partly because of the urbanisation in the FCC area that will be analysed in detail in the next chapter. There are 94 (table 4.5) markets with some level of definition that fit into the categorisation put forward in table 4.2. Upon inspection, it is found out that all the selected markets in the FCC trade in at least some products from outside the city, this includes agricultural products. This makes transportation vital. The location and growth of markets in Abuja is concentrated in the FCC area council with proliferation across the Bwari and AMAC (east and west) area councils (see figure 4.4; tables 4.6-4.7).[29]

To briefly describe the spatial taxonomy of the FCT; It is made up of 6 area councils but one of them (the FCC) is divided into 3 for the analytical purpose of this study and also the way it is always laid out by the FCT government. The area councils are: Abaji, Abuja FCC (containing AMAC east and AMAC west), Bwari, Gwagwalada, Kuje, and Kwali. In each area council are FCC zones, there are 213 FCC zones in the FCT altogether. Figure 4.6 shows the area councils, the markets found in them and the number of FCC zones in each area council. Abuja FCC is divided into a number of phases of development, 4 phases are the currently the most defined by the FCDA as seen in figure 4.5, the area of the phases increase as they go farther from the center with phase 1-4 having a land share of 15.84%, 16.94%, 26.78%, and 40.44% respectively. Phase 4 is still very much just being implemented. Figure

[29] Usually, termed AMAC north and south by the FCT government even though they are more spatially dichotomised too east and west. Please note that east and west AMAC will be used throughout this study. This should be taken into consideration when cross refencing is being done with government communications, documents, or media.

4.7 shows that phase 4 is about 40% of the FCC and it is still being developed but there already is organic development on ground. This shows that the implemented masterplan of the FCC is even much smaller than publicly positioned. Apart from the density of urban systems in the FCC, the urban transportation plan can be seen as one of the main factors. Proper accessibility to the other area councils is not worked into the plan (see 4.5).

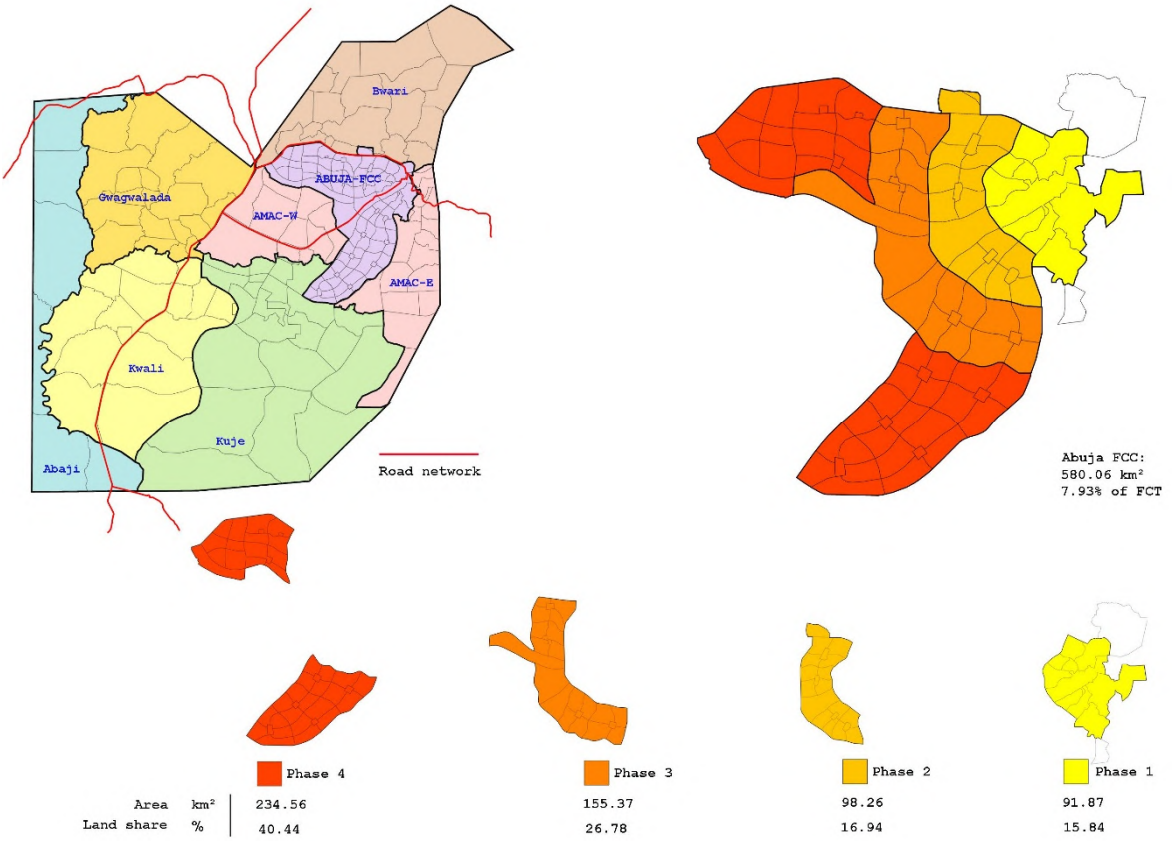


Figure 4.5: Phases of Urban development in Abuja (Source: author's own)

Table 4.6: Market density in the FCT area councils (Source: author's own)

Area Council	Area (Km^2)	Markets (n)	Market per Km^2	% Land
Abaji	872.65	2	436.33	11.9
Abuja FCC	580.06	31	18.71	7.9
AMAC East	432.76	9	48.08	5.9
AMAC West	438.55	8	54.82	6.0
Bwari	957.73	25	38.31	13.1
Gwagwalada	981.73	11	89.25	13.4
Kuje	1794.20	3	598.07	24.5
Kwali	1257.69	5	251.54	17.2
FCT	7315.37	94		100.0

The main access road from the FCC is the primary transport spine that runs from Kaduna (up north of Abuja) to the outskirts of the FCC through outskirts of Gwagwalada, slicing through Kwali and then coming out at the extreme end of Abaji. Though not the only factor as will be seen in the following chapter, the markets are largely consistent with this transport accessibility line. There are

only 2 formal markets in Abaji area council, and they are located near the main transport line. Abaji covers 436.33 Km^2 and about 12% of the FCT land. Of the 94 defined markets in Abuja, the FCC has 31 and Bwari has 25, this alone is 60% of all the markets in the FCT. Typical land mass to market ratio shows densities of area served per market in each area council. FCC has 1 market for every 18.71 Km^2, the closest density to this are the markets in Bwari which is about half the market-to-urban space ratio (see table 4.6).

Table 4.7: List of primary and secondary markets in Abuja (Source: author's own)

s/n	Market	s/n	Market	s/n	Market	s/n	Market	s/n	Market
1	Abaji Ram Market	20	Gwagwa local Market	39	Karu old Market	57	Relocation Market Kubwa	76	Gwagwalada Main Market
2	Akori Market Abuja	21	Kabusa Main Market	40	Nyanya New Market	58	Dei-Dei Ultra-Modern Market	77	Aidan Fruits Market
3	Garki International Ultra-Modern Market	22	Karmo Sabo Market	41	Karshi Main Market	59	Mpape sprawling Market	78	General Azazi Mami Market
4	Wuse Market	23	Lugbe Fruit Market	42	Madalla Market	60	Abattoir Market Kubwa	79	Building Material Market Gwagwalada
5	Garki Model Market	24	Across Mini Market	43	Adelabu Market	61	Byazhin Market	80	Yam Market
6	Wuye Ultra-Modern Market	25	Kabusa Bush Market	44	Lugbe Main Market	62	Mami Market Nigerian Law School	81	New Market
7	Gwagwa main Market	26	Lugbe Mini Market	45	Gosa Farm Produce Market	63	Mami Market NYSC Camp Abuja	82	Open Market Gwagwalada
8	Gudu Material Market	27	Idu Market	46	Goza Market	64	Arab Market Kubwa	83	Livestock Market Anagada
9	Utako Ultra-Modern Market	28	Lokogoma Market	47	Sauka Market	65	Night Market Kubwa	84	Dobi Market
10	Dei-Dei Building Materials Market	29	Yarkasua Market	48	Market Near PAF Qaurters	66	Kau Market	85	Kassanki Village Market
11	Kaura Market	30	Baba Gidan Market	49	Ketti Market	67	Market Near Kubuchini	86	Market Izom
12	Dei Dei international Vegetable Market	31	Tipper Garage Market	50	Market Near Kuchiyako Extension	68	Market Near Veritas University	87	Kuje Main Market
13	Farmer's Market, Maitama	32	Kado Bimco Market Gwarimpa	51	Kubwa Modern Market	69	Bmuko Market	88	Kuje Ultra-Modern Market
14	Kado (FCT) Fish Market	33	Durumi Market	52	Dutse Market	70	Kuchbuni Market Garden	89	Forest Market
15	Lugbe Timber Market	34	New Orozo Market	53	Kubwa Village Market	71	Dakaa Market	90	Kwaita Community Market
16	Karmo District Market	35	Orozo Market			72	Kudiri Market	91	Kwali Market
17	Dubai International Market	36	Nyanya Market	54	Dei Dei international livestock market	73	Market Near Kaima	92	Yala Market
18	Tomato International Market Dei-Dei	37	Karu Market	55	Central Market Kubwa	74	Market near Kuduri	93	Bako Market
19	Balan Gambo Mai Kilishi Park/Market	38	Apo Mechanic Village	56	Dawaki Modern Market	75	Bwari Market	94	Gadabiu Market
Area Councils:		Abaji (1-2); Abuja FCC (3-33); AMAC East (34-42); AMAC West (43-50) Bwari (51-75); Gwagwalada (76-85); Kuje (86-88); Kwali (89-94)							

Markets in Kuje area council have the least density reach with just three markets (located close to each other unfortunately) servicing a staggering 598 Km^2 of peri-urban space. The vast space is highly

underdeveloped as shown. Habitation occurs in very small settlement scattered across the FCT. The actual number of these settlements is unknown as they there are no access to current satellite images and some settlements hold as little as 30 people with huts (or houses) buried under dense vegetation. As explained, access roads are a problem, this means these settlements must travel long distances for major shopping activities. This spatial situation ushers in the question of vulnerability of the markets in Abuja which is extensively treated in the next chapter using a theory of interstitiality that will be presented.

5

Violent Conflict and Vulnerability in Abuja

Having dealt with the understanding of violent conflict, markets, and the notion of vulnerability, including how they can be studied in African spaces like Abuja, the study progresses to the actual appraisal and analysis of vulnerability from a socio-spatial standpoint. From this chapter onward, this thesis analyses the spatial impact of conflict and violence on Abuja and its markets. It starts from a broader approach of the city in this chapter and narrows down to the markets of Abuja in the following chapter. The thesis engages this analysis by setting forth a new set of spatial theories of space that pushes the discourse of interstitiality even further to the domain of conflict and violence. These theories are interrogated to unravel spatial vulnerabilities of Abuja at macro and micro scales. To enrich the analysis in terms of scale and context, the process and findings are exposed to other agencies and regions where conflict and violence are of significant concern. The objective of the analyses is to tackle the research questions of this study. The following analysis proceeds to present a new understanding of the spatial nature of vulnerability in Abuja which will lead to the formulation of spatial pathways for development in areas that are found wanting.

5.1. Appraising Conflict Through Vulnerability

Before we proceed to new spatial theories of conflict and vulnerability, it is very important to understand the notion of vulnerability with respect to conflict in the north of Nigeria and how it is to be approached in the study. In the review of existing knowledge, we have been able to see that extensive work has been done to show that vulnerability can be connected to environmental and social change (Ader, 2006) and conflict (Eakin and Luers, 2006; Alao 2007). Theoretically, we also know that vulnerability is not just a notion but a tool that can indicate, but more importantly, describe how various environmental and social systems can be susceptible to harm (Ligon & Schechter, 2003; Cutter, 2003; Ader, 2006). If the susceptibility to harm of social systems is known, then resilience or counter strategies can be planned. This is the relationship of vulnerability to security in development. Vulnerability, however, is not directly the absence or presence of security. An entity can be secured and still be vulnerable depending on what it is secured from. At both ends of the spectrum; absolute security is theoretically difficult if not impossible, this goes for vulnerability as well. Therefore, vulnerability and security have to be put in specific contexts for development efficiency, even in spaces like markets. In the context of conflict and violence in cities, vulnerability is a pointer that allows us to interrogate security in various spatial contexts. It is not entirely a feeling, nor is it entirely a technical situation. It

is a complicated hybrid of how people feel, their levels of confidence, based on the knowledge of their surroundings and also how their spatial context is orchestrated for safety. Knowledge of this can significantly shape human activity for better or worse. This means that vulnerability as a tool is sophisticated enough to aid sustainable development or destroy it. This is why this study is careful in the depth of its revelation at the ethnographic level in line with the ethics of the research.

5.1.1. The IEP's SPI and the Spatial Problems of Vulnerability Analysis

Recent studies show that perceptions of safety and vulnerability are increasingly growing in attention, but only (more or less) in the last two decades (Azmi & Hamdan, 2022). It has been shown how vulnerability of various environmental and social systems have been studied in the past. This study attempts it spatially and in the context of conflict. However, the study of vulnerability can be very complicated. While vulnerability may be understood largely by many scholars, the understanding of it across space suddenly becomes a furtive but dangerous problem. This is because if vulnerability is not understood properly in space, it can roll back current development effort, destroy chances of future ones, and exacerbate power asymmetry. One of the most pressing issues is that people treat vulnerability as a homogeneously manifesting phenomenon. One of the reasons this can be attributed to is in the very argument of the philosophy of vulnerability. Kottow (2005) expresses the philosophy that argues its absolute ubiquity across all humans, but this is often consciously or unconsciously taken or applied even at the level of the manifestation or nature of vulnerability across space. In other words, if vulnerability applies to everyone, then it must be interpreted the same way in everyone and everywhere, this is very false. This is in fact one of the primary reasons for taking a spatial approach to this study of conflict.

One of the studies that have been found wanting in their approach to studying vulnerability is the debut study by the *Institute for Economics and Peace (*IEP, 2022c). This is for a number of reasons, firstly: the study has the propensity to be highly influential as it is from the IEP, it also touches largely on conflict and violence. Secondly: the study is done at the global scale. Thirdly: it is the first of its kind and it is also produced by the IEP whose data has been very instrumental in the spatial study of conflict and violence worldwide[30]. This is one of the few known holistic studies of the perception of safety at a global scale. The global study is done in partnership with Lloyd's Register Foundation. The data gathered is supplied by the foundation and given to the IEP for analysis. This collaborative effort of 'data mining' and data analysis results in the development of a Safety Perceptions Index (SPI) across the larger part of the globe. The study ranks 141 countries using 5 main domains: Health (food and water safety), mental health, violence, environment, and the workplace. Each of the domains are appraised in three themes: worry (concern), likelihood (propensity of harm) and experience (occurrence of harm) (2022c, p. 2). The cumulative appraisal of these domains in the themes mentioned is what the

[30] Sponsored and in partnership with the Lloyd's Register Foundation Safety Perceptions Index (SPI).

study's 'Safety Perceptions Index' (SPI) is built on. The methodology though, wide across many countries, is highly questionable in terms of how it approaches social inquiry. At least 1000 respondents per country answered a 75-question long questionnaire (2022c, p. 31). It was largely online, and the feedback was analysed for the study. In this their procedure the following problems arose:

a. The study's parameters, unconsciously designated for the global north, may be inadequate and inaccurate in Sub-Saharan Africa. The reliance on online questionnaires excludes those without computer and internet access, in some parts of Africa's spaces, potentially providing an incomplete picture of social systems in African countries.
b. The typologies of the domains area are also very 'western' in orchestration. There is a substantial body of study that shows that in Africa, the informal sector of the continent is the largest in the world. It makes up the largest part of the workforce, and it varies largely within SSA. It also makes up all the open markets **(**Gerxhani, 2004; Fapohunda, 2012; Ogbuabor & Malaolu, 2013; Abubakar, 2014; Guven, 2019; Cooper, 2019, p. 135***;*** Dell'Anno & Adu, 2020; Grossman, 2021, p. 18; Tonuchi and Idowu, 2020). This method of study will not capture a whole side of the African workplace as it does not see spaces like informal markets or the Cobalt mines of Congo as workspaces (Gerxhani, 2004). Another domain that is difficult to measure in Africa is mental health. The demography that will be in contact with the questionnaire will not be a good reflection of the whole population in large African countries like Nigeria. This is because if the questions are not communicated well, it is easy to misinterpret feedback and mistake poor mental health for some general displeasure with the government, for instance. Even the study accepts the huge disparity in their findings (IEP, 2022c, p. 29):

> "Data shows that the experience of serious harm from mental health is higher on average in sub-Saharan Africa than any other region, and is consistent across most age cohorts, with very little difference between men and women. However, other data suggests that mental health concerns are actually less common in sub-Saharan Africa than elsewhere".

In the document, the study casually tucks this statement in among the pages as if it does not practically undo most of the legitimacy for the methodology, especially for regions like Africa where data is non-existent, or not readily available and proper studies of this sort can mostly only be done through on-site study.

c. Another primary research flaw is the use of only the 5 domains to holistically judge and rank perceptions of safety and vulnerability. This is an aspatial take on a spatial study. Some of the domains may not even be the best domains to appraise intended parameters in many countries. As a result, the research comes up with rather spurious conclusions like Malawi being the most

vulnerable city in the world, scoring low across all 5 domains, 31 places behind Afghanistan and 67 places behind Yemen (the world's epicentre for famine) (IEP, 2022c, p. 5). Nigeria also ranks 4th in Africa with the lowest score of the experience of harm (IEP, 2022c, p. 20). Even previous IEP data among other sources discussed in this study's review of literature shows very contrasting narratives of Nigeria, Syria, Afghanistan, and similar countries.

d. There is also the question of who are allowed to answer these questionnaires. The methodology of the spatial study is so vague on this. For instance, how is a country like Afghanistan evaluated when the women are not even allowed to speak to outsiders, let alone researchers? They are not even allowed to work in the context of a career. The question therefore arises weather the actual vulnerable were reached.

In summary, though the study seems to want to engage space, it does so in the old orthodox approach, focusing largely on the physicality of space as (non-human) geographical regions. It also fails to understand how vulnerability is highly volatile spatially, even across small spaces. The danger of studies like this is that the high status enables them to stand chances of influencing development policy at the global scale, or across various nation states and regions. Having expressed the problems of current studies of vulnerability new theoretical approaches are presented, especially for open spaces like markets.

5.2. A Theory of Interstitiality for Conflict

Following from the review of existing knowledge on interstitiality, the study proposes a theoretical approach of interstitiality to the case of the spatial impact of conflict on markets. The theory is built on the mutations of markets which is a spatiotemporal process. It posits the following thought inclinations:

a. *Fuzzy boundaries:* That markets can't really have holistic boundaries in African spaces, or it is very difficult for the boundaries not to mutate. This is where the introduction of fuzzy boundaries in the spatial idea of markets come from. That conflict and spatial notions of vulnerability can affect the boundaries of markets either by initiating, catalysing, or mutating them. Also, that micro interstitiality and sprawl is somehow linked to safety in markets and in turn technical and (or) socio-spatial vulnerability in markets in the context of conflict.
b. *Interstitial latency*: That macro trade dies when macro interstitial spaces of markets are absent or weak in terms of transportation and communication.
c. *Shuffling spaces within Spaces:* At the macro level, a reorganization of interstitial urban components and systems can bring about sustainable development e.g., rearranging certain building or open space typologies or polices related to them in the context of markets.

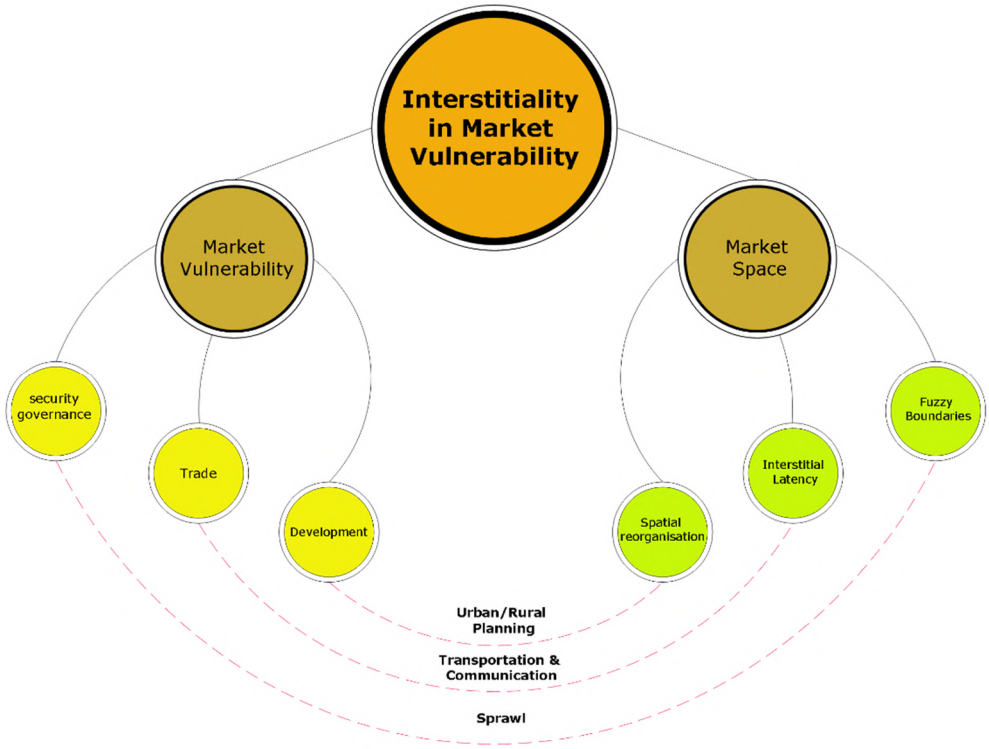


Figure 5.0: Interstitiality in Market Vulnerability: Theoretical Framework (Source: author's own)

The theory can be organised into a framework of thinking that describes how conflict is seen as a case of vulnerability in the context of the markets (see figure 5.0). The study will then proceed to explain the theoretical argument.

5.2.1. Fuzzy Boundaries

The beginning of fuzzy boundaries or even fuzziness in space, as a study, did not 'blow up' from urban studies, geography or even the social sciences. If it had a face, it would definitely be that of Lofi Zadeh, a mathematician whose significantly influential work in the 1960s presented 'fuzzy sets' (Zadeh, 1965) in which he showed that a set of objects can have varying characteristics of a wide range of memberships, hence making their identity 'fuzzy' in set theory. Zadeh interrogated the notion of fuzzy boundaries for the next 50 years of his career. This is not to say that studies in the other mentioned areas had not started even before this period. Fuzziness remained exclusive in popularity as a discourse in the sciences till more popular developments in spatial studies began to emerge, slowly starting in works like that of Chisholm (1964); claiming that the establishment of clear cut regions can be problematic, Kevin Cox (1972) one of the first people to thoroughly introduce man as agency in the discourse, and then culminating in much more influential findings, like the development of space syntax by Bill Hillier and his cohort at the UCL (1976), where they proved that space is malleable through a series and types of networks and connections which can not only be technically understood, but also

orchestrated. This knowledge was broken down and explained for more accessibility by Bafna (2003). Probably the more popular 'beginning' of fuzzy boundaries as a topic of discussion in urban study is when it was put forward by Yang and Hillier (2007) in their work following the development of space syntax. However, 'fuzzy' being attributed to the idea of boundaries not having proper definition can be traced as far back as the late 80s when Leung (1987) formalised a research path towards the idea of such boundaries in geography and as a result in urban studies.

Markets in Africa especially in SSA have this character of growing in informal ways. This may likely be because they are informal in nature and their space is not governed with the same intensity, in terms of planning constraints. When a market is born, people come to pitch their shops in an accumulative manner because the location creates a better chance for higher trade frequency. The recognition of the location as a market brings more buyers which also in turn brings more sellers, thus the market begins to grow. This kind of growth can easily take on a 'mind' of its own as a 'shop' can be a small mobile shed that can be moved around. In the case of Abuja, they are mostly large umbrellas with a table and a chair as the base ergonomic construct. This set-up has been adapted by many product and service typologies including in use as a shop for FMCGs, [31] a hair salon, even a restaurant with food sold out of a cooler and people sitting around on stools (or even standing) to eat (see plates 3.0 & 3.2). The simplicity of these shop typologies makes it easier for the growth which can be more specifically described as a kind of sprawl. A market by nature and typology is informal, therefore formal attributes—aspatial or spatial, give way to informal forces. The formal fences or boundaries of markets have been found in many cases not to be strong enough to stop the growth of markets (see plate 5.0). Some markets' boundaries are so fuzzy that it takes ethnography to map them out. In plate 5.0 the sprawling market at Mpape is marked in yellow. It is split into two, over time it has expanded southwards by 569% through people who just mount up stands using the commerce-magnetic properties as a driver for their own trade.

[31] Fast Moving Consumer Goods



Plate 5.0: Mpape sprawling market, Abuja.[32] (Source: author's own)

Currently, it is difficult to know where the market actually starts from and where it ends. People access it at various streets and avenues, it also has multiple congealment 'zones' across the city scape. Out of the 94 markets studied in this thesis there is evidence that 57 of them are with sprawl of some kind. Some markets without clear boundaries even have their boundaries more complicated upon growth (see plate 5.0). Boundaries in these cases are therefore determined aspatially as membership now becomes the way to delineate where a market ends. The boundaries are no longer physical but social. This is why market associations are very important to the market people. Grossman (2021, p. 18) in her studies of markets in southwest Nigeria shows that it is highly unusual for traders in an informal market not to belong to some form of association. This has been found true for the 94 selected markets in Abuja and other markets of the north. In the market, people know each other as informal as it may seem. The non-members are usually seen as not part of the market, but in essence, the market usually behaves and functions as a single unit (including the sprawled or sprawling mass). The problem of delineating the market boundaries is where an argument is being made for the socio-spatial existence of vulnerability. Depending on the urban densities of the areas in which markets exist, the masses of sprawl often extend into neighbouring streets and smaller arteries of the city redefining the spaces between buildings and other spatial typologies. This interstitiality is born from the fuzziness of markets' boundaries that are in turn born from the pull-factor and force of the market as a place for trade. The sprawl usually thins out as it extends from the market, like arteries opening into arterioles that open into

[32] Located within Bwari area council (9.137156573895462, 7.495047393801214) market no. 59 in table 4.7.

capillaries (see figure 5.16 & 5.17). The difficulty in the situation where these 'umbrellas' (a usual phenomenon, in the case of Abuja) merge with the residential building typology is where vulnerability becomes more concerning.

This thesis postulates that the more complex the sprawl, the more embedded it is in the urban fabric and the more vulnerable a market can be if there is no control (be it formal or informal) on the boundaries or membership of the markets. This postulation is investigated in this chapter to understand the characteristics of vulnerability in Abuja markets.

5.2.2. Interstitial Latency

There is micro-interstitiality and there is macro-interstitiality. If the last sub-theory deals with sprawl within small spaces, interstitial latency here is presented as the large spaces between markets, especially in peri-urbanity. The urbanism of Abuja already has been extensively explained with the spatial taxonomy that shows how the FCC is the only planned region, constituting 8% of the FCT. As one proceeds southward in the FCT, settlements become less and less close together and the existence of only one single primary road makes transportation between these spaces difficult. Since transportation between these spaces (and also between them as a region) and the FCC is of low quality and in most cases non-existent, vulnerability is argued to exist in two main ways.

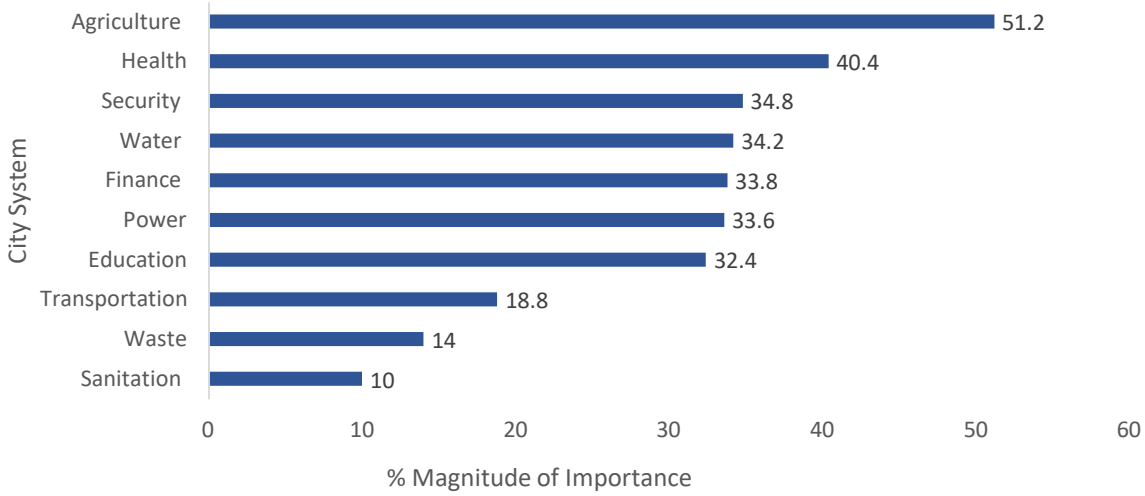


Figure 5.1: Most important city systems to the people of Maiduguri City. (Source: author's own)

Firstly: within the markets as their primary trade is threatened. Secondly: in-between the markets as the spaces are deserted and lack transport latency that the meagre transportation that takes place may not even be safe, especially if the region is impacted by various agencies of conflict and violence. Thus, killing off growth-driving trade i.e. trade with the city center. Cases of this have been seen in Maiduguri and Borno at large, where the transportation of products from farms to market is being cut-off by agents of terror (Awodola & Oboshi, 2015; Alao, 2022, p. 197). This does not only affect food availability, but also trade in the market. Perhaps the most significant evidence to this

interstitial latency is the poor system of food caused by breaches of food-flow by conflict and violence agency in Maiduguri. This contributes to the hierarchicalisation of the system of agriculture markets and food as the most important system in the city of Maiduguri by the opinions of people. A recent study I led is the largest spatial qualitative study in the history of the northeastern city of Maiduguri still shows that agriculture is the most important urban system to the people in terms of practice and need. 5110 people (37% female; 63% male) across every neighbourhood in the city were physically interviewed in durations that range from 14 - 37 minutes. Among other questions, the respondents were asked to explain the top three urban systems most important to their daily life in the city of Maiduguri. 51.2% of them described agriculture in their top 3 selection (see figure 5.1). This is rather unexpected because Maiduguri is not a 'rural' city, it has most contemporary facilities of the cities of today, including a corporate district and very elaborate government parastatals. However, this significant finding is not seen as a deviation from the experience of other cities in north-eastern Nigeria. What makes Maiduguri peculiar is that it is the epicentre of conflict and violence in Nigeria and one of the primary hotspots of terror in not just Africa but the whole world.

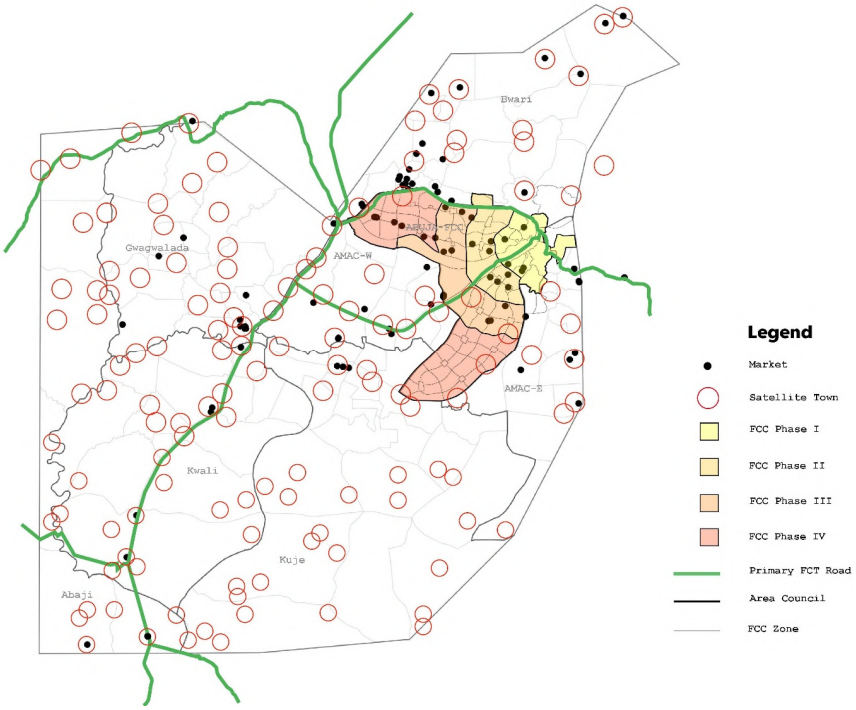


Figure 5.2: Interstitial Latency in the FCT[33]. (Source: author's own)

[33] Please note that diameter of the towns is not to scale but the center of the circles are the locations of the settlements. This survey is taken via GIS and satellite image surveys. AGIS does not have updated records of all the satellite towns in the FCT, therefore this was developed for this study, and it is the most updated. The closest in accuracy to this is developed by JICA (2019, p. 36) and it shows 'spots' of urbanisation by GIS survey which looks for what the Japanese company can identify as formal buildings and not possibly hidden aggregation of huts. They also did not go out for field study in search of new settlements. In addition, their mapping termed most of the settlements as 'illegal'. This makes the coverage of the map questionable.

This is significant evidence to show that Interstitial latency in the context of conflict and markets can have a significant impact on a city in crucial aspects of development. In addition, the 'system' of markets in Abuja is additional evidence of this theory. The macro-spatial structure of markets and how they are mostly set up in the FCC is another strong buttress for interstitial latency in the urbanity of markets. Figure 5.2 shows the locations of 132 satellite towns in the FCT. It can also be noticed that the FCT has only one major road that runs through the territory, there are more or less no formal roads that branch off it and there are even less defined roads within the towns. Figure 5.3 shows the state of the roads even in the FCC in the connection to the larger area as of 2019. The situation has not changed.

As the study has shown in the last chapter, the development of the FCC has merged or displaced most of the towns in the footprint of the 'boomerang.' Even the 5 towns remaining are highly connected to the urban network of the FCC that they cannot be fully appraised as 'towns'. As one ventures from the FCC outwards, the markets per settlement drops significantly by as much as 600%, with the percentage of settlements with access to the main road as low 10 % (see table 5.0). Even though most of the farming in Abuja takes place outside the FCC, some of settlements outside the boomerang do not even have formal markets with footprint worthy of noticeable trade. They only trade with nearby towns. Some of the markets are even too small to be included in the list of the 94 markets in this study.

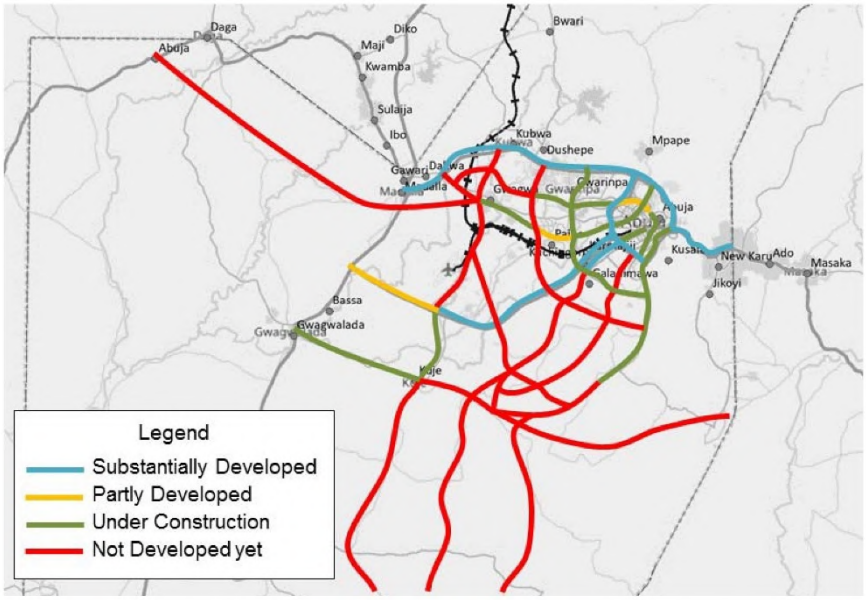


Figure 5.3: Progress of road development in Abuja (JICA, 2019)

The markets in these far away settlements cannot grow because of the complexity of transportation in-between them. But they exist and continue to thrive at a somewhat plateau trajectory. This recalls Hodder's theory (1965b) of market creation in West Africa only being possible by trade from faraway lands that are most likely western. This further shows that his theory is both an exaggeration and an argument based on the saviour-complex narrative of western spaces during the imperialist times in SSA.

Table 5.0: FCT satellite towns: spatial access to markets & FCC (Source: author's own)

Area Council	*Satellite towns*	Markets (n)	*Market per Towns*	*Towns with road access**	*% Towns with access*	*% Land*
Abaji	19	2	0.11	3	15.79	11.9
Abuja FCC	5	31	6.20	5	100.00	7.9
AMAC East	7	9	1.29	2	28.57	5.9
AMAC West	8	8	1.00	6	75.00	6
Bwari	16	25	1.56	2	12.50	13.1
Gwagwalada	21	11	0.52	8	38.10	13.4
Kuje	30	3	0.10	3	10.00	24.5
Kwali	26	5	0.19	12	46.15	17.2
FCT $\sum$	132	94	0.70	32	24.24	100

*Main road access cutting across the FCC either directly or by immediate contiguity to a town with access.

The markets in these settlements find it hard to grow because there is no transportation which catalyses trade among them (in the peri-urban) and between them and the FCC. Therefore, it can be seen in two examples of major African urban regions that macro trade is difficult to exist or dies in macro interstitial spaces of markets if transportation is absent or weak.

5.3. Abuja: Spatial Aberrations and Mutations

Before I proceed with the analysis of vulnerability in the markets of Abuja. It is imperative for us to appraise the accuracy and spatial integrity of the current planning processes in Abuja city and its four-phase masterplan. The Abuja masterplan is majorly reviewed every 20 years[34]. However, a complex number of changes occur in the Abuja built environment. In addition to the observations of spatial aberrations in Abuja in the next section, studies have shown that masterplans are usually very difficult to adhere to, especially in developing countries and in Africa (Murray, 2016). The case of Nigeria is no exception. The masterplan in Abuja undergoes series of updates like every other urban setting, physical components like houses and roads get added and subtracted every time. These are not aberrations as they are well within the trajectory of a chosen master plan. However, in the case of Abuja, the fact that the city is the national confluence of power and corruption is a major factor in Nigerian governance, raises concern. It is not surprising to realise that corruption has spread into the masterplan system of Abuja. If we recall early in this thesis, it has been shown as part of the forces at play when the city was being formed. Corruption in the land economy of the city is not absent (Abubakar, 2014). It has been noticed that people in positions of power use their influence to change land use within the master plan. Interviews of 8 middle and 4 senior staff at the FCDA show this. The director of lands at Abuja Geographical Information Systems (AGIS) moves around with heavy security personnel of

[34] Interview with Hajiya Zaliha'u Ahmed FNITP MNIA, Director of planning FCDA; 10-01-2020. Smaller reviews occur in every 5 and 10 years.

military level. He oversees allocating land for public use, he is also a major part of the discussions for land use change. An interview with him revealed that his life has been threatened many times by people who want to force his hand to their corporate or political will. Observations of the Lands Office and a large part of AGIS for 2 weeks corroborates the experiences of the respondents. All of the respondents directly or indirectly implied that some orders "come from above" in the shaping of some of the city goals. The orders somehow vary in their scope of mutation. While there may be narratives that show how difficult it has been to stick to the masterplan, the FCDA through certain ministers of the FCT have rigorously fought back to enforce proper land use especially for the middle and lower classes who do not have the powers to override orders [35]. In the case of this study two main aberrations in the phase 1-4 plan is highlighted: Land use change and overlaps of FCC cadastral zones.

5.3.1. Land Use Change

During this study many trips were made to AGIS as well as the FCDA to inquire not only about the masterplan but about the evolution of it. The misuse and deviations from the masterplan in terms of land use has been so severe that in 2021 the FCT executive committee (EXCO) decided to set up FCT regional development offices that in their words, will:

> "Monitor and safeguard the sanctity of the Abuja Master Plan and ensure sanity in the development of the satellite towns in the Federal Capital Territory" (Hazat, 2022) [36].

The policy pushing this development however is focused on inequality as it seems to focus on the control of low-income urban development than the deviations happening in high income zones. The statement of the policy reads:

> "The Planning Regulation will be enforced to prevent the springing up of squatter settlements, because the Area Councils and Satellite Towns are all integral parts of the Federal Capital Territory and must be developed in consonance with the Master Plan of Abuja"[37].

[35] Especially during the military era when military dictators recalibrated land-use plans at whim. The initial rework of General Babangida to fortify the center leading to the presidential villa by citing about 5 major the barracks there, is the first act in how the miliary successively changed land use over time.

[36] Online news: https://prnigeria.com/2022/09/26/fct-creates-regional/

[37] ibid



Plate 5.1: Land Use Plans: FCC and Phase 1 Detailed (L-R) (AGIS, 2020)[38]

For this reason, the current masterplan (see Plate 5.1) of the city is always kept secret and there is so much reluctance to make it public as it will raise so many questions on the trajectory of land use enforcement in the city. After thorough proof that this study is purely academic, the master plan was released, but only for the central area of the FCC zone. There are many discrepancies in what is on the masterplan and what obtains on ground, however two peculiar instances are cited, one of which is primarily related to this study. As seen in two main examples: the land use mismatch for Wuse market, one of the markets primarily studied in this thesis, and the overlap of certain zones into others.

[38] The map for the center of the 'boomerang' was the portion released. The larger area of the boomerang given had outlines of physical development but no land use plan indications. Land use at the FCT is a carefully guarded secret. The map appears as a plate and not a figure. This is because no soft copies were released for this study, only a paper copy and a permission to take a photograph of the maps. The map on the right is older.



Plate 5.2: FCC & Phase 1 Detailed (R-L): Land Change (AGIS, 2020)[39]

Firstly, as seen in figure 5.4, a quick glance shows that the red areas are designated as use for education. It can surprisingly be seen that Wuse market one of the primary sites in this study sits on one of the sites designated for education. It can also be seen in plate 5.2 that part of the area designated for education (red) has been cut out for industrial use. The zones C10 and C17 (in red on the left side of plate 5.2) are both shown as allocated for education, however another conflicting map shows C17 allocated as an industrial area. Upon visits to the map making offices, it was noticed that there was no coherence among the documents and the maps they called 'most up to date" had discrepancies with what was ground. Wuse market is under the Abuja Market Management (AMM) so it can be deduced that the drastic deviation from the masterplan concerning the citing of the market came from within the government itself.

[39] Culled from previously shown larger maps. Map on the left is older.



Figure 5.4: Land Use discrepancy for Wuse market, Abuja. (Source: author's own)

5.3.2. Overlaps of the FCC Cadastral Zones

There are in addition to the land use inaccuracies, another spatial aberration. Very surreptitious and easy to miss is the way some of the FCC zones overlap or extended into other zones of contiguity. This spatially shows how some high-income zones are growing faster than other areas and therefore extending into nearby hitherto medium-low-income zones. Figures 5.5 and 5.6 show the locations of these aberrations and details of the deviation from the FCC cadastral zone plans.

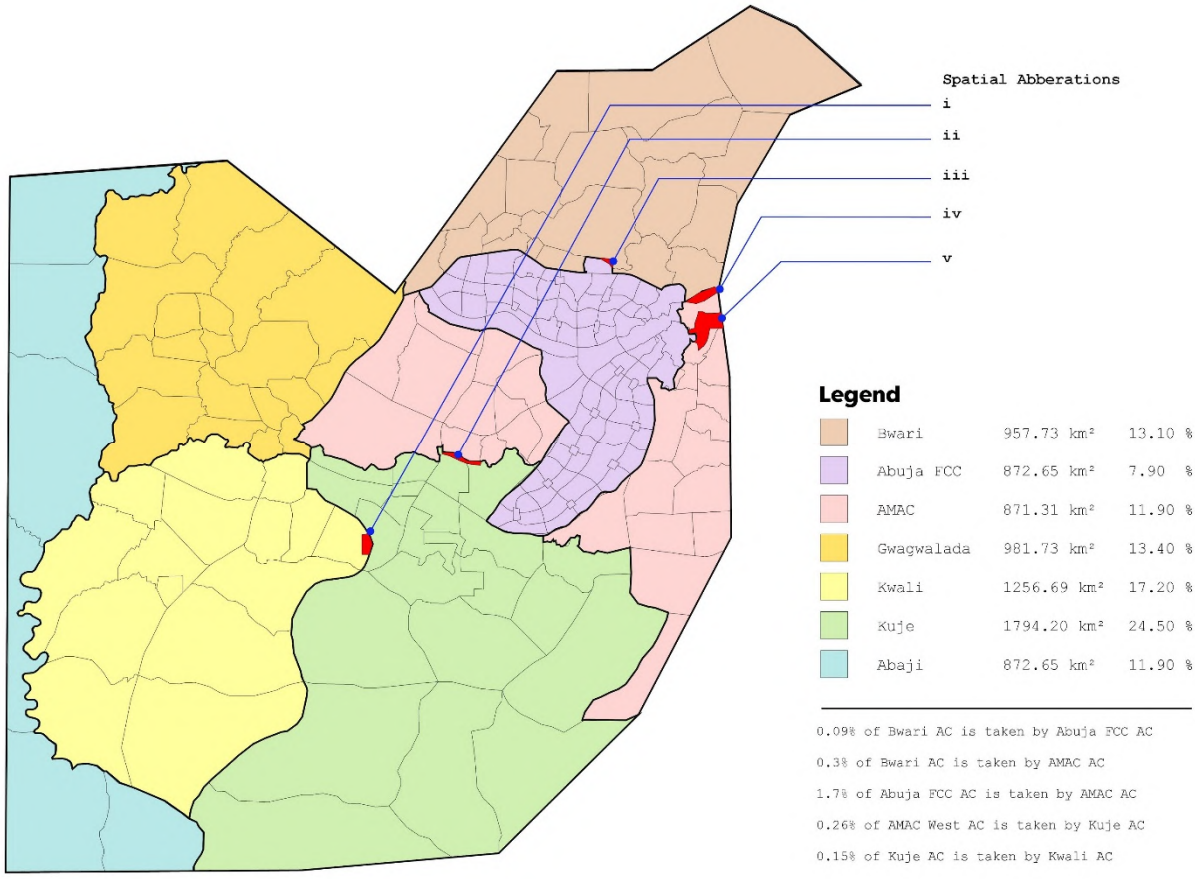


Figure 5.5: Discrepancies of FCC cadastral zones in the FCT plan (Source: author's own)

These aberrations are chosen because they serve as a holistic outlook of the accuracy of the masterplan as both instances paint a picture of the possible ubiquity of land use inaccuracy as well as uncontrolled regional development (current and projected) in the FCT. From these two main instances put forward, it can be seen how major discrepancies exist in the masterplan. It is noticed that land use can change at any time irrespective of the masterplan and this is not peculiar to the peri-urban areas of the FCT as the government may imply. The aberrations happen and are in fact more pronounced in the city. This needs to be kept in mind as the study progresses because it is crucial to understand the spatial context in which Abuja's system of markets operate and how this feeds not only into the vulnerability of markets but the city as a whole especially in the wake of the wave of attacks that Abuja is experiencing. This brings us to the state of Abuja in terms of conflict and violence spilling from northern Nigeria.

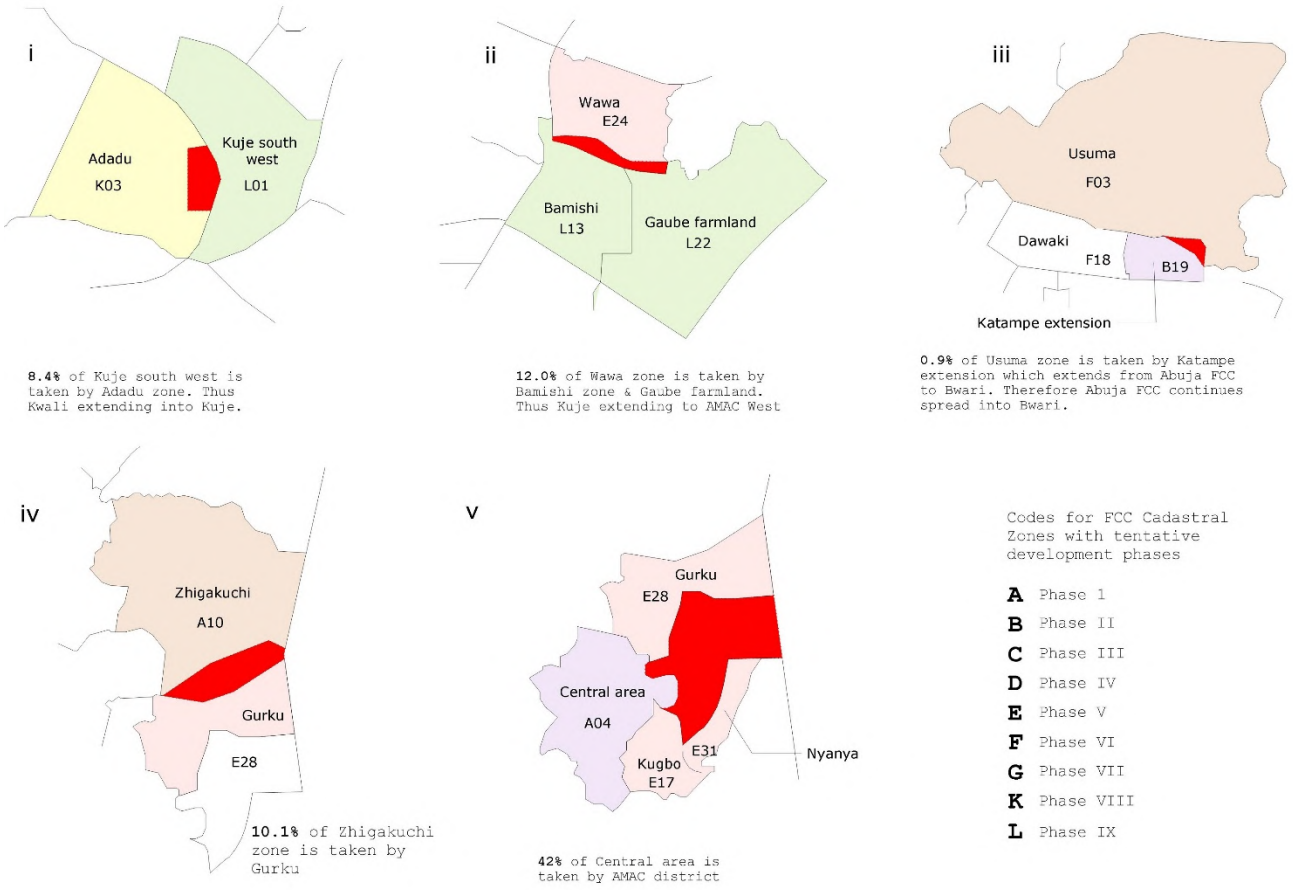


Figure 5.6: Detail planning aberration in FCC Zones: 5 instances (Source: author's own)

5.4. Conflict in Abuja: A Socio-Spatial Analysis

Since Abuja's formal inception, it has been heralded as one of the most secure cities in Africa. A city with more military outposts than any other city in the country, a city where all the headquarters of all military or para-military force reside. The city basically crawls with agency of these forces. But despite all this, how safe is Abuja? What can be said about its strength and vulnerability especially in relation to the extreme violence and terror going on in northern Nigeria? This unavoidably needs to be engaged to understand not only how vulnerable Abuja is but the systems within it, markets being one of them. To do this, a spatiotemporal analysis is carried out by chronicling the violent attacks on and in Abuja. This is very tricky because news of attacks has to be checked properly as they sometimes come out inaccurate and they suffer being instrumentalised by the warring political tensions in the country. Therefore, techniques like web scraping could not be trusted independently as some times, false news were put out to sway public appeal at the expense of causing mass hysteria. With this in mind, the attacks were chronicled based on multiple news media (print and online) and studied to check for veracity and presence of violence and the spatiality of the occurrence. There were also on-ground confirmations with entries that were unclear. All the publicly known violent attacks (linked to agency emanating from the north) in and on Abuja that occurred between 2010 and December 2022 were

compiled. 375 independent attacks where recorded (see table 5.1). For a city that prides itself in security, 375 is a high number.

Table 5.1: Violent conflict in Abuja by casualties: 2010-2022 (Source: author's own)

Year	Attacks	Fatalities	Wounded	Abducted	Detained
2010	4	16	43	0	0
2011	5	57	88	0	0
2012	13	6	11	0	5
2013	3	17	0	11	18
2014	10	159	114	147	4
2015	10	21	40	1	17
2016	14	6	1	22	10
2017	24	13	6	2	219
2018	30	30	27	0	380
2019	39	62	20	21	220
2020	33	52	13	65	138
2021	87	162	15	78	129
2022	103	85	22	506	798
∑	375	686	400	853	1938

Table 5.1 & 5.2 paints a quantitative picture of the waves of attacks each year. It can be seen how it changes gear into new levels of danger from 2017. Table 5.2 shows that the city has suffered an average of 29 attacks annually over the last 13 years, with about 66 and 149 abductions and detentions respectively. The abnormally high deviations from the mean (even higher than the mean values) show how high the casualties got as the years went by. In the past year alone, abductions in Abuja spiked by 649%, detention of agents related to extreme violence and terror went up 619%. However, fatalities dropped and only by 52.5%. This may well be the answer to the questions posed. But a spatialisation of the data over its 13-year narrative shows more.

Table 5.2: Summary violent conflict in Abuja by casualties: 2010-2022(Source: author's own)

2010-2022	Attacks	Fatalities	Wounded	Abducted	Detained
Mean	28.85	52.77	30.77	65.62	149.08
Median	14	30	20	11	18
Modal	10	6	0	0	0
Std. Deviation	31.7	53.6	34.21	139.35	228.23
Minimum	3	6	0	0	0
Maximum	103	162	114	506	798
Years	13	13	13	13	13

As seen in figure 5.7-5.10, the attacks have only gotten worse across the FCT from 2010 to 2022. The linear trend lines across all area councils in the graphs suggest this (see the dotted lines across the graphs). This poses a lot of concern for the security policies of the city as well as that of the country. In an interview with high-ranking security officials of the FCT, it was generally put forward that "it could have been worse"[40]. A quick glance at the timeline graphs as well as the geo-location maps show that most of the incidents where concentrated in the FCC.

[40] respondents requested anonymity.

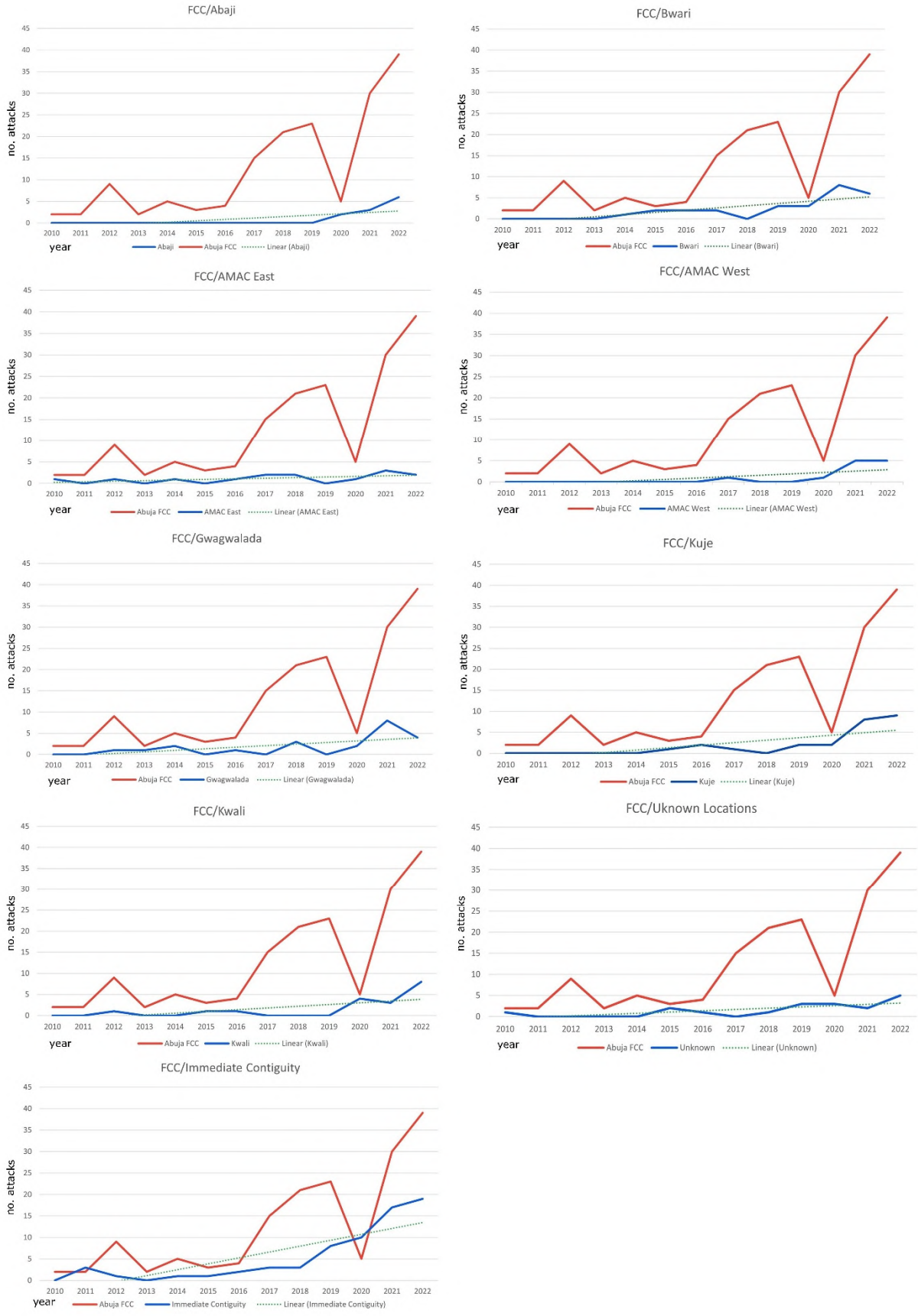


Figure 5.7: Violent conflict in Abuja: 2010-2022 (Source: author's own)

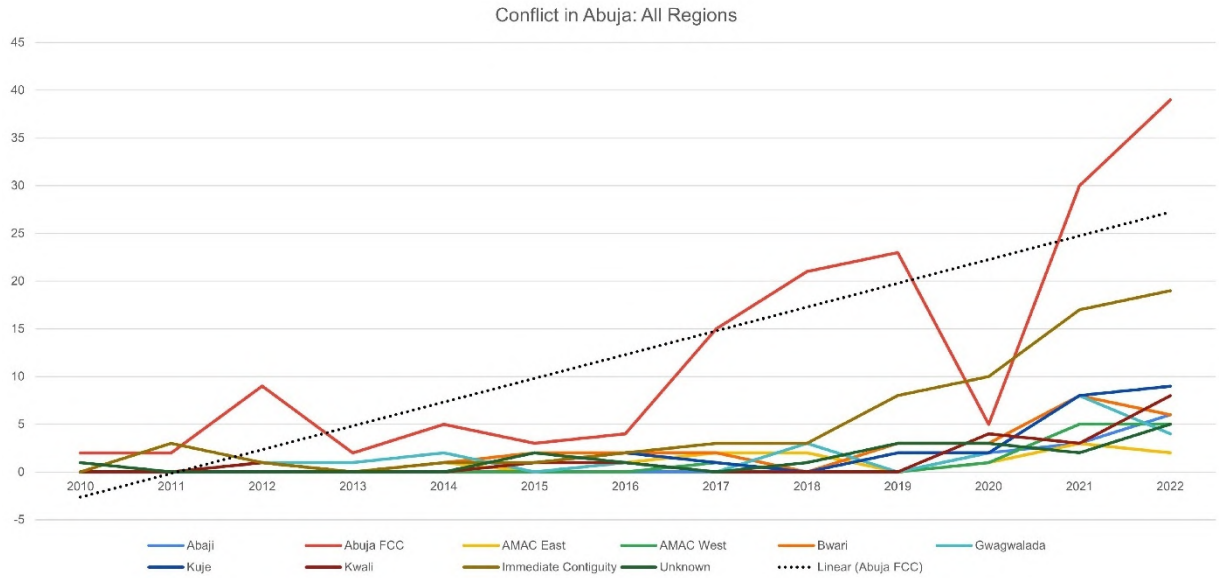


Figure 5.8: Violent conflict in Abuja: 2010-2022: Regions Combined (Source: author's own)

This is consistent with observed intentions of some insurgents or extremists to focus on spaces of power, diversity, and dense population to maximize terror (Alao, 2022, p. 147, 199). They however change intensity of focus as their plans or (and) opportunities dictate, more recently they have focused on law enforcement agencies as well as prisons (IEP 2022, p. 27). This can also be deduced in the line graphs and the geo-location maps as most attacks are focused on the center. To juxtapose the intensity of attacks, the conflict narrative of Abuja FCC is plotted on each of the Area councils to seek spatiotemporal relationships.

It can immediately be noticed that the pandemic year had a huge impact on the spatiality of violent attacks in Abuja. While the incidents and attacks dropped in the FCC 2020, it spiked in all other area councils except in Kuje and Bwari where it did not drop but held steady (see figures 5.7 & 5.8). This might imply that during the lockdown, the FCC was very secure.

My observations during the whole lockdown period coupled with conversations with police personnel confirm the significant increase in the level of security in the city. At this point, it is actually very important to point out that the security was mainly to maintain order and enforce COVID-19 related policy and not for the protection of the people. In other words, the security was largely focused on the center and the peri urban area was not a space of concern.

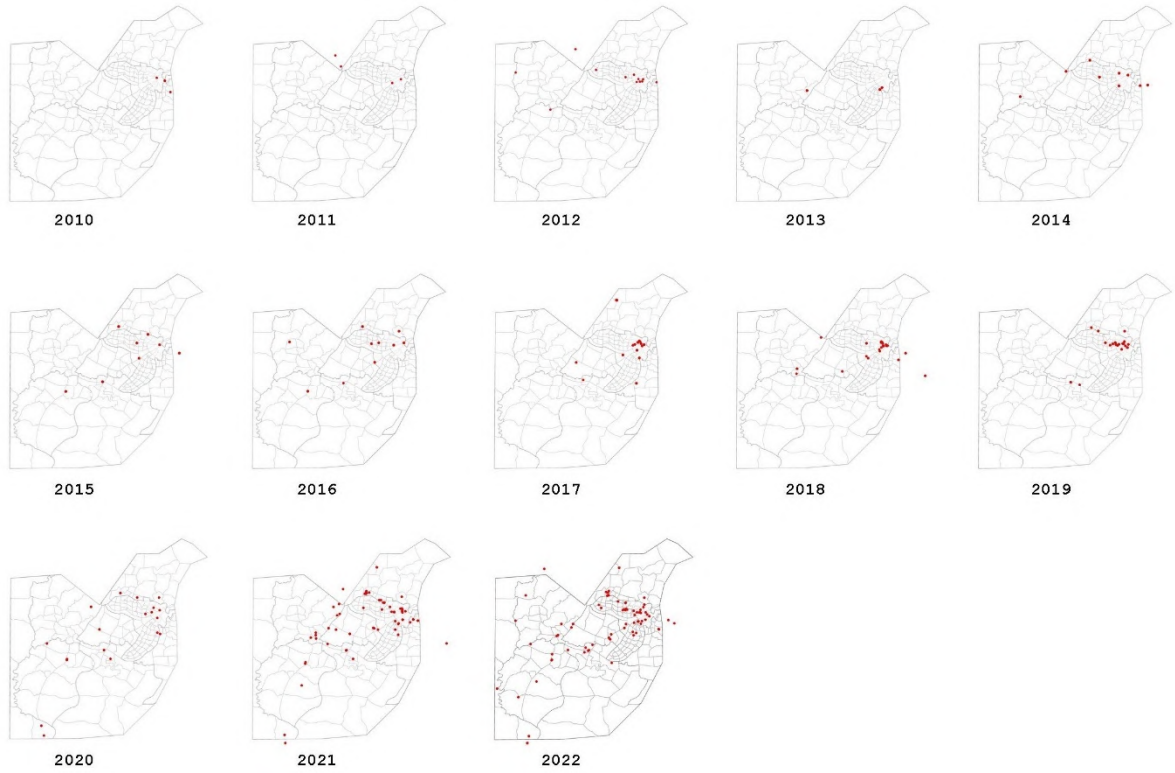


Figure 5.9: Violent conflict in Abuja; 2010-2022: Geo-locations (Source: author's own)

It is hard to tell if the attacks were diverted away from the city center due to the lockdown. But studies of the conflict dynamics in northern Nigeria as well as its agencies show that there is a strong possibility that attacks were diverted or reduced as there would be very low casualties in public spaces (due to the lockdown) which is an aim of many terror attacks in Nigeria. Public spaces were still occupied in peri-urban Nigeria and law enforcement was not intensive outside the FCC.

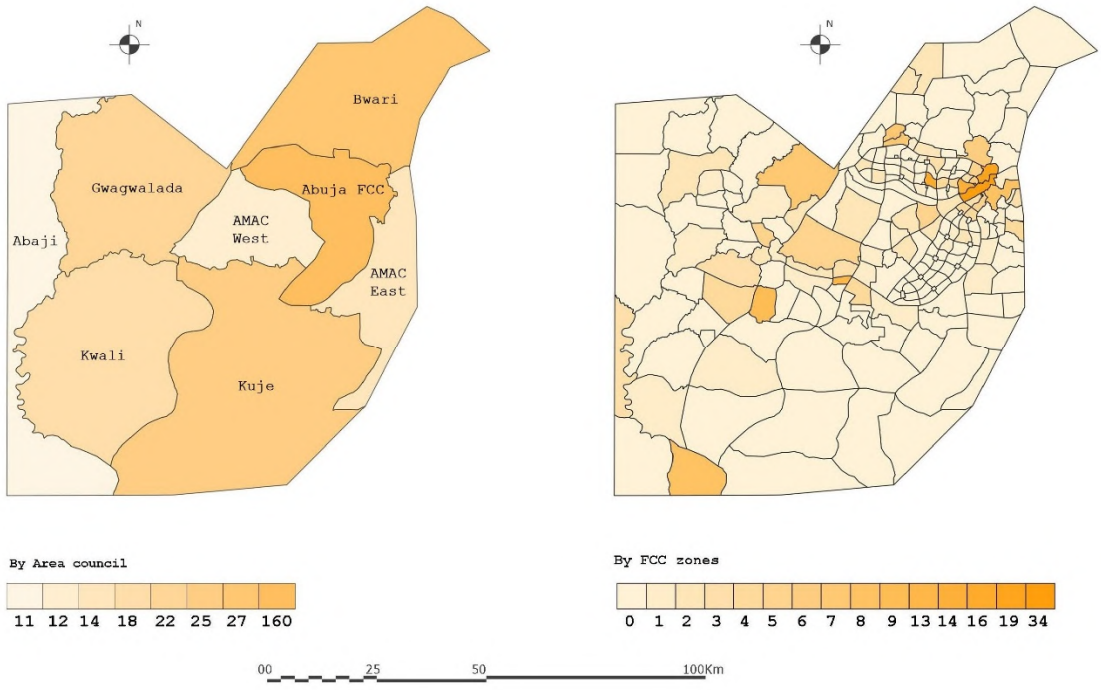


Figure 5.10: Violent conflict in Abuja; 2010-2022: Gradient map (Source: author's own)

There is therefore a strong argument that this spatial asymmetry of human density in public space probably reduced the failure-risk of the attackers outside the FCC. Due to the low surveillance of the other area councils, it is very difficult to monitor or record attacks as the spaces are too far flung for most incidents to make the news. This is so, especially, for low profile attacks like kidnaping cases. In the course of this study, a public survey (n=256) was conducted in the public domain of Abuja part of which showed that at least 40% of kidnappings did not make the news. In summary, it can be seen that Abuja has demonstrated significant vulnerability to violent attacks between 2010 and 2022 and it has consistently gotten worse with a spatial bias for the FCC due to its locations of representations of power but also the density of humans in its public buildings and open spaces.

5.5. Conflict, Violence and Vulnerability in the contiguities of Abuja

It is difficult to look at conflict in Abuja without the larger forces at play. In terms of vulnerability, while the violent conflict in Abuja is generated from the northeast (i.e. Borno and environs), it is important to understand how Abuja fares within its immediate geographical context. Abuja has 4 immediate contiguities (see figure 5.11), Kaduna in the north, Nasarawa in the east, Niger in the west and Kogi in the south. In this context, it will be very important to see if there are spatial relationships between the case of Abuja and what is going on in other spaces. Figure 5.11 is a geospatial layout of violent conflict across 3 of the 4 sates (excluding Kogi) over varying periods. The data is not homogenous in terms of temporality, but close inspection already shows that Kaduna is the most unstable state with the highest conflict-per-year average. With a mean of 134 conflicts per year, it is the most attacked compared to 29 conflicts per year for Abuja, 16 for Nasarawa and 18 for Niger. Though an average 'score' may seem to level out the juxtaposition, the temporality of the conflicts must be taken into more serious consideration. Data takes a different form once it is revealed that violent conflict only full spread to Niger state in the fourth quarter of 2021 when Boko Haram officially hoisted their flag in the region, thereby including it in their spaces of contestation (Reuters, 2021). This shows a drastic increase of causative agencies of conflict around the city of Abuja. it can be observed that conflict incidents have increased noticeably since the lull of the pandemic year. Southern Kaduna being the most attacked sub-region has spilled conflict into Abuja and Nasarawa. Roads are the major spread-tissue of conflict spread from Kaduna to Abuja. The Kaduna-Abuja expressway has become the most dangerous transport node in Nigeria (Dangana, 2021) and definitely in West Africa. The most recent notable attack was the interception of a train carrying 960 passengers on the 28th of March 2022. 8 were killed and over 400 were abducted.[41] There have been numerous attacks since this episode in which many have been killed. Apart from the fact that agencies of terror use the road to enter Abuja, the infrastructure itself has been taken over by insurgents. Dangana (2021) studies a 123km-section which

[41] The last of the victims were released on the 19th of August 2022.

starts just at the edge of Bwari (Abuja) and extends to Kaduna. 10km on either side of the road is majorly dense vegetation. The 10km setback on each side of the 123km road has a total of 43.97% tree cover, 15.46% of grassland, 34.17% and farmland, only 6.17% is built up (Dangana, 2021, pp. 56-57).

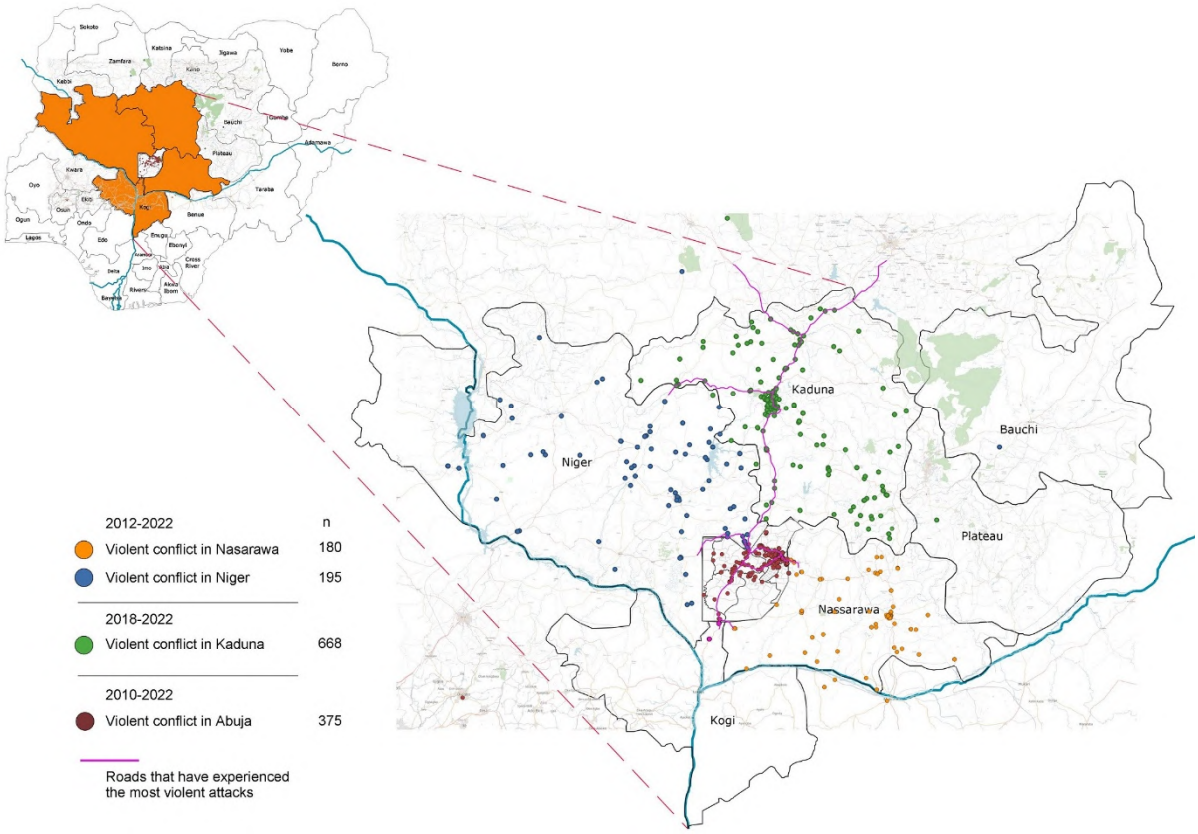


Figure 5.11: Violence in Abuja's contiguities: 2010-2021(Source: author's own)

With about half of the land around the road covered by trees, it is easy for quick-grab operations. Dagana's study shows that there are 6 police stations along the road in comparison with at least 23 hotspots where kidnappings and killings occur regularly (Dangana, 2021, p. 53,56). The hotspots are localised more in the areas of tree-cover. This makes danger more to the side of Kaduna than Bwari as the latter region has more built-up area. However, the hotspots are spreading down south to Abuja. Conflict from Niger on the other hand, is more clandestine in spread but one can observe that it is spreading down south (see figure 5.11). In essence, conflict in Kaduna is spreading into Abuja and Nasarawa. Niger is spreading into Abuja, in October 2021, the Boko Haram group announced their 'formal' presence in the state in peri-urban forests that border Abuja. Nasarawa is already forming a linear trend towards AMAC-East in Abuja (see figure 5.11). Abuja is therefore vulnerable via its contiguities, and the vulnerability has demonstrated drastic severity over the past 2 years.

5.5.1. Markets of Abuja, Markets of Maiduguri

In order to understand the danger Abuja and its markets are in, it is helpful to juxtapose certain dynamics with the national epicentre of conflict and violence. Without a doubt, the first unifying character about markets in Abuja and Maiduguri is the fact that they are both in northern Nigeria. Apart from this, there are dynamic differences and overlaps. At a city-wide scale, the comparison of vulnerability is extremely asymmetrical as vulnerable as Abuja might seem. Before I go forward, an introduction to Maiduguri and Borno is needed. Founded on the 3rd of February 1976, Borno state is a state in the North-East geopolitical zone of Nigeria. Its contiguities include Yobe on the west, Gombe on the southwest, and Adamawa to the south. It is the only state in Nigeria that borders three countries. It does this on the east with Cameroon and Chad and in the north with Niger. Though Borno is the second largest city in Nigeria (after Niger state) with a size of 70,898 km^2 and a population of about 5.9 million people, Maiduguri is only 105.5 km^2 with an estimated population of 845,000. This makes Maiduguri 0.15% of Borno's land mass and 14.32% of its population. So, how dangerous, or vulnerable is Maiduguri and at wide, Borno? This is a rather pessimistic question. Based on the theory of interstitial that looks at interstitial latency, it can first be observed that the only city in Borno is Maiduguri which is physically a tiny concentration of urbanism in the state. It has non-urban space made up of 85.68% of the people across 99.85% of the land mass. The spaces between villages and other settlements expand drastically as one moves away from Maiduguri. These spaces border and merge into its contiguity. Since 2009, Borno has largely been the epicentre of terror in Africa (UNDP 2020). As of 2020, 34,457 deaths had occurred in Adamawa, Borno, and Yobe states, with Borno having the primary share. Over 1.5 million people have been displacing in Borno due to conflict (Hanna et al., 2020, p. 22). Between 2013 and 2015 alone over 12,000 people have been killed in Borno (IEP, 2017, p. 24). In 2017, 62% of all deaths in Nigeria came from Borno alone (IEP, 2018, p. 21). The position of Maiduguri has catalysed the spread of terror to Chad, Cameron, Niger and by extension to parts of Mali. Nationally, as of 2022, conflict in Borno had spread to all regions of Nigeria. This is why it is important to discuss Borno as a spatial connection to Abuja. Almost all the attacks in the contiguities of Abuja and in Abuja as well, come from the terror groups that started and spread from Borno.

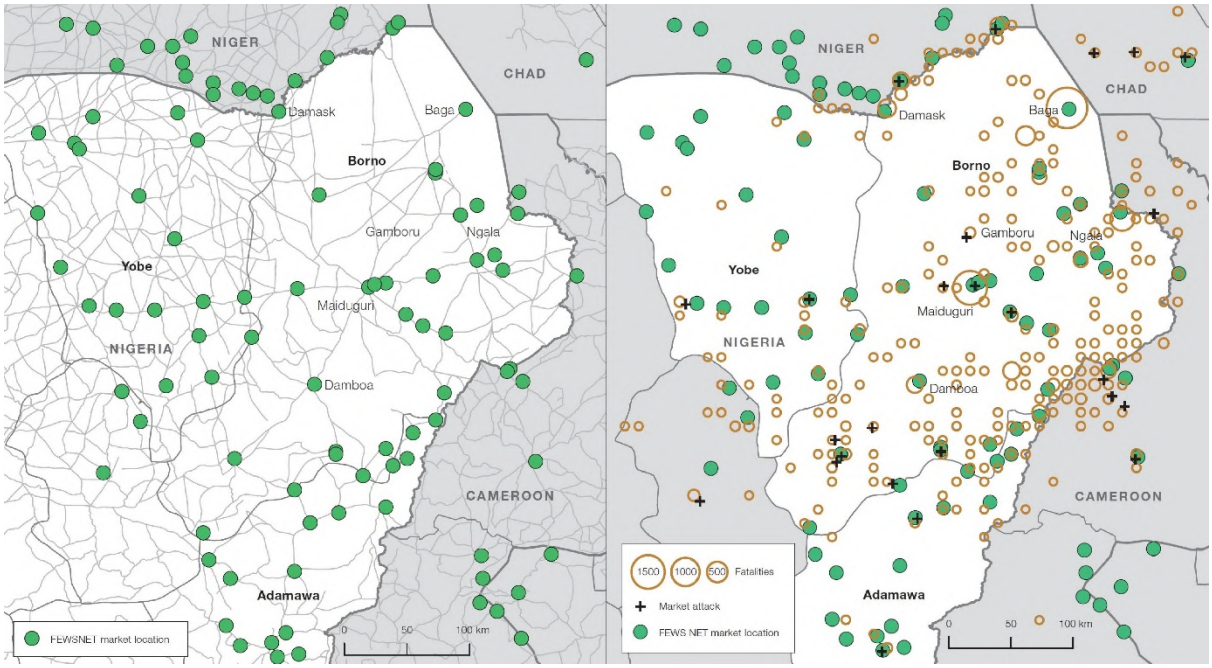


Figure 5.12: Attacks on markets in Borno 12-2014 to 11-2016. (Van Den Hoek, 2017)

Markets in Maiduguri and indeed Borno, have suffered significantly from terror activities in the state. Attacks on markets and farms have disrupted trade of food produce to nearby countries and southwards to other Nigerian states including Abuja (Van Den Hoek, 2017). Thousands of casualties that have extended the border of the country (see figure 5.12). Van Den Hoek (2017, pp. 11-14) shows that not only do terror attacks affect market growth, size, and agricultural production, but the timing of the attacks also correlates with harvest periods around Borno. This helps terror groups gather food and mutate the value chain of food production to their advantage. Leading 32 field researchers, I conducted a wide spatial study in Maiduguri in which 5110 people spatially distributed across all the neighbourhoods in the city were physically interviewed between durations of 14 minutes and 37 minutes per conversation. [42] A number of similarities and divergences are noticed in the perceptions of safety and the government efficiency.

Table 5.3: Perception of safety and Governance in Maiduguri. (Source: author's own)

	SP: Schools	SP: Markets	Gov: Agric	Gov: Transport	Gov: Law and Order
Mean	3.59	3.48	2.26	2.81	3.18
Median	4	3	2	3	3
Modal	4	3	2	2	3
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5
Skew	-0.4	-0.21	0.32	0.2	-0.23
Respondents	5,068	5,057	5,066	5,068	5,054
Mean ± Std.	3.59 ± 1.1	3.48 ± 1.06	2.26 ± 0.97	2.81 ± 1.11	3.18 ± 1.05

SP=Perception of Safety; **Gov**= Government efficiency

[42] Respondents were selected across all the neighbourhoods in the city. Human density was a determinant of how many people were interviewed in each neighbourhood. Attention was also paid to gender representation as interviews were conducted according to the spatial proportion of gender in all the spaces. This was determined by reconnaissance feedback. This spatial approach was also used for NM and WM cases.

This study corroborates Van Den Hoek's study (2017) as appraisals of government efficiency in handling transportation and agriculture in Maiduguri is much lower than even the perception of safety of markets on an equal scale (see table 5.3). Though, some of the largest kidnapping operations have occurred in schools of Borno, the people still think schools are safter spaces than markets (table 5.3).[43]

Table 5.4: Perception of safety (SP) in Maiduguri markets by gender. (Source: author's own)

SP: Markets	Gender	
	Male	Female
Mean	3.47	3.49
Median	3	4
Modal	3	3
Minimum	1	1
Maximum	5	5
Skew	-0.16	-0.29
Respondents	3,166	1,891
Mean ± Std.	3.47 ± 1.07	3.49 ± 1.06
SP=Perception of Safety		

From the analysis of the impact of insecurity on personal notions of vulnerability, it is noticed in Maiduguri that gender is also not a determinant of vulnerability as men and women feel very identical levels of vulnerability (see table 5.4) just like in Nayanya Market (NM) and Wuse Market (WM) as is later shown in this study. Since this is also true for the most vulnerable urbanity in Nigeria (and west Africa), a (gender-based) argument of this as a northern phenomenon may begin to emerge. Perceptions of vulnerability is also identical across job classification as the informal and formal workers as well as the students have identical levels of vulnerability (table 5.5).

Table 5.5: Perception of safety (SP) in Maiduguri by job typology. (Source: author's own)

SP: Markets	Job Classification		
	Informal	Formal	Student
Mean	3.46	3.5	3.46
Median	3	3	3
Modal	3	3	3
Minimum	1	1	1
Maximum	5	5	5
Skew	-0.21	-0.24	-0.07
Respondents	3,033	1,127	473
Mean ± Std.	3.46 ± 1.07	3.5 ± 1.03	3.46 ± 1.02
SP=Perception of Safety			

The perception of safety of Markets by the people in Maiduguri—SP (maid), is 3.48. Table 5.6 shows recalibrated SP values of NM and WM from data gathered from 417 and 756 market people in both markets, respectively. It also shows mean SP values of 232 people shopping at WM and 67 people shopping at NM, respectively.[44]

[43] For context: 276 girls were abducted from a high school in Borno in 2014; 20 were abducted in January 2022. Between December 2020 and July 2021, over 1000 students have been abducted in northern Nigeria.

[44] Lower respondents in Nyanya Market are due to the higher informality in the market and the difficulty involved in getting buyers and traders to talk to. The data is however recognised according to the number of respondents. The mixed methods approach allows data from extensive focus groups to cross-interrogate feedback from short interviews. This way, the data from relatively smaller but well spread-out respondents is not used in isolation.

Table 5.6: Perceptions of safety: Abuja and Maiduguri. (Source: author's own)

SP categories	Likert (5-scale)	Respondents (n)
SP (n) Marketers	3.65	417
SP (n) Public	2.98	67
SP (w) Marketers	3.84	756
SP (w) Public	3.80	232
SP (Maid) Public	3.48	5057
SP=Perception of Safety		

It is observed that the public feel more vulnerable than the traders across all three regions studied. The public in NM are the most scared. They feel even more vulnerable than the people of Maiduguri. Focus group discussions of the public and the traders point to the bomb blast occurrence of 14th April 2014 in Nyanya as a driver that has created lasting fear even 6 to 7 years after. However, in Maiduguri attacks have been so much (see figure 5.12) that trauma from terror is now an everyday experience and therefore normal. A 33-year-old male participant in one of the focus groups in Maiduguri says:

> "What happens when markets blow up? We were all terrified when they first started happening. Nowadays, people do not even care. They carry the dead away and in a few hours the market may even resume, and people keep on living their lives. We have accepted it. We fight it when we can, the government fights it, but people have accepted the fact that it can happen at any time…to anyone".[45]

Degeneration to this level of 'terror as norm' is not yet found in the markets of Abuja, though the findings imply that NM may be on this path if attacks continue. To buttress this; a study of 299 people shopping at both NM and WM were painstakingly interviewed [46] [47]. Rather dramatic feedback shows that both sets of buyers in NM and WM somewhat agree that NM is the least safe market they know in Abuja and WM is the safest they know (see table 5.7). This is understandable as not many people visit MFM due to its location and small size. Even though this study makes a week argument as it is not extensive and over varying periods. The perception and reputation of NM is unmistakable. This is because in NM, the public is currently exhibiting the initial fear that the people of Maiduguri speak of the fear that preceded acceptance.

[45] Focus group session on Maiduguri 22-12-2022. See Appendix

[46] Interviewing buyers is far more difficult than talking to the traders, most just want to buy and leave. They are always in a hurry. The questions had to be succinct and quick.

[47] WM:232 (female:62%, male 38%); NM:67 (female:53%, male:47%)

Table 5.7: Buyers' poll of safe and unsafe markets in Abuja. (Source: author's own)

Wuse Market				Nyanya Market			
5 least safe markets	Respondents (%) of 233	5 safest markets	Respondents (%) of 233	5 least safe markets	Respondents (%) of 67	5 safest markets	Respondents (%) of 67
Nyanya	27.16	Wuse	50.43	Nyanya	23.88	Wuse	53.73
Not Sure	*20.26*	Garki	28.02	Maraba	17.91	Garki	22.3%
Wuse	8.19	Not Sure	7.76	Masaka	14.93	Nyanya	10.45
Utako	6.47	Jabi	4.31	*Not Sure*	*11.94*	*Not Sure*	*7.46*
Karimo	6.03	Utako	3.02	Karimo	10.45	Karu	2.99

To gain a deeper spatial understanding of the impact and spatial implications of the findings in the markets of Abuja, contiguities of the area have been studied. Divergencies and connections have also been found in Maiduguri, the prime region of conflict in Nigeria. Abuja is now in fact observed to be even more vulnerable than the analyses of its markets and spaces show, with conflict spilling in from its contiguities and food flows being disrupted from Borno, Adamawa and Yobe. There is even more concern for markets and food as well as the lives of people who not only work in the market but come to shop as well. The study now narrows down to the appraisal of Abuja markets in particular where a closer understanding of vulnerability at the scale of the market and the traders is elaborated and eventually linked to the overall case of Abuja as whole.

6

Spatial Vulnerability in Abuja Markets

This part of the thesis takes a deep dive into the spatiality of markets in Abuja and how they perceive and respond to conflict and violence. From the standpoint of conflict, what is taken account of in this study is the spatial impact of conflict and not the very framework of it. Violence-based conflict is focused on as the macro-agency towards markets and the vulnerability of Abuja markets is appraised in this context. At a general scale, the main 94 markets of the FCT are analysed revealing gaps of vulnerability. Two primary cases are then looked at more closely based on the arguments of justification put forward in the methodology chapter. Vulnerability of (and in) the markets of Wuse and Nyanya markets (WM and NM) are studied spatially. A third control study is done of the Maitama Farmers Market (MFM) as it is a market that seems to have the most spatial components of security relative to its size, excluding markets within high level security spaces like Military barracks. These studies gain higher resolution as they narrow into specific markets where vulnerability at the scale of the traders within their spaces are studied. Through contextual spatial characters and confidence levels of the traders, the nature and spatiality of vulnerability in the markets are appraised.

6.1. Safety of Markets in Abuja: A Macro-Spatial Analysis

Now that the vulnerability of the FCT to conflict and violence is spatiotemporally understood, it is very important to narrow down to markets and see how the spatial typology behaves under the conditions of the territory. Since it is the responsibility of the agencies of force to serve and protect, it is important to study vulnerability spatially through the functional spatial efficiency of the spaces of force as response sources to breaches of security in markets.

Table 6.0: FCT markets and security response spaces (Source: author's own)

Area Council	Markets	Police Station	Military Bases	Other Defence Units	All Spaces	Police per market	Space per Market
Abaji	2	2	-	-	2	1.00	1.00
Abuja FCC	31	54	31	8	93	1.74	3.00
AMAC East	9	10	1	1	12	1.11	1.33
AMAC West	8	10	7	3	20	1.25	2.50
Bwari	25	17	4	3	24	0.68	1.00
Gwagwalada	11	3	1	0	4	0.27	0.36
Kuje	3	2	1	0	3	0.67	1.00
Kwali	5	1	0	0	1	0.20	0.20
*Outside FCT**	-	-	-	-	4	-	
∑	94	99	45	15	163	1.75	1.75

* Spaces of areas in contiguity to Abuja (FCT).

The proximities of these spaces alone also give higher security to spaces in their contiguity and near surrounding. The positions of the markets are mapped and spatially related to stations of the police and other force units that can counter attacks in Abuja. As earlier mentioned, Abuja is the nucleus of such spaces, and they are also highly concentrated in the center. Table 6.0 shows that there are more police stations than the formally identified markets in the FCT. There are also 45 military spaces and 15 other security spaces like the DSS (Department of State for security) and the Civil Defence units. These give some well sounding ratios for some spaces while others are found wanting. Abuja FCC has about 2 police stations per market and 3 total counterattack spaces to a market. Area councils like Kwali and Gwagwalada are not so lucky. But taking this at numerical value can be misleading. A spatial investigation suggests that the police stations, military bases, and other defence units have a spatial bias for the upper northeast end of the FCT, hence, the 'boomerang' region. As previously explained, this was started with General Babangida's addition to the master plan when he fortified Aso Rock villa (the presidential house) with military bases at the surrounding. This notion was kept as planning practice for the next decades. Next to Abuja FCC, AMAC-West also has some concentration of police and other units (see figure 6.0 – 6.3).

A spatial map of the markets with estimated times of arrival (ETA) to the nearest police stations is drawn to see how effective they can be in the need of urgent response. The ETA is measured by averaging the time via driving, across three times of the day: 6AM, 12 noon and 6PM. These are peak times for traffic in most of the FCC. Figure 5.14 shows the unequal distribution of police responses to the markets across the FCT with the city getting lower ETA readings compare to everywhere else as seen in figure 5.15. Markets in Bwari are significantly farther from police response. Abaji which is all the way down south and has lower ETA readings as there are police stations cited in the close proximity to the far away markets. Apart from the asymmetrical ETA readings in juxtaposition of the city and its surrounding space, there are additional factors like the size of the police stations and the magnitude of the response force.

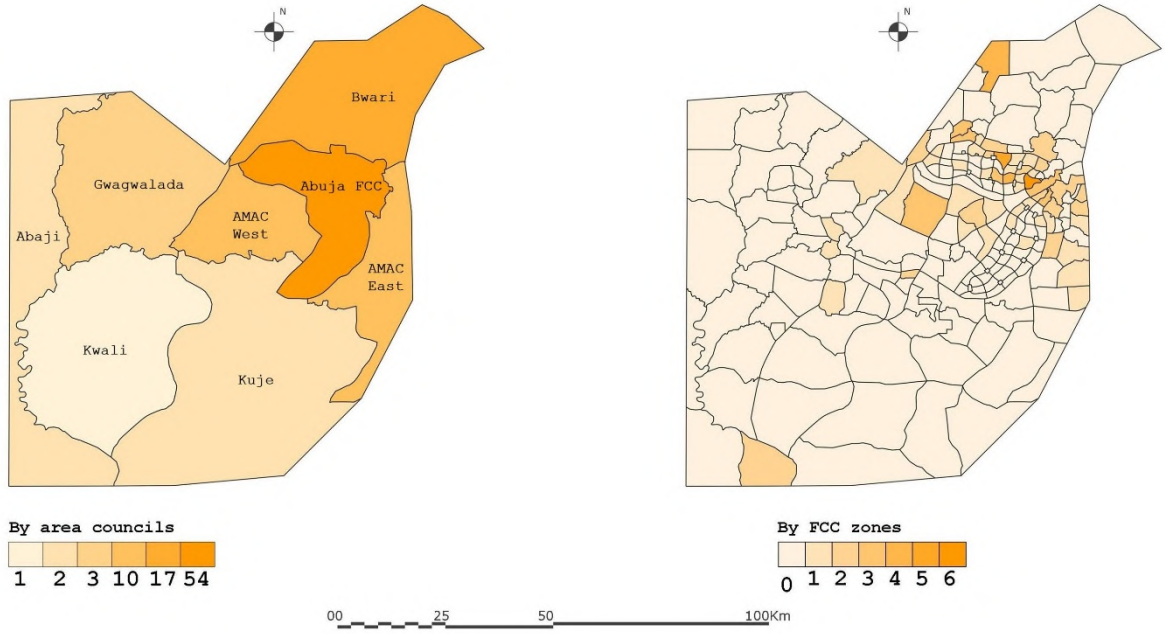


Figure 6.0: Police stations in Abuja: Density map (Source: author's own)

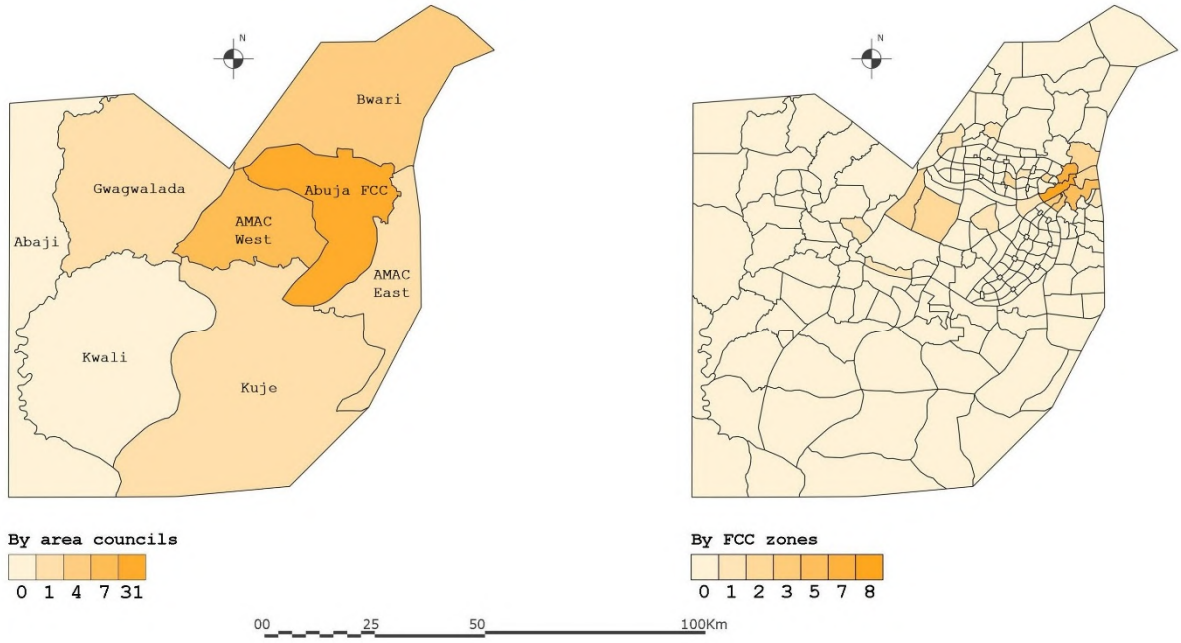


Figure 6.1: Military bases in Abuja: Density map (Source: author's own)

It has been observed that the police stations drop in personnel number, quality of station (and equipment) and general size as one moves away from the center. This is spatial development problem affects the medium security prison cited in Kuje. It would be assumed that Kuje would be an outlier with a concentration of police due to the prison facility but figures 5.11-5.15 show that this is not so. The ETA deficiency of Kuje can also be seen in figure 5.15. This spatial development problem eventually came to light when on the 5th of July 2022, Kuje prison was attacked. About 1000 of its

inmates were freed with only 458 recaptured (Khalid and Davies, 2022). Some of the most dangerous terror suspects on the continent where freed on that day. Issues around keeping such individuals in a medium security facility is explained in the next chapter. It was reported that the high ETA of counter-terror backup worsened the outcome of the attack as the nearest police stations with the commensurate firepower were all in the FCC. The fall of a medium security prison is one of the many prison breaks between 2021 and 2022 in which over 5000 inmates (most of them linked to terror groups) have been freed (Khalid and Davies, 2022). With these developments the concern for the vulnerability of markets transcends the proximity of the police or other response units to the markets, it reveals more spatial bias of police fortification across the FCT.

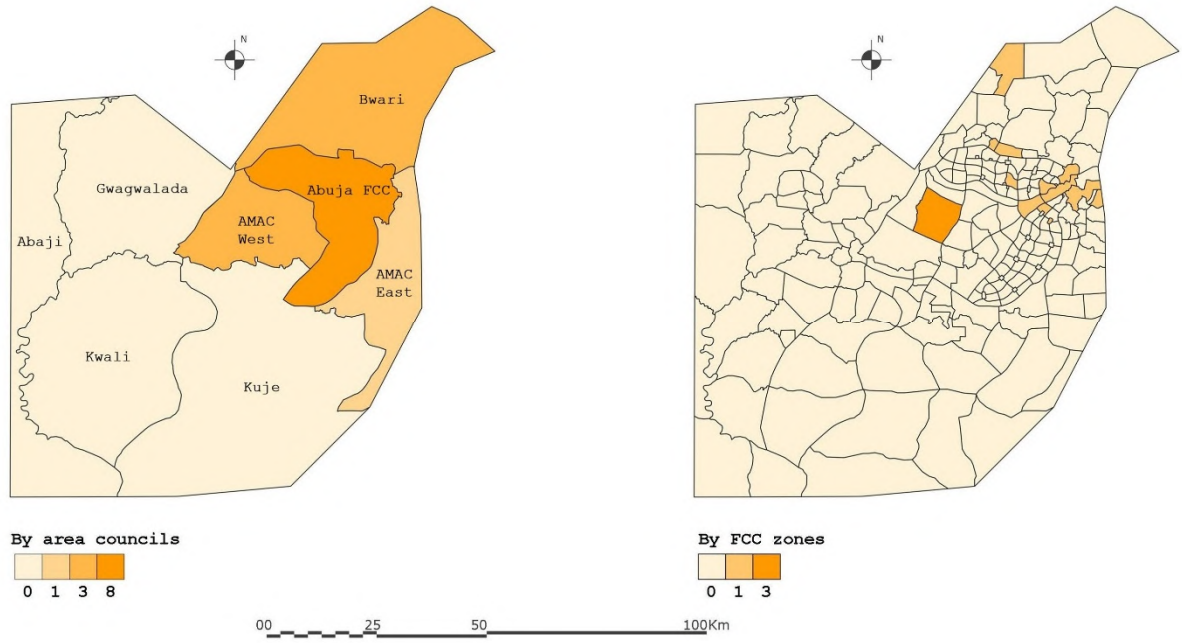


Figure 6.2: Other Defence units in Abuja: Density map (Source: author's own)

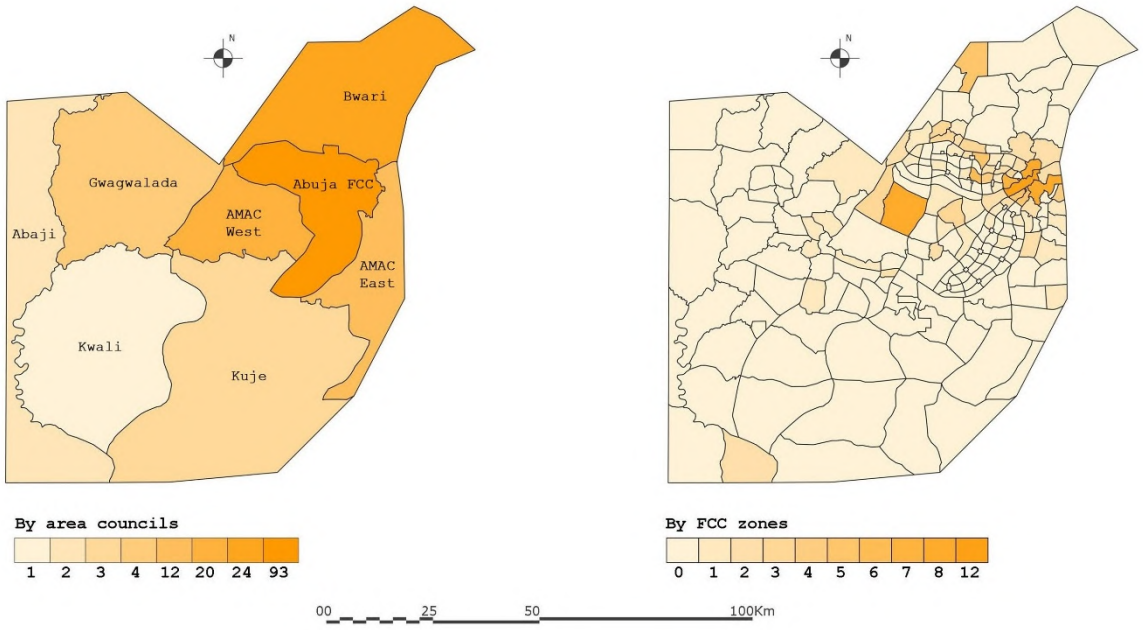


Figure 6.3: Total response units in Abuja: Density map (Source: author's own)

Table 6.1: Marketers' confidence level in the efficiency of Government, Police and Community

	Gov-S (n)	Gov-S (w)	Police-Eff (n)	Police-Eff (w)	Com-S (n)	Com-S (w)
Mean	4.57	6.7	6.5	7.19	7.13	7.33
Median	5	7	7	8	7	8
Modal	1	8	7	8	8	9
Std. Deviation	2.94	2.44	2.52	2.19	2.15	2.01
Minimum	1	1	1	1	1	1
Maximum	10	10	10	10	10	10
Skew	0.26	-0.72	-0.55	-1.11	-0.7	-0.96
Number of valid values	417	756	417	698	417	756
Mean ± Std.	4.57 ± 2.94	6.7 ± 2.44	6.5 ± 2.52	7.19 ± 2.19	7.13 ± 2.15	7.33 ± 2.01

n= Nyanya market; **w**=Wuse market; **Gov-S**= Government efficiency in providing safety; **Police-Eff**=Police efficiency in providing safety; **Com-S**= Communal efficiency in providing safety

Location and proximity should not be the only factors, the spatiality of police fortifications is also evidently very important. There is no use of a feeble, poorly fortified, and poorly equipped police station that is close, even though seconds can mean life or death for many in the wake of an attack. As seen in figure 6.4, the response time generally increases away from the FCC, with Bwari and Abaji showing some dangerously high response times. The severity of the unequal spatial vulnerability was more understood based through meetings with the police who submit that a maximum of 5-8 minutes (300-480 seconds) is the best response to maximize counter-attack efficiency in the FCT.

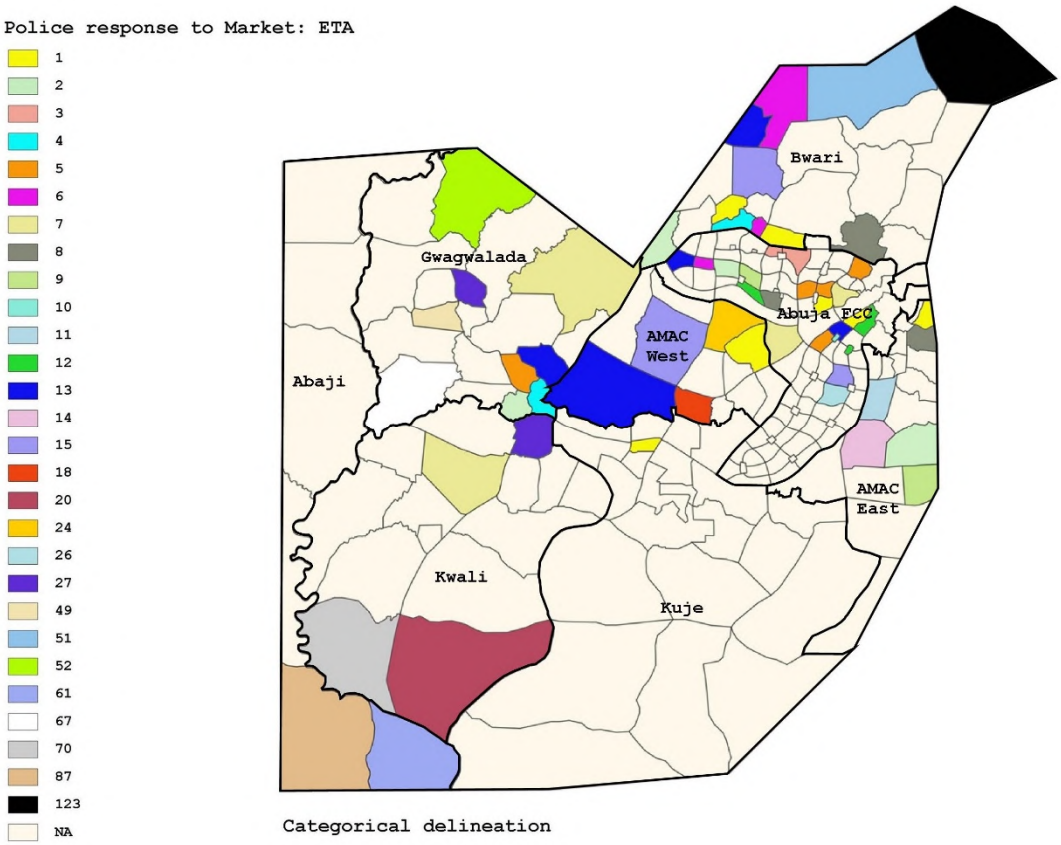


Figure 6.4: ETA mapping of Police stations in Abuja (Source: author's own)

In table 6.1, this is also reflected in the confidence level of the market people when Nyanya and Wuse markets are studied. Nyanya is a market outside the city center to the east. While Wuse is the primary market of the FCC. It can be observed that on a scale of 10, the marketers in Nyanya feel less confident in the protection of the police than their counterparts at Wuse. A more significant contrast is the trust in government all together to protect them. This further reinforces the argument of the government leaving out the regions outside the FCC in terms of protection.

6.2. Fuzzy Boundaries & Vulnerability: Sprawls of Abuja Markets

Now that the spatial vulnerability of markets with respect to the temporality of security response is understood. Another macro appraisal is the notion of vulnerability based on the mutation of boundaries of the markets in Abuja. The theory of interstitiality as it applies to conflict and violence has been presented and is now called to test in this spatial context. Fuzzy boundaries in markets can be beneficial and detrimental. The fuzziness of a market's boundary decentralises some of the little formality that the informal space of the market has. As this happens, access to buyers is also decentralised. This is because buyers spread across the near and far vicinity of the market (see plate 5.0), it is easy for buyers to shop across the roads without even reaching the market. Long term observation showed that price also drops slightly outside the market as sellers scattered outside a market want to make their goods more competitive with those sold in the market. This is to make up for the

fear of buying outside a 'formal' market boundary. Some buyers interviewed have expressed fear of shopping in sprawling masses. Apart from the street thugs and pickpockets, there is no guarantee that a seller may still be in the same place in the case of a possible return or a complaint. Some buyers, however, do not care because most of these spaces have their own localised organisations or groups in which the caucus or group members are familiar with each other. This is very difficult to verify across Abuja markets given the degree of sprawl in the territory. What can, however, be ascertained is that security drops significantly outside typical market spaces as monitoring becomes exponentially difficult.

Sprawls can be continuous or scattered. The vulnerabilities of sprawls vary with the typology and dynamic of a violent attack. The continuous sprawls may prove defensive upon terrestrial assault with little to no guns involved, there is a chance of people defending. If it is an explosion, the casualties will be high. On the flipside, clotted sprawls limit casualties if explosions are involved as density is decentralised. But terrestrial attacks can be very fatal as clusters may be too far apart to respond in mass. This can be observed on the 5th of June 2021 market attack in Yagha Burkina Faso (IEP 2022:10) where about160 people were massacred because of the clustered (or scattered) peri-urbanity in Burkina Faso. Assailants were able to take their time because a counter-response was difficult.

Table 6.2: Market Sprawls in Abuja (Source: author's own)

Area Council	Markets (n)	Markets (n) *w. Sprawl*	*% With Sprawl*	Total market area (m^2)	*Total % Sprawl*	***Modal Direction*
Abaji	2	0	0.00	805.24	0	--
Abuja FCC	31	25	80.65	1198799.22	28.6	A
AMAC East	9	7	77.78	275883.35	67.12	A
AMAC West	8	2	25.00	89750.67	7.98	NE
Bwari	25	13	52.00	424280.30	24.71	N, A
Gwagwalada	11	5	45.45	107481.78	25.46	SE
Kuje	3	3	100.00	139196.37	16.11	E
Kwali	5	2	40.00	24980.16	39.95	NW, E
∑	94	56	60.21	2241082.88	30.71	--

***The most frequent direction of sprawl across markets in the area council; **A**=All Directions

It is evident how important it is to understand sprawls in markets. In the study of markets and general urban safety, sprawls in the context of vulnerability do not enjoy enough attention. In the case of Abuja, the sprawling is quite significant, especially for a city claimed to be planned 'from scratch.' It has been observed that about 60% of the markets in Abuja are sprawling and therefore exhibit directly or indirectly, some form of fuzzy boundary. A detailed spatial analysis identifying sprawl growth in markets is conducted for all the 57 markets with sprawl in Abuja (Figure 6.8-6.10). It is not surprising that the FCC has the highest sprawl rate in the FCT (table 6.2) as the density is high. With over 80% of its markets sprawling, it is an indicator of vulnerability to crowd-applicable attacks. The sprawls are however very limited as the implementation of planning laws are most intense in the FCC. AMAC-East appears to be the most vulnerable with a total sprawl mass of about 67%. This begins to give clarity to the 2014 attack just at the edge of Nyanya market—one of the cases studied in this thesis and a market

located in AMAC-East. (See figure 6.9; no. 27) An explosion was set off within the sprawling mass and the causalities remain the highest in the history of the FCC. This is discussed later in more detail.

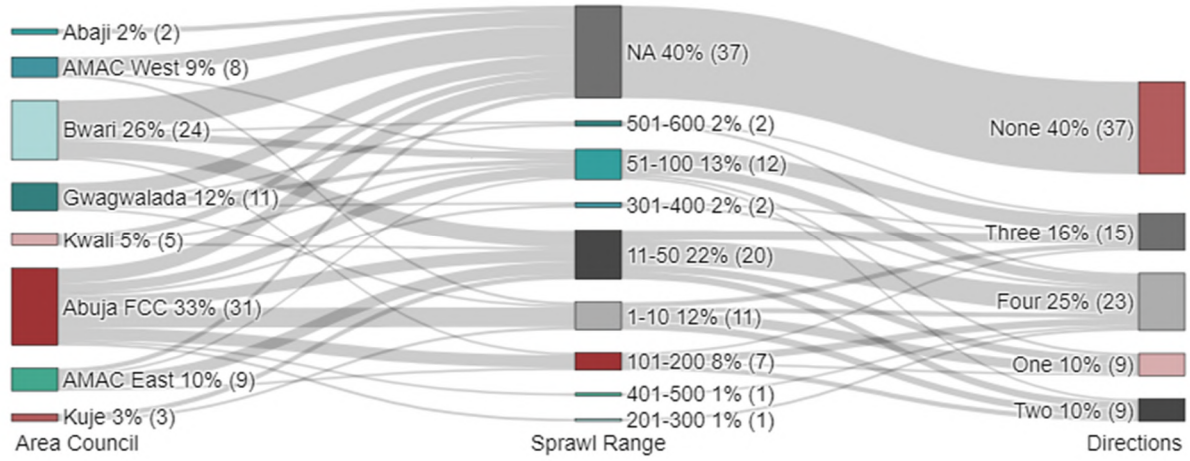


Figure 6.5: Area councils related to sprawl dynamics *(*Source: author's own)

The trajectory of the sprawling case in Abuja calls for concern as the areas outside the FCC are demonstrating high sprawling masses (see figures 6.5 & 6.6). The sprawls are getting so intense that 15 of the markets have merged in some way, some creating conurbations of markets like the markets clustered at Lugbe (see figure 6.8, and 6.9; no.12, 18, 20 & 23). This has been a major problem that the mini market (figure 6.9; no.18) has been demolished within the huge conurbation.

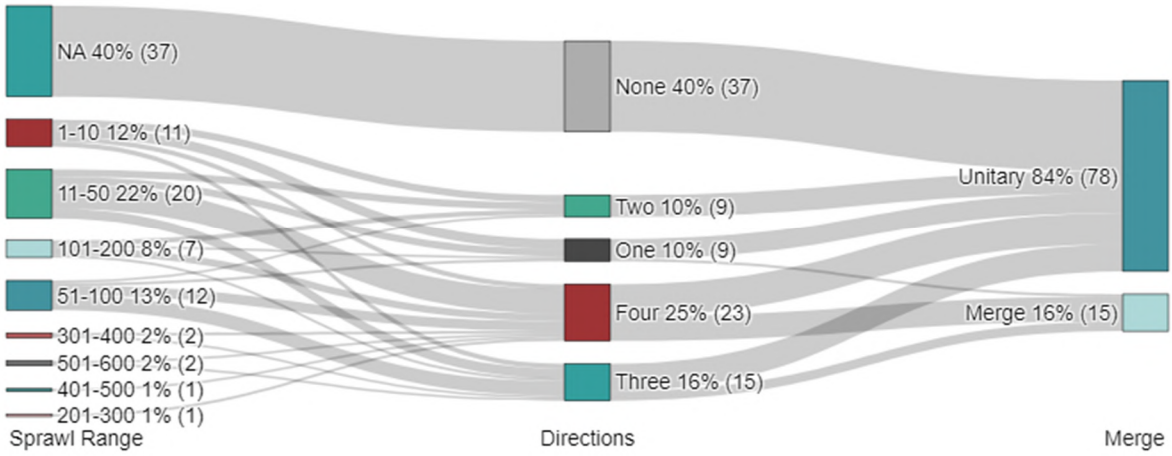


Figure 6.6: Sprawl dynamics in Abuja: Growth and Mergers. (Source: author's own)

The sprawls are appeared to be more aggressive outside the FCC. The two largest sprawling markets are in the area councils Bwari and Gwagwalada (figure 6.5). These two markets spread in three and all four directions respectively (figure 6.6). Of the 57 markets sprawling in Abuja, 23 (40%) are spreading in all four cardinal directions. Apart from spreading in all sides, there seems to be a general movement towards the East, i.e. E, SE & NE (see table 6.2; figures 6.7-6.11). An explanation for this may be the

location of the center (FCC) in the north-east of the FCT and hence the urbanising pull, in terms of infrastructure development, like housing and business spaces towards the same direction.

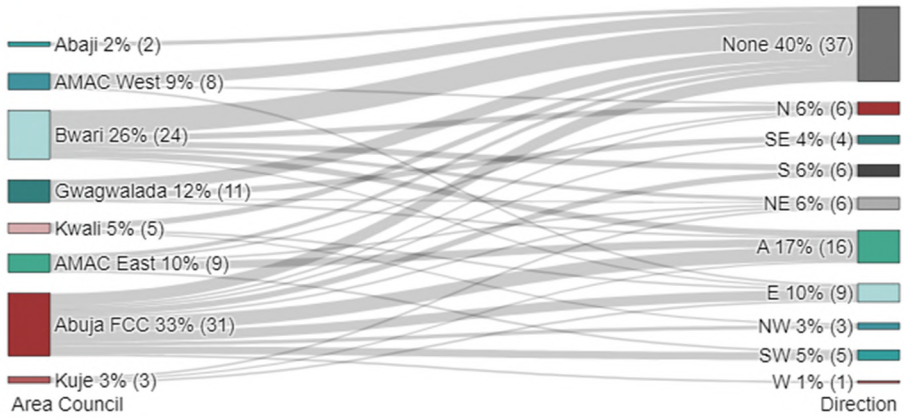


Figure 6.7: Sprawl dynamics in Abuja: Growth direction. (Source: author's own)

Its summary, it has been shown that sprawls can make open spaces, more so, markets, very vulnerable to violent attacks. It has also been demonstrated that sprawls are a major character of the markets in Abuja. This further frames the notion of vulnerability in the markets in the FCT, especially with respect to conflict and violence related to northern Nigeria and its current dynamics of unrest.

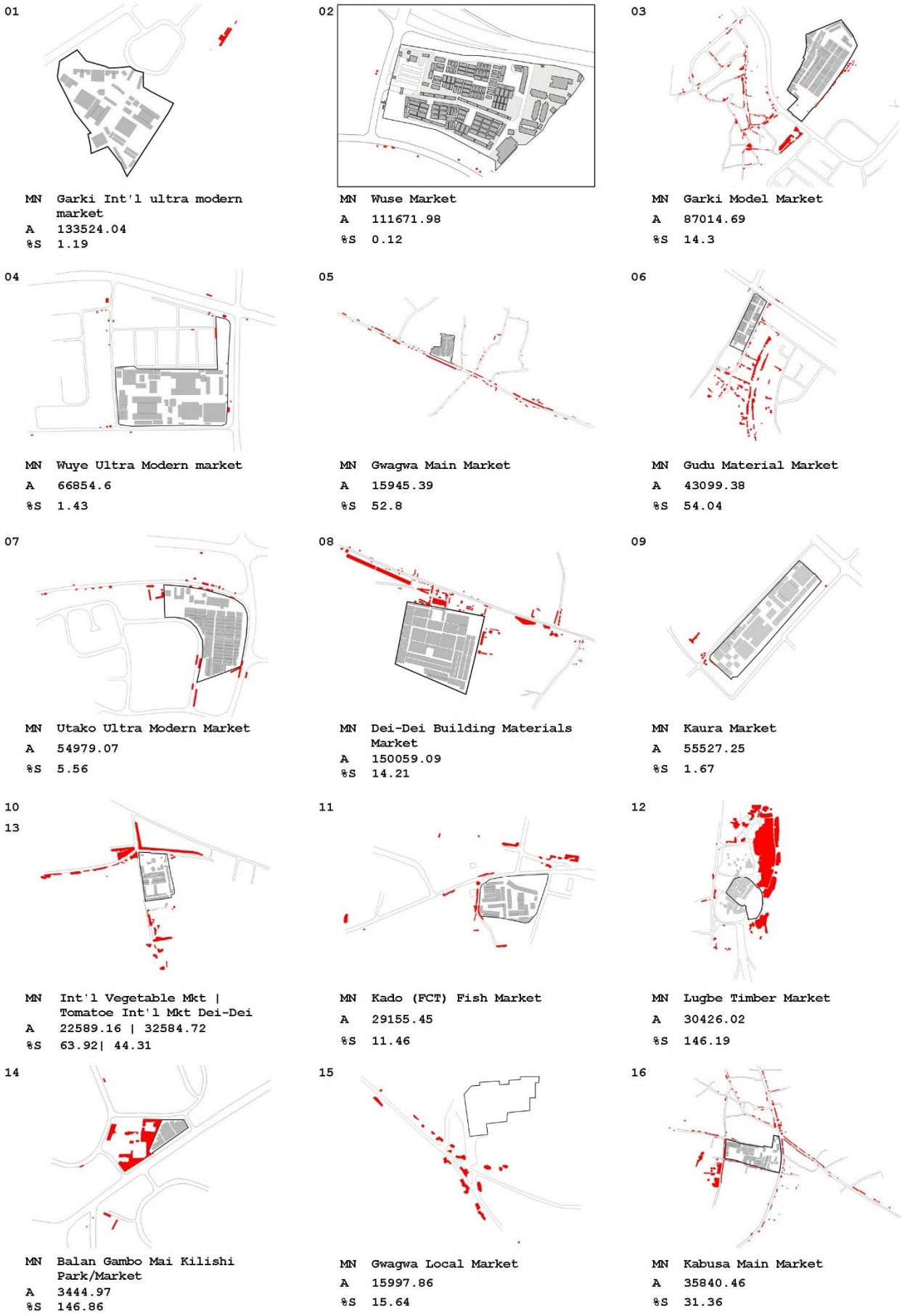


Figure 6.8: Sprawls in Abuja Markets (1-16) (Source: author's own)

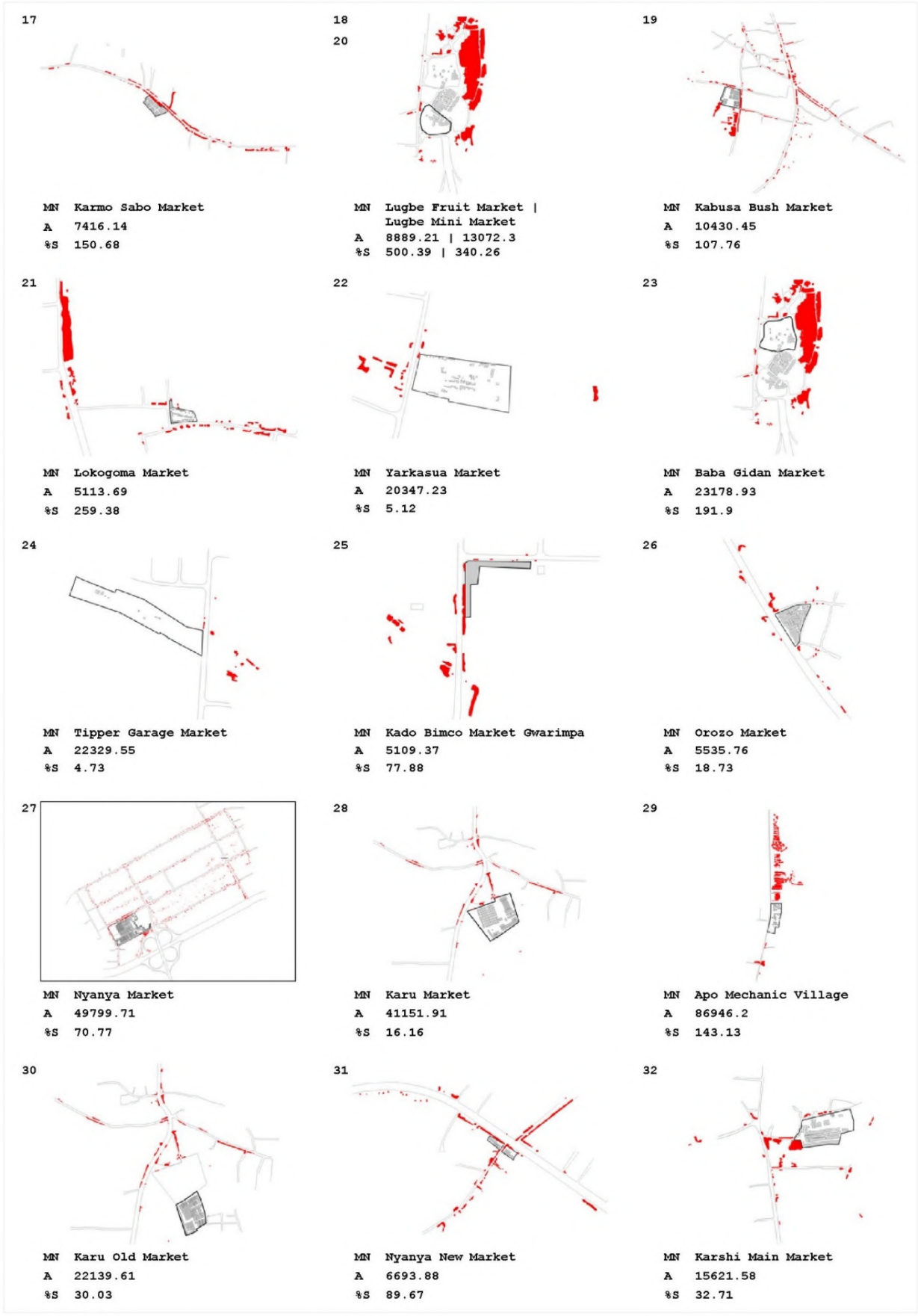


Figure 6.9: Sprawls in Abuja Markets (17-32) (Source: author's own)

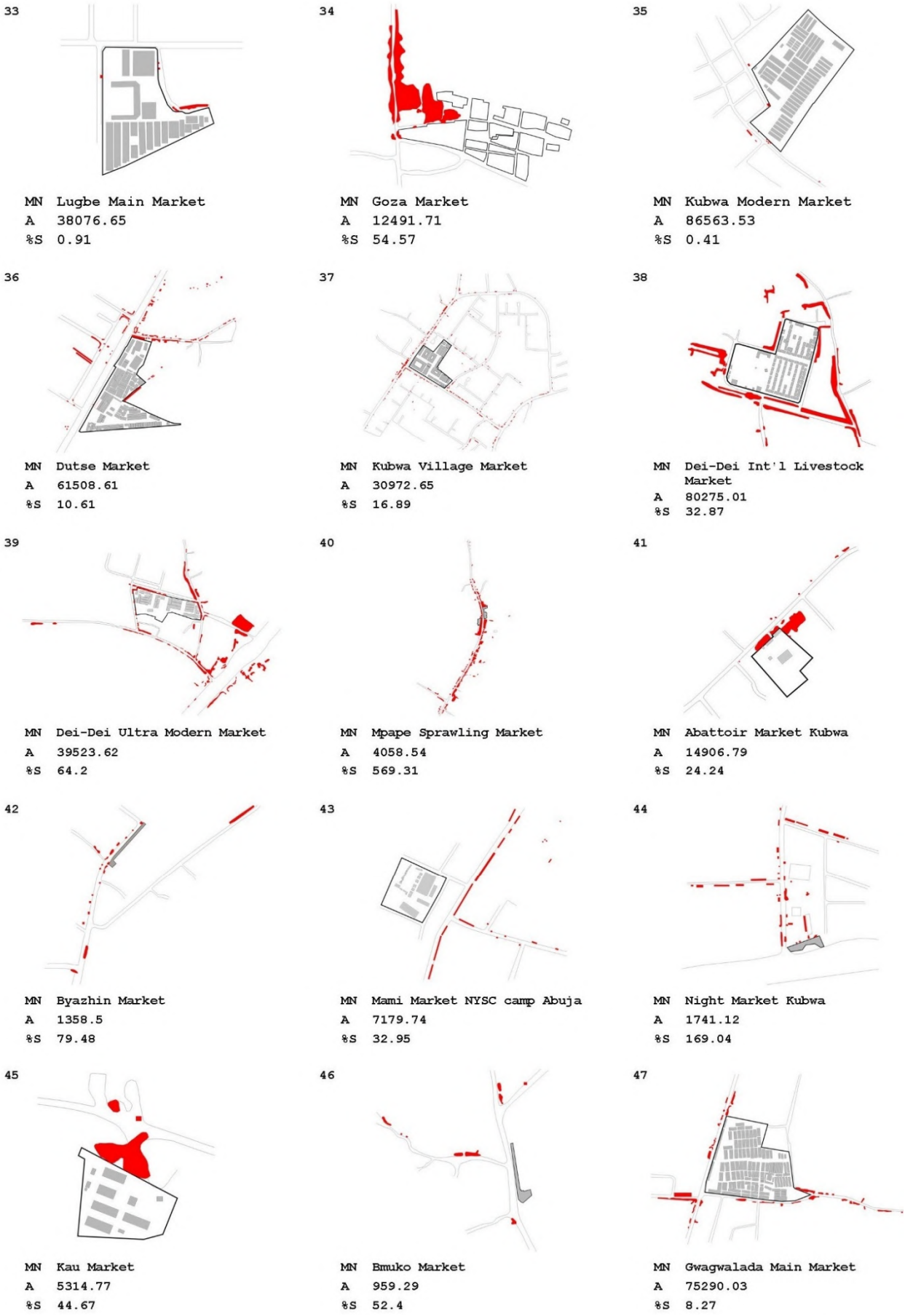


Figure 6.10: Sprawls in Abuja Markets (33-47) (Source: author's own)

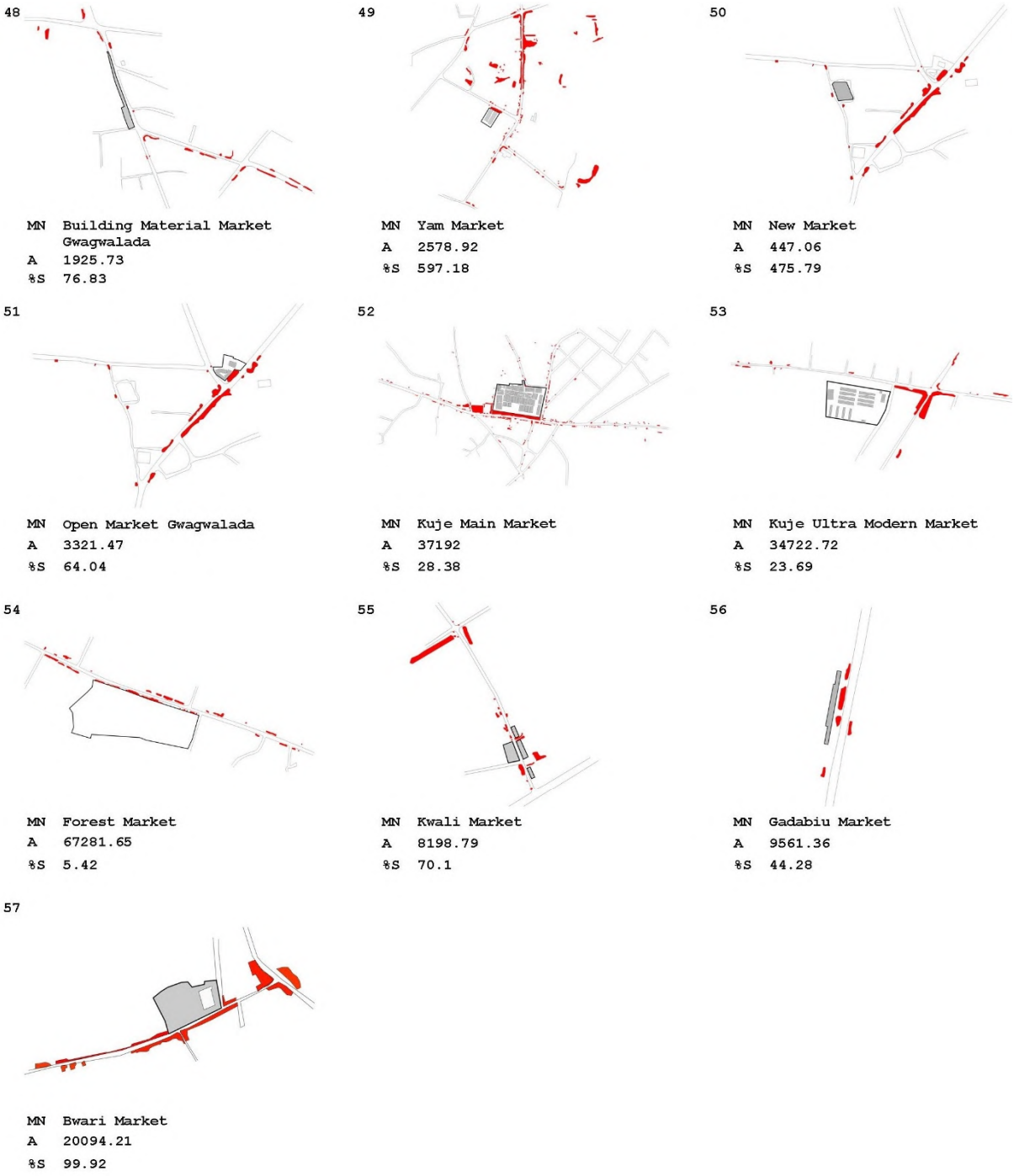


Figure 6.11: Sprawls in Abuja Markets (48-57) (Source: author's own)

6.3. Recorded Market Attacks: A Spatial Appraisal

There have been very frequent attacks on markets in northern Nigeria. The attacks have been so severe and rampant that some markets have been closed down by the military to avoid attacks and stop food access by agents of terror (Alao, 2022, p. 197). These measures have cost the region billions of dollars in domestic and foreign trade income (Alao, 2022, p. 194, 196). So far, Abuja's macro-spatiality of harm with respect to markets in the FCT has been studied. As mentioned before, there is a huge problem of data in Nigeria, and Abuja is not left out. Chronicling data on attacks can be tedious

and complex as there is no indigenous database with specific attention to Abuja except for this thesis. The details of attacks can also be difficult to record as various news media have varying information with respect to aspects like death tolls and the number of injured e.tc. Also, market visits show that most attacks are not recorded by the media. Table 6.3 below records 11 attacks between 2010 and 2022 that are specific to Abuja. 3 of the 11 attacks (in italics) did not occur in typical informal open markets but in semi-formal clusters of shops often called 'plazas' in Abuja. Of the 375 attacks recorded, the attacks directly linked to markets are 9 to 11. This brings the share to 0.024%. While this may seem insignificant at first glance, the share impact is where the concerns lie. Over the studied period, these 11 attacks account for 15.01% of the total deaths and 47.50% of the total wounded people. It must be noted that the first recorded attack was a bomb blast inside the local market of a fully armed military barrack. This shows how vulnerable non-military markets can be. It is also noticed how attacked market spaces are either over 5 minutes away from the nearest response unit or of significant sprawl.

Table 6.3: Known attacks on markets in Abuja: 2010-2022. (Source: author's own)

s/n	Year	day-month	Market	Market and Case	Force ETA	Sprawl (%)	Attacks(n)	Deaths	Wounded
1	2010	31-10	Mammy market (Abacha Military Barracks)	Bomb blast	NA	0	1	4*	13**
2	2014	25-02	Zone 3 Shopping Complex	Violent protest following demolition	*2*	*0.1*	*1*	*0*	*0*
3	2014	14-04	Nyanya Market	Bomb blast	5	70.77	1	71	124
4	2014	25-06	Near Banex Plaza	Bomb blast	*11*	*NA***	*1*	*21*	*52*
5	2017	14-12	Utako Market	Marketers attack FCDA during the conflict & court case between AMAC and Utako Market	5	NA	1	0	1
6	2017	15-08	Wuse Market	Violence from political protest in market	7	0.12	1	0	?
7	2018	26-03	Gosa Market	Violent protest following market demolition	16	30.0	1	0	0
8	2020	09 to 11	Markets across Abuja	Violent protest for lack of palliative during the COVID-19 Pandemic; 09-2022 to 11-2022	NA	NA	1	?	?
9	2020	24-10	UTC (super) market	Attack on warehouse near supermarket during the protest for COVI-19 palliatives		*NA*	*1*	*0*	*0*
10	2022	18-05	Building materials market in Dei-Dei	Civil unrest following a trailer accident	13	NA	1	4	?
11	2022	25-12	Bwari market	Ethnic clash leading to the burning down of the main market	0.6	99.92	1	3	0
Total							11	103	190

*Other sources: 11 dead; ** other sources: 26 wounded**; ***** no sprawl but the localised space is of significant human density

This may actually have no direct link to the success of the attacks as bomb blasts are hard to defend in Nigeria and can also be remote controlled (Alao, 2020, p.126). However, spaces of densities have been seen to be attractive spots for attacks in Abuja and other parts of northern Nigeria. They therefore increase the outlook of vulnerability. Traders in NM and WM say that there have been other attacks on markets across the FCT. However, they are either too far away from the FCC or too small in scale to be noticed and recorded. Therefore, the fact that this table is far from comprehensive is in itself an indication of how vulnerable markets can be. This also speaks to the fact that the 375 attacks are not a full case-list. Another observation is how the markets themselves were agencies that scaled-up violent conflict. This was noticed during the COVID-19 pandemic riots of Abuja. When the masses raided warehouse of food hidden by the government, the markets were key spatial catalysts that aggregated people.

6.4. Nyanya and Wuse Markets: Spatial Studies of Vulnerability

Having appraised the vulnerability of Abuja at a macro scale, we go down to the close workings of its markets. Nyanya and Wuse markets are the primary cases of study. Since the methodology of this study is geared primarily towards a spatial approach of ethnography, it is easy for this section to be extensively 'over-comprehensive' in attempting to capture the many aspects of the day-to-day life in the markets. From ethnicity to religion to art and music to politics, there are many aspects of the markets' life that can easily become primary subjects of discussion or a study on their own. In order to streamline to the purpose of this study, the markets will be discussed based on characteristics and experiences strongly linked to the appraisal of vulnerability in relation to conflict and violence acting on the markets. Even this approach is complicated as vulnerability is a social phenomenon that is manifested across various aspects of human social activity (Adger, 2006).

But as earlier discussed, vulnerability will be studied as a socio-spatial indicator that can be used to articulate strategies of development for market spaces in northern Nigeria. Avenues of this have already been presented in the analyses so far. As explained in the third chapter, both markets have been picked based on an MCBA that took into cognizance a wide range of characteristics and attributes needed to appraise the vulnerability of markets to conflict and violence in Abuja. Nyanya market is located in AMAC- east area council while Wuse market is located in Abuja FCC. An experience of the center and the periphery in many regards is therefore possible. Field study was conducted in both markets at intermittent periods between December 2019 to July 2021. The field work was slightly intermittent due to the disruption of the pandemic. In Nyanya and Wuse markets, 417 and 756 people were interviewed respectively during this period.

6.4.1. Wuse Market (WM): A Socio-spatial Overview

Wuse market (WM) is a huge open space with lock-up shops lined up in rows. It is one of the few markets in Abuja with its own parking space. It was formed by the repurposing of land meant for education in the late 1990s (see section 5.3.1). WM is a remarkably diverse space. Of the 756 people interviewed over a uniform coverage of the market, at least 63 distinct ethnic groups and cultures were noticed. The major groups are the Igbo (49.6%), the Hausa (21.03%) and the Yoruba (5.82%). The average number of languages spoken is 2 with a modal language range of 6 for the men and 4 for women. Markets of the north are largely male dominated unlike the markets of southern Nigeria that have a significant female footprint. In southwestern Nigeria, women are the thematic gender of the market, in fact the leader of the market is called 'Ìyálójà' which means "*Woman of the market*".

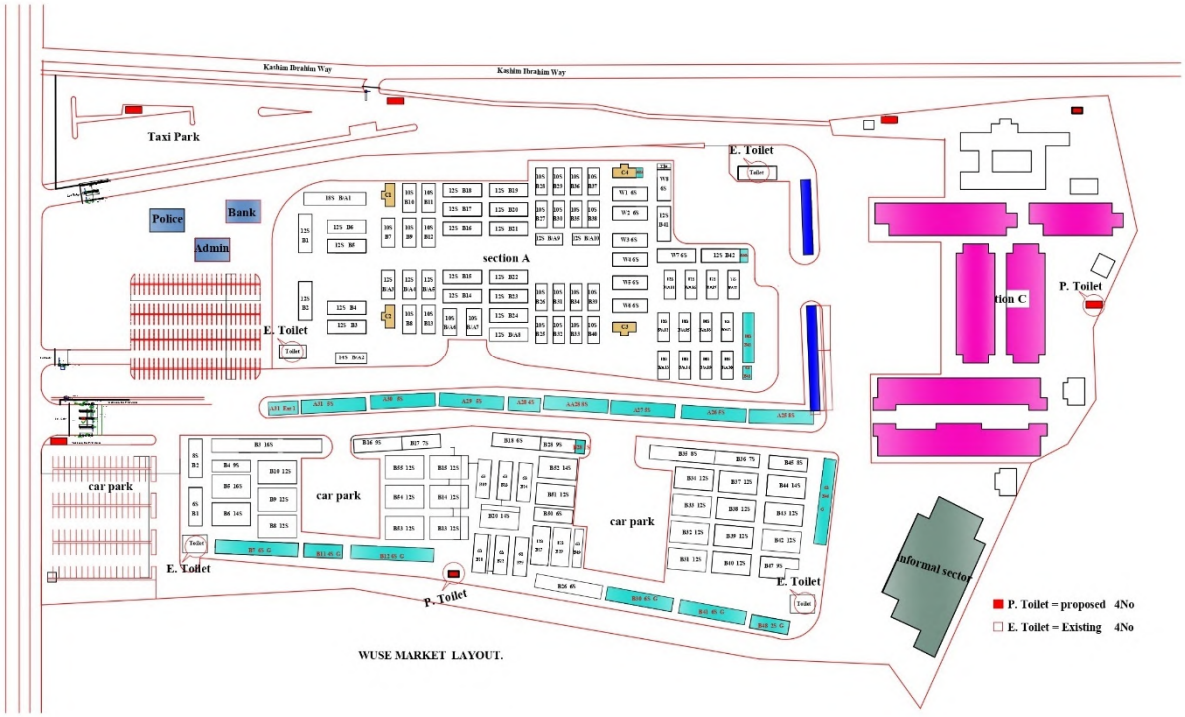


Figure 6.12: Wuse Market (Source: AMML)

In the two primary case studies, it is different. The gender distribution across Wuse as 66.14% male and 33.86% female. There are no spatial segregations by gender in the market. Everyone sets up together irrespective of gender. The peculiarity of the male predominance in northern markets prompts an urge to see if vulnerability varies between the genders. This is investigated later in the study. WM is in the FCC where the land economy is steady but rising. The FCC has the most expensive real estate in the Abuja. Abuja Market Management (AMML) also claim WM is the most expensive open market in Nigeria with 36m^2 spaces selling for as much as $550,000 in second-hand sale. Rents are also relatively high. Rents and other personal running expenses for relative spaces can be as much as $10,000 per annum. This is a huge contrast to the average $1500 of Nyanya market. This is very unusual for

'informal' markets in Nigeria. The market is a large replica of the social systems in the larger city, Muslims pray in some of the open spaces, Christian's fellowship in groups across the markets. There are hairdressers, barbers, restaurants, and the like. These spaces are just as much for fellow sellers as they are for customers. There are mobile clinics and people who sell herbs. There are informal groups of ethnic themes, some other groups meet to contribute funds for personal projects, some are mere groups of friends who sell together. Wuse is a high-income zone, so a large number of the market people live outside the FCC to offset the cost of living. Looking at distances by car/bus; of the 756 interviewed, 29.1% live between 20-30 minutes away from home. 15.61% live between 30 and 40 minutes away. 9.66% live between 50 minutes and an hour. Only 8.47% of the market people live under 10 minutes from the market. Some people journey as much as 2 hours to the market each day. It is obvious that they mostly come from outside the FCC.

WM is a big market with a hard defined boundary. The total number of market people were not disclosed but it was deduced that there were about 2535 registered traders in approximately 700 shops. The general population of the market is however noticed to be more. The management is private about the number of sellers, especially when my studies discovered there was a noticeable discrepancy between the shops on the site plan given (figure 6.12) and the actual shops on ground. The market consists of three areas: The wet area (also called informal area); where vegetables and fruits are sold (see plate 3.0, figures 6.12 and 6.13), the dry area, where FMCGs and electronics and other non-food items are sold. There is also what I term the ''motion area', the interstitial rows between shops where hawkers run up and down selling petty goods. The hawkers are not welcome in the markets, and they are always chased out. Some pay to have spots on the ground. Others just try to avoid inspectors. It is difficult for them to get into the market as there are guards in most entry points but somehow, they manage each day.

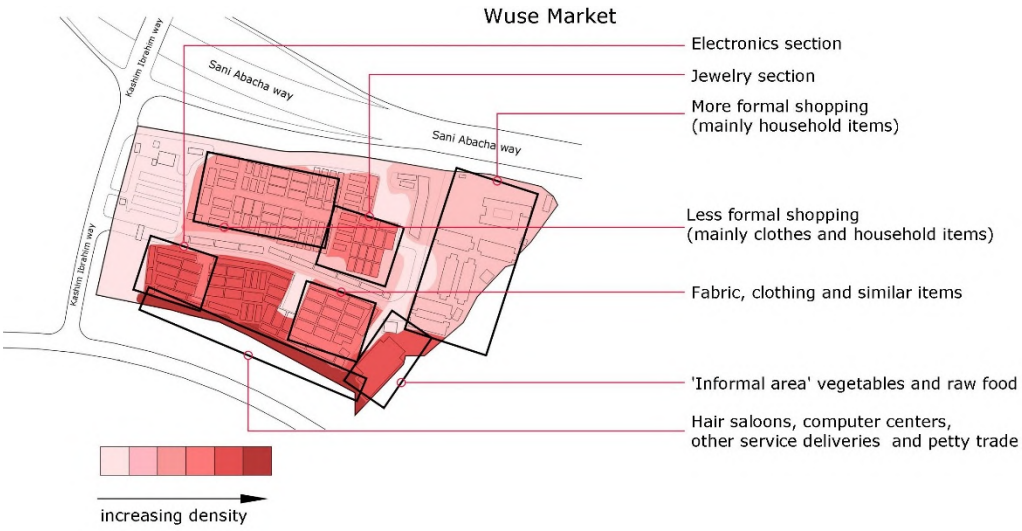


Figure 6.13: Product and service typology across Wuse market (Source: author's own)

WM has a service and typological distribution that is easy to identify. These sections are known by the type of goods or service they sell. They are also known by their clustering in terms of ethnicity e.g. Igbos dominate the electronics section while the Hausas and other northern groups dominate the Jewellery section. The Wet area is known for fresh fruits and frozen chicken brought from the north. Architecture has an influence on the understanding of formality in the market as place termed 'informal' has a majority of open-air stalls. This overrides the fact that most of the shops extend out of their font as open-air stalls. The clustering of the open-air stalls of farm produce therefore creates an impression of informality in the market. A majority of WM's non-food products come from Lagos in southwest Nigeria. The market is also known as the central location for the sale of jewels and precious metals. In fact, WM is the second largest gold market in Nigeria after the central market of Kano. WM has grown through an implosive physical infrastructure scheme along the northeastern part (area B figure 3.2). The growth is based on the increasing demand of buyers in the market but has now congealed, with no proper sprawl along its boundaries. The leadership system is relatively simple. Management is by the Abuja Market Management Limited (AMML). They designate managers across the 18 markets they manage in Abuja. The WM manager works with a small team of excos which include the secretary, the accountant, the facility manager, and the security manager. Under these are the security men, market inspectors, office clerks and interns that are usually fresh graduates having their national service year at the market.

The market has a police station within it. It is very close to the administrative block and the only bank in the market. The police station is a mini unit with a maximum of 10 policemen at any one time. It is equipped with a cell, but it lacks the facilities to contain a large-scale conflict scenario in the market. The incident on the 24th of December 2019 narrated in at the opening of the first chapter can be recalled as one of the many times the police needed back-up in terms of personnel capacity. In this case, timely backup was possible because in addition to the in-house station, the market is in close proximity (3 -10 minutes) to the Wuse Police station and the Zone 3 Police station, both of which are heavily equipped and staffed. They are also less than 200 meters to each other. In addition to my experience, closer observation over the months show that the police are very responsive to the market. The market attracts the families of the most powerful people in the city, politicians, lawmakers, captains of industry and celebrities, they all directly or indirectly[48] shop at WM. This additionally explains the close citing of the police stations and the quick responses the market enjoys.

The market has no sprawl, only less than 10 umbrellas on the other side of the road in front of the main entrance. The electronics section (lower left region of the market in figure 6.13) however is highly dense and extends to fence. Most of the hawkers and illegal entries come from this dense area that looks like a sprawl within the market. In my 6-month period of pseudo-work as an inspector in the

[48] They hardly come themselves, they send their house helps or spouses, but they do make use of the market for their weekly or monthly needs.

market, cases of theft, fraud, or petty squabbles were settled from the particular region at least twice a week. WM is the most popular market in Abuja, the shops are expensive, and as a result, the products aren't particularly cheap. In addition to everyone else, it attracts the middle-income to high income people of the city and it enjoys close proximity to security and no sprawl.

6.4.2. Nyanya Market (NM): A Spatial Overview

This market is quite different from Wuse in many ways, yet also very similar in many other ways that will be shown. NM sits at a lower ground level to the roundabout of Nyanya bridge that feeds into it. The bridge sits at the intersection of the Nyanya-Karshi road and the Murtala Mohammed Road (see figure 6.14). NM has no real physical boundary. NM was formed between 1979 and 1982 during the reign of president Shehu Shagari[49]. This makes it one of the oldest markets formed with Abuja. The spatial evolution is accumulative, and it started to build up from the road with two major entry points (see figure 6.14) in the early 1980s till it spread into the complicated mass that it is today. The boundaries are only defined by the footprint of the official members of the market association. This can only be determined upon close physical reconnaissance and ethnographic study of the area. With the mentioned process, it is deduced that the core space of the market sits on a space of 49799.71 m^2. The fuzzy boundary has given rise to an elaborate sprawl system that extends to over 20 streets in contiguity to the market (see figure 6.14). Spatial analyses put the sprawl at 70.77% of the 'original' market footprint.

Unlike WM, NM is a complicated aggregation of shops, stalls, and hawkers organised into 'lines'. The typology of products and service sold is therefore very difficult to map. There were about 53 lines at the time of study. NM estimates the population of shops as 505 open air shops, 710 'lock-up'[50] shops and over 400 shops[51] in the market extension. This brings the total number of counted shops to about 1615. However, this is not the full estimate as the market boundaries permeate the nearby neighbourhood. It must be noted that it is difficult to determine how accurately the sample size mirrors the actual population in Nyanya as the true population is unknown.

417 traders were interviewed during the course of the field study. The chairman of the market was deliberately not specific on the actual number of lines. A line is a group of market people at NM who sell the same products. Each line is usually named after what is being sold in it, e.g. the 'tailoring line'; a line where all the tailors pitch their shops, or the 'cow hide line', where cow skin for food and leather is sold. Some other lines are given names that speak of the motto of the people in the group, e.g., progressive line, miracle line etc. but they also sell the same product or service.

[49] Recall from the previous chapter 4, the role of Shagari in the formation of Abuja city.
[50] Shops within a larger building
[51] Exact number unknown

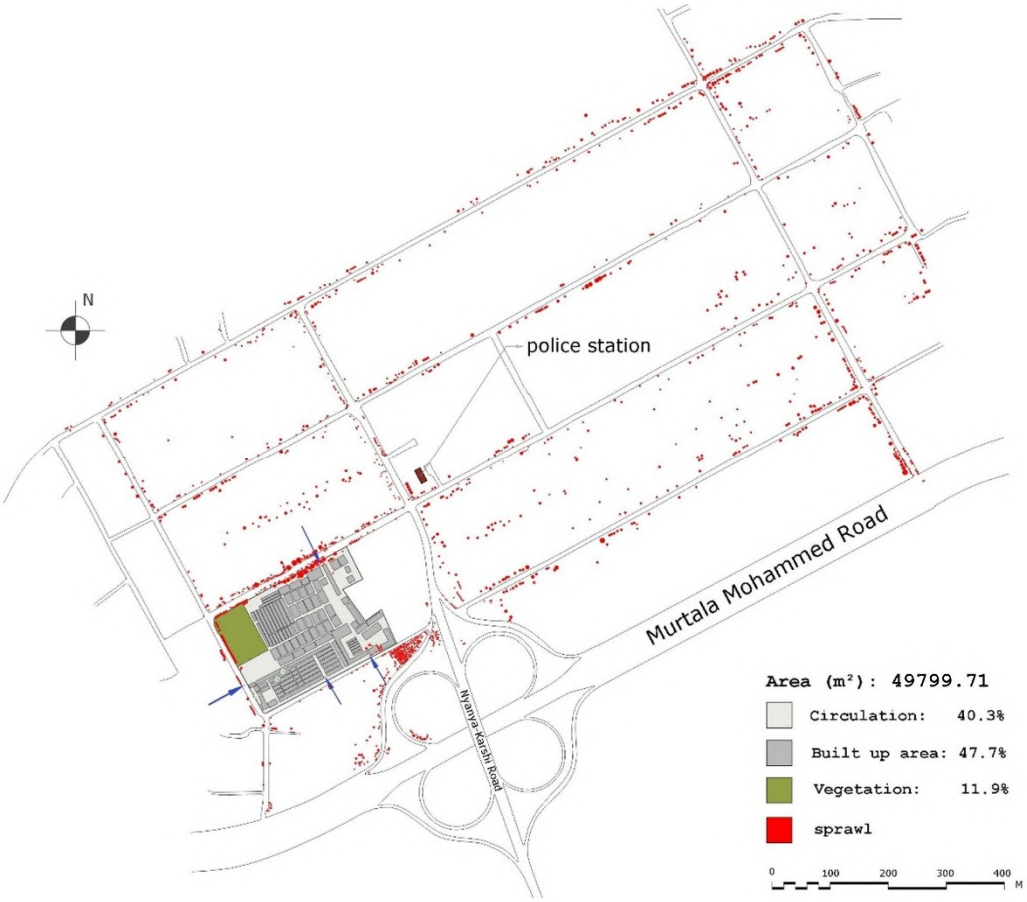


Figure 6.14: Nyanya Market (Source: author's own)

Each of these lines have a line head who looks out for the welfare and security of the sellers in the group. The line heads report to the executive committee that includes, the chairman, vice chairman, secretary, and the treasurer. Executive meetings are held mostly one a month where all the line heads and stakeholders attend and plan for the future of the market. One fascinating peculiarity about NM is the general meeting. All the members of the market gather for a general meeting on the last Thursday of every month. This has its pros and cons. The meetings help bring all the sellers who identify with the market together, it builds familiarity and promotes transparency with the leadership of the market. It is dangerous because an attack at this period will result in a significant number of casualties, the fact that this gathering is predictable increases the vulnerability of the market at these periods.

Unlike WM, NM is also a periodic market with Wednesday being the market day. This does not mean that sales do no take place in other days. Wednesday just happens to be the day the market is most active for sale. On market days, sellers and buyers come from as far as Ghana and Niger Republic to trade, the markets have a high population density at these times. For a market without boundary, the vulnerability is high at these times.

The market is much more diverse in comparison to WM. The chairman of the market says:

> "Nyanya Market is a small Nigeria, all the ethnic groups of the country are represented here, the two main religions (Christianity and Islam) and traditional religions, yet we do not have fights based on our diversity"[52]

Upon regular visits over the months, the diversity can be felt in the space. It can be believed that about 300 ethnic groups are represented in the space. NM contains almost everything found in the city. Religious centres, sports, groups, and associations, etc. It even merges into the residential zone. The Igbo are slightly dominant in the space as trade is deeply rooted in their culture. NM has more women statistically, compared to WM. Apart from the confirmation of his with the chairman, the respondents were 46.28% female (see table 6.3). It, however, still has major a majority-male population.

Everything is sold in NM, from clothes, to FMCGs, to food, to services that include tailoring, electrical engineering, mechanical engineering services, home handy services and so on. Goods flow in and out of Nyanya as far out as a number of west African countries, excluding the typical shipment of goods that come from Lagos in southern Nigeria. Fruits and vegetable are also brought in from the north of the country, including Maiduguri. There is so much yet to be known about the detailed quantities and qualities of systems and entities of this market since it has no real boundary. This is makes various studies very difficult at NM.

There have been a number of near attacks on NM since 2009 but it will be quite unthorough to give a report on NM without mentioning the attack of 14th of April 2014. At 6:45AM on this day, two cars loaded with explosives drove into the bus park near the market and detonated, killing 71 people and wounding over 124[53]. The peak time of the day on Monday morning was chosen to maximise casualties. It was later reported as a terror attack from the Boko Haram group in northern Nigeria. The attack took a huge toll on the market as sales dropped because the mass hysteria and fear drove buyers away for months. Some sellers also had to relocate. Since the occurrence, NM has had to live and contend with a stigma of public perception that it might be unsafe. On this the chairman says:

> "The space that was bombed is not even in the market, it was the bus stop of the market, yet the bus stop has not suffered the public perception of being unsafe as much as we have, maybe because we are a market and more people come here".

It took mean time of 6 months for some shops to break even on sales after the attack. Some have still not fully recovered since 2014. Things have gotten better but the damage to the spatiality of the market is still being spoken of. This is one of the reasons why NM takes more security cautions compared to WM. After many focus groups in the city, it was concluded that the sprawl of the market

[52] Interview with chairman of Nyanya Market 18-02-2020.

[53] Many other sources put the eventual toll at 88 dead and 200 wounded after some of those hospitalised died later.

is the primary reason why planning for security is very difficult. There is a police station near the market (see figure 6.14) however, it is in no way equipped to effectively protect the market nor the area where it is situated. The market management pays vigilante groups for protection. They patrol the market area after 7:00 p.m. when the market closes. They are paid from the purse of the market leadership system. The efficiency of this method is discussed later in this study. It must be noted that Nyanya is not under the AMML, they therefore do not enjoy the direct communication link with the government as WM.

6.5. What Does Security Look Like? A Comparative study of MFM

So far, the two major markets have been presented in this study with the aim of creating—to a holistic extent, a representation of markets in Abuja. However, as previously mentioned, since the study is about the impact of conflict and violence on markets, it is spatially logical to seek the possibility of juxtapositions in terms of impact, and a socio-spatial setting. There has been a paradigm shift in multi—site ethnography where scale and various other contexts are brought to the fore to enrich the studies of experience and everyday life through a comparison of multiple sites (Marcus, 1995). This of course contributes to the argument behind the selection of two major markets as explained in chapter 3. The aim of this was to amalgamate the experience of the study area (Abuja) and scale down the site in a spatially pragmatic way for ethnographic study. This can be termed a 'spatial synecdoche' as it uses the two markets to explain the spatial notion of market vulnerability in the city of Abuja. However, moving from the problem of scope, the study concerns itself with the problem of contextual experience. It has been shown that even though there have been many spatial systems of counter violence in Abuja e.g. police stations and military sites, attacks rather increased drastically (table 5.1; figures 5.7-5.9). This raises questions of spatial efficiency in terms of security. Is there a safe market in Abuja? if there is, what is it like?

These set of enquiries aid the primary questions rooted in the conceptual structure of the study. Understanding if some markets are actually safe and how they have become safe may provide more resolution to the nature of the vulnerability of markets alongside pointers for sustainable development. Based on the outcome of the reconnaissance carried out on most of the markets in the FCT. Maitama Farmer's Market (MFM) was chosen. Additional factors contributing to this includes history of attacks, proximity to response space, security of boundaries, effective local management, and public perception. Also, interviews with law enforcement agents at Wuse, Nyanya and Garki were put into consideration. The feedback from the planning department of the FCDA[54], also confirms MFM as the safest non-military (civilian) market from violent attacks mainly because of its location in Maitama and its size.

These investigative efforts reveal that the farmer's market at Maitama is the most secure non-military (civilian) market in the city with respect to the combination of the factors mentioned. In addition to these factors, the size of the market makes it much less vulnerable. In 2011.43m^2, the market

[54] Of the respondents mentioned, only the director of planning at the FCDA waived anonymity in the interview process.

is in a single row (see fig 5.23). The footprint of the single row of shops stretches to a paltry 78m in length, occupying just 40% of slender space. It is also endorsed by the planning agency as the safest based on the two experiential factors.

Studies have shown that famer's markets should have some proximity to farms and hence be in local places far from the city with spatial and temporal relationships with the city (Brown & Miller, 2008; Tong et al, 2012). MFM and other farmers market in Abuja do not really hold to this spatial theory, the fruits, and vegetables of MFM come from farmers quite alright but mostly from far Maitama farmers market, as the name implies is a fruit and vegetable market. Brown and Miller (2008) have evidently indicated and implied that farmers' markets need to be in the 'local' space of the farms producing it and they also have to have some impact (or at least a relationship) on the farms that link the productivity of the farm to a local economy of the people through the market and the consumers as agency. Tong and her cohort (2012) show that factors of access to famer's market can be spatial and temporal as the everyday activities of city dwellers shape accessibility to farm produce in markets which adds to the complexity of the fact that the produce themselves do not last long and need special storage. It must be pointed out while they (Tong et al, 2012) reveal an evidence-based argument for these two factors of accessibility, their study falls into the usual trap of assuming the whole world is a western region.

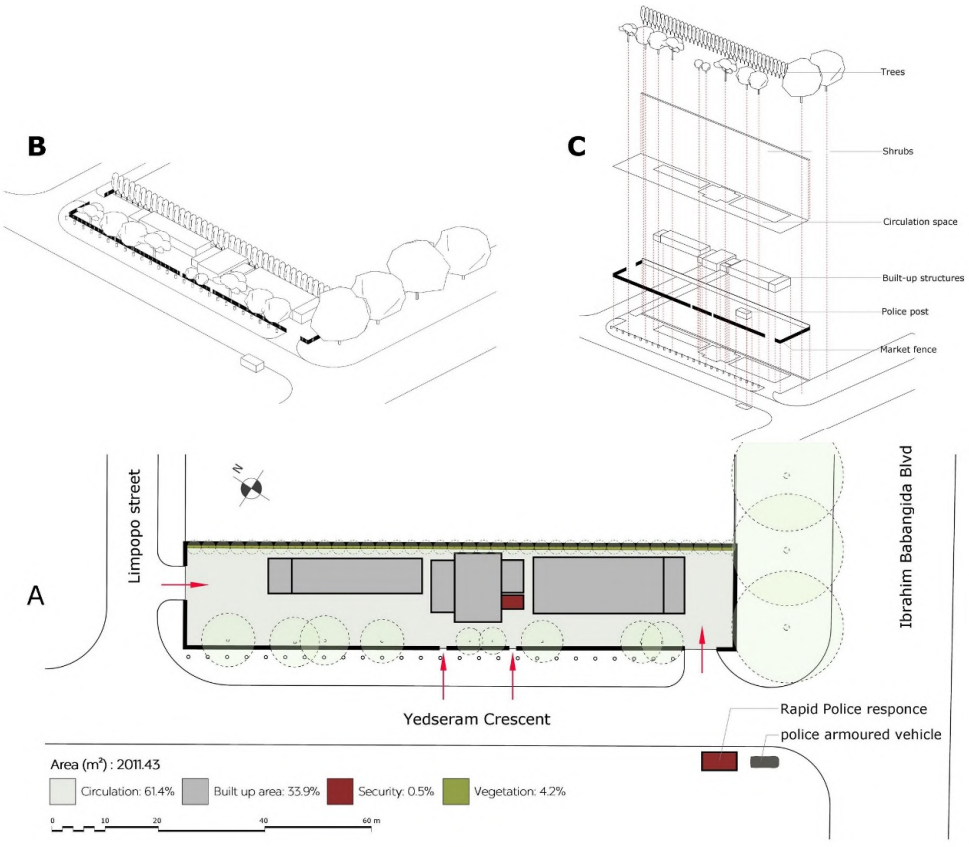


Figure 6.15: Maitama Farmer's Market (Source: author's own)

16/18 shop owners are from the north with one middle belt seller and one from the east. Interstitially, the perception of uniform safety in the premises is almost absolute as 17/18 of the sellers think all parts of the market have the same safety level except one seller who thinks the middle shop is vulnerable because it directly faces an entry point (see figure 6.15). 17/18 of the sellers already alternative means of income if anything happens to their shops in the market. This is not surprising as 17/18 consider themselves as middle income earners with only one identifying as a low-income earner. A large part of the products come from northern Nigeria (65%) with half of them getting fruits and from south Africa. Only 3 of the sellers get some or all their fruits from within Abuja. All of the sellers have an overall feeling of safety in the market and 15/18 of them attribute their feeling to good security, either by police agency or by virtue of location within Maitama. 2/18 cite good leadership within the market as their primary reason.

Table 6.4: Perceptions of Safety: Maitama Farmer's Market. (Source: author's own)

	SP_ Home	SP (mfm)	SP_Shop (mfm)	Leader ship	SP_ Buyers	SP_ Markets	SP_Open Spaces	fSP_ Nigeria	fSP_Abuja
Mean	7.24	8.18	8.18	7.77	8.8	5.38	4.56	4.31	4.19
Median	8	8	9	8	9	5	5	4	4
Std. Dev.	2.8	1.29	1.67	1.69	0.78	0.96	0.73	1.49	1.42
Min	1	5	4	4	8	4	3	2	2
Max	10	10	10	9	10	8	6	8	8
Shops	17	17	17	13	17	16	16	16	16

SP=Perception of Safety; **mfm**=Maitama Farmer's Market; **fSP**: Optimism about Safety (for the future)

To put MFM in spatial context, it is in Maitama, one of the saftest places Abuja. As a matter of fact of all the 375 attacks on the Abuja in between 2010 and 2022, none has occurred in Maitama. Spending over a year as a resident in the neighbourhood, I can attest to the fact that spatially, it organised as a stronghold. Maitama is home to many foreign embassies, and many politicians. It is also the home of the Inspector General of police, the highest-ranking police officer in the country. The density of security in the streets is high. The political culture of politicians being assigned heavy security detail in Nigeria has created a spatial density of armed forces in Maitama in addition to the foreign forces guarding various consulates which include the consulates of the UK and that of USA not far away. MFM itself also has an armoured vehicle with a fully equipped tactical squad directly in front of the market 7 days a week, 24 hours a day (figure 6.15). There is also a security unit within the small market itself (figure 6.15). In terms of perception, the scores are high across various parameters. In table 6.4, please note that all scores are on a scale of 1-10 and the perceptions can also be designated as informed opinions because they are not just 'feelings', they are feedback based on a continuous experiential knowledge of the market. In the table, the perception of safety about MFM is 8.18/10, incidentally the reading is identical with how the sellers feel about the safety of their shops. They even feel the buyers feel safer. With a SP score of 5.38, they do not perceive other markets as safe spaces. They feel open spaces in the FCT are even less safe than the markets. Holistically, they have very little optimism for the safety of Abuja and that of Nigeria at large. One thing is sure about the market sellers at MFM, they know the safety they enjoy in their market is not found elsewhere in Abuja.

From the spatial presentation of MFM. A few things stand out as reasons for the security:

a. It is small with a hard boundary, so surveillance is easy and quick.
b. It is in a densely secured neighbourhood.
c. It has close, sufficient, and constant counter-violence response.
d. It is spatially contextual to the bourgeoisie and therefore enjoys prompt and direct attention from the government.

At least one or all these factors are lacking in almost all the other 92 markets studied. The next section takes a deep dive into the perceptions of safety at Wuse and Nyanya. Comparisons are made between these markets and also juxtaposed with MFM to understand how the mentioned factors influence a variation of vulnerability within the markets.

6.6. Wuse-Nyanya: Perceptions of Safety and Vulnerability

This section proceeds with a series of analysis on perceptions of safety by the market people in Nyanya and Wuse. The perceptions of safety are simultaneously appraised and cross-appraised with spatial parameters of interstitiality, sprawl and boundary.

Table 6.5: Perceptions of Safety: Nyanya & Wuse Markets. (Source: author's own)

	SP (n)	SP (w)	INNCM (n)	INNCM (w)	ISOB (n)	ISOB (w)
Mean	7.29	7.67	5.58	5.24	7.92	7.84
Median	8	8	6	5	8	8
Modal	8	9	1	1	10	9
Std. Deviation	2.28	2.15	3	2.98	2.04	2.08
Minimum	1	1	1	1	1	1
Maximum	10	10	10	10	10	10
Skew	-0.96	-1.15	-0.2	0.08	-1.13	-1.37
Number of valid values	417	756	417	756	417	756
Mean ± Std.	7.29 ± 2.28	7.67 ± 2.15	5.58 ± 3	5.24 ± 2.98	7.92 ± 2.04	7.84 ± 2.08

n= Nyanya market; **w**=Wuse market; **SP**=Perception of Safety; **INNCM**=Impact of Conflict in Northern Nigeria on Market; **ISOB**=Impact of Safety on Business of seller

As seen in Table 6.5 perceptions of safety are generally low in NM compared to WM. The disparities are relatively close, but they are there. The deviations from the mean scores are also very similar. The modal score reveals how little both markets regard the possibility of the conflict in northern Nigeria having an impact on their business. Upon engaging a focus group in Nyanya one person said:

> "I do not care about the violence in the north, I ran from there to here (Abuja) just to escape the trouble, I don't think it affects me now."

The spatial notion of distance (from perceived harm) as an indicator of safety is noticed across both markets, especially in Nyanya. This is ironic as the largest bomb blast in Nigeria for a long while

occurred about 300 meters from their market killing nearly 100 people. Both markets however, believe, that safety has a huge impact on their business and the sales they make.

6.6.1.Perceptions of Vulnerability Across Gender in the Markets

SP values in NM and WM have been compared with spatial character, however further tests are needed to see if they vary across groups in in the markets. There are many groups that can be made in the market, as hinted previously, the primary category of gender is found very interesting as the northern markets are mostly male dominated places. It will be helpful to see if this weighs in, in terms of notions regarding safety and vulnerability. Further subjecting the data to more statistical investigation. I compare the perceptions/opinions of safety (SP) of the marketers in NM and WM with their respective categories of gender to see if the SP values make any significant difference by the categories.

Table 6.6: Perception of Safety by Gender: Nyanya and Wuse Markets. (Source: author's own)

SP	Gender (n)		Gender (w)	
	Male	Female	Male	Female
Mean	7.21	7.38	7.61	7.8
Median	8	8	8	8
Modal	9	10	9	9
Std. Dev.	2.3	2.26	2.2	2.06
Minimum	1	1	1	1
Maximum	10	10	10	10
Skew	-1.01	-0.91	-1.13	-1.18
Frequency	224	193	500	256
%	53.72%	46.28%	66.14%	33.86%
Mean ± Std.	7.21 ± 2.3	7.38 ± 2.26	7.61 ± 2.2	7.8 ± 2.06

n= Nyanya market; **w**=Wuse market**; SP**=Perception of Safety

The data set of the SP values for NM (table 6.6) and WM have been tested and found to not be normally distributed as seen in table 6.7.

Table 6.7: Test for Normal distribution of SP(n) and SP(w) (Source: author's own)

Tests for Normal Distribution	SP(n)		SP(w)	
	Statistics	p	Statistics	p
Kolmogorov-Smirnov	0.18	<.001	0.2	<.001
Kolmogorov-Smirnov (Lilliefors Corr.)	0.18	<.001	0.2	<.001
Shapiro-Wilk	0.9	<.001	0.87	<.001
Anderson-Darling	12.63	<.001	32.93	<.001

The p values are all <.05, hence the data set is not normally distributed. A test needs to be done to test for difference in the categories which are nominal variables with the perception of safety which is a metric variable. In addition to the abnormal distribution, the two data sets are categorical, the dependent variable is ordinal (Likert-wise, and metric), and the observations are independent. A Mann-Whitney U test overlaps with these conditions and it is therefore used for the cases of two categories of gender.

The test starts with a pair of hypotheses and proceeds to retain or reject either of them.

For Nyanya Market, the hypotheses are set:

Table 6.8: Null and alternative hypotheses for gender: NM (Source: author's own)

Null hypothesis	Alternative hypothesis
There is no difference between the Female and Male groups with respect to the dependent variable SP (n)	There is a difference between the Female and Male groups with respect to the dependent variable SP (n)

Following this, the mean, and median of the gender groups are calculated:

Table 6.9 SP (n) Mean, median mode of gender (Source: author's own)

		N	Mean	Median	Standard deviation
SP (n)	Female	193	7.38	8	2.26
	Male	224	7.21	8	2.3

The results of the descriptive statistics show that the Female group has equally higher values (though equal medians), for the dependent variable SP (n) (*Median* = 8) than the Male group (*Median* = 8). Especially due to the standard deviation and mean.

They are then ranked:

Table 6.10: Mean rank: NM (Source: author's own)

	N	Mean Rank	Sum of Ranks
Female	193	213.52	41,209
Male	224	205.11	45,944
Total	417		

The Mann-Whitney U values:

Table 6.11: Mann-Whitney U values: NM (Source: author's own)

	Values
Mann-Whitney U	20,744
Z	-0.72
Asymptotic Significance (2-tailed)	0.472
Exact Significance (2-tailed)	0.478

A Mann-Whitney U-Test reveals that the difference between Female and Male groups in NM with respect to the dependent variable SP (n) was not statistically significant, i.e., *U*=20,744, *p*=.472, *r*= .04. for the p value, p>.05 which is the 5% confidence level. Thus, the null hypothesis is retained but just for the available data. This implies for the current data, there is no significant difference in the perception of safety by gender in NM based only by the available data. The null hypothesis is not accepted.

For Wuse Market, the hypotheses are set:

Table 6.12: Null and alternative hypotheses for gender: WM (Source: author's own)

Null hypothesis	Alternative hypothesis
There is no difference between the Female and Male groups with respect to the dependent variable SP (w)	There is a difference between the Female and Male groups with respect to the dependent variable SP (w)

Following this, the mean, and median of the gender groups are calculated:

Table 6.13: SP (w) Mean, median mode of gender (Source: author's own)

		N	Mean	Median	Standard deviation
SP (n)	Female	500	7.61	2.2	0.1
	Male	256	7.8	2.06	0.13

The results of the descriptive statistics show that the Male group has equally high values for the dependent variable SP (n) (*Median* = 8) than the Male group (*Median* = 8). Especially due to the standard deviation.

Then they are ranked:

Table 6.14: Mean rank: WM (Source: author's own)

	N	Mean Rank	Sum of Ranks
Female	500	372.19	186,095.5
Male	256	390.82	100,050.5
Total	756		

The Mann-Whitney U values:

Table 6.15: Mann-Whitney U values: WM (Source: author's own)

	Values
Mann-Whitney U	60,845.5
Z	-1.13
Asymptotic Significance (2-tailed)	0.258
Exact Significance (2-tailed)	0.267

A Mann-Whitney U-Test has reveals that the difference between Female and Male groups in WM with respect to the dependent variable SP (n) was not statistically significant, U=60,845.5, p=.258, r= .04. p>.05 which is the 5% confidence level. Thus, the null hypothesis is retained for the available data. This implies for the current data, there is no significant difference in the perception of safety by gender in WM. The null hypothesis is not accepted.

This investigation further corroborates the observations in focus groups in which women and men have shown very similar dispositions towards vulnerability in both markets.

6.6.2. Confidence Levels Across Different Sellers

Now that the perceptions of vulnerability with respect to larger spatial contexts like the government and the market community has been explained, we narrow down to the very space of the seller. Over the time spent across the markets in the Abuja. It has been noticed that the sellers in the market can be grouped into four major categories:

a. *The shop owner*: Owner of the shop.

b. *Shop owner representative*: Hired to not only manage the shop by the shop owners who are often not around. 'Reps' often represent the interests of the owner i.e., in meetings, reports to administration and similar activities.

c. *Open air sellers*: These people have no shops; they sell under an umbrella with a chair and a table where their products are placed. In other cases, they just spread a mat on the floor to display their goods. As one might assume these sellers usually operate with a smaller capital and it is extremely rare (almost unheard of) for them to employ shop representatives.

d. *Hawkers:* Mobile sellers. They are mostly illegally present in market spaces with clear boundaries, they carry products on their head or wheel them about. Their ease to shift location is the primary reason why most market management systems do not like them. They are exceedingly difficult to monitor.

Table 6.16: Perception of Safety by Seller Typology: Wuse Market. (Source: author's own)

SP (w)	Shop Owner	Shop Owner Rep	Open Air Seller	Hawker
Mean	7.29	8.01	7.98	8.08
Median	8	9	8	8
Modal	9	9	10	9
Std. Dev.	2.38	1.88	1.94	1.7
Minimum	1	1	3	3
Maximum	10	10	10	10
Skew	-0.97	-1.25	-1.05	-1.28
Frequency	360	285	60	51
%	47.62%	37.7%	7.94%	6.75%

n= Nyanya market; **w**=Wuse market; **SP**=Perception of Safety

Tables 6.16 and 6.17 show that the perception of safety does not drastically differ across the seller types. It is however lower—as expected, in NM than WM. A peculiar observation is how the hawkers in NM are. Beyond the fact that only a few of them were interviewed[55]. Upon further interaction, it was discovered that they attributed their level of confidence to their ease of mobility. One hawker said:

"I don't pray for trouble, but if it happens…watch me".

Immediately after saying this, he jets off…running so fast. Amusingly, he never came back to finish his interview.

[55] Interviewing a hawker is very difficult, they are always moving because they don't want to be caught, you literally must jog with them sometimes to carry on the conversation. Apart from the formal sets of interviews, simple quick questions were asked to some in clusters at various times.

Table 6.17: Perception of Safety by Seller Typology: Nyanya Market. (Source: author's own)

SP (n)	Shop Owner	Shop Owner Rep	Open Air Seller	Hawker
Mean	7.23	7.53	6.94	7.6
Median	8	8	8	7
Modal	8	8	9	7
Std. Dev.	2.34	2.04	2.59	1.76
Minimum	1	1	1	4
Maximum	10	10	10	10
Skew	-0.88	-1.06	-1.17	-0.46
Frequency	278	90	34	15
%	66.67%	21.58%	8.15%	3.6%

n= Nyanya market; **w**=Wuse market; **SP**=Perception of Safety

Boundaries have been discovered as a driver of the perception of safety. This is much evident when perceptions of safety are appraised through the typology of the sellers. In the early discussions of boundaries during focus groups in both markets it was significantly highlighted[56]

Open air sellers in WM feel safter because they have a feeling of spatial closure. It is quite tasking to lay out products without a shop in market where thousands of people pass each hour without any boundary and very little monitoring.

6.6.3. Visibility and Shop Layouts

The theory of interstitiality presented in this thesis has been discussed at the various levels of scale. Here the spaces between the spaces of the market are closely studied with respect to notions of safety. A study was carried out to see how the layout of the markets affect their perceptions of safety.

Table 6.18: Seller relationships and Shop interstitiality: Nyanya & Wuse Markets (Source: author's own)

	Seller Rel. (n)	Seller Rel. (w)	Shop-Ar (n)	Shop-Ar (w)	Shop-Vs (n)	Shop-Vs (w)
Mean	8.44	8.07	6.54	7.33	6.13	3.75
Median	9	9	7	8	6	4
Modal	10	10	8	10	6	1
Std. Deviation	1.57	1.87	2.57	2.38	2.54	2.47
Minimum	4	1	1	1	1	1
Maximum	10	10	10	10	10	10
Skew	-0.76	-1.05	-0.54	-0.91	-0.22	0.96
valid values	417	756	417	756	417	87
Mean ± Std.	8.44 ± 1.57	8.07 ± 1.87	6.54 ± 2.57	7.33 ± 2.38	6.13 ± 2.54	3.75 ± 2.47

n= Nyanya market; **w**=Wuse market; **Seller Rel.**= Relationship between sellers in the market; **Shop-Ar**: Preference of current arrangement of shops in the market; **Shop-Vs**=Visibility of shop in relation to other shops in the market

In table 6.18, it is noticed that people in WM are slightly more satisfied with the arrangements of the shops in their market than the people in NM. This is expected as NM was not really planned to expand as fast and as wide as it has. With a 70.77% sprawl towards the northeast (see figure 5.19; no 27) the shop arrangements have merged with the contextual urbanity with very complex forms of interstitiality. This of course is highly linked to the satisfaction of the visibility of shops in terms of preference and safety. The people in NM feel their shops are vulnerable, not just based on their positions but based on

[56] Interviews were largely carried out before focused groups to keep the group conversations from unduly influencing the personal opinions of the market people.

the fact that the market has no boundaries, and many people use the market as passageways rather than stop to shop. NM market is fully embedded into the urban context, most shop owners see this as a risk. This is not so in WM (figure 6.13), and it reflects in the numeral rating of their preferences.

Upon close inspection, it will be noticed there is an outlier in the dataset of table 6.18. Only 87 respondents were engaged for opinions of shop visibility. The sample size has heavily mutated the data. A majority of the 87 respondents are from block A (see figures 6.12); the cyan coloured line of shops in the center of the market) which is along the main entry street of WM. It is difficult for people to stop here as shoppers in cars (who usually buy the most goods) are usually trying to park before engaging the sellers. They often don't come back to the lane when they are parked. Based on months being embedded in the market, I can connect this to the preference of the shoppers in the lane as it is a typical complaint of the marketers there. There have even been talks of multiple speedbumps to enthuse potential shoppers to look sideways when coming to the market. This has not really worked.

In terms of the relationship that sellers have with each other, NM edges out. As previously explained, the factors that catalyse this include the more sophisticated communal structure in the market The lines and the groups are always close. Meetings are also held more often, and groups take major responsibilities for themselves in conjunction with the executive group. The closely packed layout has also made most marketers to be friendly as they are in each other's faces all day and the small interstitial space has encouraged them to share display space and overtime lend each other products to sell. There is the practice of a person in shop A given a product to a person in shop B at a price smaller than the retail price but slightly higher than cost price, if Shop B runs out. This gesture is reciprocated among friends in the market, and it is more common in NM. In addition, the tight interstitial space makes it easy for the sellers to watch over each other's shop. Since they face each other, they keep an eye on each other's goods against pickpockets or other suspicious characters in the market.

In essence, the shop layouts affect how safe the people in the markets feel and the interstitial spaces matter in terms of social cohesion and also security, and hence safety.

6.6.4. Vulnerability within Wuse and Nyanya Markets

While vulnerability varies between both markets, there are also variations within the individual markets as well. While the population and trade density within the market may be directly proportional to the possible casualties upon attacks, especially with the new rise of suicide bombings (Alao, 2022), awareness levels are high in dense areas. This is seen to be true especially for areas that constantly experience petty theft or armed robbery from time to time. The experience of these 'little dangers' help sharpen the ability of these spaces to spot intruders or any spatial form of intending harm. NM seems to have more awareness within its spaces as they have a local security team and also more awareness especially after the bombing, they experienced in 2014. My ethnographic experience coupled with the density mapping in figure 3.2 is used to delineate contextual vulnerabilities within the spaces of both markets as seem in tables 6.19 and 6.20.

Table 6.19: Variation of Vulnerability within Wuse Market (Source: author's own)[57]

s/l	Area (m²)	%	Contextual Vulnerability
A	28217.86	25.25	This area is comprised of the largest car park, the police station and main entrance. Based on previous attacks in Wuse and Nyanya. The areas majorly attacked are security units and large car parks. The collective cars can expand explosions in cases of bombing and more high-income buyers get to be casualties which is part of the aim of some groups.
B	32314.03	28.95	The main internal road stands a high risk of being attacked as it is a direct contiguity of area A, cars need to pass through it to get to the car parks. The far northeast region has the least market activity in the market as it has multiple stories and buyers do not usually want to go that far unless they need. Alao (2022) has shown that attacks usually happen in large, populated areas even in markets.
C	19036.75	17.05	This area has a bank, an Islamic praying space, and a host of heterogenous traders who sell everything from toys to clothes, everyday home items etc. It is where the Islamic and Christian part of the market really meet. From 6 months of observation, conflict is more likely to start from within the market here than from outside. The presence of a bank, however, makes it more vulnerable to external attacks.
D	11835.34	10.60	Northern part of this area is home to second largest cluster of jewel shops in Nigeria. The traders are almost all northerners and Muslims. While this may look like the most vulnerable area in the market as it holds the most financial value in the market, some of the smallest shops there have estimates of up to $20m in jewellery. The traders are well connected their ethnicity often protects them as attackers are Islamic and from the north. They are however denser than areas A, B, C which makes them vulnerable to attacks that are not properly coordinated.
E	16190.39	14.50	These areas are largely known for the sale of electrical appliances. The Igbo tribe are concentrated in these areas. According to the police, most cases of petty theft and robbery happen in this area. The awareness of the traders is therefore very high in Area E. This makes it difficult for infiltration and covert attacks. Direct attacks such as the one on 24-12-2019 (see section 1.0) may be successful if the attack size is big enough.
F	4077.61	3.65	This is the densest area and the most disorganised. 6 months of work supervision shows that this area is the most difficult to survey. The activities here are difficult to follow. The probability for infiltration and intelligence gathering is high here. It is easy for this place to harbour occasional non-market members. An attack will also resort to high casualties here.
Total	111671.98	100.00	

[57] The data are in these tables are sensitive and while they can help reduce vulnerability, they may be harmful to the market in the wrong hands.

Table 6.20: Variation of Vulnerability within Nyanya Market (Source: author's own)[58]

s/l	Area (m²)	%	Contextual Vulnerability
A	2828.54	5.68	Based on Alao theory of density as an affinity for attacks (Alao, 2022), this region has the least activity, and it is less likely to be attacked. Its sparse population also makes infiltration unlikely and aimless. Trade activity here us also low.
B	8011.06	16.09	A contiguity of Area A with slightly more density. They are 'behind' the main clustering of the market with less trading activity. Local security surveillance does not pay much attention here. Infiltraion is prospect is high and attacks can come from here into some dense areas of C and D.
C	17379.27	34.90	Higher density surrounding the densest region. It has an affinity for coordinated attacks. They are 'behind' the main clustering of the market. Which makes them even more vulnerable.
D	21580.84	43.34	Highest density and trade activity. For this reason, awareness is highest in this area therefore infiltration is difficult. Local surveillance is highest here. Despite these measures, it still remains a high target. The bus park near this region is however much more vulnerable has been attacked by suicide bombers in the past as explained.
Total	49799.71	100.00	

6.6.5. Confidence Levels in the Government and the Community

The shunning of possible attacks from the north invokes an urge for further investigation. Is it only the conflict in the north that they are not concerned about or are they generally nonchalant about possible attacks? Generally, in Nyanya, 54.92% of the respondents are not concerned about another attack, 45.08% are however very concerned. In Wuse, there is more confidence in security from attacks; 66% are not concerned about a possible attack. But how do these perceptions play out with other agencies in space? How do the markets perceive the government and their own communities in being able to protect and provide safety? In order to see how this relates to their general perception of safety in both markets, a cross-parameter analysis is done (table 6.21). Note that 'police' which is part of the government is isolated as they are a primary agency in the discourse.

It can be seen that perceptions of confidence in the government are generally lower than in the community for both markets. It is even lower than the faith in the police. NM however has a much lower confidence level in the government compared to WM. This has been demonstrated earlier in how WM is more central. However, it is interesting how the people at NM are able to dichotomise the effort of the police from the government. They have more confidence in the police than in the government. This would have been confusing if ethnographic studies were not carried out. In NM, it is observed that the Police station north-east to it (see figure 6.13) has over time bonded with the market community, though the community recognise their inability to fully protect the market they appreciate the help the officers offer in the day-to-day life of the market. Police help handle petty crime, they are also present sometimes in communal meeting. This social embedment has influenced how the people see the police in Nyanya. Even though some people have different opinions as they see a bigger picture of capacity, this is thought to have influenced their perception of the police. This is also why the rating differs

[58] Same as (10).

sharply from confidence level in the government. However, having seen this view, I proceed to investigate the mutation of these levels when cross-linked with the concerns for an attack in both markets.

Table 6.21: Perceptions of Safety & Attack Concerns: Nyanya & Wuse Markets. (Source: author's own)

		Attack-Concern (n)		Attack-Concern (w)	
		No	Yes	No	Yes
SP	Mean	7.74	6.74	8.02	6.87
	Median	8	7	9	7
	Modal	8	10	9	9
	Std. Dev.	1.71	2.73	1.88	2.48
	Minimum	1	1	1	1
	Maximum	10	10	10	10
	Respondents	229	188	499	242
	%	54.92%	45.08%	66.01%	32.01%
	Skew	-1.08	-0.56	-1.44	-0.58
	Mean ± Std.	7.74 ± 1.71	6.74 ± 2.73	8.02 ± 1.88	6.87 ± 2.48

n= Nyanya market**; w**=Wuse market**; SP**=Perception of Safety

In table 6.21, it is observed in both markets that those who are not concerned about an attack generally have lower tendencies of feeling vulnerable as their perception of safety is high. Even though according to the modal scores, some people with high confidence still have concerns, they do not hold constantly across the groups of those concerned. Now it is therefore inferred that even though the market people don't see how the conflict in the north can affect them, they are however concerned about attacks on the markets. Seeing how their perception of safety further relates to their perceptions of the efficiency of the government or their own informal groups in protecting them, brings further insights.

Table 6.22: Government Safety Efficiency & Attack Concern: Nyanya & Wuse Markets (Source: author's own)

		Attack-Concern (n)		Attack-Concern (w)	
		No	Yes	No	Yes
Gov-S	Mean	5.78	3.09	7.25	5.48
	Median	6	2	8	5
	Modal	8	1	9	5
	Std. Dev.	2.8	2.39	2.15	2.6
	Minimum	1	1	1	1
	Maximum	10	10	10	10
	Skew	-0.27	0.99	-1.07	-0.04
	Frequency	229	188	499	242
	%	54.92%	45.08%	66.01%	32.01%
	Mean ± Std.	5.78 ± 2.8	3.09 ± 2.39	7.25 ± 2.15	5.48 ± 2.6

n= Nyanya market; **w**=Wuse market; **Gov-S**= Government efficiency in providing safety

From table 6.22; in NM, we begin to see the first formal glimpse of an asymmetry of government policy effort in both markets. There is generally a huge distrust in the efficiency of the government to provide security in NM compared to WM. Those you who are concerned in NM have very little confidence in the government.

Table 6.23: Community Safety Efficiency & Attack Concern: Nyanya & Wuse Markets. (Source: author's own)

		Attack-Concern (n)		Attack-Concern (w)	
		No	Yes	No	Yes
Com-S	Mean	7.45	6.74	7.55	6.79
	Median	8	7	8	7
	Modal	8	10	9	8
	Std. Dev.	1.77	2.49	1.83	2.27
	Minimum	1	1	1	1
	Maximum	10	10	10	10
	Skew	-0.51	-0.56	-1.01	-0.71
	Frequency	229	188	499	242
	%	54.92%	45.08%	66.01%	32.01%
	Mean ± Std.	7.45 ± 1.77	6.74 ± 2.49	7.55 ± 1.83	6.79 ± 2.27

n= Nyanya market; **w**=Wuse market; **Com-S**= Community efficiency in providing safety

This is also significantly corroborated in the focus group meetings and in the day-to-day observations of the people. They complain about the government each day. It is even a typical conversation starter in the market. As earlier explained, WM enjoys more attention from the government, because of its location in the FCC and the demography of people who visit. The market is also under AMML, and they pay tax, so it is in the intertest of the government to pay at least some attention to the safety of the market. Once again, the market people concerned about attacks have even lower confidence levels than their more optimistic counterparts in both markets.

In table 6.23, we see a somewhat uniform perception in the power of community in both markets. There is generally a higher confidence level in the market communities than in the government. This interestingly also applies to WM that has higher confidence in the government in comparison with NM. The somewhat 'symmetry' of confidence levels with respect to concerns for attacks at the level of the communal spirit shows a general culture of community that is seen across many markets, not only in Abuja, but in northern Nigeria. However, it is still important to point out that once again, those with concerns for an attack still have less confidence in the community than their more optimistic counterparts in both markets.

6.7 Resilience of Abuja Markets

This entire study has focused largely on one thing: how vulnerable markets in Abuja are and can be. While this is the aim of the study, it will not be thorough to neglect the tremendous resilience that markets in Abuja have demonstrated for well nearly two centuries. Since the formation of the early Abuja in 1828, its markets have had to not only survive continuous Fulani attacks, but also play vital roles in the city's defence (Hassan & Na'ibi, 1962, p. 9). Currently, they sit at the center of Nigeria's informal economy which is the third largest in the world. Despite the scares and attacks, they have always found ways of 'keeping on'. Nyanya market has remained in business even after the 2014 bomb blast that killed nearly 100 people. Patronage of the market dropped significantly as buyers stayed away out of fear. Some respondents in Nyanya say it took as long as over 6 months before they started making

profit again. One of their coping mechanisms involved forming informal finance contribution groups where they borrowed money from each other.

Another indication of the resilience was during the COVID-19 pandemic which created macro-disruptions to all major socio-economic systems in Nigeria. Conflict broke out during this period as protests emerged in major cities across Nigeria including Abuja (Alao, 2022, p. 223). This period led to the largest national scale of urban violence-based disruption in Nigeria since the 2012 oil subsidy revolt. All sectors were shut down except hospitals and markets. Most health centres were closed. Only the markets were operational but at 8% of their weekly time (Ajadi 2022b). Only food was allowed to be sold in Abuja market to reduce density. The estimated 2535 traders in WM dropped to 505. At the peak of the lockdown, I was able to lead a team to interview 97 of approximately 505 traders at WM. It was observed that even though traders in WM had higher confidence in the government (table 6.22), their agreement to good government efficiency plummeted from 60.31% to 0% (Ajadi 2022b). From table 6.24, it can be observed that they experienced difficulty in getting to work as the city's transport system shut down. COVID-19 safety guidelines were also not readily observed in the market space (table 6.24). The security presence was significantly larger than usual, but they were present mainly to ensure people shopped in batches to enforce social distancing. The only sliver-lining was an ease of inter-state food transport due to an absence of traffic (table 6.24).

Table 6.24 Some market changes during the pandemic (Source: author's own;)

Perception (%)	Transport difficult before COVID?	Transport difficult during COVID?	Ease of supply flow better during COVID?	Profitable daily sales (pre-COVID)?	Profitable daily sales during COVID?	COVID-19 guidelines followed in Market?	Market security present?	You feel safe?
Generally, Agree (5,4)	16.5	69.0	80.5	62.9	41.2	44.3	88.7	79.4
Indifferent (3)	5.1	16.6	11.3	20.6	17.5	30.0	9.3	13.3
Generally, Disagree (2,1)	78.4	14.4	8.2	16.5	41.3	25.7	2.0	7.3
total	100	100	100	100	100	100	100	100

Though no interviews were conducted in NM. It was later discovered that situations were much more severe there. There was little to no security on site and traders were robbed. Traders walked longer distances to their stalls, so they had to set out before dawn to take full advantage of the 7:30 a.m. to 3.00 a.m. (Mondays only) sale window as set by the government.

Despite this, the markets functioned. A quick assumption would be that the traders were desperate and needed to make money, this is true. However, they also developed coping mechanisms:

a. They organised security groups among themselves which reduced robbery attempts.
b. They borrowed each other money to ameliorate the hardship.
c. Some helped others who lived too far away to open their shops and sell on their behalf, taking only a minute cut of sales, most times no cuts were taken.

These sophisticated social measures (and many more) were easy to develop because of the communal character of the markets and their informal nature. They helped the traders through the trying time (Ajadi 2022b; Aladejebi, 2020). Their consistency of operation in turn fed the entire FCT. The formal sector on the other hand, buckled totally under the pandemic's pressure. Sales drastically reduced, supply chains mutated or collapsed, and the times and spaces of work were disrupted significantly (Aladejebi, 2020). It also took the formal sector months to return to a 'new normal' which is still in play till present. Some companies still partly or fully work from home. The markets, however, were back to normal in less than 2 weeks after all restrictions were removed. Abuja markets are smart. They are resilient, but more needs to be done to enable them rise up to their vulnerability.

7

Pathways for Development

This thesis concludes with development pathways drawn from vulnerability studies in the last two chapters. It analyses community and government responses to insecurity, along with narratives affecting confidence levels of traders and buyers, to identify development gaps and propose pathways of sustainable governance and policy strategies for Abuja. While specific development plans are beyond this study's scope, spatial reorganization pathways are presented, referencing Akin Mábògùnjẹ́'s stance (1989, p. 68). The new understanding of vulnerability in markets becomes instrumental here as it allows a juxtaposition of the problem with the current efforts of the government and the community in Abuja. It takes an overview approach to describing the socio-political engagements of Nigerian governance to conflict as well as the response of the people in the face of violent conflict, especially in Abuja. The policy architecture of Abuja as well as the trajectory of communal responses are called into question in the course of bringing about development. Spatial reorganisation is engaged at the level of the FCT highlighting gaps and presenting possible tracks that can lead to sustainable development plans.

7.1 Conflict in the North and the Nigerian Government

In chapter five, one of the questions the study evoked was why the attacks are concentrated in the FCC despite the biased attention and aid of government given to the FCC in contrast to the other 92% of the FCT. Since the independence of Nigeria in 1960, the quality of governance and leadership has always been called into question. From the multiple coups in the early 1960's culminating in a civil war in 1967 to the post war politics, to the rise of full-scale corruption across all sectors. The leadership of the colonial period laid the groundwork for numerous pathways of corruption that has been fuelled by Nigeria's vast wealth of natural resources. The corruption is not financial alone. Ethnic, and religious biases have also contributed to the instability of the country. Studies show that the current conflict in northern Nigeria is proving difficult to overcome partly because the government is complicit in its proliferation (Maiangwa, et al., 2012; Adegbulu, 2013; Njoku, 2020; Agbaenyi and Ezeanya, 2022). This has been in a number of ways. There have been observations of members of government across the federal, state, and local government levels being linked to terror groups (Njoku, 2020). Among other bottlenecks, this makes counter-terror strategies often redundant even before they are implemented. The government's amnesty program to take back repentant terrorists has also not yielded any development impact in the region, as a matter of fact it has been counterproductive (Ugwueze et

al., 2022). The program is very problematic to development. Repentant terrorists surrender arms, they are then put through a rehabilitation program of a few months, after which they are 'set up' with much more resources than an average Nigerian or the families of their victims and members of the armed forces lost in combat. This increases the incentive to join terror groups and later 'surrender'. There is also no sustainable plan preventing them from returning to terror (Ugwueze et al., 2022). Recent policies are also pushing for them to join the Nigeria Military, this will be one of the most counterproductive moves of policy so far. In addition, it took years for the government to classify the Fulani herdsmen as a terror group after global authorities already had. There has been very noticeable asymmetry in how the government has been responding to different violent groups across the country. Violent groups from the east and the southwest face full military counter measures and are labelled as terror groups much faster than those in the north that share ethnicity with the current government (Ugwueze et al., 2022). The ethnic bias also extends to the spatiality of policing. This is a significant problem as the police force is controlled from Abuja—the power center. The control is so exclusive that the inspector-general of police controls all police across the country. Governors of states do not have the authority to control the police in their state. This creates a spatial avenue for ethnic and religious bias in policing across the country. Studies have shown that state policing will go a long way in curbing violence across the region (Mercy and Nanji, 2015). The spatial decentralisation and hierarchialisation of power broach the macro duality of development agency, which is the community and the government. i.e., the government and the people. Having discussed the inherent lapses of government. There is need to take a more holistic and specific approach to the workings of the government in Abuja.

7.1.1 Responses of Government and Community

In the study of 375 noted occurrences related to violent conflict in Abuja between 2010 and 2022, a set of government and community actions were observed. Each of the attacks recorded were investigated online and the responses of the government and the community were recorded through data from news feeds, and in some cases, confirmation made from individuals in the vicinity of the occurrences. The responses are divided into 7 broad categories based on the recorded responses:

a. *Verbal action/denunciation*: This is a case where the government or community openly speaks against an occurrence, condemning the act. It is often referred to as 'no action' since all that is done is just 'talk'…but at least, a position is taken and communicated to the public.
b. *Added Security*: The permanent or temporary addition of security to certain spaces as a response to an occurrence.
c. *Policy*: The design or implementation of a policy as a response.
d. *Relocation*: The moving (or movement of people) from areas of harm.

e. *Condolence*: This is similar to verbal action, but it goes further by directing it to the victims. This action might go beyond verbal messages to actual visits to victims by agencies of government or the community.

f. *Rescue/counterattack*: Active effort to save victims in a violent conflict situation. On-site counter-responses are also included in this category.

g. *Twist*: This was found to be exclusively attributed to the government. It is the deliberate effort to misrepresent, hide or mutate information about an occurrence of violence. Maiangwa, and co (2012) have noticed this in the governance style in Nigeria with respect to conflict in northern Nigeria.

A socio-temporal study is made on the recorded occurrences of violent conflict in Abuja with the responses of the community and the government in each case. These responses are grouped per year and the average annual occurrence of each response between 2010-2022 is presented across the action types (table 7.0). Knowing fully well that temporal scales are needed in addition to holistic presentation of the summary statistics, a series of trend graphs are plotted from 2010-2022 (figure 7.0 and 7.1) to enrich the study.

Table 7.0: Community and Government Response to conflict in Abuja: 2010-2022. (Source: author's own)

	No Action		Verbal		Added Security		Policy		Relocation		Condolence		Rescue		Twist	All
	(c)	(g)	(c)	(g)	(c)	(g)	(c)	(g)	(c)	(g)	(c)	(g)	(c)	(g)	(g)	---
Mean	9.15	6.38	18.08	20.31	1.23	5.38	0	1.62	0.08	0	0.08	2.08	9.62	16.62	1.69	28.85
Mdn	6	2	10	13	0	3	0	0	0	0	0	1	9	12	1	14
Mode	1	0	2	3	0	0	0	0	0	0	0	0	0	4	0	10
Std. Dev.	10.09	10.94	19.94	19.58	3.3	5.61	0	2.93	0.28	0	0.28	2.53	10.28	14.65	2.56	31.7
Min.	1	0	1	3	0	0	0	0	0	0	0	0	0	3	0	3
Max.	36	39	63	61	12	17	0	10	1	0	1	8	32	48	9	103
Years	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13

c = Community Response; **g** = Government Response

While both macro-agents have similar averages of verbal response per year, it is observed that communities in Abuja have an average 30% less instances in which they took no action in comparison to the government. There has been no observation of formal communal policies in response to conflict in Abuja across the last 13 years but there have been changes in urban spatial form which include increasing gated communities and neighbourhood-sponsored vigilante groups. While the former may not be directly linked to conflict, the later definitely is a response to it. There has also been negligible conflict-displacement initiated in Abuja. There is, however, a growing demography of IDP in Abuja who come mainly from Borno (Ajadi, 2022).

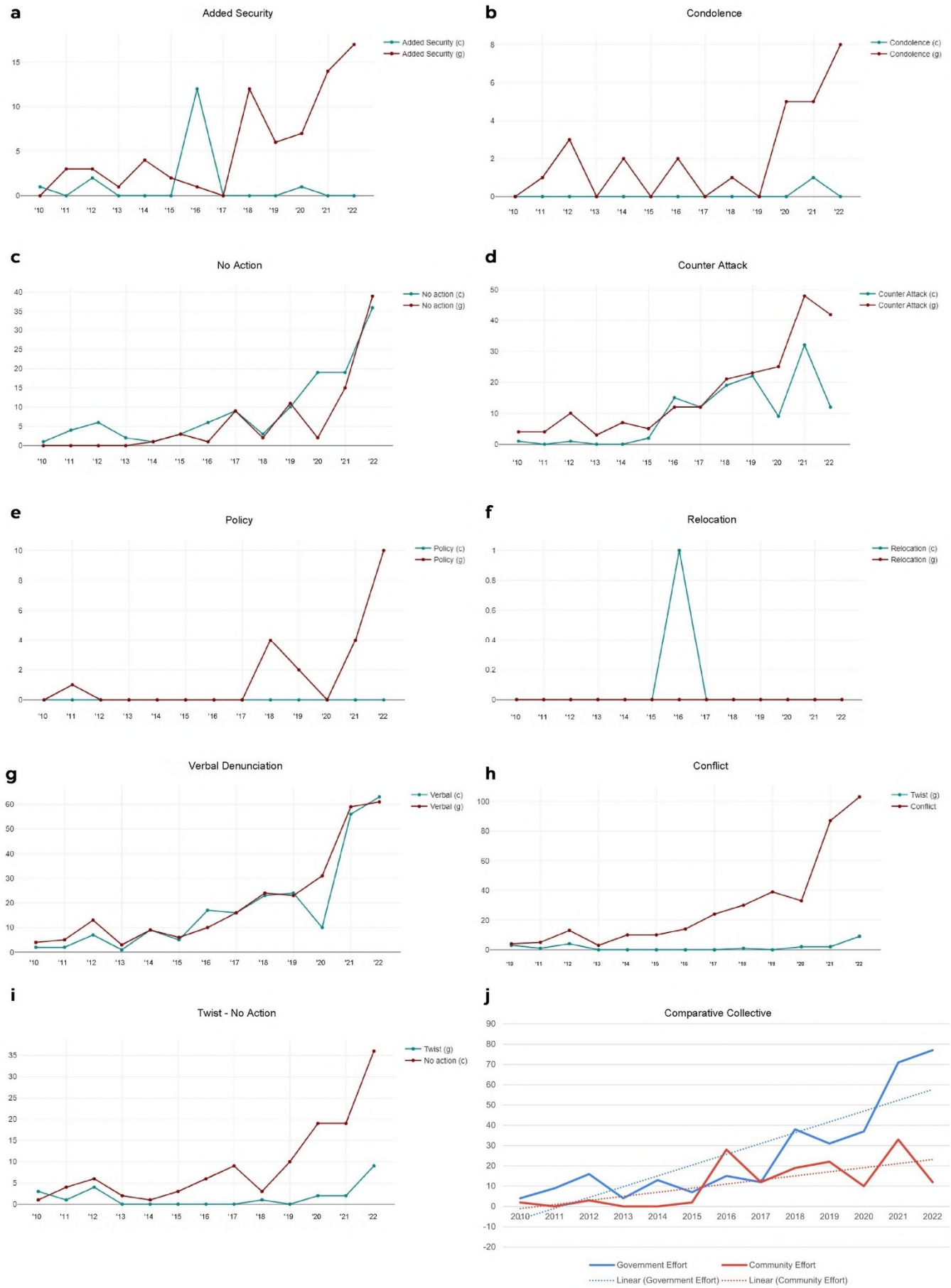


Figure 7.0: Government and community effort towards conflict in Abuja: 2010-2022. (Source: author's own)

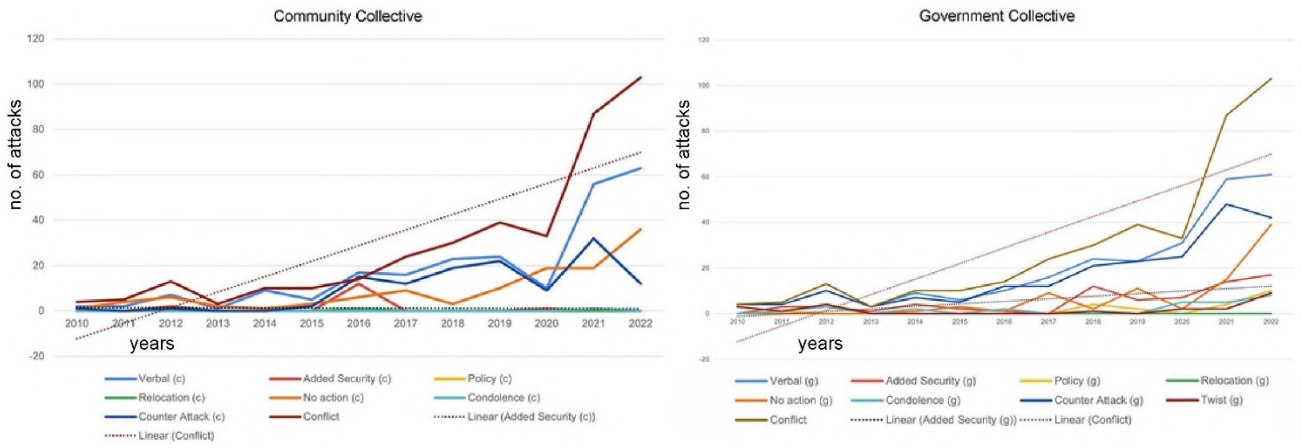


Figure 7.1: Government & community effort towards conflict in Abuja: 2010-2022. (Source: author's own)

Government has responded with additional security at least 5 times more than community. Focus groups reveal that funding is the main reason for the community not having as much security as needed. This is so even in the markets. NM pays vigilantes to keep watch over the markets, but they complain severely over the heavy cost of maintaining the system. They also believe it is the responsibility of the government to protect urban space.

The conflict in 2016 garnered a lot of response from the public and even though the government increased security at an average about 5 times higher than the community, the community responded 6 times more than the government in the addition of security in 2016. This translated to more counter-violence responses and more verbal denunciations by the community in the same year (figure 7.0 a, d, g). The community also attempted to relocate in that year (figure 7.0 f). One would wonder why this newly found communal 'energy' could not be sustained following 2016. At first glance, 2016 is not seen as a 'special year' in terms of the amount of conflict that occurred in Abuja. But with 14 attacks, it was the highest seen yet since 2010 (table 7.1). The most probable reason for the perceived lag in consistency comes in the violence spike of 2017, which has only gotten worse to date (table 5.1). In 2017, fatalities doubled that of 2016 and almost tripled the following year. This is the community's point of negative divergence in rising to the challenge of harm in Abuja and the community appears to have buckled more under the pressure. This can be noticed especially in the increase of security (figure 7.0 a) plummeting after 2016.

It is not out of scope to posit that a consistent effort from 2016, might have contributed positively to more counter-violence as the community had been able to sustain counter-violence responses despite their wanning response of adding security. While this argument is being made largely from a study of past cases, it is important to spatialise the discussion based on the pervious analyses of vulnerability. Most of the known attacks occurred in the FCC and it is important to note that the capacity for communities to defend their open spaces drops drastically as one moves away from the 'boomerang'. There is also a larger and wider distribution of satellite towns (communities) outside the FCC (figure 5.2 and table 5.0). This suggests socio-spatial dichotomies of communal structures different from what

is obtained in the FCC. The attention of government which is concentrated in the FCC is seen as a main driver for these variations which include significant asymmetries in infrastructure like housing, roads (figure 5.2 and 5.3), and communal centres like schools. Hospitals and markets. This bias is to the detriment of communities outside the FCC, majorly in the southern parts.

Also, notable violent conflict did not start 'taking root' in peri-urban Abuja till 2020 (see figure 5.9). Therefore essentially, the responses of the government and the community prior to this time have been largely in the FCC. In 2020, responses dropped and while it could have been assumed that everyone being under lockdown due to the pandemic would increase communal security, it was not so. Most responses of the community dropped during this period (figure 7.1). Instead, there were protests for food and palliatives across Abuja and the markets were working minimally. With the increasing attacks outside the FCC, the wide deviations of communal and government responses from the conflict intensity can be noticed especially in the provision of security and counter-terror (or counter-violence) responses (see figure 7.0 a, d, and 6.3). It can be observed that communal response has been less effective than the responses of the government. In summary, the studies of government and community roles in Abuja show that communities can be effective in reducing their own vulnerability, but such effort can only be mainstreamed if they have access to more resources. This shows how welfare and economic stability can influence communal security and vulnerability, not only at the wider scale of the community but also in niche collective spaces like markets as previous studies have shown. As for the government, the responses have been more centralised in the FCC, even though they have been able to increase security and counter-violence over the last 6 years. This section may read like the community and government are in competition to protect the FCT. The socio-spatial parallels occur because there are little to no structures that harmonise the responses of both macro-agents. This brings us to the policy framework of the FCT.

7.2 Abuja Markets and The Policy Entanglement

Extending the discussion of the role of government in the safety of markets, we move into the domain of policy. This chapter has already hinted on some difficulties in policy in the context of urban and rural security. There are also bottlenecks in the case of handling market safety in Abuja through policy. Over the last 13 years, policy has not been the most dynamic response of the government to conflict and violence in Abuja. In Abuja, policy has been steady and rather unreactive in conceptualisation triggered by violence. 2018 and 2019 are the only years in which policy (either in conceptualisation or implementation) has been a response to conflict occurrence (see figure 6.2e). It must be noted that policy triggered by an immediate need may not necessarily be effective as timing is very important in policy implementation and some interventions may not need to be urgent in terms of strategy (Mthethwa, 2012). In the case of Abuja two main problems of policy are in the front row when it comes to responding to conflict:

a. Unnecessarily long or inefficient chains of command and responsibility.
b. Disconnection or lack of inclusion of markets in the stages of the policy development.

7.2.1 Inefficiency of the Implementation Chain

Interviews with senior staff of the FCDA[59] reveal that in the summary stages of policy conceptualisation and implementation, the chain of input is unnecessarily long and confusing. The director of planning[60] at the time had this to say:

> "It is not just policy, even planning decisions and sometimes, the simplest things, take a very long time to be actualised. There is so much paperwork, much of which is not needed. So many people have to sign a physical document for the simplest things to move. Sometimes documents and decisions go through offices that have almost nothing to do with what is being formulated or set in play. This slows down implementation of policy"[61]

This fracture in the operational flow can be noticed in the leadership framework of Abuja (figure 7.2) with the honourable minister of the FCT as the head who answers to the president.

[59] Federal Capital Development Agency; a technocratic body of government units in Abuja
[60] 3rd box, upper right of figure 7.2
[61] Interview with Hajiya Zaliha'u Ahmed FNITP MNIA, Director of Planning FCDA; 10-01-2020.

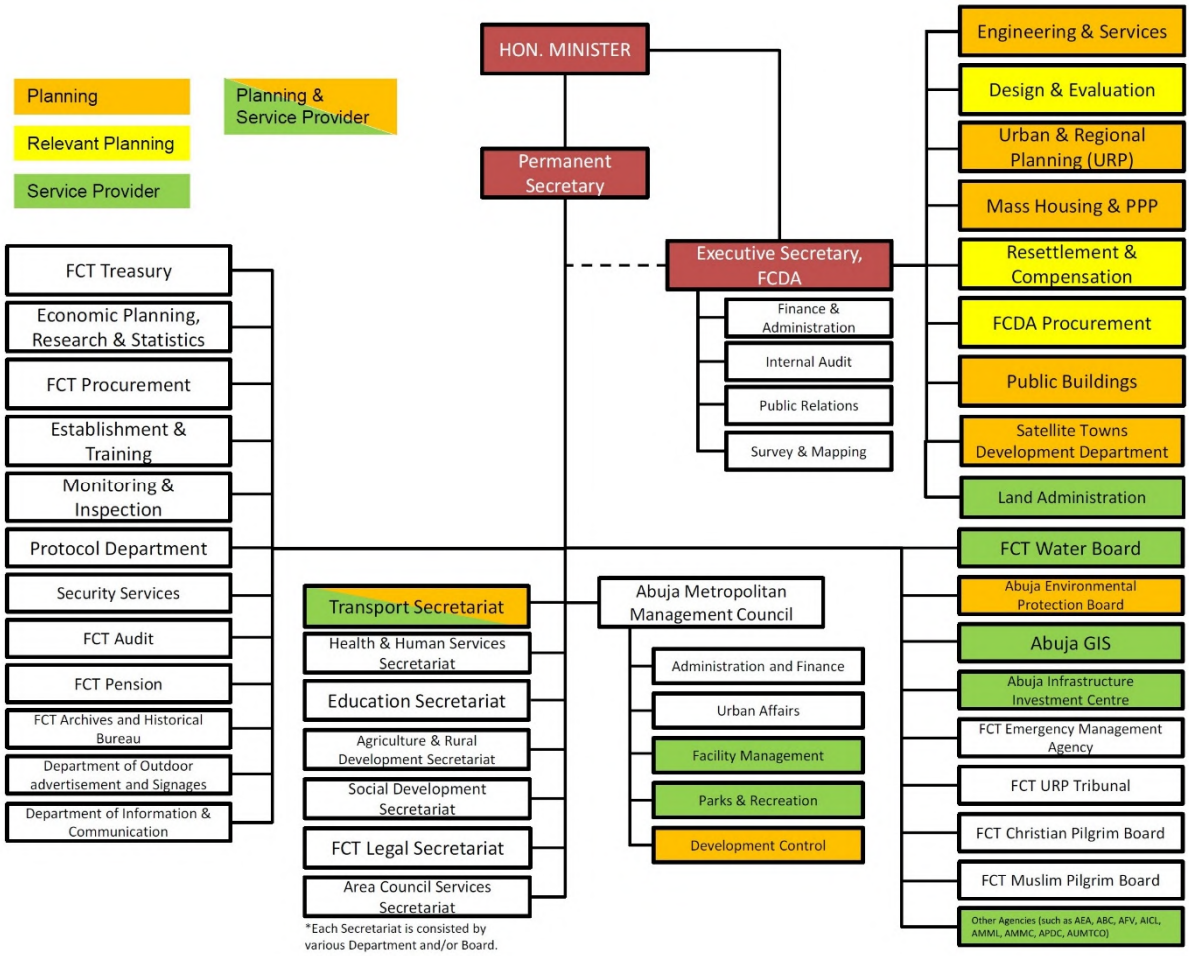


Figure 7.2: Leadership Framework of Abuja (JJC,2019)

It can be noticed that the Executive Secretary is not directly in charge of urban affairs, facility management, parks and recreation and development control. Further key departments like Abuja Geographic Information Systems (AGIS), FCT Urban and Regional Planning (URP) Tribunal, Water Board, Environmental Protection Board, and other agencies which include Abuja Market Management limited (AMML)[62] flow directly to the permanent secretary. Fortunately, the duration of this study allowed the chance to get qualitative data not just from relevant senior staff but from staff across all levels of the policy chain. The quoted director of planning was later promoted to the post of Executive Secretary of the FCDA (figure 7.2) and even though she had more control on operational flow, she still experienced similar problems. Upon follow-up interviews, she says:

> "The experience is still the same, only now there is even more irregularity to deal with" [63]

In a more recent interview:

[62] Last green box on the lower right of the figure 7.2

[63] Interview with Hajiya Zaliha'u Ahmed. Former Director of planning and Executive Secretary of the FCDA. 11-01-2022

> "The main problem is that people do not know the difference between the FCTA[64] and the FCDA. The FCTA oversees administration, the FCDA is a group of technical experts who develop a wide range of solutions. The whole framework mixes this up and it slows down the making and implementation of policy. Things move slow".[65]

In addition to this entanglement, the pro-analogue format of the entire government set-up is also a problem. While it protects the institutions from cybercrime, the movement of documents take time as they need to be physically signed. Retrieval of documents can also be tedious if they date back decades. I once had to wait for nearly two weeks to get early maps of Abuja and at the end of the search some were not found.

The markets are at the receiving end of this problem. When routes for development are established, it takes months, sometimes years for some policies to start manifesting in the market. The market people hardly wait, they try to find solution for themselves. This includes security and welfare measures in addition to infrastructure, employment, insurance, and finance issues. Studies confirm that external constraints of policy at the macro-economic level limit the chances of informal retail labour in the urban development process (Simon, 1998). This has been observed to affect not only the vulnerability of markets in Abuja to conflict, but their growth and development as well.

7.2.2 Exclusion of Markets in Policy and Governance

As discussed above, there is some level of exclusion in the governance and management of markets in Abuja. This exclusion cannot be explained without the AMML. AMML is a subsidiary of the Abuja Investments Company (AICL). It was incorporated in 2004 and developed in February 2005. Wuse market was the first market taken under management in 2005 and since then it has added 17 other markets to its list. The AMML operates as the face of the government to markets in Nigeria and it is linked to the policy and administration framework that is handled by the Permanent Secretary, though the Executive Secretary, sometimes aids in making decision. AMML provides the following services to the markets they manage:

a. Facility planning and development.
b. Lease administration.
c. Security and janitorial service (using private security companies)
d. Parking and traffic management
e. Health and safety services
f. Customer service
g. Service charge administration (assisting local markets in organising bill payments from traders)

[64] Federal Capital Territory Administration; in charge of government agencies in the white box in figure 7.2
[65] Interview with Hajiya Zaliha'u Ahmed. Retired Executive Secretary of the FCDA. 01-03-2023

h. Repair and maintenance of buildings and equipment in markets.
i. Finance and management consultancy.

These services range from managing in-market facilities, to providing security, to even rendering technical advice to informal SME traders. Of the 94 main markets identified in Abuja. Only 18 are being managed by the AMML, 8 of which are within the FCC. This means that even at the level of administration scope, their coverage is at least, at 19% capacity. This is low. Moreso, the vast peri-urban part of the city is left to manage themselves without government help. This further increases the vulnerability of markets not in (or near) the FCC. As mentioned, WM is one of the markets being managed by the AMML, but NM isn't. It is unclear how they pick markets to manage but talks with other markets show that among other reasons, the urge to not totally relinquish authority to the government is a key concern. This is corroborated by the perception of the government's efficiency in peri-urban markets like NM as previously shown in this thesis. In terms of the market's management as 'government help', it is very difficult to gauge the efficiency of the AMML in WM as permission for my study of the Market was granted by them and also communicated to the market people. There was therefore reluctance by the traders to give feedback on the aspect. The reluctance alone hints on the fact that much more can be done in terms of efficiency.

In terms of security, the AMML hire private vendors to secure the markets under their jurisdiction. Though this strengthens the private security sector, the private security firms often lack the capacity to deal with the level of threat the markets are susceptible to. This framework can be improved if the government allocates government force, but as explained this can only be done effectively through proper policy.

7.3 Securing Markets: Ways Forward

This thesis has set out to produce an extensive spatial understanding of how vulnerable markets in Abuja are, and by extension the FCT as a whole. The primary enquires of theory, spatial nature, method and the responses of government and community have been satisfied. The primary inhibitions that the community and the government face have also been discovered.

As for markets and their communities, we know the spatial latency between markets in peri-urban communities make it difficult for them to naturally form partnerships which may help towards better trade and protection. We know they have limited resources to aid protection in comparison to the threats they face. There is also a strong awareness of the bias of the government is aiding and developing majorly markets in the FCC. The repercussions have been even more vulnerability across the entire FCT and a slow development of the informal markets outside the boomerang.

The governments on the other hand have demonstrated effort to stand up to conflict and violence but they are experiencing some significant setbacks. Corruption is seen as a major pull-back.

There are also indications of a government susceptible to religious and ethnic bias to the point of being complicit to violence and terror in some governance systems. Policies have not helped because they are not conceptualised with the market people. Even when they are developed, they take too long to implement because the framework of governance is not efficient. There are also indications of poor resource allocation as the government plays little on security provision in the markets.

The findings of this thesis have provided valuable information on the spatiality of northern Nigeria, its shifts, and changes through phases of multiple wars and also through colonisation. The formation of Abuja has been studied while looking at the development of the market in the holistic narrative. Also revealed is the dynamics of the conflict, and the nature of market vulnerability in Abuja. This new knowledge naturally broaches an expected question: How can things be better? While a detailed strategic development plan to significantly improve the vulnerability of markets is beyond the scope of this thesis, the study nevertheless presents directions in which thinking should be directed for sustainable development. In view of this, three primary areas are presented:

a. An attention to the recalibration of the space of the market.
b. A focus on the interaction of markets.
c. A more meaningful collaboration of the government and the community.

7.3.1 Reconfiguring Settlements

Markets exist within settlements therefore a move to securing markets undoubtedly involves the security of the settlements that hold them as well. At the scale of settlements, the spatial theory of interstitiality put forward in this thesis, which builds on Mabogunje's spatial reorganisation theory, can be repurposed for conflict resilience by reducing the spatial isolation of settlements across the FCT. This has the pragmatic prospect of keeping local communities outside the FCT safe. The study shows about 132 settlements in Abuja with 95.45% of them outside the FCC. A program of intercommunity awareness and response can be setup in which communities can form allies through transport and communication between key people across settlements can enable more reduce the vulnerability of these communities to attacks. Their increased urban awareness can help prevent some infiltrations and also speed up ETA of help during an attack. An analysis is conducted (figure 7.3) to show possible alliances in settlement clusters socio-spatially compatible. This approach can bridge settlements close to each other thereby increasing their spatial awareness and also create local response squads with dedicated proximity jurisdictions. The study develops 27 clusters of settlements with between 6 to 30 minutes of each other. This clustering leaves only 23 isolated settlements from 132, thereby reducing the isolation index of towns by 81%. Of the 23 isolated settlements 6 are from the FCC while 17 are outside it. As already explained, the 6 settlements by proximity of resources are less vulnerable than the other 17. This can bring down the isolation index of the FCT by 87.12%. While this approach needs

more study, it is however a pursuable development pathway through strategic communal social development and new government policies developed over a considerable period.

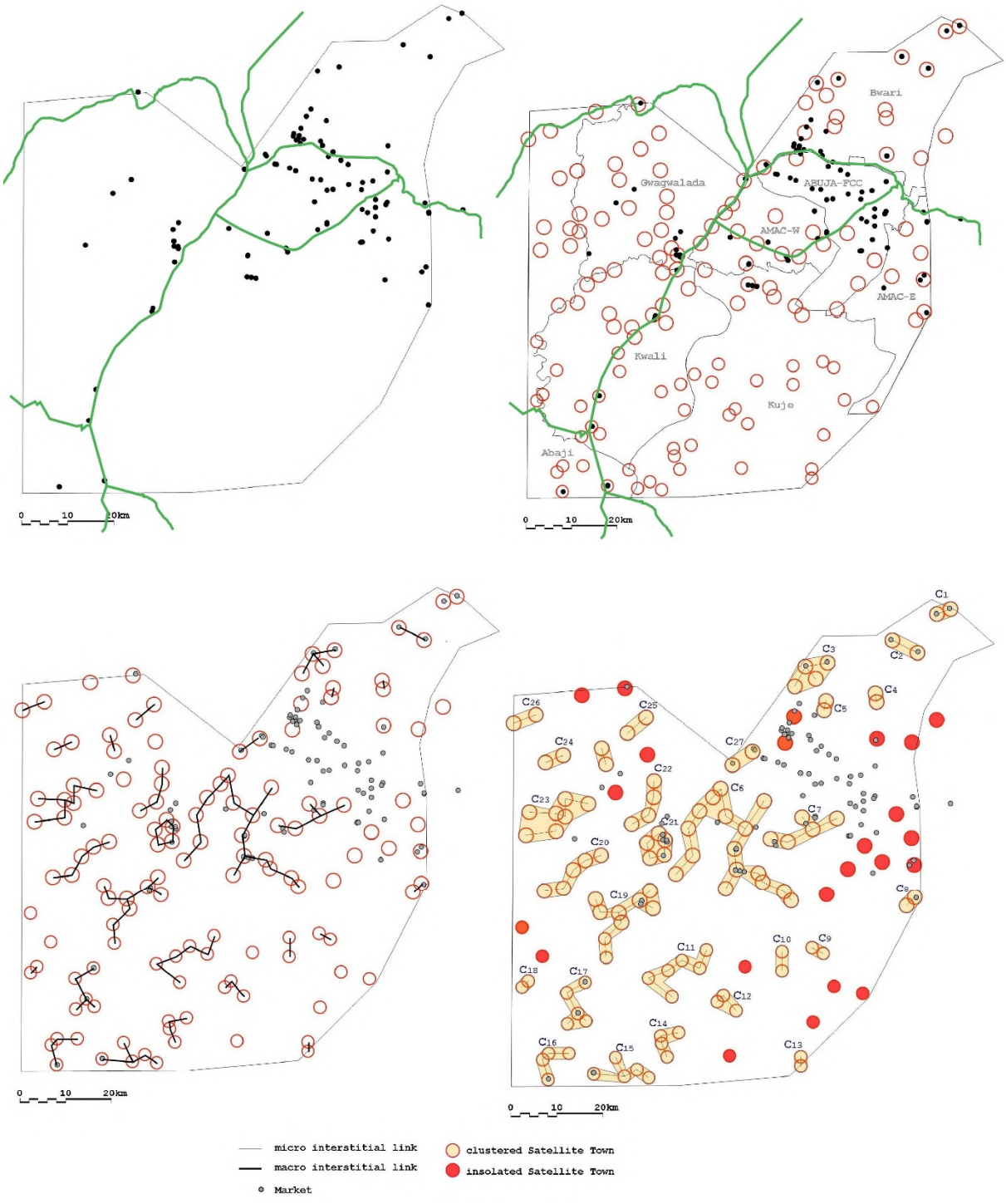


Figure 7.3: Bridging isolated settlements in Abuja (Source: author's own)

7.3.2 Reconfiguring Market Spaces

The African market space does not conform to basic western rectilinear or primitive shapes (see plate 3.0-3.2 and 5.0). It is highly chaotic, but it is not chaos. The complexity may be perceived as a problem by outsiders, but it is in fact a strength and it can be weaponised to reduce vulnerability. Mábògùnjé's position (1989, p. 68) which largely forms the theoretical framework for this study comes into play. The reorganisation of space itself can be development. The argument for this position resides in the findings of the spatial analysis of vulnerability in Abuja. Lapses like complicated boundaries, interstitial latency and asymmetrical governance all point to a need for spatial reorganisation. The spatial reorganisation referred to here is of a socio-spatial nature as introduced in the first chapter and not necessarily a pure physical manifestation in geometric form. With all that has been unravelled, it is clear; a reorganization of the Abuja market space is imperative to reduce vulnerability, especially outside the FCC. Development in SSA usually appears to side-line the rural and the sub-urban. Mábògùnjé (1989, p. 94) argues against this in the context of spatial reorganisation:

> "Since land is basic to the viability of rural life, it is the contention of this study that comprehensive spatial reorganization is central to the attainment of this objective (development) and that much of the failure of past attempts at rural development has been due to the relatively scant attention paid to the spatial dimension of rural development planning." (1989, p.94)

From the standpoint of infrastructure, the spatialities of the northern Nigerian market can be instrumentalised in architectural design to produce a new recalibration of markets in northern Nigeria with conflict resilience worked into the spatial design. One of these instances is a market project I designed for a community Borno which can also be repurposed for some other parts of northern Nigeria. The market has been shown as a space that communicates the experience African identity and spatiality even in the reorchestration of the urbanity (Ajadi, 2023a). Since the ritual of trading in the north is more of a cluster meeting ritual rather than a straight-line process (Ajadi, 2023a, see also: plate 3.1 and 3.2)[66], the design accentuates this everyday practice in circular form of hard rammed enhanced earth (see figures 7.4, Plates 7.0 & 7.1). While the design keeps more people in protected clusters, the rammed earth can be designed to have the density and strength of compressed earth brick walls which are commonly known to be bullet proof. Additional development can therefore also drastically reduce the blast radius of home-made bombs usually used by agents of terror in the region[67]. Designs of material and spaces like this can be optimised till they can be more feasible across various northern terrains.

[66] See an image of Maitagari cattle market as an example.
[67] While this is true for compressed mud bricks and certain mud walls, proper development needs more material and architecture-based research.

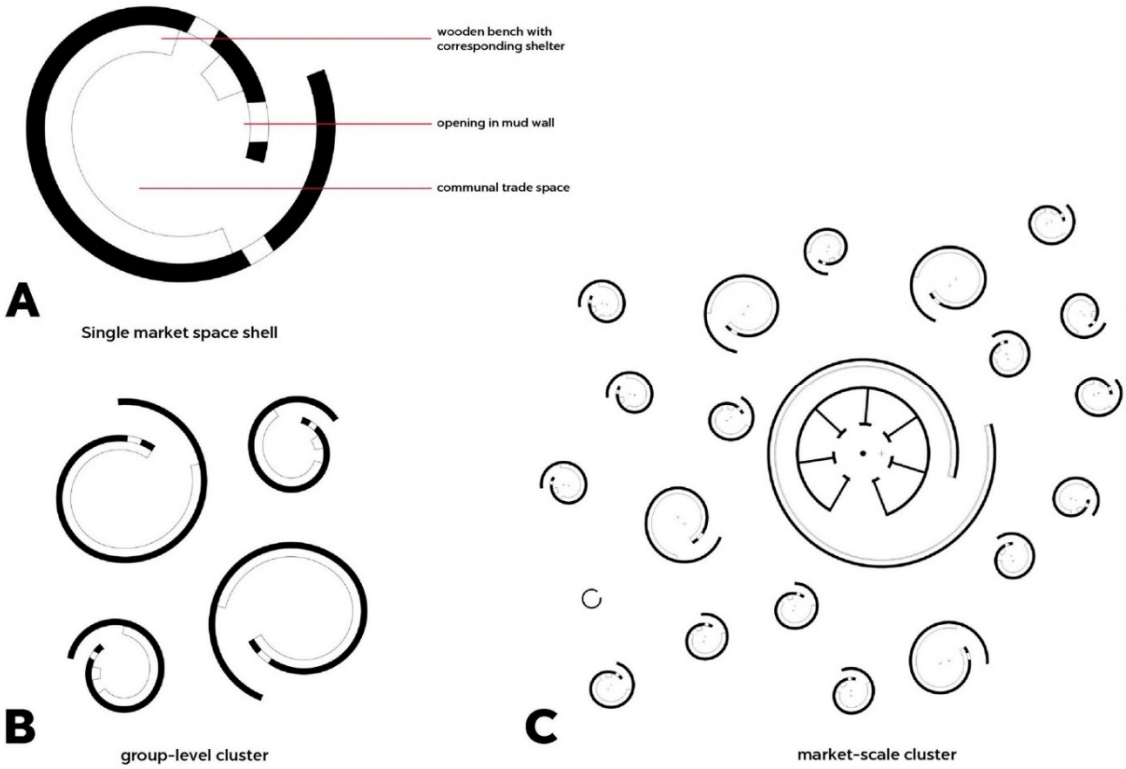


Figure 7.4: Layout of proposed conflict resilient market, Borno (Source: author's own)



Plate 7.0: Visual illustration of conflict resilient market (group-level cluster), Borno (Source: author's own)



Plate 7.1: Visual illustration of conflict resilient market (market scale cluster), Borno (Ajadi, 2023b)

From the standpoint of development strategy, specifics of this recommendation are complex as definite steps may vary across markets. However, possible pathways are presented:

Table 7.1: Spatial reorganisation pathways for Abuja markets. (Source: author's own)

Spatial Configuration	Spatiality		Intervention pathway
Macro	Interstitial Latency	M1	Market-to-market inter-relationships need to be built. Key areas that need focus are communication, transportation, security, and sale. The order may matter as a communication framework needs to be established first.
		M2	Two spatial sub-pathways can be engaged: Satellite towns and markets. The socio-spatial connection of satellite towns will strengthen or ease the connection of corresponding markets. Policy planning should consider satellite towns near vulnerable contiguities (see figure 7.3) i.e., towns in Abaji, Gwagwalada and Bwari. For markets, planning should consider those near the main roads outside the FCC (see figure 7.3). A sustainable network of market can reduce vulnerability in the following ways: a. Markets at boundaries can warn the network of nefarious infiltrations before they even happen in other markets. b. Suspects can be tracked across markets. c. Markets in contiguity can act as first aid markets to each other with systems in place. Cross-development can occur e.g., training and sharing of resources to aid protection. Collective awareness can help combat inaccurate/false reporting and data which Maiangwa, et al. (2012) has pointed out as a corroborating factor aiding terror in northern Nigeria
Micro	Sprawls	M3	Sprawls can be worked into the urban planning scheme; they can be controlled, and their trajectory can be curated for development. Existing informal management systems of markets can be operationalised to organise it so people in sprawls can be identified.
		M4	Sprawls can be used to aid the spatial production of 'market conurbations' that can aid M2. The study already reveals the organic development of some e.g. What I have identified as the Lugbe conurbation comprising of Lugbe fruit market, Lugbe mini market[68], Lugbe timber market and Baba Gida market (figure 5.19 numbers: 12, 20, 23).
	Market Layout	M5	Market layouts can help reduce vulnerability if spaces between shops are controlled and monitored according to the needs of specific markets (see figures 7.4-7.6).

[68] Demolished by the government in 2022.

7.3.3 A Hybrid Approach to Policy and Leadership

After research produces findings which point to pathways of development, policy becomes the next step to driving the change by forming intelligence based on new and existing knowledge. This thesis congeals its study by calling for a sophisticated collaboration of the government and the community in significantly improving security and reducing vulnerability in Abuja's open spaces…especially markets. The side-lining of informal spaces in Abuja development planning should stop. This thesis has shown that spaces outside the FCC are more vulnerable. Attacks have increased significantly in these spaces in the last 2 years (figure 5.9 & table 5.1). The government of Abuja should work with the informal spaces in engaging this problem. Adeyinka et al., (2006) show that economic development can be boosted if government policy integrates informal land activities—especially markets, instead of seeking to eradicate them because they do not conform to westernised mainstream urbanities. In the premise of this argument, Lugbe mini market might not have deserved demolition[69] Nigeria's informal economy is too large (even at the global scale) to be ignored (Tonuchi and Idowu, 2020). Imam et al. (2008) has shown that the cooperation of the government and the informal sector is imperative in the development of sustainable policies in Abuja. In this regard, this study makes a case for the problem of market vulnerability. Government must create a sustainable system where the views of all traders are fully communicated to them. This study shows that Abuja market people do not believe the government is fully efficient, especially the markets outside the FCC. The government needs to work for their trust. It is difficult to protect people who do not trust them. This is why they both groups must undergo spatial reorganisation. Makinde's (2005) nationwide study of policies in Nigeria concluded on three main problems facing the implementation of policies in the country: corruption, lack of continuity in policy implementation and inadequate human and material resources. Almost two decades later, the narrative has not changed. In addition, this study uncovers an entanglement in the policy chain in Abuja's case. Nwaka (2005), in his seminal work on developing the economy of the informal sector, calls for:

> "…a more enlightened, more participatory, and more equitable form of state intervention that eliminates needless restrictions and provides a more appropriate and flexible regulatory framework that is compatible with local conditions and yet reasonably efficient and environmentally sustainable." (Nwaka, 2005, p. 1)

The rural and urban space of Abuja must be fashioned according to their contextual African realities. This is why the history of the city—before the 1975-birth, is important. Possible pathways for a hybrid approach to policy and leadership is presented in table 7.1 & 7.2.

[69] See M4 in table 6.5.

Table 7.2: Avenues for a hybrid effort towards market security (Source: author's own)

Group		Intervention pathway	Suggested pathway collocations
Government	G1	The primary and constant effort should be to eliminate corruption from governance. To remove people and systems that are complicit in conflict and terror in Abuja. This is the hardest task but the one with the greatest reward as Abuja controls Nigeria, therefore governance development in Abuja has a significant potential to scale across the country.	G1, M1, M2,
	G2	The government should re-organise the interaction of its leadership framework (figure 6.4) to expedite and improve policy conceptualisation and implementation.	G2, M2
	G3	The government should allocate more state resources to security and properly focus on the 92% outside the FCC. Studies of contiguities show that if rural Abuja is still vulnerable, it will continue to be an infiltration zone for even more attacks in the FCC. So, if not for the morality of leadership, they should know that they will be protecting the FCC in the process.	G1, C1, G3, M3, M4
Micro	G4	Government must work with a well organised community throughout the stages of their policy orchestration up to implementation. There are about 94 main markets in Abuja. The AMML must strive to be actively involved with all of them. Not in an authorisation way but in a more collaborative way. Almost every informal market has a leadership system (Grossman 2021:18), that is often underestimated. The AMML should strive to assist and not replace or control these systems.	G4, C1, M1, M2, M3, M4
Community	C1	In addition to forming a large community of markets (M1), they must work to communicate accurate data to the government so they can help each other more effectively. The application of this thesis will be their best start.	C1, G3

8

Conclusion

In the course of this thesis, a lot has been shown about the spatiality of the African market and its vulnerability to conflict and violence. This study focused on the markets of the northern region of Nigeria, showing how the space of the region has changed over centuries and the role the market has played in the narrative of its conflict. From the scale of the city to that of the market, this thesis has investigated the spatial impact of conflict and violence on Abuja. In this thesis, three main research questions were put forward and extensively answered.

The first question sought to understand the spatial nature of vulnerability in Abuja and its markets in the context of conflict and violence in northern Nigeria. This study has been able to show that vulnerability itself can be a tool that can lead to knowing more about urban security. Upon investigating Abuja, it has been found that the city is vulnerable to conflict and violence in ways that have not been noticed before. Firstly, in contrast to the celebrated position of the capital city being a fortress, it was discovered that it had experienced at least 375 known attacks across its space with 686 fatalities and 853 abductions and the situation is currently on a rapid decline. The FCT was appraised in relation to its contiguity, and it has been discovered that Abuja as a whole is vulnerable by being in contiguity to the highly vulnerable states of Kaduna, Niger and Nasarawa. The vulnerability of these states feeds into the macro-spatial narrative of conflict and violence in northern Nigeria, reinforcing findings in this same study that conflict in the region impacts market vulnerability in Abuja. Secondly, the city has concentrated various resources of security in the Federal Capital City (FCC). This bias goes all the way back to the formal formation of the city, a process that did not consider the cultural identity as well as the indigenous dwellers of Abuja and hence neglected a large part of the FCT in terms of urban development and of course, security. This has led to a steady increase in vulnerability of not only the FCT as a whole but the FCC itself. Theories of interstitiality developed in this thesis have been used to show that the scattered settlements in Abuja with poor transportation and relations between them has made the city more open to attacks as response times of security forces increase significantly moving away form the FCC.

In the case of the markets, it has been discovered that there are 94 markets in Abuja with distinct territory markings and trading activity beyond the neighbourhood scale. For the first time the main markets of Abuja are fully mapped across the FCT. We now know spatial factors like distance, proximity, contiguity, boundary, and layout characteristics like visibility, contribute to vulnerability in

markets. More importantly, we know how, and the impact of their effects. The theory of fuzzy boundaries in markets have also shown how sprawling markets can be difficult to secure by either the government or the local market management. The detailed studies of Nyanya and Wuse markets have shown that markets that have suffered significant attacks suffer from a labelling stigma that reduces visiting buyers, hence trading activity. It also affects the perceptions of safety of the traders, increases their spatial awareness, and motivates them to develop various mechanisms of informal security. It is also discovered that the proximity of ill-equipped security forces to markets have little to no effect in reducing the vulnerability of the market. Markets in the city also enjoy a close proximity to reliable security forces by virtue of the asymmetrical development of Abuja. Moreso, the social calibre of people in certain neighbourhoods attract security to their markets and increase the perception of safety of not only the traders and the customers. These perceptions are found to largely be in line with the security provided in these spaces. This is evident in case of Maitama farmers market and relatively also, in the case of Wuse market.

The second question of method has led to a new spatial approach to studying conflict and violence in Northen Nigeria and the Sahel at large. Spatial ethnography as a combination of ethnography and other qualitative techniques in the theoretical context of space has revealed a new way of understanding how people behave and feel in direct relationship to their spaces. Deep and wide ethnography and spatial analysis have been successfully combined to understand conflict in informal spaces that exhibit a high degree of cultural diversity and instability like northern Nigeria. The alliance of ethnography and GIS in the context of spatial ethnography has created rare large data sets that can be used in further hardcore urban modelling processes. It is about time highly divergent methods are brought into the interdisciplinary loop of spatial analysis especially in studies of 'unorthodox' spaces like African markets. Silva and Wu (2012, p. 149) in their extensive survey and classification of urban land models and systems have called for more diverse, integrated, and sophisticated ways across disciplines to approach spatial analysis. This thesis has delivered on this with unorthodox but useful combination of an anthropological approach to spatial analysis. The study has also been able to contribute to the discourse of methodology in conflict study by producing a framework for studying conflict in unstable African space.

The third and final question of this thesis seeks to understand the responses of the government and the community to conflict and violence in Abuja. In this case, the study has uncovered dynamics of the government and the community activities to conflict and violence in Abuja over the last 13 years. It has been discovered that the community has made noticeable effort in responding to conflict, in some cases even more than the government. However, they have been unable to maintain consistency as cases worsened and vulnerability deteriorated. Factors discovered were funding and a lack of cooperation from the government. Findings on communal resilience to violent conflict shows that communal effort to rise against urban conflict and violence can be frustrated if the instability not only continues but significantly increases. It is therefore important to aid the community before they reach their 'snapping

point'. As for the government, certain measures by them have been complicit in the deterioration of conflict and violence in northern Nigeria. There have also been important organization gaps in the policy architecture of the FCT in which the management of markets have suffered significant neglect and exclusion.

Even though specific strategies and policy plans for sustainable development are not covered in this thesis, pathways for development were nevertheless put forward based on the findings of the study. It was found that development can be achieved if strategies and polices are developed to establish and enrich the relationship among markets, among settlements and between markets and spatially contextual settlements. Also, rather than being an Archille's heel of markets, sprawls in markets can also be formally and informally monitored, controlled and instrumentalised as security systems. Security can also be worked into the markets from the design stage by building sustainable and effective everyday practices of traders stemming from centuries of trade culture in northern Nigeria.

As much as the study significantly pushes the knowledge envelope of conflict study and urban security in northern Nigerian markets, a few limitations are ascribed to the research. The study is primarily limited to the spatial understanding of vulnerability in Abuja and its markets. Though the research goes on to chat pathways for development, actual policy orchestrations for development are out of its scope. There were also very limited data produced by the government, this has affected the scope of interrogation in the case of finding more detailed gaps in the government's policy and leadership. Some interviews of high-level government personnel could not happen. Insights at this level would have added depth to studies concerning the role of the government in engaging violent conflict in northern Nigeria. Also, due to the sensitive nature of the data dealt with in this thesis, the study could not investigate vulnerability at the micro-scale of individual traders and similar scales. Ethnical considerations have put the safety of the respondents and the traders at large as high priority in the course of the study. Funding and time were also a limitation in this study, it will be noticed that the research conducted ethnographic studies at an unprecedented scale which required noticeable funding. More findings may have been derived from more concentrated studies across the 94 markets given more resources and time. Building on this study, recommendations would include the use of the newly developed method framework for studying conflict in unstable African space. This will save a lot of field work time and increase the safety of the researcher. Further research on real-world development policies by other researchers in academia or (and) the government should be encouraged to instrumentalize these rare findings as development processes in Abuja and other parts of northern Nigeria.

Informal markets of Africa are very integral to the economic sustenance of most African countries as most African states have a large share of informal economy. Markets of Africa generally do not get a lot of research attention let alone studies of their security. This study is the first of its kind in the spatial investigation of vulnerability in markets at a scale of a territory such as Abuja. In addition to studies like Van Den Hoek's (2017) in Maiduguri and others, this study initiates a move to understand

the nature of vulnerability in the most complex spatial typology in many northern Nigerian spaces. Market vulnerability and security is a beginning of a new research trajectory that has significant potential to contribute to the discourse of conflict resilience and sustainable development at large. The study already presents development pathways for the communities and the government of Abuja in engaging vulnerability. These shifts towards development have the potential of securing not just Abuja markets or the FCT. They can also be highly useful across markets of northern Nigeria and the Sahel at large.

9

References

Abiodun R. (1998). Forward In: *Art and religion in Africa*. (eds) Hackett, R., & Hackett, R. I. A&C Black.

Abubakar, I. R. (2014). Abuja city profile. *Cities*, 41, 81-91.

Acemoglu, D., & Robinson, J. A. (2020). *The narrow corridor: States, societies, and the fate of liberty*. Penguin.

Adams J. (1823). *Remarks on the Country extending from Cape Palmas to the River Congo.* (Unknown publisher) p.87

Adegbulu, F. (2013). Boko Haram: the emergence of a terrorist sect in Nigeria 2009–2013. African Identities, 11(3), 260-273.

Adeyinka, S. A., Omisore, E. O., Olawuni, P. O., & Abegunde, A. A. (2006). An evaluation of informal sector activities and urban land use management in southwestern Nigeria. In XXIII FIG Congress Munich: Shaping the Change, Germany (pp. 8-13).

Adger, W. N. (2006*).* Vulnerability. *Global environmental change,* 16(3), 268-281.

Adhikari, P. (2013). Conflict-induced displacement, understanding the causes of flight. *American Journal of Political Science,* 57(1), 82-89.

Adidi, J. E., Alhassan, M. M., & Adekiya, O. A. (2021). Challenges of housing development in the Federal Capital City, Abuja. Environmental Technology & Science Journal Vol. 12 (2)

Agbaenyi, A. N., & Ezeanya, E. V. (2022). Terrorism In Sub-Sahara Africa: A Study Of Elite Complicity In Nigeria 2015-2022. International Journal of Advanced Multidisciplinary Research Reports, 2(2).

Aghmashhadi, A. H., Zahedi, S., Kazemi, A., Fürst, C., & Cirella, G. T. (2022). Conflict Analysis of Physical Industrial Land Development Policy Using Game Theory and Graph Model for Conflict Resolution in Markazi Province. *Land, 11(4), 501.*

Ajadi S. B (2022). Durumi Camp, Abuja: conflict and the spatial praxes of a furtive-periphery In: *Embodying Peripheries*, Florence: Firenze University Press pp.*119-143 https://doi.org/10.36253/978-88-5518-661-2.06*

Ajadi, S.B (2022), 'Violence, Disruption, and the Spatial Resilience of Northern Nigerian Markets', *The Cambridge Land Society*, 2022 https://www.culandsoc.com/about/culs-magazine/

Ajadi, S.B (2023), 'Mapping Magic in Markets of Africa' *In: Scroope: Cambridge Journal of Architecture*, (eds) Mhmood F. & Mitcheltree H. Cambridge University Press pp.193-208 https://www.arct.cam.ac.uk/aboutthedepartment/scroope-journal/current-issue

Ajadi, S.B (2023), 'The Project of the Future African City: Rethinking Urban Real Estate Finance', *The Cambridge Land Society* pp. 116-117 from: https://www.culandsoc.com/about/culs-magazine/

Aka, P. C., & Balogun, J. A. (2022). Primer on Nigeria, "Giant of Africa". *In Healthcare and Economic Restructuring (pp. 25-47).* Palgrave Macmillan, Singapore.

Akinbi, J.O, (2015), 'Examining the Boko Haram Insurgency in Northern Nigeria and the Quest for A Permanent Resolution of the Crisis', *Global Journal of Arts, Humanities and Social Sciences Vol.3(8) pp.32-45.*

Akinlabi, O. M. (2022). Predatory Policing, Police Abuse, and Implications for Trust and Cooperation with Police. In *Police-Citizen Relations in Nigeria* (pp. 205-237). Palgrave Macmillan, Cham.

Akoto, K.A. 1992. *Nation Building: theory and practice in African Centered education*. Washington, DC: Pan African World Institute.

Aladejebi O. 2020. Managing Small Businesses in Nigeria during COVID-19 Crisis: Impact and Survival Strategies, *Journal of Business Management,* Vol. 22 (8) pp.24-34

Àlàó, A. (2007). Natural resources and conflict in Africa: the tragedy of endowment *(Vol. 29).* University Rochester Press.

Àlàó, A. (2022). *Rage and Carnage in the Name of God: Religious Violence in Nigeria*. Duke University Press.

Alemika, E. (1988). Policing and perceptions of police in Nigeria. *Police Studies: The International Review of Police Development*, 11(4), 161-176

Alubo, O. (2011). The public space in Nigeria: Politics of power, gender, and exclusion. *Africa Development*, *36*(1), 75-96.

Alwang, J., Siegel, P. B., & Jorgensen, S. L. (2001). Vulnerability: a view from different disciplines. *Social protection discussion paper series. (Vol. 115, p. 60).*

Amnesty International (2019 December 4). Nigeria: Bills on hate speech and social media are dangerous attacks on freedom of expression, Amnesty International. From: https://www.amnesty.org/en/latest/press-release/2019/12/nigeria-bills-on-hate-speech-and-social-media-are-dangerous-attacks-on-freedom-of-expression/

Angel, S. (2008). An Arterial Grid of Dirt Roads. *Cities* 25:146–62.

Angel, S., Sheppard, S., Civco, D. L., Buckley, R., Chabaeva, A., Gitlin, L., ... & Perlin, M. (2005). *The dynamics of global urban expansion* (p. 205). Washington, DC: World Bank, Transport and Urban Development Department.

Angell, Robert C. (1965). The sociology of human conflict.in E. Mcneil (ed.), *The Nature of Human Conflict.* Englewood Cliffs, n. J.: Prentice-Hall

Appiah-Thompson, C. (2019). The concept of peace, conflict and conflict transformation in African religious philosophy. *Journal of Peace Education*, 17(2), 161-185.

Appiah-Thompson, C. (2020). The concept of peace, conflict and conflict transformation in African religious philosophy. *Journal of Peace Education, 17(2), 161-185.*

Asante, M. (1991). The Afrocentric Idea in Education. *The Journal of Negro Education, 60*(2), 170-180.

Asante, M. (2003). *Afrocentricity: The theory of social change* (Rev. and expanded. ed.). Chicago, Ill.: African American Images.

Asante, M. K. (1980). *Afrocentricity: The theory of social change*. Buffalo, NY: Amulefi.

Asante, M. K. (1987). *The Afrocentric idea*. Philadelphia: Temple University Press.

Asante, M. K. (1988). *Afrocentricity. Trenton*, NJ: Africa World Press.

Asante, M. K. (1990). *Kemet, Afrocentricity, and Knowledge*. Trenton, NJ: Africa World Press.

Asante, M. K. (2003). *Afrocentricity, the theory of social change*. Chicago, IL: African American Images. p.3

Asuelime, L. E. (2018). A Coup or not a Coup: That is the Question in Zimbabwe. *Journal of African Foreign Affairs,* 5(1), 5-24.

Atkinson, P. (2009). Ethics and ethnography. *Twenty-First Century Society*, *4*(1), 17-30.

Atran, S., & Ginges, J. (2012). Religious and sacred imperatives in human conflict. *Science,* 336(6083), 855-857.

Awodola, B., & Oboshi, A. (2015). Terrorism in Northern Nigeria: A threat to food security in Maiduguri. *Mediterranean Journal of Social Sciences, 6*(3), 11-17.

Baird, A. (2009). Methodological dilemmas: Researching violent young men in Medellín, Colombia. *IDS Bulletin*, *40*(3), 72-77.

Baird, A. (2018). Dancing with danger: ethnographic safety, male bravado, and gang research in Colombia. *Qualitative Research*, *18*(3), 342-360.

Bandyopadhyay, S., & Younas, J. (2014). Terrorism: A threat to foreign direct investment. *Doing Business Abroad Policy Report,* 25-50.

Barbieri, K. (1996). Economic interdependence: A path to peace or a source of interstate conflict? *Journal of Peace Research*, 33(1), 29-49.

Barnes, H. E. (1921). A Sociological Criticism of War and Militarism: An Analysis of the Doctrines of Jacques Novicow. *The Journal of International Relations*, 12(2), 238-265.

Barrett, H. R. (1988). *The marketing of foodstuffs in the Gambia, 1400-1980: a geographical analysis*. Avebury.

Barth, J. C. H. (1857). *Travels and Discoveries in North and Central Africa, being a Journal of an Expedition Undertaken... in the Years 1849-1855* (Vol. 2). Harper & brothers.

Basedau, M., & Pierskalla, J. (2014) How ethnicity conditions the effect of oil and gas on civil conflict: A spatial analysis of Africa from 1990 to 2010. *Political Geography*, 38, 1-11

Basedau, M., Strüver, G., Vüllers, J., & Wegenast, T. (2011). Do religious factors impact armed conflict? Empirical evidence from Sub-Saharan Africa. *Terrorism and Political Violence*, 23(5), 752-779.

Baynes, T. S. (1902) Niger River in: *Encyclopaedia Britannica* Baynes T.S (ed). 9th ed. New York: Charles Scribner's Sons.

Beck, N., G. King, and L. Zeng. 2000. "Improving Quantitative Studies of International Conflict: A Conjecture." *American Political Science Review* 94 (1): 21–35.

Behfar, K. J., Mannix, E. A., Peterson, R. S., & Trochim, W. M. (2011). Conflict in small groups: The meaning and consequences of process conflict. *Small Group Research*, 42(2), 127-176.

Berg, M. L., & Sigona, N. (2016). Ethnography, diversity and urban space. In *Ethnography, Diversity and Urban Space* (pp. 1-13). Routledge.

Bergman, M. (2018). *More money, more crime: Prosperity and rising crime in Latin America*. Oxford University Press.

Berman, B. J. (2010). Ethnicity and democracy in Africa. *JICA-RI working paper*, 22.

Bernard, J. (1950). Where is the modern sociology of conflict? *American Journal of Sociology*, 56(1), pp. 11-16.

Bernard, J. (1954). The theory of games of strategy as a modern sociology of conflict. *American Journal of Sociology*, 59(5), 411-424.

Bernard, J. (1957). The sociological study of conflict. In: *International Sociological Association, The Nature of Conflict*. Paris UNESCO.

Bhabha, H. K. (2012). *The location of culture*. Routledge.

Bhan, G. (2014). The real lives of urban fantasies. *Environment and Urbanization*, *26*(1), 232-235.

Bird, S.E. & Ottanelli F.M, (2017), *'The Asaba Massacre: Taruma, Memory, and the Nigeria Civil War'*, Cambridge: University of Cambridge Press

Birkmann, J., & Wisner, B. (2006). Measuring The Unmeasurable: The Challenge of Vulnerability. *UNU-EHS.*

Birkmann, J., Jamshed, A., McMillan, J. M., Feldmeyer, D., Totin, E., Solecki, W., ... & Alegría, A. (2022). Understanding human vulnerability to climate change: A global perspective on index validation for adaptation planning. *Science of The Total Environment*, 803, 150065.

Bishop, R. (1998). Freeing ourselves from neo-colonial domination in research: A Maori approach to creating knowledge. *International Journal of Qualitative Studies in Education*, 11(2), 199-219.

Björkdahl, A., & Buckley-Zistel, S. (2016). Spatialising peace and conflict: An Introduction In: *Spatialising peace and conflict: Mapping the production of places, sites, and scales of violence*, Björkdahl, A., & Buckley-Zistel, S. (eds). Hampshire: Palgrave Macmillan

Black, D. (2011). *Moral Time. New York:* Oxford University Press.

Blaikie, P. M. (1971). Spatial organization of agriculture in some North Indian villages: part I. *Transactions of the Institute of British Geographers*, 1-40.

Blanton, R., Mason, T. D., & Athow, B. (2001). Colonial style and post-colonial ethnic conflict in Africa. *Journal of Peace Research*, 38(4), 473-491.

Bloch, Robin, Monroy, Jose, Fox, Sean et al (2015) *Urbanisation and urban expansion in Nigeria.* Project Report. ICF International, London.

Boumphrey S. (2010). 'World's fastest growing cities are in Asia and Africa'. *Euromonitor International.* https://web.archive.org/web/20151117022953/http://blog.euromonitor.com/2010/03/special-report-worlds-fastest-growing-cities-are-in-asia-and-africa.html

Bräuchler B. (2018), *Contextualising Ethnographic Peace Research*, In: 'Ethnographic Peace Research: Approaches and Tensions', Rethinking Peace & Conflict Series Richmond O. P (ed), Switzerland: Palgrave Macmillan pp. 22-42

Briggs, J. (2022). Professor Akin Mabogunje (1931–2022). *Scottish Geographical Journal*, https://doi.org/10.1080/14702541.2022.2146738

Bromley, R. J., Symanski, R., & Good, C. M. (1975). The rationale of periodic markets. *Annals of the Association of American Geographers*, *65*(4), 530-537.

Buba, A. B. (2021). The Farmer-Herder Conflicts in Nigeria's Open Space: Taming the Tide. In *Decolonising Conflicts, Security, Peace, Gender, Environment and Development in the Anthropocene* (pp. 367-383). Springer, Cham.

Bucholtz, M., & Hall, K. (2005). Identity and interaction: A sociocultural linguistic approach. *Discourse studies*, 7(4-5), 585-614.

Burns, R., & Welker, P. (2023). Interstitiality in the smart city: More than top-down and bottom-up smartness. *Urban Studies*, *60*(2), 308-324.

Burton, J., (1997). Violence explained: The sources of conflict, violence and crime and their prevention. Manchester: Manchester University Press

Büscher, K. (2018). African cities and violent conflict: the urban dimension of conflict and post conflict dynamics in Central and Eastern Africa. *Journal of Eastern African Studies*, *12*(2), 193-210.

Cai, D., & Fink, E. (2002). Conflict style differences between individualists and collectivists. *Communication Monographs*, 69(1), 67-87.

Cai, D., & Fink, E. (2002). Conflict style differences between individualists and collectivists. *Communication Monographs*, 69(1), 67-87.

Calvo, C., & Dercon, S. (2005). Measuring individual vulnerability. *Working paper*: https://ora.ox.ac.uk/objects/uuid:68e540fb-c201-4b39-9773-ff77f199d520

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105.

Çancı, H., & Odukoya, O. A. (2016). Ethnic and religious crises in Nigeria: A specific analysis upon identities (1999–2013). *African Journal on Conflict Resolution*, *16*(1), 87-110.

Carter, D. B., Shaver, A. C., & Wright, A. L. (2019). Places to hide: Terrain, ethnicity, and civil conflict. *The Journal of Politics*, 81(4), 1446-1465.

Castells M. (1977), *The Urban Question*, London: Edward Arnold

Chainey S. & Ratcliffe J. (2005), *GIS and Crime Mapping*, West Sussex: Wiley & Sons

Chamlin, M. B. (1989). Conflict theory and police killings. *Deviant Behaviour, 10(4), 353-368.*

Chang, H. (2008). *Bad Samaritans: The guilty secrets of rich nations and the threat to global prosperity.* London: Random House Business.

Chang, H. (2022). *Edible Economics: A Hungry Economist Explains the World.* London: Allen Lane.

Chang, *H. J. (2002). Kicking away the ladder: development strategy in historical perspective.* Anthem Press.

Changbuin, *M. T. (2014). The role of women in conflict solving in Cameroon: as compared to the role of women in African philosophy.* (master's thesis).

Chari, S., & Gidwani, V. (2005). Introduction: Grounds for a spatial ethnography of labor. *Ethnography*, 6(3), 267-281.

Chen, M., & Doane, D. (2008). Informality in South Asia: a review. WIEGO Working Paper No.4, Cambridge, MA.

Childe, V.G. (1946). *What happened in history*. Penguin Books. pp.105-107

Chiozza, G. (2002). Is there a clash of civilizations? Evidence from patterns of international conflict involvement, 1946-97. *Journal of peace research*, 39(6), 711-734.

Chojnacki S. & Engel, B. (2016) '*Overcoming the Material/Social Divide: Conflict Studies from the Perspective of Spatial Theory'*, In: Spatialising peace and conflict: Mapping the production of places, sites and scales of violence, (ed) Björkdahl, A., & Buckley-Zistel, S. Hampshire: Palgrave Macmillan pp 25-41

Christaller W. (1933). Die Zentralen Orte in Suddeutschland. Jena

Christensen K. R (2016), '*Revenge and Social Conflict'*, London: Cambridge University Press

Cohen, A. K. (1955). *Delinquent boys.* New York: Free Press

COHRE, (2008), 'The Myth of the Abuja Masterplan', Centre on Housing Rights and Evictions; *Social and Economic Rights Acton Centre.* Accessed 26-10-2016 from: http://abahlali.org/files/Myth_of_the_Abuja_Master_Plan.pdf

Colaresi, M., and Z. Mahmood. 2017. Do the Robot: Lessons from Machine Learning to Improve Conflict Forecasting. *Journal of Peace Research* 54 (2): 193–214.

Cole C.E (2018), *'Beyond "Being There": Space and Mobility in Ethnographic Peace and Transitional Justice Research',* In: 'Ethnographic Peace Research: Approaches and Tensions', Rethinking Peace & Conflict Series Richmond O. P (ed), Switzerland: Palgrave Macmillan pp. 231-252

Collier D & Gerring J. (2009), *Introduction to concepts and science in social science In: 'Concepts and methods in Social Science: The Tradition of Giovanni Sartori,* London: Routledge pp.1-10

Collier, P. (2008). T*he bottom billion: Why the poorest countries are failing and what can be done about it.* Oxford University Press, USA.

Collier, P., & Hoeffler, A. (1998). On economic causes of civil war. *Oxford economic papers*, 50(4), 563-573.

Collier, P., & Hoeffler, A. (2000). *Greed and grievance in civil war*, world bank policy research working paper 2355. World Bank

Collier, P., & Hoeffler, A. (2002). On the incidence of civil war in Africa. *Journal of conflict resolution*, 46(1), 13-28.

Collier, P., & Hoeffler, A. (2004). Greed and grievance in civil war. *Oxford economic papers*, 56(4), 563-595.

Collier, P., Chauvet, L., & Hegre, H. (2008). *Challenge of Conflicts*. Copenhagen Consensus Center. Report

Collier, Paul, Lani Elliott, Håvard Hegre, Anke Hoeffl er, Marta Reynal-Querol, and Nicholas Sambanis. (2003). *Breaking the Conflict Trap: Civil War and Development Policy. Washington, DC:* World Bank.

Collins, B. & Watson A. (2018), *The Impetus for Peace Studies to Make a Collaborative Turn: Towards Community Collaborative Research,* In: 'Ethnographic Peace Research: Approaches and Tensions', Rethinking Peace & Conflict Series Richmond O. P (ed), Switzerland: Palgrave Macmillan pp. 89-113

Coomans, F., Grünfeld, F., & Kamminga, M. T. (2010). Methods of human rights research: A primer. *Human Rights Quarterly*, 179-186.

Cooper, F. (2019). *Africa since 1940: the past of the present* (Vol. 13). Cambridge University Press.

Côté-Roy, L., & Moser, S. (2019). 'Does Africa not deserve shiny new cities?' The power of seductive rhetoric around new cities in Africa. *Urban Studies*, *56*(12), 2391-2407.

Cowan, R. G., Tedeschi, P. J., Corbin, M., & Cole, R. (2022). A mixed-methods analysis of averted mass violence in schools: Implications for professional school counselors. *Psychology in the Schools*, *59*(4), 817-831.

Cramer, C. (2003). Does inequality cause conflict? Journal of International Development: *The Journal of the Development Studies Association*, 15(4), 397-412.

Cross, J. C., & Peña, S. (2006). Risk and regulation in informal and illegal markets. *Out of the shadows: Political action and the informal economy in Latin America*, 49-80.

Crossan, F. (2003). Research philosophy: Towards an understanding. *Nurse Researcher, 11*(1), 46-55.

Crowder, M. (1962), *'The story of Nigeria'*, London: Faber and Faber

Cutter, S. L. (2003). The vulnerability of science and the science of vulnerability. *Annals of the Association of American Geographers,* 93(1), 1-12.

D'Orazio, V., & Lin, Y. (2022). Forecasting conflict in Africa with automated machine learning systems. *International Interactions*, 2022.

Dahrendorf, R. (1958). Toward a theory of social conflict. *Journal of conflict Resolution*, 2(2), 170-183.

Dangana, A. S. (2021). Intelligence gathering on kidnapping incidence using geospatial technologies along Abuja–Kaduna highway of Nigeria. [Doctoral dissertation]. http://repository.futminna.edu.ng:8080/jspui/handle/123456789/14959

Davenport, C., Moore, W., & Poe, S. (2003). Sometimes you just have to leave: Domestic threats and forced migration, 1964-1989. *International Interactions, 29(1), 27-55.*

Davis, K. (1955). The origin and growth of urbanization in the world. *American Journal of Sociology*, *60*(5), 429-437.

De Certeau, M. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press.

De Groot, O. J. (2011). Culture, contiguity, and conflict: on the measurement of ethnolinguistic effects in spatial spillovers. *The Journal of Development Studies, 47(3), 436-454.*

Deiwiks, C., Cederman, L. E., & Gleditsch, K. S. (2012). Inequality and conflict in federations. *Journal of Peace Research*, 49(2), 289-304.

Dell'Anno, R., & Adu, O. 2020. The size of the informal economy in Nigeria: A structural equation approach. *International Journal of Social Economics*., 47(8), 1063-1078.

Den Heyer, G. (2023). 2008 Mumbai Terrorist Attacks. In *Police Respond to Terrorism: Case Studies from India, France, Belgium, and England* (pp. 53-87). Cham: Springer Nature Switzerland.

Denham, D., Clapperton, H., & Oudney, W. (1831). *Travels and Discoveries in Northern and Central Africa: In 1822, 1823, and 1824 (Vol. 1).* J. Murray.

Dhingra, S., Huang, H., Ottaviano, G., Paulo Pessoa, J., Sampson, T., & Van Reenen, J. (2017). The costs and benefits of leaving the EU: trade effects. *Economic Policy*, *32*(92), 651-705.

Dimitrovski, D. and Crespi-Vallbona,M. (2018), "Urban foodmarkets in the context of a tourist attraction –La Boqueria market in Barcelona, Spain", *Tourism Geographies*, Vol. 20 No. 3, pp. 397-417.

Ding, F et al, (2017). Understanding the dynamics of terrorism events with multiple-discipline datasets and machine learning approach, *PLoS ONE* 12(6),

Dingwall, R. (1980). Ethics and ethnography. *The sociological review*, *28*(4), 871-891.

Dorff, C., M. Gallop, and S. Minhas. (2020). Networks of Violence: Predicting Conflict in Nigeria. *The Journal of Politics* 82 (2): 476–93

Dorjahn, *V. R. (1962).* African traders in central Sierra Leone*. Markets in Africa, 61, 88.*

Druckman, D. (2005). *Doing Research: Methodologies of Enquiry for Conflict Analysis*. Los Angeles: SAGE Publications.

Dugan, M. (1996). A Nested Theory of Conflict*. Women in leadership*, 1(1), 9-20.

Dupire, M. (1962). Trade and markets in the economy of the nomadic Fulani of Niger (Bororo). *Markets in Africa, (9), 335-362.*

Eakin, H., & Luers, A. L. (2006). Assessing the vulnerability of social-environmental systems. *Annual review of environment and resources*, 31(1), 365-394.

Edwards, K. M., Dardis, C. M., & Gidycz, C. A. (2012). Women's disclosure of dating violence: A mixed methodological study. *Feminism & Psychology*, *22*(4), 507–517.

Egresi, I. O., Răcăşan, B. S., Dezsi, S., Ilieş, M., & Ilieş, G. (2021). Christmas markets in city centers: how do they impact local residents and businesses? *International Journal of Tourism Cities*, *7*(2), 391-409.

Elleh, N. (2017). *Architecture and politics in Nigeria. The study of a late twentieth-century enlightenment-inspired modernism at Abuja, 1900-2016*. London: Routledge.

Ellis, H. (1919). *The Philosophy of Conflict: And Other Essays in Wartime.* Boston and New York, Houghton Mifflin Company.

Elugbaju, A. S. (2018). Ife-Modakeke Crisis (1849-2000): Re-thinking the conflict and methods of resolution. *Journal of Science, Humanities and Art Vol 5 (8)*

Engel, U., & Nugent, P. (2007). Introduction: The spatial turn in African studies. In *Respacing Africa* (pp. 1-9). Brill.

Engels, F. (1887). *The condition of the working class in England in 1844 : With appendix written 1886, and preface 1887. (F. M. Kelly, Trans.)* New York: John W. Lovell. (Original Work Published 1845)

Engels, F. (2005). *The condition of the working class in England. In The sociology and politics of health* (pp. 22-27). Routledge.

Evers, C., & Seale, K. (2014). Informal urban street markets: International perspectives *In: Informal urban street markets: International perspectives*. Evers, C., & Seale, K. (Eds.). Routledge.

Fafchamps, M. (1994). Industrial structure and microenterprises in Africa. *The Journal of Developing Areas*, *29*(1), 1-30.

Fafchamps, M. (2001). The role of business networks in market development in sub-Saharan Africa. *Community and Market in Economic Development*, *1*, 186-215.

Fafchamps, M. (2003a). Ethnicity and networks in African trade. *Contributions in Economic Analysis & Policy*, *2*(1), 1-51.

Fafchamps, M. (2003b). *Market institutions in sub-Saharan Africa: Theory and evidence*. MIT press.

Fafchamps, M. (2010). Markets and the diffusion of institutional innovations. In *Culture, Institutions, and Development* (pp. 161-177). Routledge.

Fafchamps, M., & Gabre-Madhin, E. Z. (2001). *agricultural markets in Benin and Malawi* (No. 2734). World Bank Publications.

Fainstein, S. S. (2005). Cities and diversity: should we want it? Can we plan for it?. *Urban affairs review*, 41(1), 3-19.

Falola, T. (1998). *Violence in Nigeria: The crisis of religious politics and secular ideologies*. University Rochester Press.

Fálọlá́, T., & Heaton, M. M. (2008). *A history of Nigeria*. Cambridge University Press.

Fanelli, D., & Piazza, F. (2020). Analysis and forecast of COVID-19 spreading in China, Italy and France. *Chaos, Solitons & Fractals*, 134, 109761.

Faoucault, M. (1991), *'Chapter 19: Space, knowledge and Power'* from Foucault, Michel and Rabinow. P (ed), The Foucault reader, London: Penguin, pp. 239-256

Farazi, S, (2014). Informal Firms and Financial Inclusion: Status and Determinants, *Policy Research Working Paper* 6778, The World Bank Development Research Group, Washington

Fearon, J. D. (2003). Ethnic and cultural diversity by country. *Journal of economic growth*, 8(2), 195-222.

Fenger, J. (1999). Urban air quality. *Atmospheric environment*, *33*(29), 4877-4900.

Fife W. (2005), *Doing Fieldwork: Ethnographic Methods for Research in Developing Countries and Beyond*, New York: Palgrave Macmillan

Findley, M. G., & Young, J. K. (2012). Terrorism and civil war: A spatial and temporal approach to a conceptual problem. *Perspectives on Politics*, *10*(2), 285-305.

Findley, M., & Young, J. (2012). Terrorism and Civil War: A Spatial and Temporal Approach to a Conceptual Problem. *Perspectives on Politics*,10(2), pp.285-305.

Fink, C. F. (1968). Some conceptual difficulties in the theory of social conflict. *Journal of conflict resolution*, 12(4), 412-460.

Finnegan, R. (2012). *Oral literature in Africa* (p. 614). Open Book Publishers.

Fioramonti, L. (2017). Gross domestic problem: how the politics of GDP shaped society and the world. In: *History of the Future of Economic Growth* (pp. 91-109). Routledge.

Fischer, K. (2011). Central places: the theories of von Thünen, Christaller, and Lösch. In *Foundations of location analysis* (pp. 471-505). Springer, New York, NY.

Fleurbaey, M., & Blanchet, D. (2013). *Beyond GDP: Measuring welfare and assessing sustainability.* Oxford University Press.

Flom, H. (2022). The Informal Regulation of Criminal Markets in Latin America. Cambridge University Press.

Forde S. (2019), *Movement as Conflict Transformation Re-scripting Mostar, Bosnia-Herzegovina*, Switzerland: Palgrave Macmillan

Foucault M. (1986), *'Of Other Spaces'*, Miskowiec J. (tr) Diacritics, Vol. 16 (1) pp. 22-27

Fraher, A. L. (2011). *Thinking through crisis: Improving teamwork and leadership in high-risk fields.* Cambridge University Press.

Fudjumdjum, H.,Filho, W.L., & Ayal, D.Y. (2019). Assessment of Barriers to Food Security in North-Eastern Nigeria. Filho W.L. (ed.), *Hand book of Climate Change Resilience*. Zurich: Spirnger

Fuller, B., & Romer, P. (2014). Urbanization as opportunity. *World Bank Policy Research Working Paper*, (6874).

Galtung, J. (2009). *Theories of conflict: Definitions, dimensions, negations, formations.* Hawai: University of Hawai.

Gelvin, J. L. (2014). *The Israel-Palestine conflict: One hundred years of war*. Cambridge University Press.

Gerard, E., & Kuklick, B. (2015). *Death in the Congo: Murdering Patrice Lumumba*. Harvard University Press.

Giannetti, B. F., Agostinho, F., Almeida, C. M. V. B., & Huisingh, D. (2015). A review of limitations of GDP and alternative indices to monitor human wellbeing and to manage eco-system functionality. *Journal of cleaner production, 87, 11-25.*

Gleditsch, N. P. (1998). Armed conflict and the environment: A critique of the literature. *Journal of peace research*, 35(3), 381-400.

Glynn, A. N., & Ichino, N. (2015). Using qualitative information to improve causal inference. *American Journal of Political Science*, 59, 1055-1071.

Goertz, G. G., & Mahoney, J. (2012). *A tale of two cultures: Qualitative and quantitative research in the social sciences*. Princeton, NJ: Princeton University Press.

Goldstein, J. S. (1992). A conflict-cooperation scale for WEIS events data. *Journal of Conflict Resolution*, *36*(2), 369-385.

Goldstone, J. A., R. H. Bates, D. L. Epstein, T. R. Gurr, M. B. Lustik, M. G. Marshall, J. Ulfelder, and M. Woodward. (2010). A Global Model for Forecasting Political Instability. *American Journal of Political Science* 54 (1): 190–208.

Goodwin, D., Pope, C., Mort, M., & Smith, A. (2003). Ethics and ethnography: An experiential account. *Qualitative health research*, *13*(4), 567-577.

Graaf, B. (2020). *Fighting terror after Napoleon: How Europe became secure after 1815.* Cambridge University Press

Grossman, S. (2021). *The Politics of Order in Informal Markets: How the State Shapes Private Governance.* Cambridge University Press.

Guenette, J. D., Kenworthy, P. G., & Wheeler, C. M. (2022). Implications of the War in Ukraine for the Global Economy. World Bank Equitable Growth, *Finance, and Institutions Policy Notes.*

Güneralp, B., Lwasa, S., Masundire, H., Parnell, S., & Seto, K. C. (2017). Urbanization in Africa: challenges and opportunities for conservation. *Environmental research letters*, *13*(1), 015002.

Gyekye, K. (1987). *An Essay on African Philosophical Thought: The Akan Conceptual Scheme. Cambridge:* Cambridge University Press.

Hager, D. J. (1956). Introduction: Religious Conflict. *Journal of social issues*, 12(3), 3-11.

Hall P. (2003), *Aligning ontology and methodology in comparative research*. In: Mahoney J, Rueschemeyer D (eds) 'Comparative Historical Analysis in the Social Sciences'. Cambridge: Cambridge University Press.

Hammersley M. (2014), *'Reading Ethnographic Research A Critical Guide'*, Craft M. (ed), Longman social research series, London: Routledge

Handayani, H. (2023). Indonesia's Macroeconomic Affects From The Israeli-Palestinian War. *Ar-Ribhu: Jurnal Manajemen dan Keuangan Syariah*, *4*(2), 100-110.

Hanna, T., Bohl, D. K., Rafa, M., & Moyer, J. D. (2021). Assessing the impact of conflict on development in North East. U.N.D.P. Report Nigeria.https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf

Hannerz, U. (2003). Being there... and there... and there! Reflections on multi-site ethnography. *Ethnography*, *4*(2), 201-216.

Hao, M. et al, (2019), Simulating Spatio-Temporal Patterns of Terrorism Incidents on the Indochina Peninsula with GIS and the Random Forest Method**,** *Int. J. Geo-Inf.* 8*(3), 133*

Hart, K. (1970). 8. Small-scale entrepreneurs in Ghana and development planning. *The Journal of Development Studies*, *6*(4), 104-120.

Hart, K. (1973). Informal income opportunities and urban employment in Ghana. *The journal of modern African studies*, *11*(1), 61-89.

Harvey D. (1973), *'Social Justice and the City'*, London: University of Georgia Press pp.13-14

Harvey D. (1990), *'Between Space and Time: Reflections on the Geographical Imagination'*, Annals of the association of American geographers 80: pp.418-434

Hassan & Na'ibi M.S. (1962). *A Chronicle of Abuja,* African Universities Press

Hatch, J. (1971), *'Nigeria: A History'*, London: Secker & Warburg

Hayuma, A. M. (1980). Dodoma: The planning and building of the new capital city of Tanzania, *Habitat International*, *5* (5-6), 653–680. https://doi.org/10.1016/0197-3975(80)90007-7.

Hazat M. (2022, September 26), FCT Creates Regional Development Offices to Monitor Abuse of Abuja Masterplan. PR Nigeria. https://prnigeria.com/2022/09/26/fct-creates-regional/

Hegel, G.W.F. (1956), *'The philosophy of history'*, (Sibree, J, trans.) New York: Dover

Hegre, H., M. Allansson, M. Basedau, M. Colaresi, M. Croicu, H. Fjelde, F. Hoyles, L. Hultman, S. H ögbladh, and R. Jansen. (2019). Views: A Political Violence Early-warning System. *Journal of Peace Research* 56 (2): 155–74.

Heinemann, A., & Verner, D. (2006). Crime and violence in development: A literature review of Latin America and the Caribbean. *World Bank Policy Research Working Paper*, (4041).

Hiebert, D., Rath, J. and Vertovec, S. (2015), "Urban markets and diversity: towards a research agenda", *Ethnic and Racial Studies*, Vol. 38 No. 1, pp. 5-21.

Hill, P. (1940). The Unemployment Services: *A Report Prepared for the Fabian Society* (Vol. 7). Routledge.

Hill, P. (1963). Markets in Africa. *The Journal of Modern African Studies*, 1(4), 441-453.

Hill, P. (1966a). A plea for indigenous economics: the West African example. *Economic Development and Cultural Change*, 15(1), 10-20.

Hill, P. (1966b). Notes on Traditional Market Authority and Market Periodicity in West Africa1. *The Journal of African History*, 7(2), 295-311.

Hill, P. (1970). *Studies in rural capitalism in West Africa* (No. 2). Cambridge University Press.

Hill, P. (1982). *Dry Grain Farming Families: Hausaland (Nigeria) and Karnataka (India) Compared*. Cambridge University Press.

Hill, P. (1997). *The migrant cocoa-farmers of southern Ghana: A study in rural capitalism.* LIT Verlag Münster.

Hill, P. (2004). Interview of Polly Hill on 20th July 1996 [Video file]. http://www.dspace.cam.ac.uk/handle/1810/269

Hill, P., & Polly, H. (1986). *Development economics on trial: the anthropological case for a prosecution.* Cambridge University Press.

Hirshleifer, J. (2001). *The Dark Side of the Force: Economic Foundations of Conflict Theory.* Cambridge University Press.

Hodder, B. (1980). *Economic development in the tropics (3rd ed.).* London: Methuen.

Hodder, B. W. (1959). *The growth of trade at Lagos-Nigeria.* Tijdschrift voor economische en sociale geografie, *50(10), 197-202.*

Hodder, B. W. (1961). Rural periodic day markets in part of Yorubaland. *Transactions and papers (Institute of British Geographers)*, (29), 149-159.

Hodder, B. W. (1965a). Distribution of markets in Yorubaland. *Scottish Geographical Magazine, 81*(1), 48-58.

Hodder, B. W. (1965b). Some comments on the origins of traditional markets in Africa south of the Sahara. *Transactions of the Institute of British Geographers*, 97-105.

Hodder, B. W. (2018). Periodic and daily markets in West Africa. In *The development of indigenous trade and markets in West Africa* (pp. 347-358). Routledge. 1971

Hodder, B. W., & Ukwu, U. I. (1969). *Markets in West Africa. Studies of markets and trade among the Yoruba and Ibo.* Ibadan: Ibadan University Press.

Homan, R. (1980). The ethics of covert methods. *British Journal of Sociology,* 46-59.

Homeland Security-US (2013), *'Boko Haram Growing Threat to the U.S. Homeland'* U.S. House of Representatives Committee on Homeland Security September 13, Prepared by the Majority Staff of the Committee on Homeland Security

Horton, J. (1966). Order and conflict theories of social problems as competing ideologies. *American Journal of Sociology, 71(6), 701-713.*

Horvath, R. J. (1969). Von Thünen's isolated state and the area around Addis Ababa, Ethiopia. *Annals of the Association of American Geographers*, *59*(2), 308-323.

Ho-Won, J. & Eleftherios, M., (2008). Theories of Conflict. In. Kurtz, L., & Credo Reference (Eds.). *Encyclopedia of violence, peace, & conflict (2nd ed., pp. 2105-2113) Elsevier. https://doi.org/10.1016/B978-012373985-8.00177-X*

Hufschmidt, G. (2011). A comparative analysis of several vulnerability concepts. *Natural hazards, 58(2), 621-643.*

Huntington, Samuel P., (1993). The Clash of Civilizations? *Foreign Affairs* 72(3): 22–49.

Huntington, Samuel P., (1996). *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster.

Hviid, L. (2005). Naturally acquired immunity to Plasmodium falciparum malaria in Africa. *Acta tropica*, *95*(3), 270-275.

I. D. M. C. (2016). Global Report on Internal Displacement. Norwegian Refugee Council. http://www.internal-displacement.org/sites/default/files/publications/documents/2016-global-report-internal-displacement-IDMC.pdf

I. D. M. C. (2017). Global Report on Internal Displacement. Norwegian Refugee Council. http://www.internal-displacement.org/global-report/grid2017/pdfs/2017-GRID.pdf

I. D. M. C. (2018). Global Report on Internal Displacement. Norwegian Refugee Council. https://www.internal-displacement.org/global-report/grid2018/downloads/2018-GRID.pdf

I. D. M. C. (2019). Global Report on Internal Displacement. Norwegian Refugee Council. http://www.internal-displacement.org/sites/default/files/publications/documents/2019-IDMC-GRID.pdf

I. D. M. C. (2020). Global Report on Internal Displacement. Norwegian Refugee Council. https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf

I. D. M. C. (2021). Grid 2021: Internal Displacement in a changing climate. Norwegian Refugee Council. https://www.internal-displacement.org/sites/default/files/publications/documents/grid2021_idmc.pdf

I. D. M. C. (2022). Grid 2022: Children and Youth in Internal Displacement. Norwegian Refugee Council.https://www.internal-displacement.org/sites/default/files/publications/documents/IDMC_GRID_2022_LR.pdf

Ibrahim, R., Ajide, K., & Olatunde Julius, O. (2020). Easing of lockdown measures in Nigeria: Implications for the healthcare system. *Health Policy and Technology*, *9*(4), 399-404.

Ide, T., Schilling, J., Link, J. S., Scheffran, J., Ngaruiya, G., & Weinzierl, T. (2014). On exposure, vulnerability and violence: spatial distribution of risk factors for climate change and violent conflict across Kenya and Uganda. *Political Geography*, *43*, *68-81.*

IEP, (2015), 'Global terrorism Index', Measuring and Understanding the Impact of Terrorism'. *Institute for Economics and Peace* https://reliefweb.int/report/world/global-terrorism-index-2015

IEP, (2016), Global terrorism Index, Measuring and Understanding the Impact of Terrorism'. *Institute for Economics and Peace.* https://reliefweb.int/report/world/global-terrorism-index-2016

IEP, (2017), Global terrorism Index, Measuring and Understanding the Impact of Terrorism'. Institute for Economics and Peace. https://reliefweb.int/report/world/global-terrorism-index-2017

IEP, (2018), Global terrorism Index, Measuring the Impact of Terrorism'. Institute for Economics and Peace. https://reliefweb.int/report/world/global-terrorism-index-2018

IEP, (2019), Global terrorism Index, Measuring the Impact of Terrorism'. *Institute for Economics and Peace.* https://www.economicsandpeace.org/wp-content/uploads/2020/08/GTI-2019web.pdf

IEP, (2020), Global terrorism Index, Measuring the Impact of Terrorism'. *Institute for Economics and Peace,* https://visionofhumanity.org/wp-content/uploads/2020/11/GTI-2020-web-1.pdf

IEP, (2020). Measuring peace in Complex World, *Institute for Economics & Peace. Global Terrorism Index 2020:* http://visionofhumanity.org/reports

IEP, (2021), Global terrorism Index, Measuring the Impact of Terrorism'. *Institute for Economics and Peace,* https://www.economicsandpeace.org/wp-content/uploads/2021/06/GPI-2021-web.pdf

IEP, (2022), Global Peace Index, Measuring the Impact of Terrorism'. *Institute for Economics and Peace,* https://www.economicsandpeace.org/wp-content/uploads/2022/06/GPI-2022-web.pdf

IEP, (2022), Global Terrorism Index, Measuring the Impact of Terrorism'. *Institute for Economics and Peace* https://reliefweb.int/attachments/a62d4dc4-c69b-49ee-8ef5-50d98205e70d/GTI-2022-web_110522-1.pdf

IEP. (2021). Global Peace Index 2021: Global Peace Index 2021 *Institute for Economics & Peace.* http://visionofhumanity.org/reports.

IEP. (2022). Safety Perceptions Index 2023: Global Peace Index 2022 *Institute for Economics & Peace.* https://www.economicsandpeace.org/wp-content/uploads/2022/06/SPI-2022-web.pdf

Ikioda, F. (2014). Communities of practice in competitive settings: exploring the role of associations of market traders in Nigeria? s marketplaces. *Knowledge Management for Development Journal, 10(2), 105-116.*

Imam, A., Mohammed, B., Wilson, D. C., & Cheeseman, C. R. (2008). Solid waste management in Abuja, Nigeria. *Waste management*, 28(2), 468-472.

Immerwahr, D. (2007). The politics of architecture and urbanism in postcolonial Lagos, 1960–1986. *Journal of African Cultural Studies*, *19*(2), 165-186.

International Labour Office (2002). *Women and Men in the Informal Economy: A Statistical Picture*. Geneva, Switzerland: International Labour Office (Employment Sector).

International Labour Office (2018). *Women and Men in the Informal Economy: A Statistical Picture*. Geneva, Switzerland: International Labour Office (Employment Sector).

IPA (International Planning Associates) (1979). *The Master Plan for Abuja, the new federal capital of Nigeria.* FCDA, Abuja: Nigeria.

Itiri, N. (2020). Cold War 1945 – 1991 Biafra Genocide, Nigeria: Bloodletting And Mass Starvation, 1967 – 1970 - Al J Venter. *Scientia Militaria: South African Journal of Military Studies, 47*(1), Scientia militaria: *South African journal of military studies*, 2020-01, Vol.47 (1).

James D. Fearon, J.D, Humphreys, M. & Weinstein J.M (2009), Can Development Aid Contribute to Social Cohesion after Civil War? Evidence from a Field Experiment in Post-Conflict Liberia', *American Economic Review: Papers & Proceedings* 99(2), 287–291

Janowitz, M. (1957). Military elites and the study of war. *Conflict Resolution*, 1(1), 9-18.

Jeong, H. (2022), Theories of social conflict, In: Encyclopedia of Violence, Peace, and Conflict.: Kurtz, L. (ed) San Diego: *Elsevier Science & Technology*. 459-465

Jervern M. (2013), *Poor Numbers How We Are Misled by African Development Statistics and What to Do about It*, Ithaca: Cornell University Press

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, *24*(4), 602-611.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, *1*(2), 112-133.

Jones, A. J. (2000). *Game theory: Mathematical models of conflict.* Elsevier.

Jones, G., Leimgruber, W. & Nel, E. (Eds) (2007) *Issues in Geographical Marginality. General and Theoretical Aspect*, Grahamstown: Rhodes University.

Jostj.T. & Kruglanski A.W. (2002). The estrangement of social constructionism and experimental social psychology: History of the rift and prospects for reconciliation. *Personality and Social Psychology Review* 6 168–187

Joy, D. A., Feng, X., Mu, J., Furuya, T., Chotivanich, K., Krettli, A. U., ... & Su, X. Z. (2003). Early origin and recent expansion of Plasmodium falciparum. *science*, *300*(5617), 318-321.

Kalua, F. (2009). Homi Bhabha's third space and African identity. *Journal of African cultural studies*, *21*(1), 23-32.

Kalyvas, S. N. (2006). *The logic of violence in civil war*. Cambridge, England: Cambridge University

Kamali, M. H. (2002). Issues in the Understanding of Jihād and Ijtihād. *Islamic Studies, 41(4), 617-634.*

Kanu, I. A. (2017). Igwebuike as an Igbo-African Philosophy for Christian-Muslim Relations in Northern Nigeria. *Spirituality and Global Ethics, 300-310.*

Khalid I. & Davies A. (2022, July 6) *Nigeria Kuje prison break: More than 400 missing from Abuja jail*. BBC News. https://www.bbc.co.uk/news/world-africa-62069753

Kikuta, K. (2022). A new geography of civil war: A machine learning approach to measuring the zones of armed conflicts. *Political Science Research and Methods*, *10*(1), 97-115.

Killingback, T., & Doebeli, M. (1996). Spatial evolutionary game theory: Hawks and Doves revisited. Proceedings of the Royal Society of London. Series B: *Biological Sciences*, 263(1374), 1135-1144.

Kimbrough, E. O., Laughren, K., & Sheremeta, R. (2020). War and conflict in economics: Theories, applications, and recent trends. *Journal of Economic Behavior & Organization,* 178, 998-1013.

King, G., and L. Zeng. (2001). Improving Forecasts of State Failure. *World Politics* 53 (4): 623–58

Kirby, P. (2006). Vulnerability and Violence: the impact of globalisation London: *Pluto. (pp. 54-56).*

Kirk-Greene, A. H. M (1956), 'Who coined the name 'Nigeria'? West Africa 2071, p.1035

Kottow, M. H. (2005). Vulnerability: what kind of principle is it?. *Medicine, Health Care and Philosophy, 7(3), 281-287.*

Kühn, M. (2015) "Peripheralization: Theoretical Concepts Explaining Socio-Spatial Inequalities,' *European Planning Studies*, 23:2, 2015, pp. 367-378.

Kurtz, L., & Credo Reference. (2012). Encyclopedia of violence, peace, & conflict, 2nd ed., *Encyclopedia of violence, peace & conflict*; v. 1. Amsterdam [Netherlands]: Elsevier.

La Porta, R., & Shleifer, A. (2014). Informality and development. *Journal of economic perspectives*, *28*(3), 109-126.

Lagazio, M., and T. Marwala. 2006. Assessing Different Bayesian Neural Network Models for Militarized Interstate Dispute: Outcomes and Variable Influences. *Social Science Computer Review* 24 (1): 119–31.

Laya, D. 1992. *The Hausa States." In: General History of Africa V: Africa from the Sixteenth to the Eighteenth Century, (*ed) B.A. Ogot, 453-491. California: Heinemann.

Le Corbusier, (1973). *The Athens Charter.* New York: Grossman Publishers p.96.

Leary, K. (2018). On conflict and confligere ("striking together"). *Progress in Psychoanalysis: Envisioning the future of the profession*.

LeCompte, M., & Schensul, J. (2013). Analysis and interpretation of ethnographic data (2nd ed.). AltaMira Press.

Lee G.T. (2022). 'Cultural Studies Overview', In: *Encyclopedia of Violence, Peace & Conflict* (3rd ed.) Vol 1, pp36-46

Lefebvre H. (1991), *'The Production of Space'*, Blackwell: Oxford.

Lefebvre H. (2009), *'Reflections on the Politics of Space'*. In: Brenner N and Elden S (eds), 'State, Space, World: Selected Essays/Henri Lefebvre, (trans. From original text of 1978) Minneapolis: University of Minnesota Press

Lefebvre, H., & Enders, M. J. (1976). Reflections on the politics of space. *Antipode*, *8*(2), 30-37.

Lehtovuori, P. (2016). *Experience and conflict: The production of urban space.* Routledge.

Leonard, R. (2010). Von Neumann, Morgenstern, and the creation of game theory: From chess to social Levan A.C & Olubowale C. (2014). 'I am here until development comes': Displacement Demolitions and Property rights in ubranising Nigeria. *African Affairs*, 113/452, 387–408. doi:10.1093/afraf/adu030

LeVine. R. (1961), Anthropology and the study of conflict: Introduction. *Journal of Conflict resolution (5)1*

Libiszewski, S. (1991). What is an environmental conflict. *Journal of peace research, 28(4), 407-422.*

Lichbach, M. I. (1989). An evaluation of "does economic inequality breed political conflict?" *studies. World politics, 41(4), 431-470.*science, 1900–1960. Cambridge University Press.

Lifintseva, T. P., Isaev, L. M., & Shishkina, A. R. (2015). Fitnah: The afterlife of a religious term in recent political protest. *Religions*, 6(2), 527-542.

Ligon, E., & Schechter, L. (2003). Measuring vulnerability. *The Economic Journal*, 113(486), C95-C102.

Liu, Y., Tang, W., He, J., Liu, Y., Ai, T., & Liu, D. (2015). A land-use spatial optimization model based on genetic optimization and game theory. *Computers, Environment and Urban Systems*, 49, 1-14.

Loayza, N. V. (1996, December). The economics of the informal sector: a simple model and some empirical evidence from Latin America. In *Carnegie-Rochester conference series on public policy* (Vol. 45, pp. 129-162). North-Holland.

Lösch A. (1954). *The Economics of Location* (Trans) Woglom. New Haven

Low, S. (2016). *Spatializing culture: The ethnography of space and place.* Taylor & Francis.

Low, Setha and Denise Lawrence-Zuñiga (2003). *The Anthropology of Space and Place: Locating Culture.* Oxford and New York: Blackwell

Lü G., Batty, M et al, (2019), 'Reflections and speculations on the progress in Geographic Information Systems (GIS): a geographic perspective', *International Journal of Geographical Information* Science, 33(2), pp.346-367

Luyt, R. (2012). 'A framework for mixing methods in quantitative measurement development, validation, and revision: A case study', *Journal of Mixed Methods Research*, 6(4), 294-316.

Mabogunje, A. (1989). *The development process: A spatial perspective.* Routledge.

Mábògùnjẹ́, A. (1997). *The state of the Earth: contemporary geographic perspectives*. Blackwell Publishers.

Mábògùnjẹ́, A. L. (1965). Urbanization in Nigeria. A Constraint on Economic Development. *Economic Development and Cultural Change*, 13(4, Part 1), 413-438.

Mábògùnjẹ́, A. L. (1968). *Urbanization in Nigeria*. University of London Press.

Maiangwa, B. (2016). Revisiting the Nigeria-Biafra war: The intangibles of post-war reconciliation. *International Journal on World Peace, 33(4), 39-68.*

Maiangwa, B., Uzodike, U. O., Whetho, A., & Onapajo, H. (2012). "Baptism by Fire": Boko Haram and the reign of terror in Nigeria. Africa Today, 59(2), 41-57.

Maier, A. G., Matuschewski, K., Zhang, M., & Rug, M. (2019). Plasmodium falciparum. *Trends in parasitology*, *35*(6), 481-482.

Makama, G. A. (2013). Patriarchy and gender inequality in Nigeria: The way forward. *European scientific journal*, *9*(17).

Makinde, T. (2005). Problems of policy implementation in developing nations: The Nigerian experience. *Journal of Social sciences*, 11(1), 63-69.

Maogoto, J., & Freeland, S. (2007). The Final Frontier: The Laws of Armed Conflict and Space Warfare. Conn. *J. Int'l L.*, 23, 165.

Maoz, Z., & Russett, B. (1992). Alliance, contiguity, wealth, and political stability: Is the lack of conflict among democracies a statistical artifact?. *International Interactions*, 17(3), 245-267.

Marcinkoski C. (2015). *The City That Never Was: Reconsidering the Speculative Nature of Contemporary Urbanization.* New York: Princeton Architectural Press p.25

Marks S. (August 19, 2020). Why the Mali coup matters to Europe and the world: What happens to France's role in the Sahel is far from clear. Politico. https://www.politico.eu/article/mali-coup-explained/

Markus, H. R., & Lin, L. R. (1999). *Conflict ways: Cultural diversity in the meanings and practices of conflict.* Russell Sage Foundation.

Marx, K (1867). *Das Kapital: Kritik der politischen Oekonomie. Vol. 1: Der Produktionsprozess des Kapitals (1 ed.).* Hamburg: Verlag von Otto Meissner.

Marx, K (1885). *Das Kapital: Kritik der politischen Oekonomie; herausgegeben von Friedrich Engels. Vol. 2: Der Zirkulationsprozess des Kapitals (1 ed.).* Hamburg: Verlag von Otto Meissner.

Marx, K (1887). *Capital: A Critical Analysis Of Capitalist Production (S. Moore and E. Aveling, Trans.) Swan Sonnenschein (Das Kapital: Kritik der politischen Oekonomie. Vol. 1:* Der Produktionsprozess des Kapitals. 1 ed. 1867) p.1-364

Marx, K (1887). *Capital: A Critical Analysis Of Capitalist Production (S. Moore and E. Aveling, Trans.) Swan Sonnenschein (Marx, K(1885). Das Kapital: Kritik der politischen Oekonomie; herausgegeben von Friedrich Engels. Vol. 2:* Der Zirkulationsprozess des Kapitals 1 ed... 1885) p.365-816

Marx, K (1894*). Das Kapital: Kritik der politischen Oekonomie; herausgegeben von Friedrich Engels. Vol. 3: Der Gesamtprozess der kapitalistischen Produktion (1 ed.).* Hamburg: Verlag von Otto Meissner.

Marx, K., Engels, F., & Meissner, O. (1867). *Das Kapital: Kritik der politischen Oekonomie / von KMarx*. Hamburg: Otto Meissner.

Marx, Karl, 1818-1883. (1959). *Das Kapital, a critique of political economy*. Chicago: H. Regnery,

Mbah, R. E., & Wasum, D. F. (2022). Russian-Ukraine 2022 War: A review of the economic impact of Russian-Ukraine crisis on the USA, UK, Canada, and Europe. *Advances in Social Sciences Research Journal*, 9(3), 144-153.

McCartney, M. (2022). Paul Romer, charter cities and lessons from historical big infrastructure?. *Cities*, *131*, 103898.

McCauley, J. F. (2017). *The logic of ethnic and religious conflict in Africa.* Cambridge University Press.

McFarlane, C., & Waibel, M. (2016). Introduction: The informal-formal divide in context. In *Urban informalities* (pp. 1-12). Routledge.

McHarg, I. L. (1969). *Design with nature,* New York: American Museum of Natural History.

Mehrotra, S., & Giri, T. (2023). Enterprise Informality in India: The Blind Spots in Public Policy. *The Indian Journal of Labour Economics*, *66*(3), 687-710.

Melander, E., & Öberg, M. (2006). Time to go? Duration dependence in forced migration. *International Interactions*, 32(2), 129-152.

Mercy, O. A., & Nanji, U. (2015). State policing and national security in Nigeria. Mediterranean *Journal of Social Sciences, 6(1 S1), 412.*

Merton, R. K. (1957). *Social Theory and Social Structure.* Glencoe: Free Press

Merton, R. K. (1967). *On Theoretical Sociology.* New York: Free Press

Messer, E., Cohen, M., & D'Costa, J. (1998). Food from Peace: Breaking the Link Between Conflict and Hunger, Food Agriculture and Environment Discussion paper 24, *International Food Policy Research Institute,* 10.22004/ag.econ.16232

Mgbeadichie, C. F. (2015). *The critical concept of Afrocentrism in Nigerian literature.* PhD Dissertation submitted to the University of Exeter. https://ore.exeter.ac.uk/repository/handle/10871/21088

Mkabela, Q. (2015). Using the Afrocentric Method in Researching Indigenous African Culture. Qualitative Report, *Qualitative report,* 2015.

Mkandawire, T. (2011). Running While Others Walk: Knowledge and the Challenge of Africa's Development. *Africa Development,* 36(2), 1-36.

Momtaz R. (June 30, 2020). Macron wants greater European involvement in Sahel counterterrorism. Politico. https://www.politico.eu/article/emmanuel-macron-wants-greater-european-involvement-in-sahel-africa-counter-terrorism/

Moore J. (1984), 'The Political History of Nigeria's new Capital', *The Journal of Modem African Studies,* (22) 1 pp. 167-175

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*, 1(1), 48-76.

Morgan, J., & Pink, S. (2018). Researcher safety? Ethnography in the interdisciplinary world of audit cultures. *Cultural Studies↔ Critical Methodologies*, *18*(6), 400-409.

Morrow, B. H. (1999). Identifying and mapping community vulnerability. *Disasters*, 23(1), 1-18.

Morton-Williams, P. (2018). *The Yoruba Kingdom of Oyo. In West African kingdoms in the nineteenth century (pp. 36-69).* Routledge.

Mthethwa, R. M. (2012). Critical dimensions for policy implementation. *African Journal of Public Affairs* 5(2)

Mugambiwa, S. S. (2021). Elucidating Afrocentricity as a contemporary theoretical stance through 'epistemic disobedience'. *Technium Soc. Sci. J., 24*, 650.

Mukwaya, A. B. (1962). The marketing of staple foods in Kampala, Uganda. *Markets in Africa,* 643-666.

Myers, G. (2011). *African cities: Alternative visions of urban theory and practice*. Bloomsbury Publishing.

Ndubisi, E. J. (2014). Nature and function of logic in African epistemology. *IOSR Journal of Humanities and Social Science (IOSR–JHSS),* 19(11), 32-36.

Nixon, R. (1996). Pipe dreams: Ken Saro-Wiwa, environmental justice, and micro-minority rights. *Black Renaissance,* 1(1), 39.

Njoku, E. T. (2020). Merchants of terror: Neo-Patrimonialism, counterterrorism economy, and expansion of terrorism in Nigeria. *African Conflict & Peacebuilding Review*, 10(2), 83-107.

Novikov, I. A. (1893). *Les luttes entre sociétés humaines et leurs phases successives,* par J. Novicow. F. Alcan.

Nwafor, J.C (1980), 'The Relocation of Nigeria's Federal Capital: A Device for Greater Territorial Integration and National Unity', *GeoJournal* (4)4 pp. 359-366

Nwaka, G. I. (2005). The urban informal sector in Nigeria: towards economic development, environmental health, and social harmony. *Global Urban Development Magazine,* 1(1), 1-11.

Nwankwo, A. O. (2018). Harnessing the potential of Nigeria's Creative Industries: Issues, prospects and policy implications. *Africa Journal of Management,* 4(4), 469-487.

Obiadi Bons N. et al (2019), 'Where is Home for the Abuja, Nigeria Urban Poor?' *International Journal of Trend in Scientific Research and Development (ijtsrd), (3)3 pp. 45-56*

O'Brien, T. (2007). The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done about It: Some Insights for the Pacific?. Economic Round-up, (Winter 2007), 95-118.

Ogbozor, E. (2016). Understanding the informal security sector in Nigeria. *Special Report 391*. Washington, DC: United States Institute of Peace.

Ogu, U. K., & Areji, A. C. (2022). Ethnic Nationalism and Ethno-Religious Conflicts: Setting an Agenda for Stability and Development in Nigeria. Sapientia: *Journal of Philosophy, 16.*

Ojewale, O. (2021). Exploring the precipitators of violent conflict in Central Nigeria: a mixed methodology approach. *Journal of aggression, conflict, and peace research.*

Okoye, G. O. (2014), *Proclivity to Genocide: Northern Nigeria Ethno-Religious Conflict, 1966 to Present*, London: Lexington Books

Omobowale, M., & Omobowale, A. (2019). Oju and Inu: Solidarity in the Informal Market Space in Ibadan, Nigeria. *Journal of Black Studies*, 50(4), 401-420.

Omotosho, M., Ihekuna, L., & Fakoya, O. (2020). Cultural Diversity and the Challenge of Inter-Ethnic Conflict In Nigeria. *EAS Journal for Humanities and Cultural Studies.*

Onwuegbuzie, A. J., Johnson, R. B., & Collins, K. M. T. (2009). 'Call for mixed analysis: A philosophical framework for combining qualitative and quantitative approaches. *International Journal of Mixed Research Approaches*, 3, 114-139.

Onwuzuruigbo, I. (2013). 'Even if we Meet in Heaven We Will Fight': British Colonial Policies and Aguleri/Umuleri Conflicts in Southeastern Nigeria. *Journal of Asian and African Studies,* 48(2), 129-144.

Onyekwere et al (1997), 'Assessment of Residents' Satisfaction with Public Housing in Abuja, Nigeria', *Habitat International*. (22) 4, pp. 445-460.

Onyeonoru, I. P., Eneji, T., & Chiagozie, C. (2022). Gender and Leadership of Market Associations: A Study of Bodija Market Ibadan, Nigeria. *Beyond Our Imaginations*, 73.

Orugun, J. J., & Nafiu, A. T. (2014). An exploratory study of Igbo entrepreneurial activity and business success in Nigeria as the panacea for economic growth and development. *International Journal of Scientific and Technology Research*, *3*(9), 158-165.

Owusu-Ansah, F. E., & Mji, G. (2013). African indigenous knowledge and research. *African Journal of Disability*, *2*(1), 1-5.

Palmer, H. R. (1908). The Kano Chronicle. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, *38*, pp.58-98.

Park M. (1799). *Travels In The Interior Districts Of Africa: Performed Under The Direction And Patronage Of The African Association, In The Years 1795, 1796, And 1797. With An Appendix, Containing Geographical Illustrations of Africa. By Major Rennell*. London: W. Bumler and Co

Paul, J. D., Roberts, G. G., & White, N. (2014). The African landscape through space and time. *Tectonics*, *33*(6), 898-935.

Pham P. & Vinck P. (2018), Human Rights and Mixed Methods, *Chance, 31:1*, pp.29-37

Plokhy, S. (2023). The Russo-Ukrainian War: From the bestselling author of Chernobyl. Random House.

Polachek, S. W. (1980). Conflict and trade. *Journal of conflict resolution*, 24(1), 55-78.

Polanyi K. (1968). *Primitive, Archaic and Modern Economics: Essays of Karl Polanyi*. In G. Dalton. Doubleday: Boston Press.

Polanyi, K. (1945). *Origins of our time: The great transformation (Rev. ed.]. ed.).* London: Victor Gollancz.

Powell, J. M. (2014). An assessment of the 'democratic'coup theory: Democratic trajectories in Africa, 1952–2012. *African Security Review*, 23(3), 213-224.

Presse A. F. (2020 August 5), Dozens of Anti-Buhari Protesters Arrested In Nigeria: Activists, Barrons News. From: https://www.barrons.com/articles/dozens-of-anti-buhari-protesters-arrested-in-nigeria-activists-01596652204

Pyle, J. (1970). Market Locations in Mexico City. *Revista Geográfica*, 59-69.

Python A. et al (2019), 'A Bayesian approach to modelling subnational spatial dynamics of worldwide non-state terrorism,2010–2016', *Journal of the Royal Statistics Society* 182 (1) pp.323-344

Rapoport, A. (1965). *Game theory and human conflict. The Nature of Human Conflict*. Englewood Cliffs, NJ: Prentice-Hall.

Rapoport, A. (Ed.). (2012*). Game theory as a theory of conflict resolution (Vol. 2).* Springer Science & Business Media.

Rego, R. L. (2021). New capital cities in the Global South. Post-modernist context, modernist layout in Nigeria and Brazil. *Cidades. Comunidades e Territórios*, (42).

Renzetti C.M., (2008). Criminal Behaviour, Theories of Conflict. In. Kurtz, L., & Credo Reference (Eds.). *Encyclopedia of violence, peace, & conflict* (2nd ed., pp. 488-498) Elsevier. https://doi.org/10.1016/B978-012373985-8.00042-8

Reuters (2021, October 3). Boko Haram Spreading into North-central Nigeria, Officials Say. VOA News. https://www.voanews.com/a/boko-haram-spreadin-into-north-central-nigeria-officials-say/6255608.html

Reychler, L. (2015). *Time for peace: The essential role of time in conflict and peace processes*. University of Queensland Press.

Robertson, D. R. (2005). Generative paradox in learner-centered college teaching. *Innovative Higher Education*, 29(3), 181-194.

Sachs J. (2021, July 27). Jeffrey Sachs' speech at the U.N. Food Systems Pre-Summit. [video file]. https://www.jeffsachs.org/recorded-lectures/5jf86pp5lxch35e6z3nct6xnmb8zy5

Saghir, J., & Santoro, J. (2018, April). Urbanization in Sub-Saharan Africa. In *Meeting Challenges by Bridging Stakeholders. Washington, DC, USA: Center for Strategic & International Studies*.

Saglio-Yatzimirsky. (2013). *Dharavi : from mega-slum to urban paradigm.* New Delhi: Routledge

Salawu, B. (2010). Ethno-religious conflicts in Nigeria: Causal analysis and proposals for new management strategies. *European journal of social sciences, 13*(3), 345-353.

Salehyan, I., Hendrix, C. S., Hamner, J., Case, C., Linebarger, C., Stull, E., & Williams, J. (2012). Social conflict in Africa: A new database. *International Interactions, 38(4), 503-511.*

Sambanis, N., Germann, M., & Schädel, A. (2018). SDM: A new data set on self-determination movements with an application to the reputational theory of conflict. *Journal of Conflict Resolution,* 62(3), 656-686.

Santos, B. D. S. (2016). Epistemologies of the South and the future. *From the European South: a transdisciplinary journal of postcolonial humanities*, (1), 17-29.

Sartori, G. (1970). Concept misinformation in comparative politics, *American Political Science Review*, 64, pp.1033-1053

Sartori, G. (2004). Where is political science going? PS: *Political Science and Politics*, 37, pp.785-786

Scacco, (2010),' *Who Riots? Explaining Individual Participation in Ethnic Violence'*, University of Columbia, from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.615.3726&rep=rep1&type=pdf

Schelling, T. C. (1958). The strategy of conflict. Prospectus for a reorientation of game theory. *Journal of Conflict Resolution, 2(3), 203-264.*

Scheub, H. (1985). A review of African oral traditions and literature. *African Studies Review*, 28(2-3), 1-72.

Schlack, E., Turnbull, N., & Arce, M. J. (2017). Learning from La Vega Central: Challenges to the survival of a publicly used (private) marketplace. *Contested Cities. Contested Markets*, 36-53.

Schlesinger, A. 1992. *The disuniting of America*. New York: Norton.

Schoenecker, A. (2023). Citizenship and urban belonging in Mumbai: understanding the impact of informal institutions on street vending. *Third World Quarterly*, *44*(4), 649-666.

Scott, J.C (1998). *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed.* New Haven: Yale University Press, 1998), 4.

Scott, J.C. (1985). *Weapons of the Weak: Everyday Forms of Peasant Resistance*, New Haven, CT: Yale University Press.

Seligmann, L. J. (2000). Market places, social spaces in Cuzco, Peru. *Urban Anthropology and Studies of Cultural Systems and World Economic Development*, 1-68.

Seligmann, L. J., & Estes, B. P. (2020). Innovations in ethnographic methods. *American Behavioral Scientist*, *64*(2), 176-197.

Senese, P. D. (2005). Territory, contiguity, and international conflict: Assessing a new joint explanation. *American Journal of Political Science*, 49(4), 769-779.

Shannon, M., Thyne, C., Hayden, S., & Dugan, A. (2015). The international community's reaction to coups. *Foreign Policy Analysis*, 11(4), 363-376.

Sharpless, R. (2008). „The History of Oral History". *W Thinking about Oral History. Theories and Applications, red. Thomas L. Charlton, Lois E. Myers, Rebecca Sharpless*, 7-32.

Shepard W. (2019). Should we build cities rom scratch? *The Guardian UK*. https://www.theguardian.com/cities/2019/jul/10/should-we-build-cities-from-scratch

Shockely K.G. (2009). A researcher 'called' to 'taboo' places?: a burgeoning research method in African-centered education, *International Journal of Qualitative Studies in Education* Vol. 22, No. 2, pp. 163–176

Sik, E., & Wallace, C. (1999). The development of open-air markets in East-Central Europe. *International Journal of Urban and Regional Research*, *23*(4), 697-714.

Silva, E., & Wu, N. (2012). Surveying models in urban land studies. *Journal of Planning Literature*, *27*(2), 139-152.

Simmel, G. (1908). Conflict. In Kurt H. Wolff (trans.). *Conflict and the Web of Group Affiliations*. New York: Free Press, 1956.

Simon, P. B. (1998). Informal responses to crises of urban employment: an investigation into the structure and relevance of small-scale informal retailing in Kaduna, Nigeria. *Regional Studies*, 32(6), 547-557.

Sin C.H, (2003), *'Interviewing in 'place'*: the socio-spatial construction of interview data', Area 35.3, pp.305–312

Sinclair, R. (1967). Von Thünen and urban sprawl. *Annals of the Association of American Geographers*, *57*(1), 72-87.

Singer, K. (1949). The meaning of conflict. *The Australasian Journal of Psychology and Philosophy*, 27(3), 145-170.

Singer, K. (1949). The meaning of conflict. *The Australasian Journal of Psychology and Philosophy*, 27(3), 145-170.

Sjoberg, G (1960). *The Pre-industrial City*, Illinois: Free Press of Glencoe. p.33

Smailes A.E. (1953). *The geography of Towns*. London p.44

Smit, B., & Wandel, J. (2006). Adaptation, adaptive capacity and vulnerability. *Global environmental change*, 16(3), 282-292.

Smith, R. H. (1979). Periodic market-places and periodic marketing: review and prospect—I. *Progress in Human Geography*, *3*(4), 471-505.

Sohn, I. (2020). Why Is Nigeria-The" Giant of Africa"-Still Poor?. *The Journal of Applied Business and Economics*, 22(5), 11-41.

Soja E. W (1996). *'Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places'*, London Wiley

Soja E. W. (1980). The Socio-Spatial Dialectic, *Annals of the Association of American Geographers*, 70:2, pp.207-225

Soja E.W (2009). *Taking Space Personally* In: The Spatial Turn: Interdisciplinary Perspectives. Wraf B. & Arias S. (eds), New York: Routledge, pp.11-35

Soja E.W. (1989), *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*, New York: Verso.

Sorokin, P. A. (1928). Sociological Interpretation of the "Struggle for Existence" and Sociology of War. *Contemporary sociological theories*, 309-356

Souaré, I. K. (2014). The African Union as a norm entrepreneur on military coups d'état in Africa (1952–2012): an empirical assessment. *The Journal of Modern African Studies*, 52(1), 69-94.

Soukand, R., Stryamets, N., Fontefrancesco, M. F., & Pieroni, A. (2020). The importance of tolerating interstices: Babushka markets in Ukraine and Eastern Europe and their role in maintaining local food knowledge and diversity. *Heliyon*, *6*(1).

Soyinka, W. (2002). *Samarkand and Other Markets I have known*. Methuen Pub Limited.

Starr, H. (2003). The power of place and the future of spatial analysis in the study of conflict. *Conflict Management and Peace Science*, *20*(1), 1-20.

Starr, H. (2003). The power of place and the future of spatial analysis in the study of conflict. *Conflict Management and Peace Science*, 20(1), 1-20.

Stewart, F., Holdstock, D., & Jarquin, A. (2002). Root causes of violent conflict in developing countries Commentary: Conflict—from causes to prevention?. *bmj*, 324(7333), 342-345.

Stoller, P. (1996). Spaces, places, and fields: the politics of West African trading in New York City's informal economy. *American Anthropologist, 776-788.*

Stonequist, E. V. (1937). The marginal man: A study in personality and culture conflict. *Studies*, 8, 341-359.

Tabellini, G. (2010). Culture and institutions: economic development in the regions of Europe. *Journal of the European Economic association*, *8*(4), 677-716.

Taipale, I. (2017). Remembering the Biafran humanitarian crisis. Medicine, *Conflict, and Survival,* 33(3), 207-211.

Tessler, M. (2009). *A history of the Israeli-Palestinian conflict*. Indiana University Press.

Thaler K.M (2017), 'Mixed Methods Research in the Study of Political and Social Violence and Conflict', *Journal of Mixed Methods Research* 2017, Vol. 11(1) pp.59–76

Theidon, K. (2000). How We Learned to Kill Our Brother' Memory, Morality and Reconciliation in Peru. *Bulletin of the French Institute of Andean Studies* 29 (3): 539–554.

Ting-Toomey, S. (1982). Toward a theory of conflict and culture. *ERIC*: https://eric.ed.gov/?id=ED225201

Tint, B. (2010). History, memory, and intractable conflict. *Conflict Resolution Quarterly*, *27*(3), 239-256.

Tobin T. (2017). *Nationalism can't be built, the story of Abuja's creation*. Master's Dissertation, Georgetown University.

Tonuchi, J. E., & Idowu, P. (2020). How large is the size of Nigeria's informal economy? A MIMIC approach. *International Journal of Economics, Commerce and Management*.

Tosun, O. K., & Eshraghi, A. (2022). Corporate decisions in times of war: Evidence from the Russia-Ukraine conflict. *Finance Research Letters*, 48, 102920.

Triandis, H. C. (2000). Culture and conflict. *International journal of psychology*, 35(2), 145-152.

Turner, B. S. (2021). *Vulnerability and human rights.* In Vulnerability and Human Rights. Penn State University Press.

Turner, J. H. (1975). Marx and Simmel revisited: Reassessing the foundations of conflict theory. *Social Forces*, 53(4), 618-627.

Turner, K. (2016). The rise of female suicide bombers. *Counter Terrorist Trends and Analyses, 8(3), 15-19.*

U. N. H. C. R. (2018). *Global Trends: Forced Displacement in 2018*, United Nations High Commissioner for Refugees; UN Refugee Agency. https://www.unhcr.org/5b27be547.pdf

U. N. H. C. R. (2019). *Global Trends: Forced Displacement in 2019*, United Nations High Commissioner for Refugees; UN Refugee Agency. https://www.unhcr.org/statistics/unhcrstats/5ee200e37/unhcr-global-trends-2019.html

U. N. H. C. R. (2020). *Global Trends: Forced Displacement in 2020*, United Nations High Commissioner for Refugees; UN Refugee Agency. https://www.unhcr.org/60b638e37.pdf

U. N. H. C. R. (2021). *Global Trends: Forced Displacement in 2021*, United Nations High Commissioner for Refugees; UN Refugee Agency. https://www.unhcr.org/62a9d1494/global-trends-report-2021

U. N. H. C. R. (2022). *Global Trends: Forced Displacement in 2022*, United Nations High Commissioner for Refugees; UN Refugee Agency. https://www.unhcr.org/60b638e37.pdf

Ugwu, H. (2020). Covert Military Operations, Bioengineering And The Weaponization Of Viruses: An Igwuebuike Discourse. *Amamihe Journal Of Applied Philosophy*, *18*(7).

Ugwueze, M. I., Ngwu, E. C., & Onuoha, F. C. (2022). Operation safe corridor programme and reintegration of ex-Boko Haram fighters in Nigeria. *Journal of Asian and African Studies*, 57(6), 1229-1248.

UN (2018) World Urbanisation Prospects, UN *Department of Economic and Social Affairs*. https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf

UN Report (2023). Civilian Deaths in Ukraine War Top 10,000, UN Says, United Nations Ukraine. https://ukraine.un.org/en/253322-civilian-deaths-ukraine-war-top-10000-un-says

US Homeland Security (2013), Boko Haram Growing Threat to the U.S. Homeland U.S. House of Representatives Committee on Homeland Security September 13, Prepared by the Majority Staff of the Committee on Homeland Security

Vahabi, M. (2009). A critical review of strategic conflict theory and socio-political instability models. *Revue d'économie politique,* 119(6), 817-858.

Vahabi, M. (2010). Integrating social conflict into economic theory. Cambridge *Journal of Economics,* 34(4), 687-708.

Van den Bergh, J. C. (2009). The GDP paradox. *Journal of economic psychology*, 30(2), 117-135.

Van Den Hoek, J. (2017), Agricultural market activity and Boko Haram attacks in northeastern Nigeria, *West African Papers, No. 9*, OECD Publishing, Paris, https://doi.org/10.1787/13ba9f2e-en.

Varshney, A. (2008). Analyzing collective violence in Indonesia: An overview. *Journal of East Asian Studies*, *8*(3), 341-359.

Vining R. (1955). A Description of Certain Aspects Of An Economic System, *Economic Development and Cultural Change*, Vol 3, No.2 pp. 147-195

Von Neumann, J., & Morgenstern, O. (1944). *Theory of games and economic Behavior*. Princeton: Princeton university press.

Von Thünen, J. (1826). *Isolated State. Translated by Carla M. Wartenberg.1966* Pergamon: Oxford

Von Uexkull, N. (2014). Sustained drought, vulnerability, and civil conflict in Sub-Saharan Africa. *Political Geography*, 43, 16-26.

Vuletin, G. (2008). Measuring the informal economy in Latin America and the Caribbean. IMF *Working Paper* No. 08/102

Walford, G. (2001). Site selection within comparative case study and ethnographic research. *Compare: A journal of comparative and international education*, *31*(2), 151-164.

Walter, B. F. (2003). Explaining the Intractability of Territorial Conflict. *International Studies Review* 5 (4): 137-53.

Walter, B. F. (2006). Building Reputation: Why Governments Fight Some Separatists but Not Others. *American Journal of Political Science* 50 (2): 313-30.

Warner D. B. (1992). *The Reporting of Crime: A missing link in conflict theory* In: Social Threat and Social control (ed) Liska A.E. pp. 71-88 New York: State University of New York Press

Watson, V. (2014). African urban fantasies: dreams or nightmares? *Environment and Urbanization*, *26*(1), 215-231.

Watson, V. (2015). The allure of 'smart city'rhetoric: India and Africa. *Dialogues in Human Geography*, *5*(1), 36-39.

Watson, V. (2020). Digital visualisation as a new driver of urban change in Africa. *Urban Planning*, *5*(2), 35-43.

Weidmann, N. B., & Ward, M. D. (2010). Predicting conflict in space and time. *Journal of Conflict Resolution*, 54(6), 883-901.

Williams, M., & May, T. (2000). *Introduction to the philosophy of social research* (Social research today Introduction to the philosophy of social research). London: Routledge

Williams, P. D. (2016). *War and conflict in Africa.* John Wiley & Sons.

Willoughby L. (2016). *This Doesn't Feel Right: Selecting A Site For School-Based Ethnography', In:Taylor-Leech, K., & Starks, D.* In. Doing Research within Communities: Stories and lessons from language and education field research / Kerry Taylor-Leech, Donna Starks.

Wilson, D. C. (2003). *Conflict and Scale.* In The fisheries co-management experience Springer, Dordrecht. (pp. 193-211).

Wiredu, K. (1996). *Cultural universals and particulars: An African perspective*. Indiana University Press.

Withers C.W.J (2009), Place and the 'Spatial turn' in Geography and History, *Journal of the History of Ideas*, Vol. 70 (4) pp. 637-658

Wondimu, M. A. (2018). Working within chaos in the Merkato of Addis Ababa. An ethnography of the biggest market in East Africa. *POLITesi* - Archivio digitale delle tesi di laurea e di dottorato https://www.politesi.polimi.it/handle/10589/140585

Woods, P., Boyle, M., Jeffrey, B., & Troman, G. (2000). A research team in ethnography. *International Journal of Qualitative Studies in Education*, *13*(1), 85-98.

Woodson, C. G. (1915). *The education of the Negro prior to 1861: A history of the education of the colored people of the U.S. from the beginning slavery*. New York: G. P. Putnam's Sons.

Woodson, C. G. (1933). *The Mis-education of the Negro.* Washington, DC: Associated Publishers.

World Bank (2011). World development report 2011: conflict, security, and development - overview (English). *World development report Washington*, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/806531468161369474/World-development-report-2011-conflict-security-and-development-overview

World Bank, (2017), Forcibly Displaced Toward A Development Approach Supporting Refugees, The Internally Displaced, And Their Hosts, *World Bank Report* https://openknowledge.worldbank.org/bitstream/handle/10986/25016/9781464809385.pdf?sequence=11

Wright, Q. (1957). International Conflict and the United Nations*. World Politics,* 10(1), 24-48.

Wutich, A., & Brewis, A. (2019). Data collection in cross-cultural ethnographic research. *Field Methods*, *31*(2), 181-189.

Zhang, X. Q. (2016). The trends, promises and challenges of urbanisation in the world. *Habitat international*, *54*, 241-252.

Żuk, P., & Żuk, P. (2022). National energy security or acceleration of transition? Energy policy after the war in Ukraine. *Joule*, 6(4), 709-712.

Appendix

Ethnographic studies in Abuja & Borno (Nigeria): Questionnaires and Schedules

Please note that some questions and interview data are excluded from this document not only in respect of the expressed privacy of the respondents but also for security and safety reasons pertaining to the researchers on desk and in the field as some of the topics of discussion are highly sensitive, especially in Nigeria. The questions are not necessarily asked in the order and language written, many respondents speak various languages and the field study team engaged respondents the best language that could convey the meaning of the inquiries. The questions therefore do not necessarily asked the way they are written here. The entire studies listed here were led by Stephen Ajadi.

A1: UNSTRUCTURED INTERVIEWS (PHYSICAL)

Questionnaire: A1

1. Gender: Female, Male
2. Education Level: Bachelors, Masters, Doctorate, Post Doc.
3. Market Name (if you are related attached/related to a specific market(s))
4. Market Address Office address
5. Job Title
6. What is your Job like?
7. How long have you been on this Job (Years or months)
8. What were you doing before this Job?
9. What do you plan to be doing after this Job?
10. Age: 15-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80. 81-85, 86-90, 96-100, 101-105, NA (No Answer)
11. Marital status: Married, Single, Divorced
12. When did you arrive at Abuja? (Years)
13. State of origin
14. Ethnic Group
15. How many Languages do you speak?
16. List the languages
17. What's your primary language?
18. What Language do you speak the most at the market/office?
19. How long does it take you to get to the market/office?
20. How long does it take you to return home?
21. House ownership: Rent, Co-habit, Own
22. What days are the busiest for you?
23. Why?
24. What months are the busiest for you?
25. Why?
26. How many incidents of conflict related to northern Nigeria have you experienced in relation to a market?
27. How many were violent?
28. When was the latest one?
29. What impact did it have on the market or your vicinity or both?
30. How easy do you think it is for policies made by the government to reach the grassroots level in terms of implementation? 1-10.

31. Why?
32. How much do you think protocols within your organization affect the implementation of company policies in the market? 1-10.
33. How strong is the relationship of your work with the Safety of public space? 1-10, 1-very weak, 10-very strong.
34. How strongly will you relate the conflict in Northern Nigeria to Market Safety in Abuja? 1-10, 1-very weak, 10-very strong.
35. How do you perceive the safety of Markets in Abuja? 1-10, 1-very weak, 10-very strong.
36. How strong is the safety of public spaces in Abuja? 1-10, 1-very weak, 10-very strong.
37. What government departments do you think should be involved in market Safety?: Nigerian police, state security services, Fire service, food safety, custom and immigration, NDLEA, Civil Defense, Parks & Recreation, AEPB.
38. Do you think the private sector should be involved? Yes/No
39. What private departments do you think should be involved in market safety? Security companies, Humanitarian departments, Child trafficking organizations, Human rights violations, Media, Researchers, Property managers, Business men, Facilities Management, All financial and commercial.
40. What markets in Abuja would you say are the most vulnerable to a violent attack?
41. What Markets in Abuja would you say are the most prepared for a violent attack?
42. What months of the year are the most Vulnerable for Markets in Abuja?
43. Do you think Markets should have more openings than they currently do? Yes/No.
44. Why?
45. Are you aware of any government policy for Markets? Yes/No.
46. What are the most obvious government policies about markets that you know?
47. How effective do you think government policies are when it comes to Markets in Abuja? 1-10
48. Do you think the Government is doing enough for Abuja markets in terms of safety? 1-10
49. Why?
50. Do you think people are doing enough for Abuja markets in terms of safety? 1-10
51. How involved are you in the wake of a violent attack on the market? Or a similar safety threat: 1-10
52. How appropriate do you see your involvement? 1-10
53. How will you rate the impact of conflict in Northern Nigeria on Markets in Abuja? 1-10
54. How positive are you about a better future of Market safety in Abuja? 1-10

Table A-1: Schedule of Interviews

Date	Name of respondent	Location	No. of respondents
24-12-2019	Police Station, Wuse market	Wuse Market	3*
06-01-2020	XX	Abuja	1
08-01-2020	XX	Abuja	1
10-01-2020	Hajiya Zaliha'u Ahmed FNITP, MNIA[1]	FCDA	1
07-02-2020	XX	Abuja	1
16-03-2020	XX	Abuja	1
18-03-2020	XX	Abuja	1
19-03-2020	XX	Abuja	1
25-03-2020	XX	Abuja	1
26-03-2020	XX	Abuja	5*
22-07-2020	Hajiya Zaliha'u Ahmed FNITP, MNIA	FCDA	1
23-07-2020	Mallam Yahaya Abubakar MITP	FCDA	1
25-07-2020	Akin Mabogunje	Abuja	1
27-08-2020	Mallam Yahaya Abubakar MITP	FCDA	1
29-08-2020	Akin Mabogunje	Abuja	1
31-08-2020	Hajiya Zaliha'u Ahmed FNITP, MNIA	FCDA	1
26-09-2020	Akin Mabogunje	Abuja	1
29-10-2020	XX	Abuja	1
31-10-2020	Akin Mabogunje	Abuja	1
26-11-2020	Head of Security FCDA	FCDA	1
28-11-2020	Akin Mabogunje	Abuja	1
26-12-2020	Akin Mabogunje	Abuja	1
28-10-2022	Dr Tunji Adejumo, Reader University of Lagos	Cambridge	1
11-01-2022	Hajiya Zaliha'u Ahmed FNITP, MNIA	FCDA	1
			Total: 30

*Focus group meeting

[1] Director of Planning FCDA, later the executive secretary

A2: PRIMARY MARKET STUDIES

Questionnaire: A2

1. What day is ‘Market Day’ (if applicable)?
2. Gender of trader
3. Please select the type of seller
4. Shop code/number (If applicable)
5. How many Languages do you speak?
6. What are the languages?
7. State of Origin
8. Ethnic Group
9. Country (if International)
10. Age: 15-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80. 81-85, 86-90, 96-100, 101-105, NA (No Answer)
11. Type of Goods do you sell?
12. Shop type?
13. Which area do you live in?
14. House Ownership?
15. Is there a market closer to your house apart from the one you are in now?
16. Do you buy your personal goods for use at home from the same market you sell things at?
17. Do you have a shop(s) in other markets in Abuja? If 'Yes' Which Market (s)?
18. If you have more money, will you open a new shop? If "Yes/Maybe", where will the shop be?
19. Why?
20. Do you have a shop(s) in other markets outside Abuja? If 'Yes' which one?
21. Do you pay rent?
22. How safe do you think this Market is?
23. If this market is safe how much does it benefit your business?
24. How will you rate your relationship with your neighbours in the market?
25. How many outlets/gates/passages does this market have?
26. Do you think the market needs more passages/outlets?
27. Is the conflict in Northern Nigeria affecting Abuja and its Markets?
28. Do you approve of the current arrangement of shops in the market?
29. Why?
30. Are you concerned about organised attacks from outside?
31. Why?
32. Do you think the government is effective in aiding security in markets?
33. Do you think the people in the market are effective in aiding security in markets?
34. How effective do you think the police/local security in the market are, in aiding security in markets?
35. How positive are you about the future of market safety in Abuja?
36. Have you ever experienced an attack in this market?
37. Have you ever joined a crowd in protecting yourself during an attack on this market?
38. Do you have personal means of protecting yourself?
39. Any additional information about this interview?
40. How does much visibility within the market affect your business?
41. Does the conflict in Northern Nigeria affect this market? If yes/maybe, how?
42. After the incident at the car park, what was the effect on the market?
43. Have there been similar incidents or attacks since then?
44. How does this place protect itself?
45. As the Line leader, do you have regular meetings with your line?
46. Line Leader: How many meetings do you have in a month?

47. How much impact has the bomb blasts had on the sales in your market?
48. Approximately how many sellers are in your line?
49. How long did it take for your sales to recover?
50. Approximately how many people are in your line?
51. What is the major product sold in your line?
52. Where do most of you get the product from? (location)

Table A-2A: Schedule of Interviews

Date	**No. of Field researchers**	**Location**	**No. respondents**
09-01-2020	1	Wuse Modern Market	1
11-01-2020	3	Wuse Modern Market	16
13-01-2020	3	Wuse Modern Market	26
20-01-2020	1	Wuse Modern Market	9
22-01-2020	4	Wuse Modern Market	42
27-01-2020	1	Wuse Modern Market	10
29-01-2020	5	Wuse Modern Market	53
30-01-2020	7	Wuse Modern Market	92
31-01-2020	12	Wuse Modern Market	150
01-02-2020	8	Wuse Modern Market	104
03-02-2020	5	Wuse Modern Market	73
04-02-2020	8	Wuse Modern Market	82
05-02-2020	6	Wuse Modern Market	93
06-02-2020	1	Wuse Modern Market	7
			Total: 758*

*2 respondents discarded due to one, some or all of the following reasons: incomplete session, poor communication, discovery of wrong information given or the respondent not being part of the market

Table A-2B: Schedule of Interviews

Date	No. of Field researchers	Locations	No. respondents
18-02-2020	8	Nyanya Informal Market	79
19-02-2020	8	Nyanya Informal Market	102
20-02-2020	6	Nyanya Informal Market	78
21-02-2020	7	Nyanya Informal Market	83
24-02-2020	3	Nyanya Informal Market	19
27-02-2020	3	Nyanya Informal Market	26
28-02-2020	2	Nyanya Informal Market	4
16-03-2020	3	Nyanya Informal Market	26
			Total: 421*

*4 respondents discarded due to one, some or all of the following reasons: incomplete session, poor communication, discovery of wrong information given or the respondent not being part of the market

Other focus groups

Date	**Name(s) of respondent**	**Location**	**No. of respondents**
03-10-2020	XX	Nyanya Informal Market	30
02-11-2020	XX	Abuja	25
05-12-2020	XX	Abuja	20
19-06-2021	XX	Nyanya Informal Market	5
19-06-2021	XX	Abuja	XX

A3: 'LOCKDOWN' ETHNOGRAPHIC PHASE (PHYSICAL)

This field study was carried out at the peak of the COVID-19 pandemic in Nigeria.

Questionnaire: A3

1. Please select the type of seller: Shop Owner Representative, Shop Owner.
2. Shop Number
3. Coordinates
4. Gender?
5. How many Languages do you speak?
6. What are the Languages?
7. Age:15-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80. 81-85, 86-90, 96-100, 101-105, NA (No Answer)
8. Type of goods sold: Food Items, Clothing/textiles
9. Service/Product : Food Items, Non-Essentials
10. House Ownership? Tenant, Owner
11. Which area do you live?:
12. How difficult was it for you to come to the market BEFORE the pandemic (COVID-19)?
13. How long did it take you to the market (minutes) BEFORE COVID-19?
14. How Long (minutes) did it take when returning home?
15. How difficult was it for you to come to the market DURING the pandemic (COVID-19)?
16. How long does it take you to the market (Minutes) DURING COVID-19?
17. How Long (minutes) does it take when returning home?
18. Where do products come from?
19. How easy has it been to keep getting products to sell from your supplier? 1-10: 1-very easy, 10-extremely difficult
20. How well will you rate your sales before COVID-19?: 1-10: 1-generally low, 10-generally high
21. How will you rate your sales during COVID-19?: 1-10: 1-generally low, 10-generally high
22. To prevent COVID-19, How necessary do you think washing of hands is? 1-10: 1-not necessary, 10-very necessary
23. To prevent COVID-19, How necessary do you think the use of hand sanitizer is?: 1-10: 1-not necessary, 10-very necessary
24. To prevent COVID-19, How necessary do you think social distancing is?: 1-10: 1-not necessary, 10-very necessary
25. To prevent COVID-19, How necessary do you think staying at home is?: 1-10: 1-not necessary, 10-very necessary
26. To prevent COVID-19, How necessary do think wearing a mask is? 1-10: 1-not necessary, 10-very necessary
27. Do you follow all these guidelines at home? Yes/No.
28. If 'yes' or 'no' Why?
29. Has the government given you any form of COVID-19 support directly?
30. If 'Yes', what kind of support?
31. How well are the people in the market obeying the guidelines concerning COVID-19?
32. How well will you rate the leadership of the government during this time?: 1-10: 1-generally low, 10-generally high
33. Which threat do you think is more on the market?: 1-10: 1-generally low, 10-generally high
34. How will you rate security in the market now?: 1-10: 1-generally low, 10-generally high
35. How will you rate your own personal safety in the market?: 1-10: 1-generally low, 10-generally high

36. Ethnic group
37. State of Origin
38. *For those who don't sell foodstuff, ask them why they are open*
39. Additional data learned from the respondent.
40. Do you have another means of income apart from selling in the market?

Table A-3: Schedule of Interviews

Date	No. of Field Researchers	Locations	Number of respondents
11-04-2020	3	Wuse Market	23
13-04-2020	3	Wuse Market	36
15-04-2020	4	Wuse Market	38
			Total: 97

A4: PUBLIC SURVEY PHASE

Questionnaire: A4

1. Gender: Female, Male
2. Age: 20-30
3. State of origin
4. Ethnicity
5. Nationality
6. How many Languages do you speak?
7. Click (or type) the Languages that apply to you
8. What is your position in your immediate household?
9. If you have a job/career what best describes your job/career sector?
10. Which area do you live in Abuja? (Just the neigbourhood name, no specifics are needed)
11. How will you describe your area?: Middle Income
12. Home Ownership: Home Owner, Tenant
13. What is the primary market you shop at?: Wuse market
14. Which market in Abuja will you rate as the safest market to shop?: Wuse market
15. How long does it take you to get to your primary market from your house (in minutes)?
16. How often per month do you shop in an Abuja Market?
17. What factors affect the choice of markets you shop at (check all that apply)?
18. Do you think the current conflict in Northern Nigeria is influencing the safety of MARKETS in Abuja?: 1-10
19. Do you think the current conflict in Northern Nigeria is influencing the safety of OPEN SPACE in Abuja?: 1-10
20. How will you describe your annual income level?
21. Do you have loyal/favourite traders whose relocation will make you change markets just to buy from them?: Yes/No
22. Do you often visit markets with your personal (private) transportation? Yes/No
23. How much has COVID-19 affected your trust in the safety of OPEN MARKETS in Abuja?: 1-10
24. How much has COVID-19 affected your trust in the safety of OPEN SPACE in Abuja?: 1-10
25. Which market in Abuja will you rate as the least safe market to shop?:

26. If the current market you shop in becomes unsafe, which market will be your immediate next option?
27. How effective do you think the government is in the management of open markets in Abuja?: 1-10
28. How effective do you think the government is in the management of public space in Abuja?: 1-10
29. Do you live apart, or part of your immediate family?

Table A-3: Schedule of Interviews (online)

Key information	
Start date	15-07-2020
End date	14-11-2020
Location	Abuja
No. of respondents	256

A4: BUYERS' INTERVIEWS (PHYSICAL)

Questionnaire: A4

1. Gender of respondent: Female, Male
2. Is this your primary shopping Market?
3. How many times a month do you shop?
4. On a scale of 1-10, how safe do you think this market is?
5. The visibility in-between blocks of the market: Does it affect your willingness to shop in certain areas? (1-10)
6. The visibility in-between blocks of the market: Does it affect the safety or security in the market? (1-10)
7. How far is this market from your house (in minutes)
8. If this market is compromised, which other markets will be your immediate next options?
9. The least safe market in Abuja (in your opinion)?
10. Safest market in Abuja (in your own opinion)?
11. How well do you think the government is doing to make public open markets safe in Abuja? (1-10)
12. Did you bring your own means of transportation?
13. Do you have loyal customers/sellers in this market that can make you change markets if they move to another market?
14. Since the incident at the car park, how has your relationship been with the market?
15. Any additional Information you gathered.

Table A-4A: Schedule of Interviews

Date	No. of Field Agents	Locations	Number of respondents
27-01-2020	1	Wuse Modern Market	1
28-01-2020	1	Wuse Modern Market	1
29-01-2020	2	Wuse Modern Market	3
30-01-2020	5	Wuse Modern Market	12
31-01-2020	2	Wuse Modern Market	4
01-02-2020	2	Wuse Modern Market	5
03-02-2020	1	Wuse Modern Market	2
04-02-2020	1	Wuse Modern Market	4
05-02-2020	2	Wuse Modern Market	5
06-02-2020	8	Wuse Modern Market	83
07-02-2020	10	Wuse Modern Market	112
			Total: 232

Table A-4B: Schedule of Interviews

Date	No. of Field researchers	Locations	Number of respondents
22-02-2020	1	Nyanyan Informal Market	5
28-02-2020	2	Nyanyan Informal Market	14
29-02-2020	2	Nyanyan Informal Market	20
02-03-2020	2	Nyanyan Informal Market	17
10-03-2020	2	Nyanyan Informal Market	11
			Total: 67

MAIDUGURI, BORNO, NIGERIA

This questionnaire (and study) appears courtesy of the African Cities Research Consortium of the University of Manchester who funded the ethnographic study in the city of Maiduguri between 2021 and 2022 under the leadership of Stephen Ajadi.

A5: Ethnographic Studies across wards (Physical)

Questionnaire: A5

1. Gender: Female/Male
2. Age group (a): 15-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80. 81-85, 86-90, 96-100, 101-105, NA (No Answer)
   Age group (b): Adult (26-60), Aged (above 61), Youth (Below 25), NA (No Answer)
3. Ethnicity
4. Employed: Yes, No, NA (No Answer)
   What specific work do you do for a living? (a): Cap Maker, Civil Servant, Construction (Formal), Construction (Informal), Domestic Services, Driver (Formal), Driver (Informal), Engineer (Formal), Engineer (Informal), Entrepreneur, Farmer, Food Sales (Cooked), Food Sales (Raw), Fulltime Spouse (F), Fulltime Spouse (M), Handwork (Others), Health Personnel, Money Services, None, Others, Pensioner, Security (Formal), Security (Informal), Student, Tailor, Teacher, Tech/Computer Services, Trader, Volunteer, White Collar Job.
   What specific work do you do for a living? (b): Informal, Formal, Student, None.
5. Which aspect of these is most important to you in your area? (Name top 3): Agriculture/Food, Education, Energy/Power/Electricity, Finance, Health, Sanitation, Security, Transportation, Waste management, Water.
6. Which of these is least important to you in your area? Agriculture/Food, Education, Energy/Power/Electricity, Finance, Health, Sanitation, Security, Transportation, Waste management, Water.

7. What is the main problem of health in your area? None, No Facilities, Personnel (shortage), Personnel (Attitude), Finance/Insurance, Illness (Malaria), Illness (Other), Medicine, Accessibility (distance), Maintenance, Sensitization, Malnutrition, Hygiene/sanitation.
8. What has the government been able to do about health problems in your area? Infrastructure, None, Free medication, Policy, Maintenance, Finance, Accessibility, Sensitization, Hygiene/Sanitation.
9. What is the main problem of education in your area? None, Personnel (shortage), Personnel (quality), Personnel (both), Infrastructure, Parental Restriction, Finance, Material Scarcity, Accessibility, Maintenance, Security, Endorsement.
10. Score the safety of schools in your area (1-5): 1=generally low, 5=generally high.
11. What has the community been able to do about education problems in your area? Advocacy, Endorsement, Finance, Infrastructure, Material Provision, None, Personnel Employment, Protection, Sensitization, Volunteer (Teacher)
12. What is the main problem of transportation in your area? Accessibility (Cost), Accessibility (Distance), Allocation (access), Alternatives, Density, Finance, Infrastructure, Maintenance, No facilities, None, Personnel (quality), Policy, Safety.
13. What is has the government been able to do about transportation in your area? Abandoned Intervention, Endorsement, Finance, Infrastructure, Maintenance, None, Personnel, Policy (Revenue Generation), Provision of facilities.
14. Score the government's role in improving transportation in your area (1-5) 1=generally low, 5=generally high.
15. What has the community been able to do about transportation in your area? Advocacy, Community Convention, Endorsement, Finance, Infrastructure, Intervention, Maintenance, None, Personnel, Policy Compliance, Provision of Vehicles, Security/Defense training.
16. Score the government's effort in improving agriculture, food, and markets in your area (1-5): 1=generally low, 5=generally high.
17. Score the safety of markets in your area (1-5): 1=generally low, 5=generally high.
18. What are the problems of markets in your area? Finance, Inflation, Infrastructure, Transportation (Food Flow), Transportation (Access), Density, Land and Space, No customers, Security, Lack of Vendors, Goods, Maintenance, Endorsement, Injustice.
19. Which is the safest market in Maiduguri?
20. Which is the worst market in Maiduguri in terms of safety?
21. Rate the government's effort in law and order in your area (1-5): 1=generally low, 5=generally high.
22. Please write any additional information not covered by the interview.

Table A-5: Ethnographic Outing Across Wards

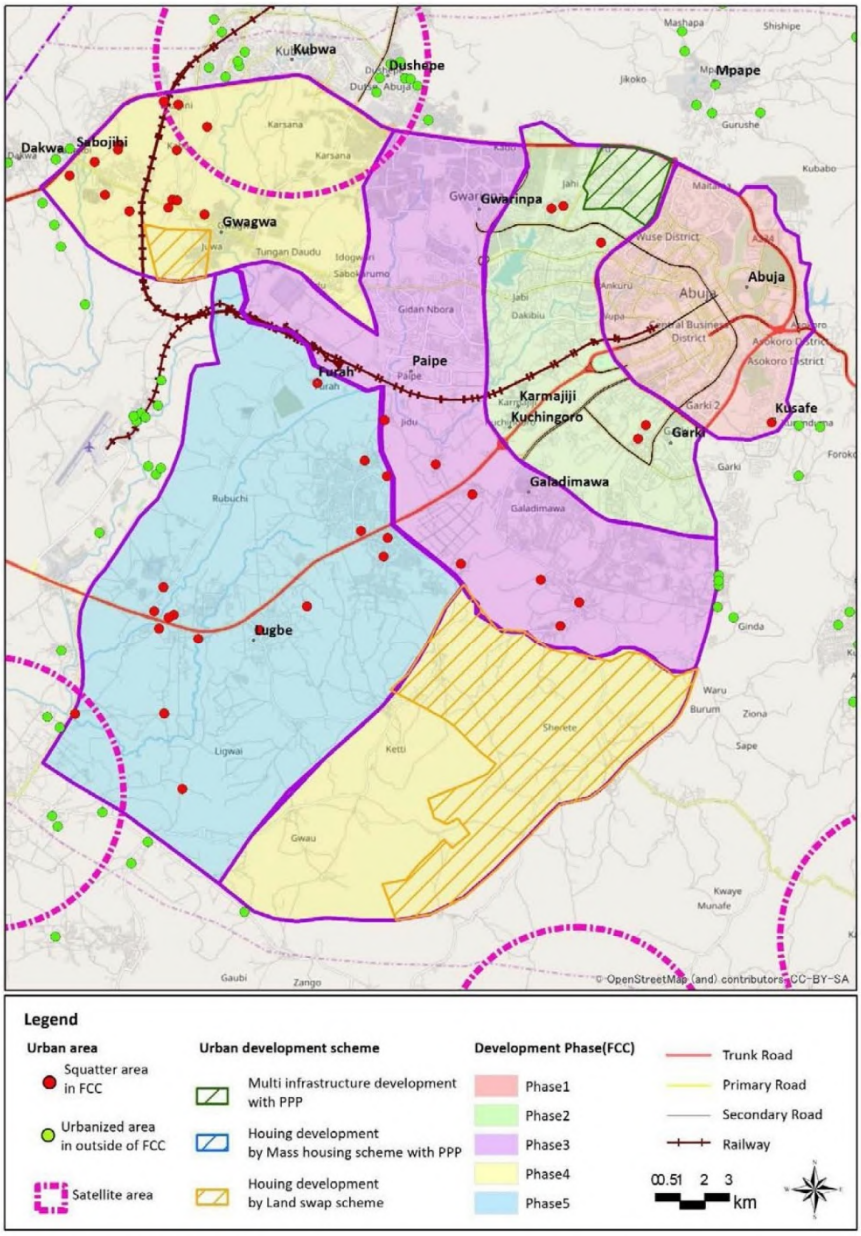
Date	No. of Field researchers	Locations*	Number of respondents
30-08-2022	19	Baga	226
31-08-2022	19	Baga and Bolori I	229
01-09-2022	25	Bolori I and Bolori II	205
02-09-2022	26	Bolori II	203
03-09-2022	13	Bolori II and Bulablin I	169
04-09-2022	11	Bulablin I, Bulablin II, Fezzan, Gamboru Liberty, Gwange I	171
21-09-2022	18	Gwange I, Gwange II, Gwange III, Hausari, Jabba Mari	381
22-09-2022	26	Jabba Mari, Jere	403
23-09-2022	28	Jere, Konduga	399
24-09-2022	25	Konduga, Lamisula, Limanti, Mafoni, Maisandari	428
25-09-2022	30	Maisandari	415
26-09-2022	29	Maisandari	454
27-09-2022	29	Maisandari	355
28-09-2022	32	Maisandari, Other, Polo General Area	503
01-11-2022	28	Polo General Area, Shehuri North	402
05-11-2022	18	Shehuri South	167
			Total: 5110

*see (Appendix) A-7

Table A-2: Focus Group Meetings

Focus group meetings	No. of Field Agents	Location	Affiliated Organisation
03-12-2022	4	XX	Mance Ocean Cleaning Services Ltd.
03-12-2022	4	XX	BOSEPA
06-12-2022	4	XX	Borno Express Corporation
06-12-2022	4	XX	Nigerian Association of Road Transport Owners (NARTO)
22-12-2022	2	XX	People in Monday Market

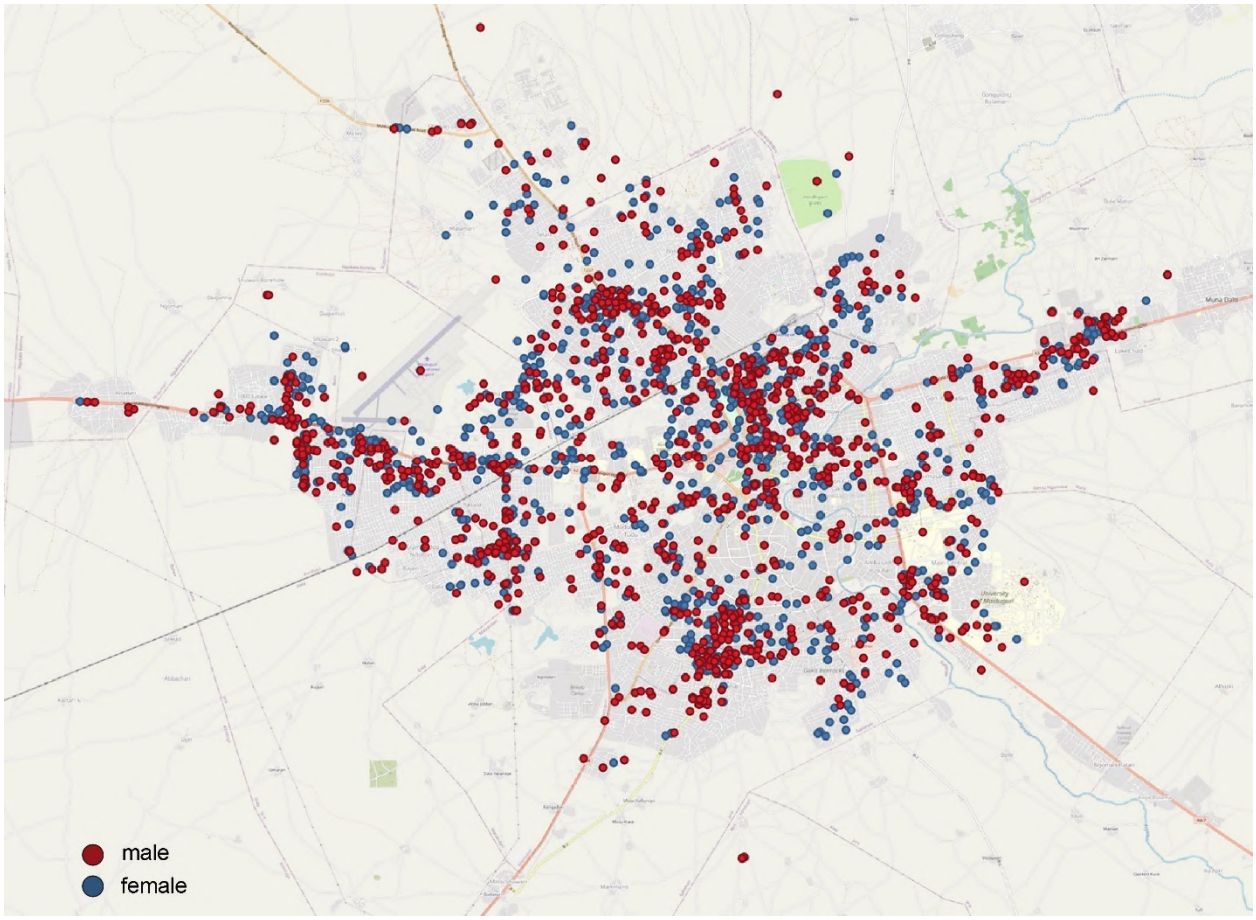
Map of Settlements in Abuja: A6



Source: Prepared the JICA Study Team
Note: Squatter settlements shown by red dots are identified by the JICA Study Team through Ortho-photo analysis.

Map by Japan International Cooperation Agency (JICA) (JJCA 2019, p. 36)

Field Study Map of Maiduguri: A7



Interview points across the city of Maiduguri with gender of respondents. 5110 interviews were conducted across these points.