West African Studies

Conflict Networks in North and West Africa

OECD

SAHEL AND WEST AFRICA Club Secretariat

West African Studies

Conflict Networks in North and West Africa

Under the direction of Marie Trémolières,
Olivier J. Walther and Steven M. Radil

OECD
BETTER POLICIES FOR BETTER LIVES

SAHEL AND WEST AFRICA Club Secretariat

Please cite this publication as:
OECD/SWAC (2021), *Conflict Networks in North and West Africa*, West African Studies, OECD Publishing, Paris, *https://doi.org/10.1787/896e3eca-en*.

ISBN 978-92-64-67316-8 (print)
ISBN 978-92-64-45590-0 (pdf)

West African Studies
ISSN 2074-3548 (print)
ISSN 2074-353X (online)

Photo credits: Cover © Delphine Chedru.

Corrigenda to publications may be found on line at: *www.oecd.org/about/publishing/corrigenda.htm*.

The Sahel and West Africa Club

The Sahel and West Africa Club (SWAC) is an independent international platform. Its Secretariat is hosted at the Organisation for the Economic Co-operation and Development (OECD). Its mission is to promote regional policies that will improve the economic and social well-being of the people in the Sahel and West Africa. Its objectives are to produce and collect data, draft analyses and facilitate strategic dialogue in order to nurture and promote public policies in line with rapid developments in the region. It also promotes regional co-operation as a tool for sustainable development and stability. Its current areas of work are food dynamics, cities and territories, and security.

SWAC Members and partners include: Austria, Belgium, Canada, CILSS (Permanent Interstate Committee for Drought Control in the Sahel), the ECOWAS (Economic Community of West African States) Commission, the European Commission, France, Luxembourg, the Netherlands, Norway, Switzerland, the UEMOA (West African Economic and Monetary Union) Commission and the United States. SWAC has a memorandum of understanding with the University of Florida Sahel Research Group.

More information:
www.oecd.org/swac

Foreword

In 2020, the Sahel and West Africa Club (SWAC/OECD) Secretariat published a landmark book in security studies, *The Geography of Conflict in North and West Africa*. Launched during the Munich Security Conference in February 2020, the study developed a new indicator to show the intensity and spatial distribution of political violence in three areas: Central Sahel, Lake Chad and Libya.

By leveraging data on all politically violent events that have taken place in Africa since 1997, the indicator shows which areas have experienced the highest rates of violence, how conflicts change geographically over time, and how military interventions influence the diffusion of conflicts and their intensity. This work also shows that the reality of violence in North and West Africa — one which involves multiple actors and extremely volatile interactions – is insufficiently integrated within stabilisation strategies.

This follow-up report, *Conflict Networks in North and West Africa*, aims to go further and provide a better understanding of this reality through an approach known as *Dynamic Social Network Analysis* (DSNA). Policymakers are – and rightly so – more interested in the results of analyses rather than in the methodology itself. However, it remains crucial to draw their attention to the need for methodological innovation. Going beyond statistics, which are often weak if not absent in Africa, DSNA allows for the assessment of the social capital of individuals or groups by observing their relationships with other actors in the network, and how this affects the formation of violence.

In the last decade, more than 100 000 people have been killed as a result of clashes between government forces, local militias, rebel groups and other violent extremist organisations. Furthermore, many conflicts have spilled over national borders, creating instability and insecurity in multiple countries, also prompting a rise in the number of violent organisations. The plurality of the interests involved, the changing patterns of relationships between groups – shifting from alliances to rivalries – and the complex nature of local motivations constitute important barriers to sustainable peace. The best possible understanding of these complex dynamics is needed to better adapt policy responses to each unique context.

There is no universal solution; no one-size-fits-all. For instance, in the central Sahel, the multiplicity of armed groups, and the instability of their relations, are much more marked than in the Lake Chad region. Nevertheless, it is possible to draw a number of lessons from the comparative analysis of violent networks. This may help inform a more efficient design of stabilisation strategies, both in the military and development fields, tailored to the specific circumstances of each conflict zone. This is precisely why this report is an invaluable contribution, providing food for thought and evidence-based knowledge for action.

Angel Gurría
Secretary-General
Organisation for Economic Co-operation and Development (OECD)

Dr Ibrahim Assane Mayaki
Chief Executive Officer, African Union Development Agency (AUDA-NEPAD) and Honorary President, Sahel and West Africa Club (SWAC)

The team and acknowledgments

The editorial and drafting team at the SWAC/OECD Secretariat, under the leadership of Marie Trémolières:
Lia Beyeler
Jennifer Sheahan

With the help of:
Sylvie Letassey

Graphic design:
Anja Pölk
Francesca Romano

This work is carried out under the memorandum of understanding with the University of Florida Sahel Research Group.

Olivier J. Walther, PhD, provided scientific direction and co-ordinated the mapping, analysis and drafting of the report. Dr Walther is an Assistant Professor in Geography at the University of Florida, an associate professor of political science at the University of Southern Denmark and a consultant for SWAC/OECD. His current research focuses on cross-border trade and transnational political violence in West Africa. Dr Walther is the Africa Editor of the *Journal of Borderlands Studies*, a "chief" of the African Borderlands Research Network and on the advisory board of the African Governance and Space project. Over the last ten years, he has served as a lead investigator or partner on externally funded research projects from the OECD, the National Aeronautics and Space Administration (NASA), the World Food Programme, the European Commission, the European Spatial Planning Observatory, the governments of Luxembourg and Denmark, and the Carlsberg Foundation. E-mail: owalther@ufl.edu

Steven M. Radil, PhD, is an Assistant Professor of Geosciences at the US Air Force Academy. Dr Radil is a political geographer and primarily researches the spatial dimensions of political violence in the international system, including civil war, insurgency and terrorism. In Africa, he has previously published on the diffusion of the internationalised civil war in the Democratic Republic of the Congo and on the territorial ambitions of Islamist-inspired insurgencies. He has methodological expertise in spatial analysis, social network analysis, and geographic information science (GIS) and routinely uses these tools in his work. E-mail: steven.radil@afacademy.af.edu

Disclaimer. The views expressed are those of the author and do not reflect the official policy or position of the US Air Force, Department of Defense or the US Government.

External contributors

David G. Russell is an independent researcher of political geography. He holds an MSc in Geography from the University of Idaho. His research has focused on quantifying the spatiotemporal patterns of political violence and on how geopolitical rhetoric shapes the ways people see the world and its history. Mr Russell has conducted research at the Middle East Institute in Washington, DC, and he currently works as a consultant for the OECD/SWAC Secretariat. E-mail: davidguyrussell@gmail.com

Matthew Pflaum is a PhD student in the Department of Geography at the University of Florida. He holds an MSc in African Studies and International Development from the University of Edinburgh and an MPH in global health/infectious disease from Emory University. He is broadly interested in mobility and violence in West Africa and the Sahel and the factors contributing to joining militias and extremist organisations. The focus of his work is on pastoralist groups and the tensions that arise within other groups and governments over resources, land, governance, mobility and power. E-mail: mpflaum@ufl.edu

Alexander Thurston is Assistant Professor of Political Science at the University of Cincinnati. His research focuses on Islam and politics in northwest Africa, especially in Mali, Mauritania and Nigeria. He has held fellowships with the Council on Foreign Relations, the Wilson Center, and the American Council of Learned Societies. His most recent book is *Jihadists of North Africa and the Sahel: Local Politics and Rebel Groups* (Cambridge University Press, 2020).

Natalie Mesplay is an undergraduate student in the International Studies programme at the University of Idaho. She is interested in international organisations and their impact on the world, as well as East Asian and African history.

The team also wishes to thank the following individuals for their contribution to the writing of this report:

Laurent Bossard, SWAC/OECD Secretariat; Leonardo A. Villalón, Tatiana Smirnova, Benjamin Soares and Susanna Goewey of the University of Florida; Clionadh Raleigh, University of Sussex; Tenzin Nyima, University of Minnesota; Joe Labianca and Steve Borgatti of the University of Kentucky; Eric Quintane, University of Los Andes; and Martin Everett, University of Manchester.

Table of contents

ABBREVIATIONS AND ACRONYMS 13

EXECUTIVE SUMMARY 15

CHAPTER 1

CONFLICT AND REGIONAL STABILITY IN NORTH AND WEST AFRICA 17

HOW RIVALRIES AND ALLIANCES SHAPE CONFLICTS 19

MORE ENEMIES THAN ALLIES 22

SHIFTING ALLEGIANCES 22

OPPOSITION AND CO-OPERATION NETWORKS LOOK ALIKE 25

A GROWING POLARISATION OF CONFLICT NETWORKS 27

HOW MILITARY INTERVENTIONS RESHUFFLE CONFLICT NETWORKS 29

POLITICAL OPTIONS TO ACHIEVE REGIONAL STABILITY 32

Protecting civilians should become a priority 32

Communal and ethnic militias should be demilitarised 33

Build regional alliances, promote space-based policies and support border regions 34

Intervene militarily to keep warring parties apart rather than to take sides 35

REFERENCES 37

CHAPTER 2

VIOLENT ORGANISATIONS IN CONFLICT IN NORTH AND WEST AFRICA 39

THE DIVERSITY OF VIOLENT NON-STATE ORGANISATIONS 40

RELATIONSHIPS BETWEEN VIOLENT NON-STATE ORGANISATIONS 44

Alliances 44

Rivalries 46

Internal factors of fragmentation 47

External factors of fragmentation 55

EXPLORING HOW NETWORKS AFFECT CONFLICT COMPLEXITY 57

NOTES 59

REFERENCES 59

CHAPTER 3

A DYNAMIC ANALYSIS OF CONFLICT NETWORKS IN NORTH AND WEST AFRICA 63

A NETWORK APPROACH TO ALLIANCES AND RIVALRIES 64

Social network analysis 65

Dynamic social network analysis 68

NETWORKS AND CONFLICT 70

Balance within groups of actors 70

Transitivity within groups of actors 71

Centrality 73

HOW TO ASSESS CONFLICT NETWORKS IN NORTH AND WEST AFRICA 74

A regional approach and disaggregated data 74

A focus on organisations 76

A focus on politically violent events 80

Building opposition and co-operation networks 82

Modelling dynamic networks 83

KEY METRICS FOR CONFLICT NETWORKS 86

REFERENCES 89

CHAPTER 4

NETWORKS OF VIOLENCE IN NORTH AND WEST AFRICA 91

NETWORKED VIOLENCE 92

SHARING A COMMON ENEMY, NOT A COMMON GOAL 94

A cosmopolitan network of enemies 95

The changing structure of opposition 111

ALLIANCES WITHOUT COALITIONS **114**
Fewer alliances than conflicts 114
A sparse and decentralised network of allies 115
The changing structure of alliances 124

CONFLICTS THAT CANNOT END? **129**

REFERENCES **131**

CHAPTER 5
CONFLICT NETWORKS AND MILITARY INTERVENTIONS IN NORTH AND WEST AFRICA **133**

MILITARY INTERVENTIONS IN NORTH AND WEST AFRICA **134**

HOW MILITARY INTERVENTIONS SHAPE CONFLICT NETWORKS **136**

A NETWORK APPROACH TO POLITICAL POWER **138**

OPERATIONS SERVAL AND BARKHANE IN THE SAHEL **141**
France's interventions and militant groups 141
Allies and enemies of French forces 145
Operation Serval and political power in Mali 146

THE MULTINATIONAL OFFENSIVE AROUND LAKE CHAD **150**
The 2015 offensive against Boko Haram 150
The MNJTF intervention against Boko Haram and ISWAP 152
The MNJTF intervention and political power around Lake Chad 153

NATO'S INTERVENTION AND THE WESTERN OFFENSIVE IN LIBYA **155**
NATOS's Operation Unified Protector 155
The Western Campaign 155
NATO's intervention and political power in Libya 156
The Western Campaign and political power in Libya 157

LEARNING FROM CONFLICT NETWORKS **158**

NOTES **159**

REFERENCES **159**

Boxes

Box 1.1 A dynamic approach to conflict networks 20
Box 2.1 Conflict and borders in the Gulf of Guinea in the 1990s 41
Box 2.2 Violent, radical or Islamist organisations? 42
Box 2.3 Hezbollah and the crime-terrorism nexus 43
Box 2.4 Abdelmalek Droukdel 49
Box 2.5 Mokhtar Belmokhar 50
Box 2.6 Opportunistic shifts in Mali and Niger 54
Box 3.1 Clarifying terms 65
Box 3.2 Visualising signed networks 72
Box 3.3 Data processing 86
Box 4.1 Group for Supporting Islam and Muslims (JNIM) 101
Box 4.2 Rivalries between Dogon and Fulani in Central Mali 121
Box 4.3 Ansaroul Islam 122
Box 4.4 Iyad ag Ghali 129

Box 5.1 Al Qaeda in the Islamic Maghreb (AQIM) 142
Box 5.2 Amadou Kouffa 144
Box 5.3 An application of balance theory to the Malian conflict 148

Figures

Figure 1.1 Rivalries and alliances in North and West Africa, 1997–2020 21
Figure 1.2 Simplified evolution of AQIM-related groups, 1992–2020 23
Figure 1.3 Opposition and co-operation networks in North and West Africa, 2020 24
Figure 1.4 The enemies of Boko Haram and the Islamic State West Africa Province, 2020 26
Figure 1.5 Network density and centralisation in North and West Africa, 2000–20 28
Figure 1.6 How Serval and the MNJTF affected political power in Mali and the Lake Chad region 30
Figure 1.7 Organisations in conflict by region, 2020 32
Figure 1.8 Organisations in conflict by type in North and West Africa, 1997–2019 34
Figure 1.9 Rivalries and alliances between organisations in the Central Sahel, 2019 35
Figure 3.1 Sociograms showing different ways to represent social ties between nodes 66
Figure 3.2 Degree, eigenvector, betweenness and closeness centrality 67
Figure 3.3 Dynamic and static social network analysis 68
Figure 3.4 Balance theory 71
Figure 3.5 Transitivity 71
Figure 3.6 Spectral embedding showing Boko Haram and its enemies 72
Figure 3.7 Political independence 74
Figure 3.8 Violent events in North and West Africa by type, 1997–2020 77
Figure 3.9 Evolution of actors in North and West Africa by category, 1997–2019 79
Figure 3.10 Primary actors and associated actors 81
Figure 3.11 Opposition and co-operation networks 83
Figure 3.12 From isolated events to co-operative and conflictual relationships 85
Figure 4.1 Two levels of network analysis: The conflict environment and an organisation's neighbourhood 93
Figure 4.2 Organisations in conflict in North and West Africa, 1997–2020 95
Figure 4.3 Opposition network in North and West Africa, 2020 96
Figure 4.4 Are the opposition networks rather centralised or decentralised? 99
Figure 4.5 Opposition network in Mali and the Central Sahel, 2020 100
Figure 4.6 Centrality for top-scoring organisations in Mali and the Central Sahel, 2020 102
Figure 4.7 JNIM and ISGS opposition network in the Central Sahel, 2020 103
Figure 4.8 Opposition network in the Lake Chad region, 2020 105
Figure 4.9 Centrality for top-scoring organisations in the Lake Chad region, 2020 106
Figure 4.10 Centrality for top-scoring organisations in conflict in Libya, 2020 108
Figure 4.11 Opposition network in Libya, 2020 109
Figure 4.12 Centralisation in networks 111
Figure 4.13 Opposition network density, 2009–20 112
Figure 4.14 Opposition network centralisation, 2009–20 113
Figure 4.15 Co-operative organisations in North and West Africa, 1997–2020 114
Figure 4.16 Co-operative organisations by actor and region, 2020 115
Figure 4.17 Co-operative actors by type in North and West Africa, 1997–2019 116
Figure 4.18 Are the co-operation networks rather centralised or decentralised? 117
Figure 4.19 Co-operation network in North and West Africa, 2020 119
Figure 4.20 Co-operation network in Mali and the Central Sahel, 2020 120
Figure 4.21 Centrality for top-scoring organisations in Mali and the Central Sahel, 2020 123
Figure 4.22 Co-operation network in the Lake Chad region, 2020 124
Figure 4.23 Centrality for top-scoring organisations in the Lake Chad region, 2020 125
Figure 4.24 Co-operation network in Libya, 2020 126
Figure 4.25 Centrality for top-scoring organisations in Libya, 2020 127
Figure 4.26 Alliance network density, 2009–20 128
Figure 4.27 Alliance network centralisation, 2009–20 130

Figure 5.1	What happens when an external power intervenes in a conflict?	137
Figure 5.2	How low and high Positive-Negative centrality scores relate to political power	139
Figure 5.3	Deaths related to military operations in Mali, Lake Chad and Libya	140
Figure 5.4	Events and fatalities in Mali and Central Sahel, 2012–20	141
Figure 5.5	French military forces and their allies in Mali and the Central Sahel, 2013–20	145
Figure 5.6	French military forces and their enemies in Mali and the Central Sahel, 2013–20	147
Figure 5.7	A schematic representation of alliances and conflicts in Mali	149
Figure 5.8	How France's Operation Serval affected political power in Mali, 2012–15	150
Figure 5.9	Events and fatalities in the Lake Chad region, 2009–20	151
Figure 5.10	Fatalities involving Boko Haram/ISWAP, state forces and civilians, 2010–20	153
Figure 5.11	How the multinational intervention affected political power around Lake Chad, 2014–16	154
Figure 5.12	Events and fatalities in Libya, 2011–20	156
Figure 5.13	How NATO's Operation Unified Protector affected political power in Libya, 2010–12	157
Figure 5.14	How Haftar's Western Campaign affected political power in Libya, 2018–20	158

Maps

Map 1.1	Countries covered in this report	19
Map 1.2	Fatalities involving Boko Haram, ISWAP and government forces, 2009–20	31
Map 3.1	Location of case studies	75
Map 4.1	Areas of interest in Mali and Central Sahel, the Lake Chad region and Libya	94
Map 4.2	Rivalry and co-operation between JNIM and ISGS in the Central Sahel, 2018–20	104
Map 4.3	Clashes between LNA and GNA, 2018–20	110
Map 5.1	Major military interventions in North and West Africa, 1997–2020	135

Tables

Table 2.1	Types of violent organisations according to visibility and motivation	42
Table 2.2	Types of violent organisations according to visibility and legality	44
Table 2.3	Factors that lead to fragmentation among violent organisations	47
Table 3.1	Various terms used for positive and negative ties, outcomes and properties	65
Table 3.2	Number of violent events and fatalities in North and West Africa, by type, 1997–2020	76
Table 3.3	Number of actors in North and West Africa by category, 1997–2020	78
Table 3.4	Levels of analysis	80
Table 3.5	A double-entry table representing oppositional events between four actors	82
Table 3.6	A double-entry table representing co-operation events between four actors	82
Table 3.7	Events involving Libya's Haftar Faction and the Shura Council of Mujahideen in Darnah	84
Table 3.8	ACLED events transformed into pairs of actors	86
Table 3.9	Questions and approaches to assessing social networks	87
Table 3.10	Selected metrics	87
Table 4.1	Characteristics of provincial and cosmopolitan social networks	97
Table 4.2	Composition and density of opposition networks by region, 2020	97
Table 4.3	Are the opposition networks rather provincial or cosmopolitan?	98
Table 4.4	Composition and density of co-operation networks by region, 2020	116
Table 4.5	Are the co-operation networks rather provincial or cosmopolitan?	117
Table 5.1	External interventions, impact on a conflict network and violence	138

Abbreviations and acronyms

AaS	Ansar al-Sharia
ACLED	Armed Conflict Location & Event Data Project
ADC	Democratic Alliance of 23rd May for Change
ADP	Alliance for the Defense of the Homeland
AIS	Islamic Salvation Army
AQIM	Al Qaeda in the Islamic Maghreb
ARLA	Revolutionary Army for the Liberation of the Azawad
ASMA	Alliance for Solidarity in Mali
CAN	Christian Association of Nigeria
CILSS	Permanent Interstate Committee for Drought Control in the Sahel
CJTF	Civilian Joint Task Force
CMA	Coordination of Azawad Movements
CNID	National Congress for Democratic Initiative
DSNA	Dynamic social network analysis
ECOMOG	Economic Community of West African States Monitoring Group
ECOWAS	Economic Community of West African States
EUTM Mali	European Union Training Mission in Mali
FIS	Islamic Salvation Front
FPLA	Popular Liberation Front of Azawad
FSA	Free Syrian Army
GATIA	Imghad Tuareg Self-Defense Group and Allies
GIA	Armed Islamic Group
GNA	Government of National Accord
GNC	General National Congress
GSL	Free Salafist Group
GSPC	Salafist Group for Preaching and Combat
HCUA	High Council for the Unity of Azawad
HoR	House of Representatives
IEDs	Improvised Explosive Devices
IMA	Islamic Movement of Azawad
IRA	Irish Republican Army
IS	Islamic State
ISGS	Islamic State in the Greater Sahara
ISWAP	Islamic State West Africa Province
IZALA	Society for the Removal of Innovation and Re-establishment of the Sunna
JMC	Joint Military Commission
JNIM	Jama'at Nusrat al-Islam wa-l-Muslimin (Group for Supporting Islam and Muslims)
LGAs	Local government areas
LNA	Libyan National Army
LURD	Liberian United for Reconciliation and Democracy
MAA	Arab Movement of Azawad
MINURSO	United Nations Mission for the Referendum in Western Sahara
MINUSMA	Multidimensional Integrated Stabilization Mission in Mali
MNJTF	Multinational Joint Task Force
MNLA	National Movement for the Liberation of Azawad
MODEL	Movement for Democracy in Liberia
MPLA	Peoples Movement for the Liberation of Azawad

MSA	Movement for the Salvation of Azawad
MSF	Médecins Sans Frontières (Doctors Without Borders)
MUJAO	Movement for Unity and Jihad in West Africa
NATO	North Atlantic Treaty Organization
NLA	National Liberation Army
NMJ	Niger Movement for Justice
NPDC	Nigeria Petroleum Development Company
NPFL	National Patriotic Front of Liberia
NTC	National Transition Council
OECD	Organisation for Economic Co-operation and Development
ONUC	United Nations Operation in the Congo
PII	Political Independence Index
PN	Positive Negative
RCD	Rassemblement Congolais pour la Démocratie
RUF	Revolutionary United Front
SCBR	Shura Council of Benghazi Revolutionaries
SDF	Syrian Democratic Forces
SNA	Social Network Analysis
SRSG	Special Representative of the Secretary-General
SWAC	Sahel and West Africa Club
UAE	United Arab Emirates
UEMOA	West African Economic and Monetary Union
ULIMO	United Liberation Movement of Liberia for Democracy
UMRDA	Malian Union for the African Democratic Rally
UN	United Nations
UNAMID	United Nations–African Union Mission in Darfur
UNAMSIL	United Nations Mission in Sierra Leone
UNIFIL	United Nations Interim Force in Lebanon
UNMIL	United Nations Mission in Liberia
UNOCI	United Nations Operation in Côte d'Ivoire
UNOMIL	United Nations Observer Mission in Liberia
UNOMSIL	United Nations Observer Mission in Sierra Leone
UNSC	United Nations Security Council
UNSMIL	United Nations Support Mission in Libya
VDP	Volunteers for the Defense of the Homeland
YPG	People's Protection Units

Executive summary

Understanding relationships between actors in conflict underpins prospects for long-term political stability

Political violence in North and West Africa is on the rise. In the last decade, clashes between government forces and local militias, rebel groups and extremist organisations have resulted in over 100 000 deaths. Conflicts have become more violent, increasingly targeting civilians, particularly in rural and border areas, where state power and infrastructures have long been deficient. Hundreds of actors with diverging agendas are involved, and the complex relationships between them have profound consequences on conflict resolution and its geography. This report illustrates that violent organisations cannot be understood in isolation from each other; they are part of a *conflict network*.

Conflict has become more widespread, spilling over national borders and creating instability in multiple states. Today, the cross-border nature of conflicts further complicates the role of governments in their resolution. Rebel groups and extremist organisations can operate in one country and use another as a safe haven for training and recruitment, thereby developing divergent relationships with neighbouring government forces in pursuit of their political agenda in another state. Thus, understanding the complex relationships between actors, and how they evolve over time, underpins long-term prospects for political stability in the region.

Innovative and dynamic tools to better understand violence

This report offers an innovative approach to analysing these complex relationships, known as dynamic social network analysis (DSNA). DSNA goes beyond solely analysing specific attributes of actors, such as their nationality, objectives, or military strength, and takes into account both the overall structure of conflict networks as well as the positioning of actors within them, over time and spatially (Chapter 1).

This dynamic approach addresses three crucial questions for the future of North and West Africa:

1. **Who is allied with whom? Who is in conflict with whom?**
   Building on a dataset of 36 760 violent events over a 23-year period for 21 North and West African countries, this report maps the conflict environment, at the local and regional levels, and identifies the rivalries and alliances among actors that shape patterns of violence. It also highlights the most important or central actors in the overall system of conflict.
2. **How do rivalries and alliances evolve over time?**
   The report provides an insight into how groups tend to co-operate with or oppose each other, how common it is for these relationships to reverse over time and how the introduction or removal of key actors

can affect relationships between others. The report also highlights the causes of fragmentation of violent organisations (Chapter 2).

3 **How do military interventions affect conflict networks?**

This report examines the impact of external military interventions on conflict network dynamics, which remains largely unknown, despite being crucial for assessing the potential for peace in the region (Chapters 2 and 3). Moreover, the report shows that military interventions have not resolved, in a sustainable manner, the conflicts that still ravage the region today. Some interventions even contribute to the resilience of jihadists and rebel organisations (Chapter 5). The report further underscores that military interventions cannot address the root causes of conflict nor bring about the necessary political change required to restore stability. This remains within the remit of national governments.

The importance of a multi-scalar perspective and place-based policies

The unique cross-border nature and territorial dimension of conflict calls for more place-based policies as well as both a local and regional perspective. The fact that border areas are the most dangerous regions of North and West Africa illustrates this point. This is further demonstrated by three case studies focusing on the major theatres of conflict in the region: the Mali insurgency and its consequences in the Central Sahel (Burkina Faso, Mali, Niger), the Boko Haram insurgency in the Lake Chad region (Cameroon, Chad, Niger, Nigeria) and the First and Second Libyan wars (Chapter 4). The innovative and timely analyses — from 1990 to mid-2020 — provided in this report serve to inform the design and implementation of policies supporting the resolution of ongoing conflicts. They also illustrate how a multi-scalar perspective and place-based policies are instrumental in achieving this goal.

Finally, policies focusing on building regional alliances to address the diffusion of political violence should be pursued. Governments and partners should co-ordinate in making border areas a priority and should take into account their geographic and social specificities. Policies should also focus on strengthening national cohesion by fostering the development of more decentralised actions and institutions that benefit all equally and contribute to a more inclusive dialogue with populations.

Chapter 1

Conflict and regional stability in North and West Africa

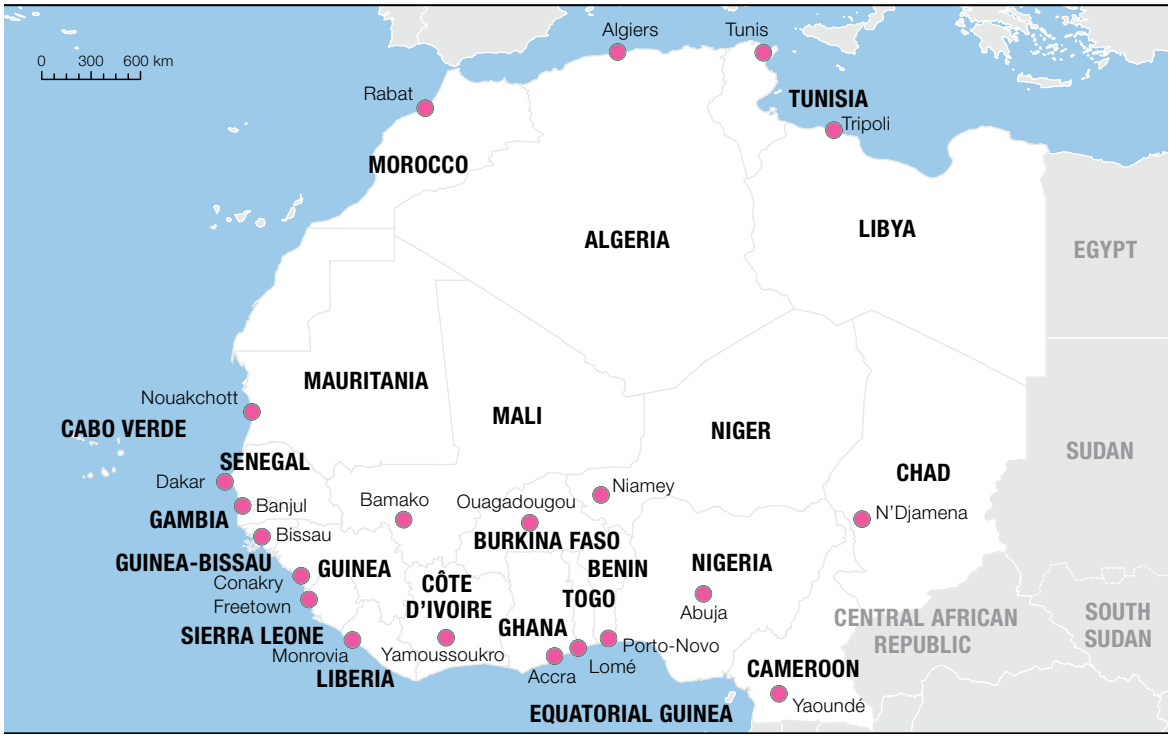
This chapter maps the networks of rivalries and alliances of violent organisations in conflict in North and West Africa. The conflicts in this region have become more difficult to resolve due to the complexities involved in the relationships between belligerents. Groups that are allied one day can fight each other the next and return to co-operation later still. New groups also arise, split and reunite in a somewhat unpredictable manner. The complexity of North and West African conflicts is further amplified by the fact that they are rarely limited to a single country, as in the Central Sahel and the Lake Chad region today. Thus far, the evolution of the complex relations between actors in conflict remains poorly understood. Because modern conflicts involve hundreds of versatile actors, mapping these networks of rivalries and alliances is a key step toward understanding the long-term prospects for political stability and designing policies that can put an end to the surging political violence in the region. Based on the network analysis, four main policy options are put forward in this chapter to improve the long-term political stability of North and West Africa.

KEY MESSAGES

- **North and West African conflicts have become more difficult to resolve because of the complexities involved in the relationships between belligerents.**
- **Fluid rivalries and alliances among state forces, rebels and extremist organisations shape regional patterns of violence in North and West Africa.**
- **A dynamic approach is needed to better understand how violent organisations fight each other, how rivalries and alliances change over time and how military interventions affect conflict networks.**

Political violence has been on the rise in North and West Africa since the early 2010s. Fuelled by local grievances, national struggles and global ideologies, conflicts in the region have become more violent and widespread than ever (OECD/SWAC, 2020[1]). In the last decade, more than 100 000 people have been killed as a result of clashes between government forces and the groups that challenge them, including local militias, rebel groups and violent extremist organisations. Further, many such conflicts have spilt over state borders, creating instability and insecurity in multiple states simultaneously. A worrying trend is that violence increasingly targets civilians, particularly in rural and border regions, where state power and infrastructures have long been deficient. Thus far, none of the military interventions led by regional or international coalitions has proved fully capable of halting the use of violence by non-state groups to advance their aims. Although some interventions have led to temporary suppression of hostilities among belligerents, this has not proved a durable means of reducing violence in the longer term.

Map 1.1
Countries covered in this report



Source: Authors.

HOW RIVALRIES AND ALLIANCES SHAPE CONFLICTS

The growing number of actors involved in conflicts and the complexity of their relationships call for new approaches capable of modelling the temporal evolution of oppositional and co-operative relationships. Using network analysis, this report examines how the fluid relationships among violent organisations shape regional patterns of violence in North and West Africa. More specifically, the report maps the changing rivalries and alliances among state forces, rebels, extremist organisations and their victims in 21 North and West African countries from 1997 through 2020 (Map 1.1).

Building on a database of 36 760 violent events collected by the Armed Conflict Location & Event Data Project (ACLED, 2020[2]), this dynamic approach to conflict addresses three crucial questions for the future of the region:

- **Who is allied with whom? Who is in conflict with whom?** This report first examines the relationships that bind the violent organisations of the region together. These relationships form a **conflict network** in which violent organisations cannot be understood in isolation from each other (Chapter 2). Using a formal approach to networks, the report maps the relationships between states, rebel groups and extremist organisations to better understand the overall social structure of their networks and the role of each actor within this larger system (Box 1.1 and Chapter 3). The report first identifies all the actors that are using violence, or are the targets of violence, and then maps both the oppositional and co-operative relationships between these actors. Lastly, the report uses a formal network analysis to highlight which actors are the most important or central to the overall systems of conflict.
- **How do rivalries and alliances evolve over time?** The report next examines changes in relationships between states, rebel groups and violent extremist organisations. It is assumed that the relationships between

Box 1.1

A dynamic approach to conflict networks

What makes this report original is its use of a formal relational approach, known as social network analysis (SNA), to map the co-operative and oppositional relationships of violent organisations in North and West Africa. Since the 9/11 attacks on the United States, SNA has been increasingly used to understand how violent organisations are internally structured and how they can potentially be disrupted (Chapter 3). This report adopts a similar perspective and applies it to the entire set of actors operating in the region. By taking into account both the overall structure of the network formed by the ties between the various groups as well as the overall position of each actor in this network, SNA can provide a nuanced understanding of conflicts. In particular, it suggests that the attributes of the actors in conflict, such as their nationality, objectives or military strength, cannot alone explain the complexity of contemporary conflicts.

Instead, social network analysis suggests that conflict can be understood by taking into account the interdependent system in which actors are embedded. In a socially complex conflict environment, this system's structure provides differential opportunities for, or constraints upon, their political and military actions. As such, the ability of violent organisations to achieve their goals or to carry out violence is affected by their relative position to both their allies and rivals. In Nigeria, for example, the Boko Haram insurgency has exacerbated violence in the region by leading other armed groups to take up arms against each other, even when they were not targeted by the jihadist organisation (Dorff, Gallop and Minhas, 2020[3]). This is not an outcome that can be understood by examining any armed groups alone or even by examining the relations between any pair or trio of groups.

Another original contribution of the report is to use an explicitly dynamic approach that focuses on the evolution of conflict networks over time. This approach takes into account the fact that co-operative and oppositional relations are dynamic by nature. Ties are established and can persist or strengthen over time, but they can also weaken, dissolve quietly or suddenly end. Yet the majority of conflict studies have not been concerned with how networks change, leaving uncertainty about basic questions such as how long groups tend to co-operate with or oppose each other, how common it is for these relationships to reverse over time, or how the introduction or removal of key actors can affect the relationships between other actors.

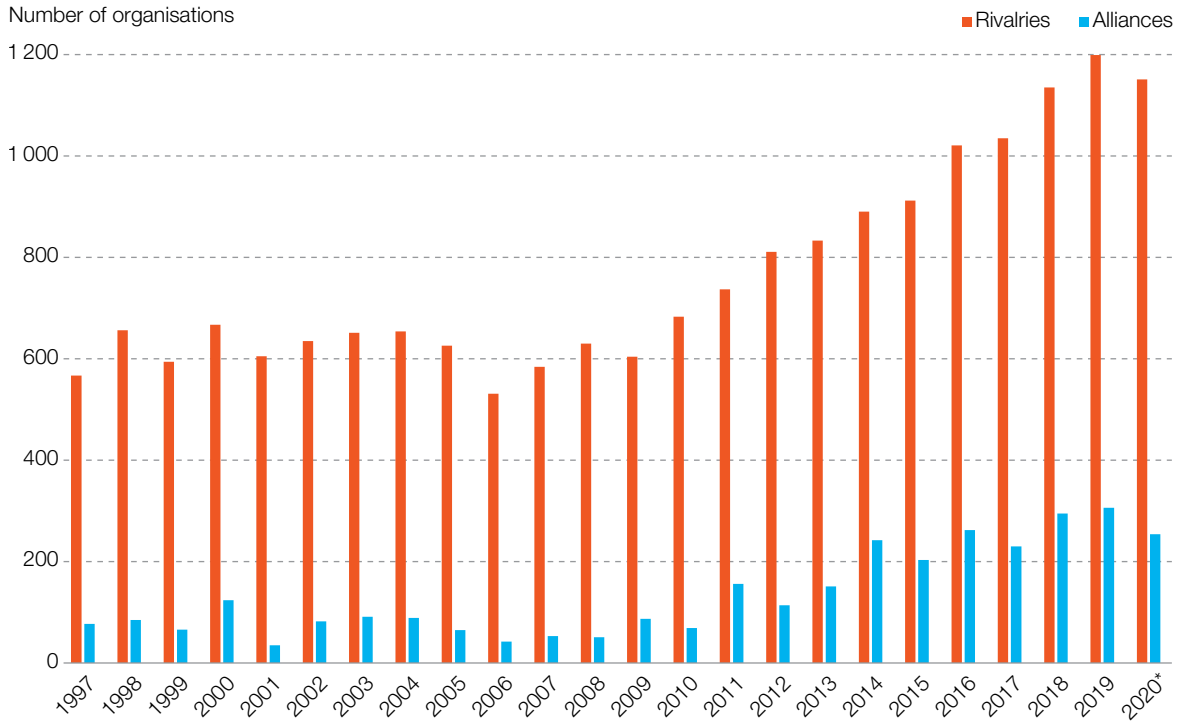
Source: Authors.

actors in conflict are not static and that their position can be either enhanced or eroded over time. Further, the set of actors cannot be assumed to be static, either: new rebel groups and extremist organisations can arise while existing groups and organisations can split, merge or be defeated (Chapter 4). This dynamic is linked, on the one hand, to the ideology, objectives, access to resources and power of the organisations and, on the other hand, to their relationships on the battlefield. Each of these factors can alter the relationships between belligerents and their relative position. Using data on violent events, the report identifies the average duration between instances of co-operation and opposition in North and West Africa. Building on this insight, the report also tracks how both types of relationships change over time, and clarifies how the positions of the most important actors ebb and flow over the duration of a conflict.

- **How do military interventions affect conflict networks?** One of the major external factors of change in today's conflicts is foreign and multinational military interventions, which have frequently occurred in North and West Africa. Therefore, this report examines how military interventions affect the network dynamics of actors in conflict, an issue that remains largely unknown, despite being crucial for assessing the potential for peace

Figure 1.1

Rivalries and alliances in North and West Africa, 1997–2020



* Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

in the region. The report discusses whether military powers should support one of the competing groups in conflict or try to keep warring parties apart. It also considers how these interventions have affected the most powerful organisations in the conflicts, and the relationships among them (Chapter 5).

This report benefits from repeated daily observations of violent organisations over 23 years and proposes a framework for future investigations in the region (Chapter 3). To do so, the report analyses the temporal evolution of conflict networks at the regional and local levels. First, it examines the origins and changes in major rivalries and alliances in both North and West Africa. This regional scope is made necessary by the transnational nature of several conflicts in the region.

This regional analysis is followed by an examination of three case studies where violent organisations have developed rapidly since the mid-1990s, have extended beyond state boundaries, and have caused significant numbers of violent events and deaths. These cases are: the Mali insurgency and its consequences in the Central Sahel since 2012; the Boko Haram insurgency in the Lake Chad region since 2009; and the Libyan civil wars since 2011. In each of the case studies, military interventions led by regional or international coalitions undoubtedly created new opportunities and challenges for the participants. However, the overall evolution of the web of relationships during such interventions remains unknown.

MORE ENEMIES THAN ALLIES

This report finds that violent organisations in North and West Africa fight much more than they collaborate with each other (Chapter 4). In 2020, the network that connects the organisations involved in conflictual events counts 562 nodes, more than four times the number of organisations involved in building alliances across the region (Figure 1.1). The report notes similar disparities in each theatre of operations: only 28 alliances are recorded in Mali and the Central Sahel, against 237 rivalries, for example.

The paucity of alliances reflects the difficulty of building long-lasting coalitions between organisations that use political violence to pursue local and opportunistic agendas. Violent organisations often share a common enemy without developing an ideological project that would allow them to overcome their tribal, ethnic or national divisions.

Another worrying trend is that the number of belligerents has strongly increased in the region. Fuelled by insurgencies, rebellions and *coups d'état* in Mali, Burkina Faso, Niger, Nigeria and Libya, the overall number of organisations involved in violent acts has almost doubled, from 604 in 2009 to 1 199 in 2019. If the situation continues to deteriorate, 2020 will be the year that counts the highest number of organisations in conflict since detailed data on political violence has been recorded in the late 1990s, with 1 151 organisations recorded through June. The multiplication of violent organisations contributes to disseminating violence to previously peaceful regions and affecting the lives of people who had not experienced conflict so far. These results confirm earlier studies that noted that North and West African conflicts were becoming more intense than in the past and tended to diffuse regionally (OECD/SWAC, 2020[1]).

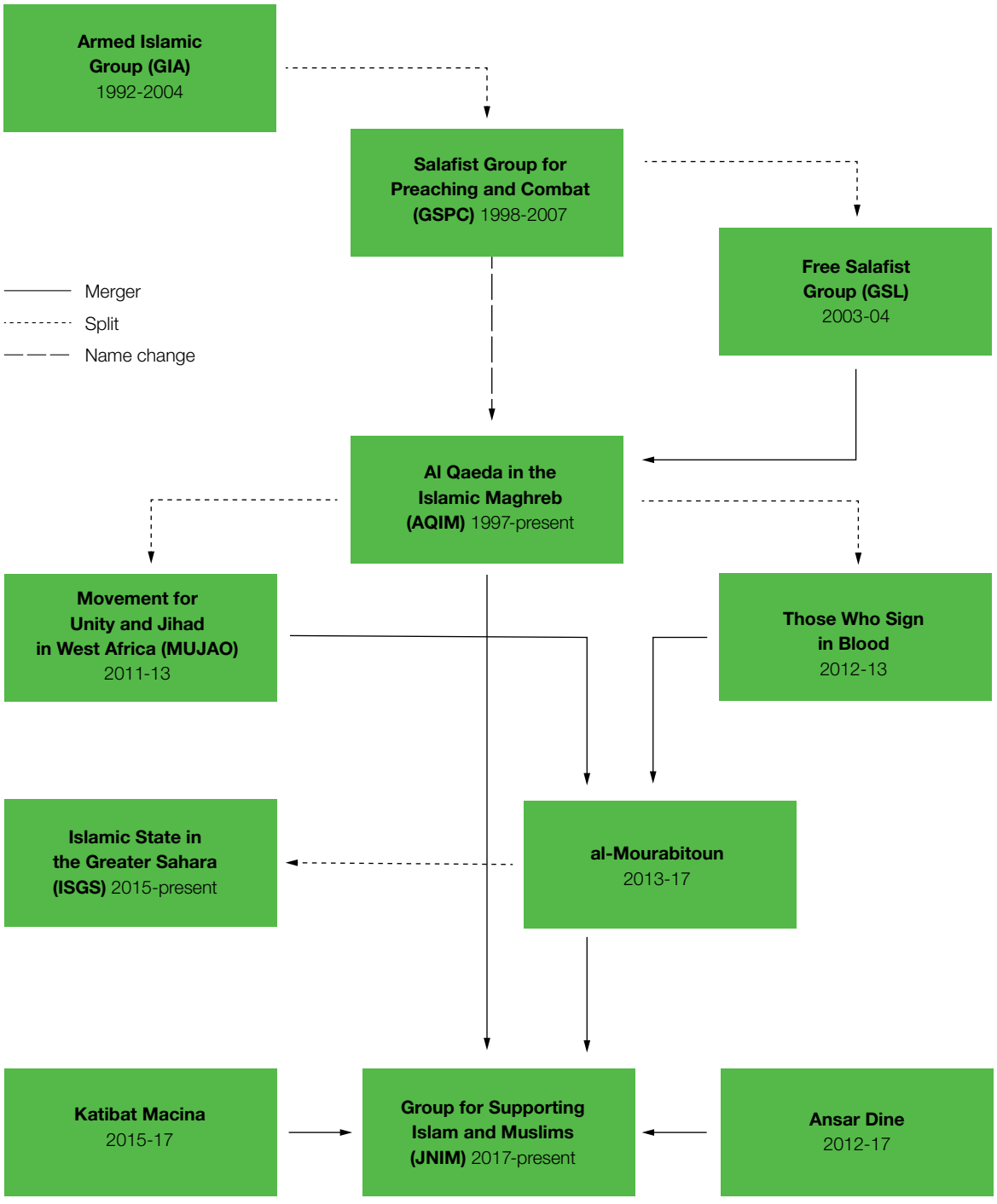
SHIFTING ALLEGIANCES

North and West African conflicts have become more difficult to resolve than ever because of the complexities involved in the relationships between belligerents. This report shows that depending on the opportunities offered by the local, national and global political scenes, actors in conflict can fight for or against their governments, promote national unity or secessionism, and join militias, rebellions or violent extremist organisations. This flexibility in allegiance gives the impression that conflicts have no permanent "side" for which actors could fight. Iyad ag Ghali, the leader of the Group for Supporting Islam and Muslims (JNIM) is a case in point. After having fought as a mercenary in Libya and as a rebel in northern Mali, ag Ghali worked as a hostage negotiator in his country and as a government councillor in Saudi Arabia. Unable to take the leadership of the secular National Movement for the Liberation of Azawad (MNLA) in Mali in 2011, he founded the jihadist organisation Ansar Dine (Defenders of the Faith) (Box 4.4).

A similar volatility characterises the relationships between the various non-state organisations and groups involved in the region's armed struggles. In today's conflicts, groups that were allied one day can fight each other the next and return to co-operation later still. New groups also arise, split and reunite in a somewhat unpredictable manner. Al Qaeda in the Islamic Maghreb (AQIM) illustrates this complexity (Figure 1.2). Before it pledged allegiance to Al Qaeda in 2007, AQIM was known as the Salafist Group for Preaching and Combat (GSPC), itself a splinter group of the Armed Islamic Group (GIA) responsible for the killing of thousands of civilians during the Algerian Civil War. In the early 2010s, some of the components of AQIM split to form the Movement for Unity and Jihad in West Africa (MUJAO), while other militants formed Those Who Sign in Blood. In 2013, MUJAO and Those Who Sign in Blood merged to form al-Mourabitoun (The Sentinels). These groups re-joined AQIM in 2015 with the exception of some factions, who formed the Islamic State in the Greater Sahara (ISGS). In 2017, al-Mourabitoun, Ansar Dine, Katibat Macina and the Saharan branch of AQIM merged into JNIM (Box 5.1).

Figure 1.2

Simplified evolution of AQIM-related groups, 1992–2020



Note: Those Who Sign in Blood is also known as the Veiled Men Battalion (al-Mulathamun).

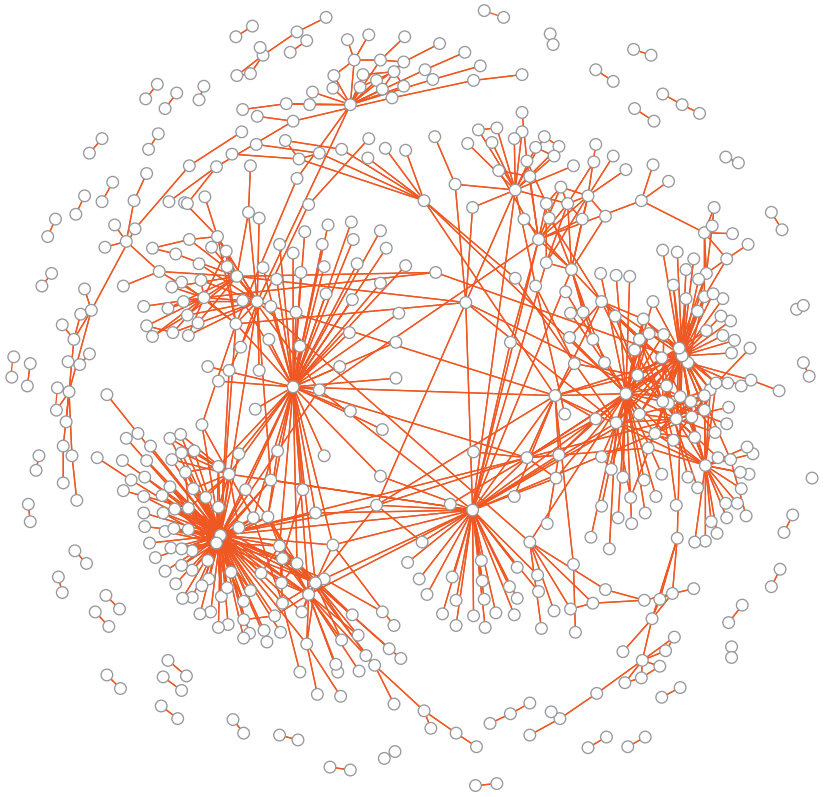
Source: Authors.

Figure 1.3

Opposition and co-operation networks in North and West Africa, 2020

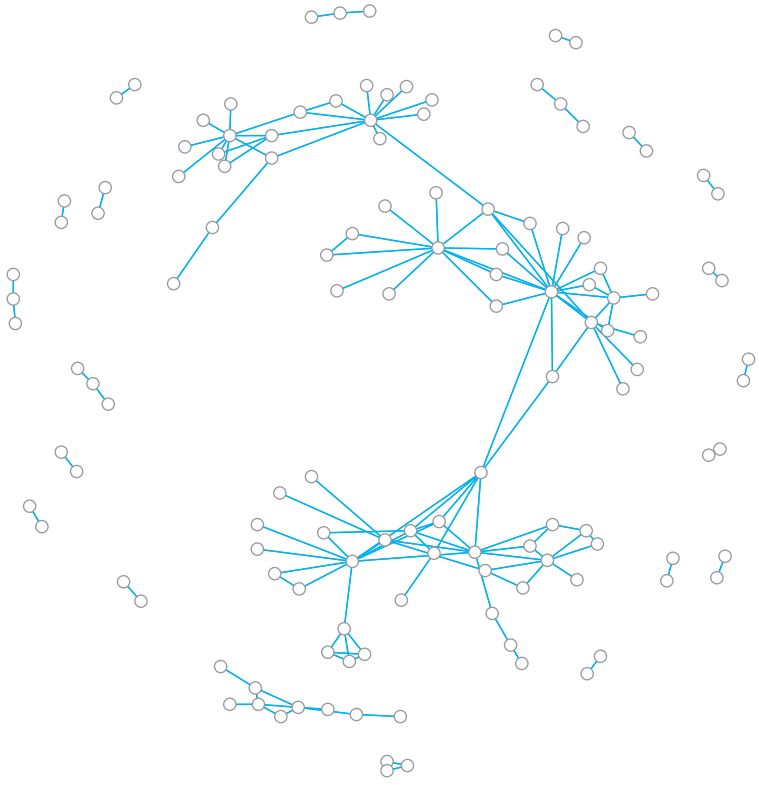
Rivalries

Number of nodes: 562
Number of ties: 828
Density: 0.5%
Average number of enemies: 3.0



Alliances

Number of nodes: 129
Number of ties: 147
Density: 1.8%
Average number of allies: 2.3



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[23]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

These shifting allegiances increase the complexity in modern conflicts, which no longer clearly involve a unified front or coalition of opposition to governments where fighting occurs along clear ideological lines. Instead, conflicts involve coalitions of armed groups with opportunistic allegiances and divergent interests. AQIM, for example, is only one of the dozen major actors involved in the Malian conflict, along with government forces, ethnic militias, ethno-nationalist rebels, hunter associations, and other organisations affiliated with Al Qaeda and the Islamic State. In 2019, for example, 81 unique organisations were involved in the Malian conflict, either as perpetrators or victims, including 6 rebel groups, 9 violent extremist organisations and 34 militias organised around communal or ethnic grounds. Furthermore, AQIM is both co-operating with and opposed to other groups that are also fighting the Malian government and its international allies, including France and the United Nations.

OPPOSITION AND CO-OPERATION NETWORKS LOOK ALIKE

This report highlights surprising similarities between co-operation and opposition networks: both are rather decentralised and organised around a few key organisations (Figure 1.3). This structure, called "cosmopolitan" to emphasise the absence of closely-knit communities, demonstrates the paucity of ties between organisations, and the large number of steps required to reach all actors of the network. A cosmopolitan structure such as the one observed in the opposition and co-operation networks suggests that violent organisations tend to reproduce the same patterns irrespective of the nature of the ties that link them.

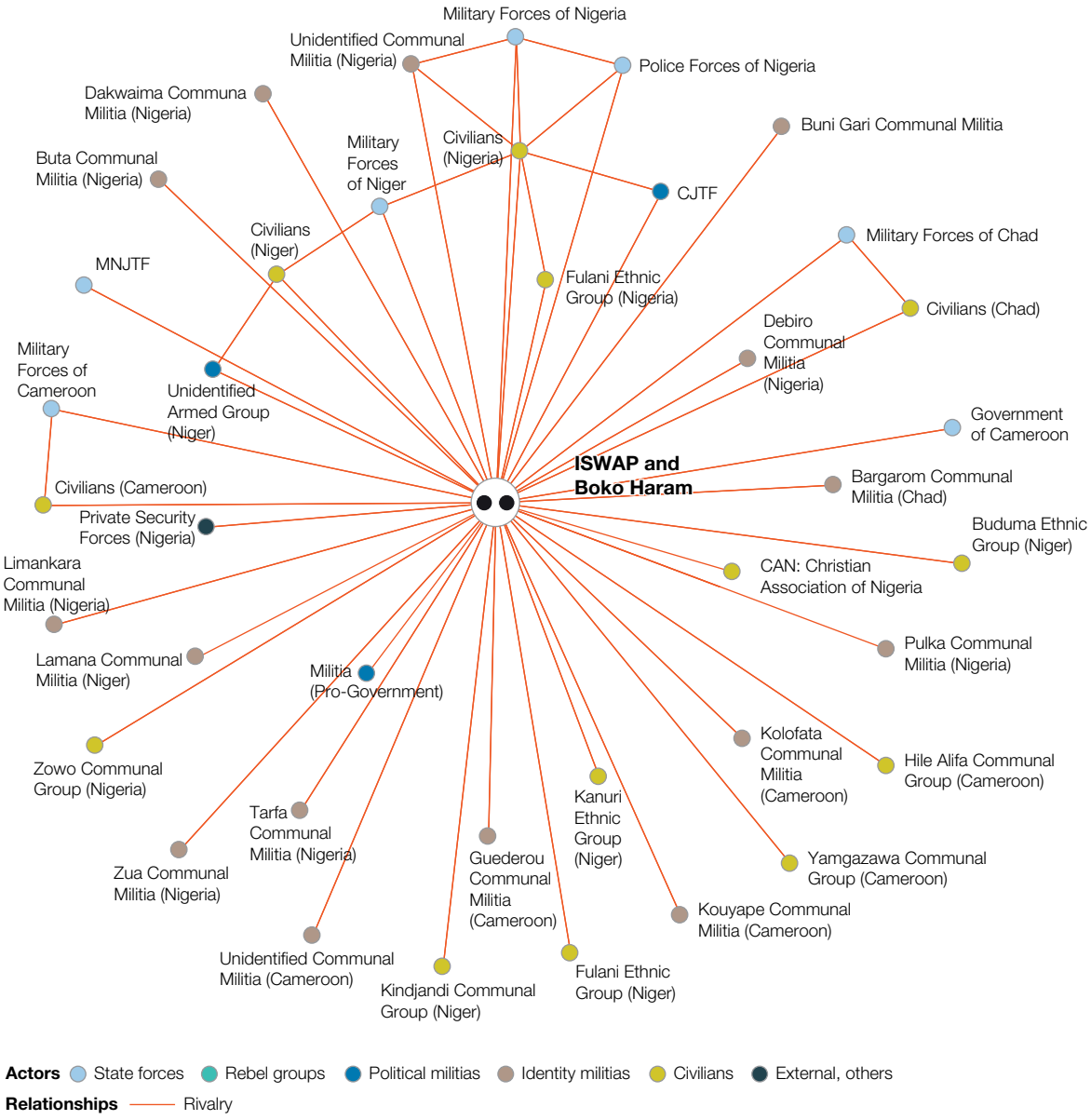
This is a puzzling observation. Because fighting an enemy and building alliances are conceptually very different, one would have expected the structure of opposition and co-operation networks to be quite different from each other. The fact that they are not suggests that opposition and co-operation should be conceptualised as two possible, rather than exclusive, options to the belligerents. These results point to the fundamental flexible and opportunistic nature of relationships that bind violent organisations in the region. Rather than formal agreement or existential oppositions, rivalries and alliances should be conceived as two alternatives that can be mobilised as circumstances change.

The loose and decentralised network of enemies and allies observed at the regional level is remarkably similar to the conflict environment in each of the three main theatres of operations:

- In Mali and the Central Sahel, violent organisations and their victims form a conflict network that transcends national boundaries. The jihadist organisations JNIM and ISGS have the largest number of enemies in the region. They also lie between organisations that do not necessarily fight each other, such as government forces and their allied militias. In network terms, being surround by many enemies and playing the role of brokers is a liability in a conflict environment where most organisations tend to maximise the number of their allies while trying to minimise the number of enemies. The co-operation network of this region is centred on state forces, who play an important brokerage role between large military coalitions such as the G5 Sahel and communal militias and self-defence groups.
- The Lake Chad region is the deadliest conflict considered in this report, with almost 59 000 people killed since the beginning of the Boko Haram uprising in 2009. The network that binds violent organisations in this region is more cohesive than elsewhere in North and West Africa. This is explained by the fact that the Lake Chad insurgency is dominated by the armed struggle between two major belligerents, the Nigerian forces on one side and the Boko Haram insurgency on the other. The peculiarities of the conflict landscape are visible when the network of enemies of both Boko Haram and its splinter group, the Islamic State West Africa Province (ISWAP) in 2020 is shown (Figure 1.4). The star shape of the network suggests that the enemies of both organisations are rarely fighting each other,

Figure 1.4

The enemies of Boko Haram and the Islamic State West Africa Province, 2020



Notes: Boko Haram and ISWAP are considered as a single node in this figure due to the high number of events for which the responsibility of each organisation cannot be determined. CJTF stands for Civilian Joint Task Force. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

except for government forces and civilians in Chad, Niger and Nigeria. The Nigerian military forces are by far the most central organisation in the co-operation network due to their co-ordination role within the Multinational Joint Task Force (MNJTF). The dominance of the Nigerian military contrasts strongly with the quasi absence of alliances established by jihadist organisations in the region.

- The Libyan network is dominated by two powerful organisations, the Tripoli-based Government of National Accord (GNA) and the Libyan National Army (LNA) based in Benghazi. Both are backed by powerful foreign powers. In addition to fighting each other, the GNA and LNA are in opposition with a large number of militias, private security forces and civilians who generally

have fewer enemies than themselves. This explains why the Libyan network is currently more centralised and less fragmented than other conflict networks in the region. The GNA and LNA are also the main nodes of the co-operation network, but both have struggled to maintain alliances based on versatile allies. Due to continuously changing alliances, centralising command has proved somewhat elusive in Libya since the fall of Colonel Gaddafi's government in 2011.

A GROWING POLARISATION OF CONFLICT NETWORKS

The temporal study of conflicts shows that opposition networks tend to be denser and more centralised over time in North and West Africa. This evolution is alarming. It means that violent organisations tend to have an increasing number of enemies, a sure sign that conflicts are intensifying in the region and that each theatre of operation becomes increasingly focused on a limited number of key belligerents. This polarisation of the conflict environment has devastating consequences for civilian populations, who are often targeted by both jihadist organisations and government forces. This report also shows that the slight increase in co-operation noted across the region since the early 2010s is out of proportion with the rise in conflictual relationships.

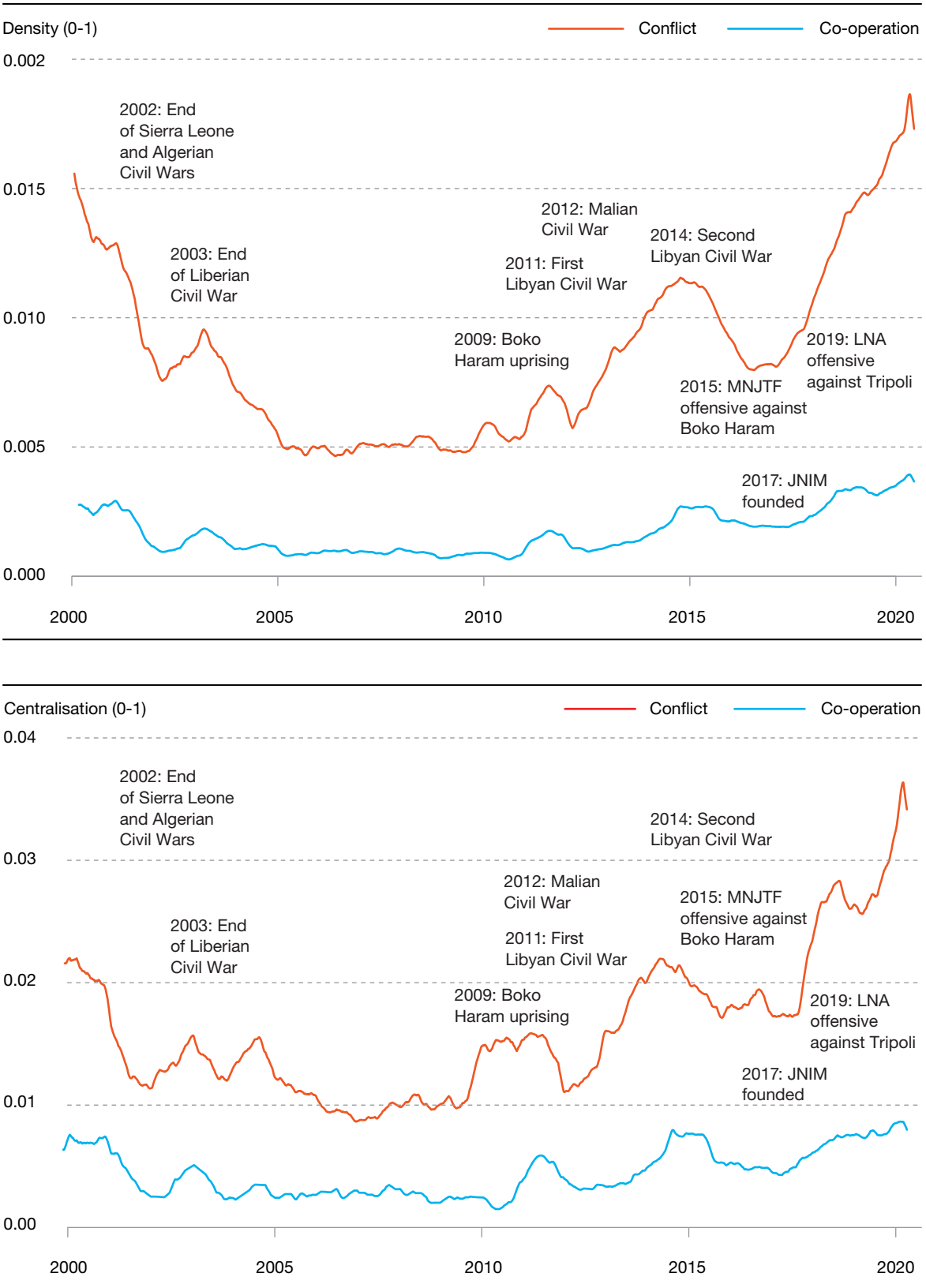
To visualise these trends, this report applies two metrics to both opposition and co-operation networks. Density represents the number of ties present in a network compared with the number of ties that could potentially exist. Centralisation describes to what extent the network is centralised around a few key organisations (Figure 1.5). Both metrics confirm that the opposition networks that connect organisations in conflict are becoming more intense and increasingly centralised on a few key actors everywhere in North and West Africa. Each of the subnational conflict theatre networks self-evidently displays higher levels of conflict than does the overall region. However, there is also a significant amount of volatility in the structure of Libya's opposition networks, while Lake Chad has been more consistent over time. By contrast, Mali and the Central Sahel's opposition networks are rapidly becoming potentially deadlier and polarised since 2017 after several years of relative stability.

The evolution of co-operation between organisations shows that there is a slight overall trend toward increased co-operation since 2009, but that alliances remain the exception rather than the norm. However, each of the conflict theatres displays more evidence of co-operation than within the overall region. Further, alliances are highly volatile over time, particularly in Libya and Mali. Both demonstrate periods with low levels of co-operation punctuated by intervals with a great deal more co-operation. The increasing density and centralisation observed in the network of allies among military forces should be regarded as a consequence of the increase in conflict in the region. As security conditions continue to deteriorate, government forces multiply their collaborations, in search of a better-adapted security framework.

That these trends are present in combination with the ever-growing number of belligerents since 2009 is particularly distressing. The increasing number of belligerents, increasing density of conflictual relationships and polarisation on powerful organisations capable of conducting extensive military operations make a peaceful resolution of the North and West African conflicts more elusive than ever. These conditions are present in varying degrees in all three of the primary conflict regions as well. More than a decade after the outbreak of the Boko Haram insurgency in northern Nigeria, political violence has evolved and coalesced into multiple conflictual subnational theatres that have resisted all efforts of resolution to date. Given the trends identified in this report, it is difficult to see an end to this process in the short term. It is reasonable to expect that the conflict networks will continue to enlarge, intensify and centralise.

Figure 1.5

Network density and centralisation in North and West Africa, 2000–20



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[20]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

HOW MILITARY INTERVENTIONS RESHUFFLE CONFLICT NETWORKS

Despite obvious differences in strategy and tactics, the French involvement in the Sahel, the North Atlantic Treaty Organization's (NATO) Operation Unified Protector and the joint offensive against Boko Haram around Lake Chad were all designed to influence the outcome of a conflict by siding with one of the belligerents. However, none of these efforts managed to bring a swift resolution of the conflicts, which continue to tear apart North and West Africa. Almost a decade after the Arab Spring and the fall of Colonel Gaddafi, neither Libya, nor Mali, and certainly not the Lake Chad region, is more peaceful than before. In recent years, and despite an increasing involvement of foreign backers, the legacy of these military interventions has been an inability to prevent a return to violence. None of the interventions considered in this study has been followed by a stabilisation phase during which social, economic and political actions can be undertaken by police forces or civilian agencies.

This report focusses on one of the most elusive factors that explain the limited results of military interventions on the resolution of conflict: the ever-changing alliances and oppositions that bind violent organisations and their victims. This network approach suggests that the military interventions in Mali, around Lake Chad, and in Libya have considerably reshuffled the conflict environment in which violent organisations operate across the region. The introduction of an external party in each conflict has not only increased the number of organisations involved in acts of violence; it has also exacerbated internal rivalries and created new configurations among the belligerents that make conflict more violent and potentially more difficult to resolve.

To better understand how military interventions can affect conflict networks, the report measures the political power of some of the organisations involved in each of the three major conflicts of the region before, during and after each intervention. Political power is studied using the Positive Negative (PN) index, which measures the constraints and opportunities offered by the network of enemies and allies in which an organisation is embedded. Unlike other measures of power that rely on the attributes of organisations, such as their size or number of weapons, PN measures whether an organisation is more or less constrained by the overall structure of the conflict environment to develop its own agenda. PN assumes that an organisation is in a more powerful situation if it is connected to organisations that have few allies than to well-connected ones. PN applies the same logic to negative ties: it is preferable to have enemies that themselves have many enemies than to have enemies that are less constrained by their oppositional ties to other organisations.

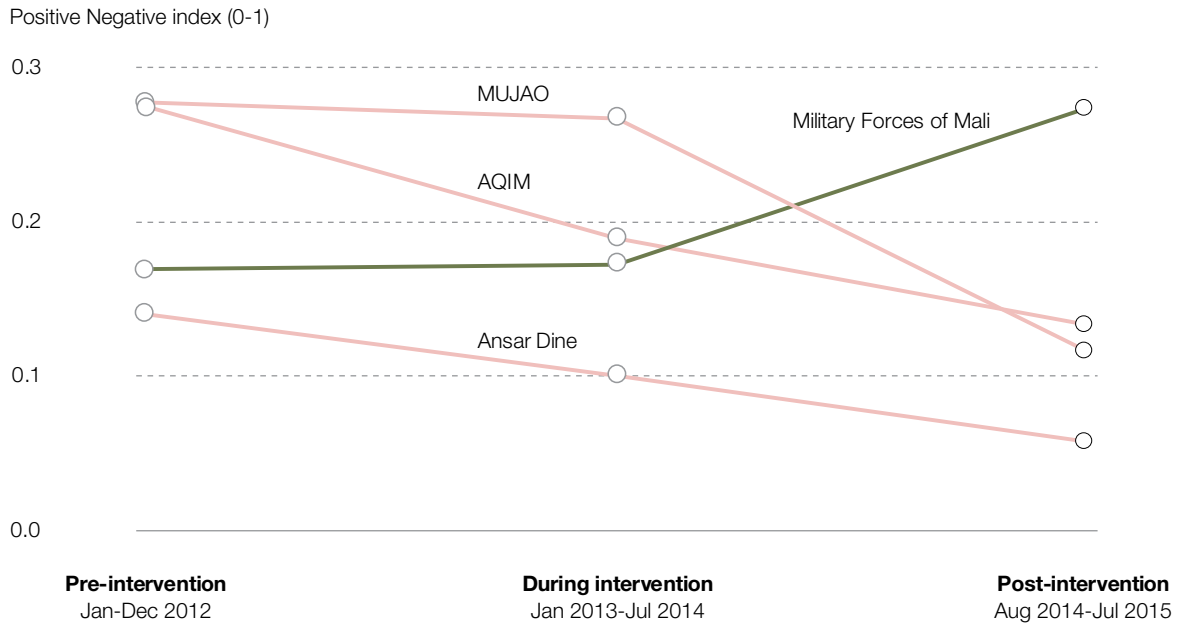
In both the Central Sahel and the Lake Chad region, military interventions reinforced the pre-existing patterns of alliances and contributed to hardening the patterns of opposition. This is explained by the fact that both the French-led Serval and Barkhane operations and the Nigerian-led offensive conducted under the umbrella of the MNJTF were designed to influence the outcome of a conflict by resolutely siding with government forces. These interventions heavily contributed to boosting the political power of Malian and Nigerian armed forces while reducing the power of jihadist organisations (Figure 1.6). In other words, the structural position of Malian and Nigerian forces was improved by the new alliances formed during the intervention, while the structural position of their opponents deteriorated.

In both regions, jihadist organisations were largely unable to build alliances during the intervention, and their allies were less reliant on them than before the intervention. In Mali, for example, numerous fighters from Ansar Dine joined the MNLA or the newly created Islamic Movement of Azawad (IMA) when French forces launched its offensive in January 2013. In Nigeria, the MNJTF offensive exacerbated internal tensions within Boko Haram and contributed to splitting the organisation between two factions that did not co-operate against government forces. As a result of the military interventions, jihadist organisations affiliated with Al Qaeda or the Islamic State also faced more enemies, or

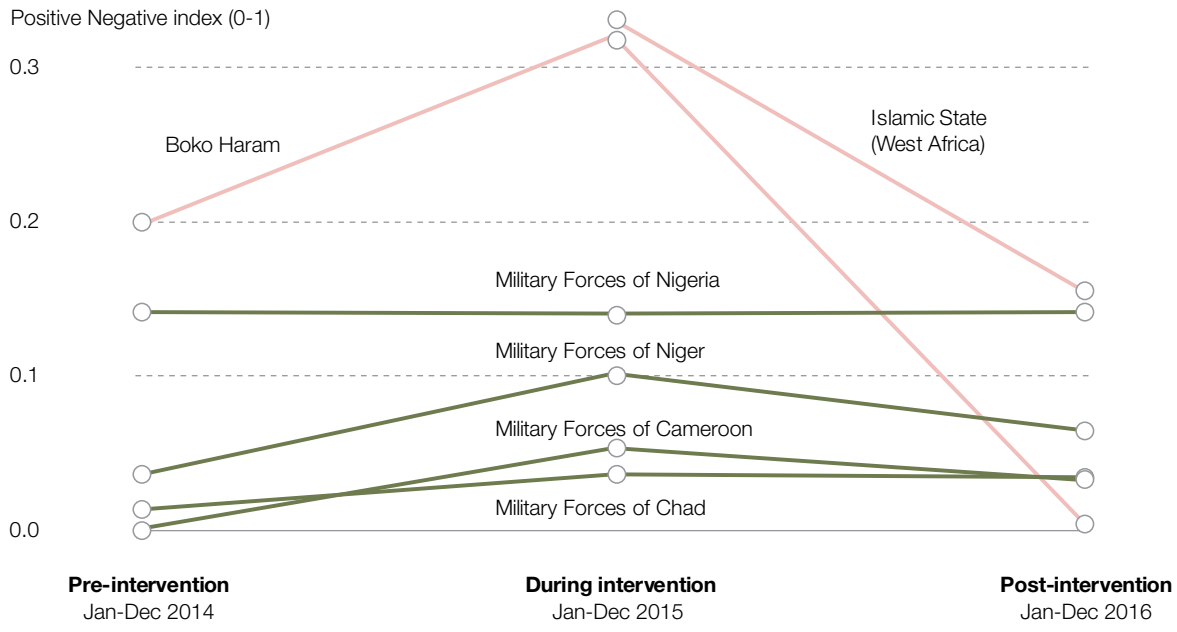
Figure 1.6

How Serval and the MNJTF affected political power in Mali and the Lake Chad region

France's Operation Serval in Mali



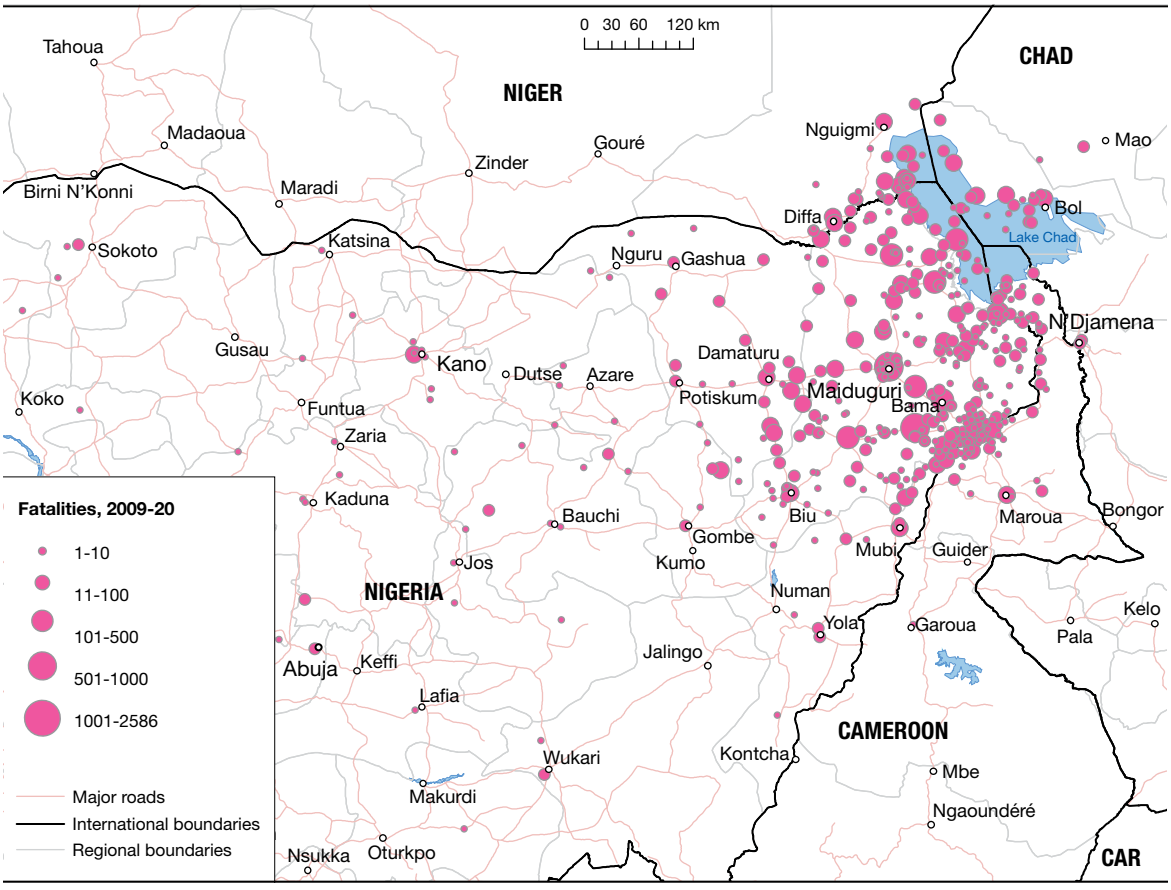
The MNJTF intervention in the Lake Chad region



Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Map 1.2

Fatalities involving Boko Haram, ISWAP and government forces, 2009–20



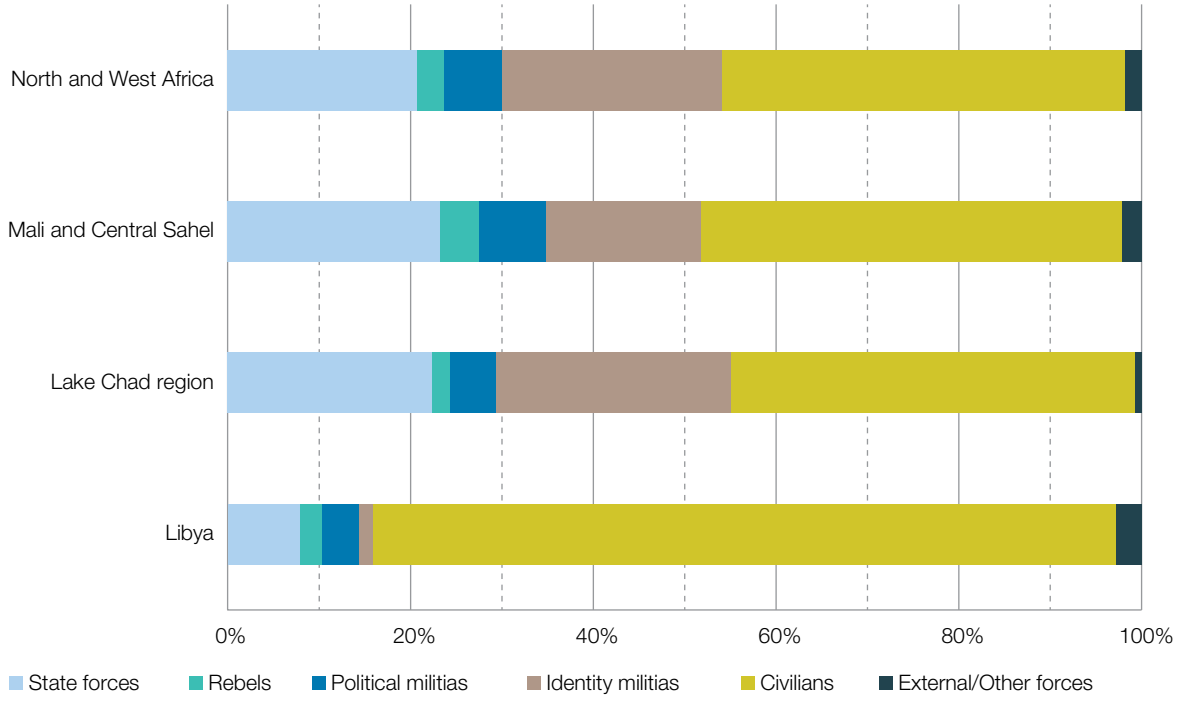
Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

enemies that were less constrained than they were before, like the Malian and Nigerian military.

In Libya, the 2011 NATO intervention was an intervention nominally intended to protect civilians from reprisals by the Libyan military during the uprising, but functioned as a de facto mission supporting regime change. NATO's airpower campaign initially focused on attacking Libyan military units that were besieging rebel groups in eastern cities before expanding into strikes on military bases and units throughout the country. As in Mali and northern Nigeria, NATO's intervention contributed to boosting the political power of the belligerents supported by foreign military powers. The National Liberation Army (NLA) was thus better positioned than the pro-regime groups that were still resisting after NATO's Operation Unified Protector ended.

The gains resulting from these military interventions have proved short-lived, however. In Mali, violence had surged since 2017 and now surpasses, by far, the levels that triggered Operation Serval in 2013. In 2017, groups affiliated with Al Qaeda coalesced to form the most potent jihadist coalition recorded in the region, only three years after Operation Barkhane replaced Serval. In northern Nigeria, violence has remained persistent in some locations around Lake Chad and the Cameroonian border (Map 1.2). Boko Haram and ISWAP remain far from defeated: in the first six months of 2020, 600 violent events attributed to either of these groups have caused the death of 2 623 people, according to the ACLED database. In Libya, the First Civil War was followed by a second conflict in 2014. The failed invasion of western Libya by General Khalifa Haftar's LNA forces in 2019 is the latest phase of conflict in the ongoing Libyan civil war without being a foreign intervention itself. However, the role of external military

Figure 1.7
Organisations in conflict by region, 2020



Note: Data available through 30 June 2020. The ACLED data does not distinguish between the perpetrator and the victim of a violent attack, except for civilians, who are always victims of violent events.

Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

support for both of the primary parties, the LNA and the UN-supported GNA, is a growing point of concern and one that is likely to continue shaping the outcome of the conflict. The Western Campaign contributed to leading the GNA to forge a new coalition of previously non-allied armed groups, which considerably boosted its political power. The coalition formed around Haftar forces proved more fragile and may not be sustainable without future military successes.

POLITICAL OPTIONS TO ACHIEVE REGIONAL STABILITY

The evolution of the complex relations between actors in conflict in North and West Africa remains poorly understood despite its obvious importance to the ultimate resolution of armed conflicts. Because modern conflicts involve hundreds of versatile actors, mapping these networks of rivalries and alliances is a key step toward implementing policies that can put an end to the surging violence. Based on the network analysis, four main policy options can be suggested to improve the long-term political stability of North and West Africa.

Protecting civilians should become a priority

The most pressing issue is the need to better protect civilians, who remain the primary victims of the increased violence in North and West Africa. This confirms the findings in the previous OECD/SWAC (2020[1]) report. Civilians are involved as victims in more conflicts than any other types of actors in the region, including state forces, rebel groups, political and identity militias, and external forces. In 2020, civilians

represented more than half of the actors in conflict observed at the regional level, in Mali and the Central Sahel, and around Lake Chad (Figure 1.7). North of the Sahara, civilians represent 80% of the actors of the Libyan conflict, a very high percentage explained by indiscriminate shelling by the LNA and air force strikes conducted by the GNA during the Western Libya Campaign to capture Tripoli in 2019–20.

The number of civilian groups victims of violent events, has increased from 350 on average in the 2000s to 500 in 2019. To reverse this trend, protecting civilians should become the number one priority for state authorities and their international allies if they wish to promote regional stability. Nearly a decade after the beginning of the Malian civil war, little doubt remains that the most effective way to counter jihadist insurgencies is by addressing civilian issues, particularly in rural regions where local populations are often at the mercy of extremist organisations.

Thus far, none of the military interventions launched in North and West Africa has succeeded in creating secure areas for civilians where stabilisation policies could be developed by the police and civilian agencies. One of the effects of both the interventions themselves and of the responses by non-state armed organisations to the challenges posed by intervening forces has been an ever-increasing price paid by civilians in the region since 2010. In each intervention, violence against civilians surged, whether by design or as an unintended outcome. The worst situation can undoubtedly be found around Lake Chad, where four times more people have been killed as a result of the Boko Haram insurgency and other acts of violence since 2009 than during the Malian civil war. In this region durably marked by political violence, the counter-offensive launched by Nigeria and its neighbours under the umbrella of the MNJTF is the deadliest military intervention recorded in the region since the late 1990s.

Even in operations specified to protect civilians from harm, such as NATO's efforts in Libya, the result has been the same – more civilians targeted and killed each year. Civilians have also served as proxies for groups that were militarily weakened during the interventions. Many organisations that lacked the ability to confront the intervening forces or their allies still had the capacity to instead target non-combatants to establish their claims. An important implication of this is the need for future interventions to be as mindful of protecting civilians as they are in militarily aiding a political ally.

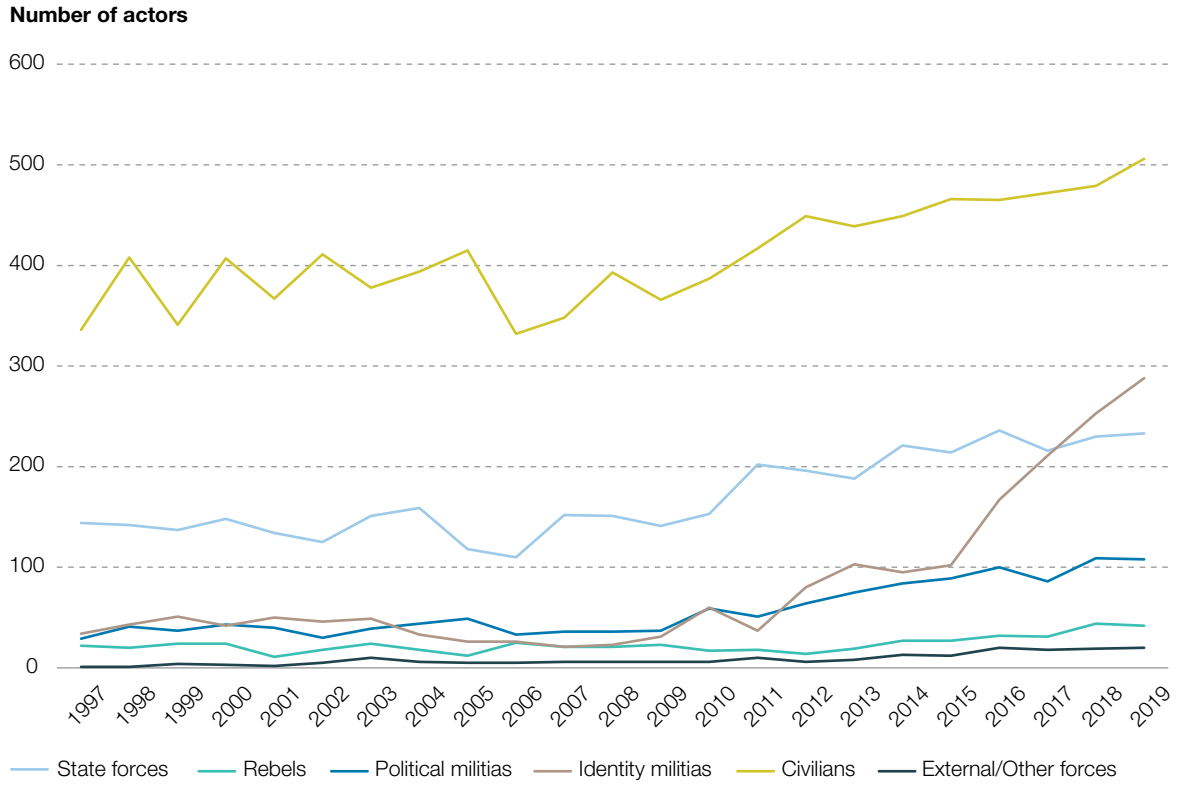
Communal and ethnic militias should be demilitarised

One of the key reasons why conflicts in North and West Africa are more intense than in the past is because of the growing number of belligerents involved. This report clearly shows that the multiplication of organisations in conflict contributes to diffusing political violence to regions that were previously spared from it, thus impacting the lives of a growing number of (mostly rural) people. More policy efforts should be made to limit this worrying trend and reduce the number of armed groups created, particularly political and identity militias, whose violence has significantly increased since the early 2010s (Figure 1.8).

In 2020, political and identity militias represented one-third of the organisations in conflict in North and West Africa. These militias do not only emerge in response to the increasing insecurity in the region. As elsewhere on the continent (Raleigh, 2016[4]), militias are also a primary cause of political insecurity in democratising states. Political elites, religious leaders and community strongmen often use militias as private armies to compete over access to resources, settle disputes and strengthen local power. State forces represent roughly 25% of the organisations in conflict in West Africa and less than 10% in Libya. Their growing involvement since the mid-2000s reflects the degrading security situation in the region and their rivalry towards both extremist organisations and the civilian population. State authorities should refrain from using such militias and make every effort to demilitarise them, favouring the use of trained troops that can be held accountable in cases of human rights violations. In the Sahara-Sahel, French forces refrained from using militias and auxiliary forces, in strong contrast with colonial and Cold War interventions (Shurkin, 2020[5]). However, this has not prevented the

Figure 1.8

Organisations in conflict by type in North and West Africa, 1997–2019



Note: Data available through 30 June 2020. The ACLED data does not distinguish between the perpetrator and the victim of a violent attack, except for civilians, who are always victims of violent events.

Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

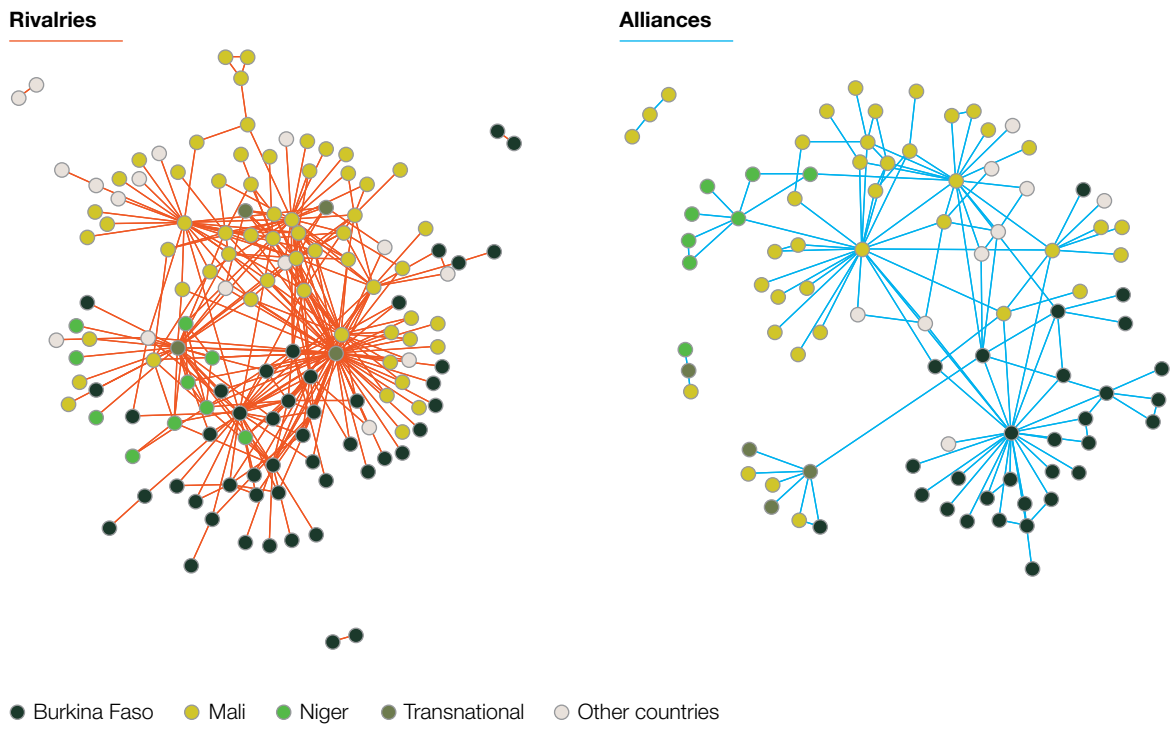
development of numerous militias in rural regions and their use by local and national elites. In northern Nigeria, co-operation between government forces and local militias has proved instrumental in countering Boko Haram, but also led to a proliferation of weapons, a growing militarisation of the region, and a cycle of reprisals that has gravely affected civilians. It is in Libya, though, that the importance of militias and their potentially destabilising effect is the most pronounced. Both the LNA and the GNA are composed of a myriad of locally-based militias whose allegiances are rather volatile and hardly form a unified political and military entity. The heteroclite nature of the two main belligerents of the Libyan conflict make prospects of a ceasefire between LNA and GNA quite elusive, as each of their components pursues divergent objectives.

Build regional alliances, promote space-based policies and support border regions

The complexity of conflicts in North and West Africa is amplified by their transnational dimension. The Malian conflict, for example, is part of a larger conflict environment that comprises neighbouring Burkina Faso and Niger (Figure 1.9). In 2019, no fewer than 136 state and non-state actors were involved in acts of violence in the Central Sahel. Instead of forming three separate theatres of operations, both the co-operation and opposition networks of the Malian conflict extend beyond the boundaries of the Malian state, due to the activity of transnational violent organisations such as JNIM and ISGS (in green), and to joint military offensives launched by the countries of the region and their international allies (in grey).

Figure 1.9

Rivalries and alliances between organisations in the Central Sahel, 2019



Source: Authors, based on data from ACLED (2020[2]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

The cross-border nature of violence not only increases the number of belligerents; it also further complicates the co-operative and oppositional relationships with governments. Rebel groups and extremist organisations can operate in one country and use another as a safe haven for the training and recruitment of militants, thus developing divergent relationships with neighbouring government forces in pursuit of their political agenda in another state. Groups that oppose the government in one country may also support it in another. In the last decade, for example, secessionist movements have developed among Tuareg communities in northern Mali, while Tuareg has maintained co-operative relations with the government of Niger.

Sahelian states should pursue their efforts to build regional forces that can address the diffusion of political violence in the region, such as the G5 Sahel Joint Force. Nowhere in the region is the co-ordinated action of military forces more important than at the periphery of states. OECD/SWAC (2020[1]) found that 10% of the victims of acts of violence in the region were killed within 10 kilometres of a land border, making border areas the most dangerous regions of North and West Africa. The unique geography of conflict calls for more territorial policies. Long neglected by state authorities and poorly connected to regional and national urban centres, border regions should be the priority of the co-ordinated, all-of-government approaches of intervening powers in the region. Sahelian governments should also acknowledge the specificities of border regions and the need to reinforce national cohesion by developing decentralised institutions and infrastructure that benefit all equally.

Intervene militarily to keep warring parties apart rather than to take sides

Military interventions can profoundly alter the balance of power between belligerents, depending on whether third parties focus on strengthening existing collaborations between allies or targeting conflicts between enemies. The ultimate outcome of these military interventions

is usually hard to predict because it depends on the pre-existing relationships between belligerents, whose rivalries and alliances are often imperfectly known. Conflict network mapping can help to measure the direct and indirect impact of military interventions on all parties involved.

The situation in Libya, Mali and Nigeria raises questions on the results of military strategies that take sides with a belligerent versus those that seek mediation between warring parties. Interventions in which third parties get involved in a neutral fashion appear more likely to promote co-operation between belligerents, while also reducing violence. Although it can lead to violence, mediation offers more potential for longer-term stability, by creating a situation conducive to co-operation between actors, or by bringing actors to shift allegiances and collaborate with each other. So-called partisan interventions tend to favour opposition between actors, or changes of allegiance creating new confrontations.

The network analysis conducted in North and West Africa shows that partisan military interventions have contributed to forming alliances with at least one of the central parties to the conflict. For example, in Mali and Lake Chad, France and the MNJTF allied with states against their non-state rivals while in Libya, NATO allied with the anti-Gaddafi rebels. Paradoxically, this partisan strategy does not alter the balance of power between the intervener, states and their rivals. Without bringing about the political change needed to improve the security situation, military interventions have contributed to creating a situation where jihadist organisations are too weak to overthrow existing regimes, and government forces are too ill-equipped to put insurgencies to an end.

External military powers are now trying to maintain the balance of power without getting involved in the national political project and, since the end of the Cold War, have been focusing on military operations. At the same time, local regimes experience difficulty in implementing the necessary political reforms needed to manage the security situation beyond military interventions. Approaches lack co-ordination and tend to favour the status quo. As Shurkin (2020[5]) argued about Serval and Barkhane, "The French military limits itself to focusing on security in the anticipation that others will do the political work", stating that "its actions serve to perpetuate a political dispensation that is a driver of conflict."

Alongside their partners, Sahelian governments are part of a strategy of secular bulwark against Islamism. However, the structure of current conflicts shows that they are also motivated by community demands left unresolved by the authorities. Although extremist organisations have developed links with Al Qaeda and the Islamic State, their opposition to government forces and their violence against civilians is explained by highly localised factors, such as access to pastoral resources or control over trade routes, which take different forms in different societies and states.

The roots of such conflicts can hardly be addressed by military means alone. External forces cannot be the main instrument of political stability in the region. This would require an indefinite military commitment that is unlikely to eliminate the threat posed by jihadist organisations operating in North and West Africa and other forms of violence. It would require states to have sustainable political projects and alternatives to extremist ideologies based on fear and exclusion. All that military forces can continue to do is to create moments of opportunity to pursue the search for political solutions, which must originate from dialogue between the political forces involved.

References

ACLED (2020), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/. [2]

Dorff, C., M. Gallop and S. Minhas (2020), "Networks of violence: Predicting conflict in Nigeria", *The Journal of Politics*, Vol. 82/2, pp. 476-493. [3]

OECD/SWAC (2020), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/02181039-en. [1]

Raleigh, C. (2016), "Pragmatic and promiscuous: Explaining the rise of competitive political militias across Africa", *Journal of Conflict Resolution*, Vol. 60/2, pp. 283–310. [4]

Shurkin, M. (2020), "France's war in the Sahel and the evolution of counter-insurgency doctrine", *Texas National Security Review*, Vol. 4/1, pp. 1–15. [5]

Chapter 2

Violent organisations in conflict in North and West Africa

This chapter examines the relationships between state and non-state actors within armed conflicts in Africa. These relations are an important part of the complexity of conflict within the region but remain poorly understood. The first section of the chapter shows that violent non-state organisations involved in conflicts are quite diverse when it comes to their objectives, legal status and visibility. The internal structure of each organisation can also vary tremendously: while some organisations favour a centralised structure in which decisions and resources flow from top to bottom, other organisations tend to be structured around decentralised and autonomous cells. The second section shows that significant volatility in Africa characterises the relationships between these organisations. Non-state violent actors dedicate a meaningful portion of their energy and resources to competing with each other instead of exclusively targeting the state. Alliances between them are rarer despite their obvious benefits in terms of co-ordination, resources and exchange of information. Rivalries between such groups are shaped by ideology, access to resources and political leverage, and divergences on the use of violence against civilians, among other factors.

KEY MESSAGES

- **Current conflicts in North and West Africa involve numerous and varied non-state violent organisations in pursuit of incompatible objectives.**
- **A significant point of contention within violent organisations is whether they should target local regimes, which they see as corrupt and apostates, or their international allies, such as the United States, France and Israel.**
- **While risky, co-operation with other non-state organisations can help promote an ideology, co-ordinate actions, bring more resources and contribute to expanding social or geographical reach.**
- **External military interventions have a broad impact on alliances and rivalries between state forces, rebel groups and violent extremist organisations.**

THE DIVERSITY OF VIOLENT NON-STATE ORGANISATIONS

An important part of the complexity of armed conflicts in North and West Africa has to do with the sheer number of both state and non-state actors that are in pursuit of incompatible political objectives. Regular state forces defending national territory are often fighting alongside various ethnic or pro-government militias and against secessionist rebels in search of greater autonomy or independence, jihadist groups striving to impose religious law, militias funded by politicians or businesspersons, and warlords or criminal enterprises seeking to enrich themselves.

The political motivations of each of these types of non-state actors have evolved over time. Rebellions, for example, have taken up arms against African regimes for several reasons over the last 60 years (Reno, 2011[1]). Anti-colonial rebels mainly fought in the Portuguese colonies of Guinea, Mozambique and Angola. In contrast,

Box 2.1

Conflict and borders in the Gulf of Guinea in the 1990s

The politician and warlord Charles Taylor, who entered Liberia on Christmas Eve 1989 to overthrow the Doe regime in Monrovia, originally assembled his National Patriotic Front of Liberia (NPFL) in neighbouring Côte d'Ivoire. In 1991, the United Liberation Movement of Liberia for Democracy (ULIMO) opposed to Taylor took refuge in Guinea and Sierra Leone, from which the movement secured strategic minefields in Liberia (Ellis, 1998[2]). That same year, Revolutionary United Front (RUF) rebels affiliated with Taylor's NPFL came from Liberia to secure parts of Sierra Leone rich in alluvial diamonds. After their failed attempt to conquer Freetown in 1995 and the counter-offensive that followed, RUF fighters fled to Liberia. During the Second Liberian War that started in 1999, rebels from the Liberian United for Reconciliation and Democracy (LURD) and the Movement for Democracy in Liberia (MODEL) invaded Liberia from Guinea and Côte d'Ivoire. Their offensive against Monrovia led to the exile of Charles Taylor in 2003.

Source: Walther, O.J. and W. Miles (eds.) (2018[3]), *African Border Disorders: Addressing Transnational Extremist Organizations*, Routledge, New York.

movements inspired by Marxist-Leninist ideology fought white-dominated regimes in Rhodesia (Zimbabwe), South West Africa (Namibia) and South Africa. Rebellions also developed in Uganda, Ethiopia and Eritrea, with the aim to overthrow oppressive regimes and replace them with new political systems. By the early 1990s, warlords fought to control local resources and terrorised the local populations of the Gulf of Guinea and the Great Lakes region (Box 2.1) following the introduction of multi-party electoral politics and the collapse of state patronage networks. By the early 2000s, yet another generation of rebels emerged in countries such as Nigeria, where marginalised groups struggled to gain better positions within national politics. These parochial rebels did not necessarily rebel against the state and were often patronised by local politicians.

Despite the changing motivations and different issues at play in these cases, non-state organisations that use violence can be classified into several broad categories (Box 2.2). The visibility of organisations is an obvious criterion. Some, like Al Qaeda in the Islamic Maghreb (AQIM), operate clandestinely, while others operate openly even when they are in opposition to the state, such as the Libyan National Army (LNA). Violent organisations may also differ according to their motivations. Organisations driven by profit can use violence to gain market share or expand their activities, whereas those motivated by values seek to impose an ideology, religion or ethnic identity through violent means (Price, 2019[4]). Most states involved in an active conflict in Africa support both a military and several militias, two types of overt organisations that put the aims of the state before profit, at least officially (Table 2.1).

This typology is particularly useful in distinguishing between two types of covert violent groups: criminal and terrorist organisations. Unlike criminal gangs, terrorist organisations are primordially motivated by values rather than profits, as the ultimate goal of a terrorist organisation is to change a political system to its advantage. As Hoffman (2017, p. 38[6]) argues, "the criminal is not concerned with influencing or affecting public opinion; he simply wants to abscond with his money or accomplish his mercenary task in the quickest and easiest way possible so that he may reap his reward and enjoy the fruits of his labors." Because they are value-driven, terrorist organisations typically promote a particular ideology or exclusive identity-based (religious or otherwise) interpretation. The potential risks and the lack of tangible profits for members of terrorist groups can make recruitment particularly challenging. Leaders of terrorist organisations must therefore develop a sense of shared ideological or identity-based struggle to attract and motivate rank-and-file members.

Box 2.2

Violent, radical or Islamist organisations?

This report uses several terms to refer to the organisations involved in politically violent events in North and West Africa.

Violent extremist organisations refer to illegal and covert organisations that advance their political agenda through violent means. These organisations include both rebel groups such as the National Movement for the Liberation of Azawad (MNLA) and terrorist groups such as AQIM. The objective of some of these organisations is to institute an alternative political order guided by Islamic principles through violent means.

Violent Islamist organisations are those radical organisations in the region that promote a "vision of Islamic political order that rejects the legitimacy of the modern sovereign nation-state and seeks to establish a pan-Islamic polity or renewed caliphate." These organisations emphasise "violent struggle (jihad) as the primary or even the exclusively legitimate method for the pursuit of political change" (Mandaville, 2014, p. 330[5]). As explained in Chapter 3, 123 such organisations are identified in North and West Africa. These include Al Qaeda, the Islamic State, and their various regional affiliates and allies, Boko Haram and its avatars, numerous Libyan brigades and battalions, and some militias and explicitly violent Islamist organisations.

Source: Authors.

Table 2.1

Types of violent organisations according to visibility and motivation

	Profit-driven	**Value-driven**
Overt	Mercenaries	Militias Government forces
Covert	Criminal organisations	Terrorist organisations Secessionist ethnic rebels

Source: Adapted from Price, B.C. (2019[4]), *Targeting Top Terrorists: Understanding Leadership Removal in Counterterrorism Strategy*, Columbia University Press, New York.

A significant limitation of this classification, however, is to put terrorist organisations and secessionist ethnic rebel groups in the same category. There are clear distinctions between them and nowhere is this more evident than in the West African Sahel. In the region, the strategy and motivations of jihadist groups inspired by a Salafi ideology are fundamentally different from separatist or ethno-nationalist rebel movements. While secessionist rebel movements contest the legitimacy of particular governments or seek to create a new state for their ethnic group, they do so by acting within the general logic of the international state order. In contrast, jihadist organisations seek to dismantle the secular state and replace it with a model based on a strict interpretation of religion.

Unlike most secessionist rebel groups that seek more autonomy, independence or better access to national resources, jihadist groups are not motivated by gaining access to the legal command of the state but by imposing a social framework modelled upon a literal interpretation of religious texts. The most radical organisations are also little interested in engaging in a peace negotiation with the state, which they consider apostate and illegitimate (Thurston, 2018[7]). The very nature of jihadist organisations, therefore, poses an existential threat to African state elites, who have little to offer them.

Another limitation of the classification presented above is that the distinction between profit-driven and value-driven organisations builds on the overarching goal of violent organisations, and not on their actual means

Box 2.3
Hezbollah and the crime-terrorism nexus

The "Party of God" (Ḥizbu'llāh) has been implicated in criminal activities on a global scale under the aegis of its External Security Organization and with the active or coerced support of the Lebanese Shiite diaspora in Europe, Africa, the Americas and Australia. Hezbollah's business logic has evolved from a reliance on Iran to diversification into drug, arms and human trafficking; cigarette smuggling; trading diamonds; counterfeiting goods and medications; money laundering; financial, credit card and passport fraud; sham marriages; and intellectual property crime.

A portion of the profits derived from these illicit activities is remitted to Hezbollah in southern Lebanon where they serve to finance social, religious and educational services, military resistance, and political activity among the Shiite community. Hezbollah's activities have extended to the United States, where fundraising cells are widely involved in criminal activities. From March 1996 to July 2000, for example, a network based in Charlotte, North Carolina, ran a criminal enterprise involving marriage and immigration fraud, procurement of dual-use technology, credit card fraud, and material support of a terrorist organisation. The network also operated a very lucrative cigarette-smuggling operation driven by differential tax rates between states.

Source: Leuprecht, C. et al. (2017[14]), "Hezbollah's global tentacles: A relational approach to convergence with transnational organised crime", *Terrorism and Political Violence*, Vol. 29/5, pp. 902–921.

of existence. Terrorist organisations and rebel groups often engage in criminal activities for profit, leading several observers to speak of a nexus between transnational organised crime and terrorism (Miklaucic and Brewer, 2013[8]; Ruggiero, 2019[9]). For instance, the militant group Hezbollah has invested in a vast range of criminal activities around the world to support its military struggle in the Middle East (Levitt, 2013[10]) (Box 2.3). In West Africa, violent extremist organisations are also deeply involved in criminal activities, including protection rackets, robbery, people and arms trafficking, money laundering, smuggling and drug trafficking (Lacher, 2011[11]; Larémont, 2011[12]; de Tessières, 2018[13]).

In North Africa and the Sahel, one of the most lucrative criminal activities for covert groups has been kidnapping for ransom. Overall, the kidnapping industry in the Sahel may have generated at least USD 125 million from 2008 to 2014 (Callimachi, 2014[15]). While the exact amount of ransoms paid is difficult to assess due to the opacity of the negotiations and the number of intermediaries involved, this money has likely fuelled their international development, training and arms purchases. These revenues have also facilitated the development of alliances between AQIM and local leaders and made the recruitment of combatants easier for extremist organisations. As Lacher (2015, p. 75[16]) explains, the ransoms "were the single most important factor behind the group's growth in northern Mali, and their eventual takeover during the conflict of 2012." The large amounts of cash paid by European governments also help to explain why the Movement for Unity and Jihad in West Africa (MUJAO) eventually split from AQIM after having kidnapped several tourists in south-western Algeria in 2011.

For these reasons, an additional factor that helps to distinguish between violent organisations is to compare their visibility (overt or covert) with their legality. Covert organisations, such as terrorists, criminals, gangs, traffickers and conspiracies, thrive by undermining the legitimacy of the state, exploiting the resources of the private sector, and weakening the capacity of civil society actors (Morselli, Giguère and Petit, 2007[17]; Van der Hulst, 2011[18]; Cunningham, Everton and Murphy, 2016[19]). Often called "dark networks" in reference to their covert and illegal nature (Gerdes, 2015[20]), these organisations must overcome collective-action problems that are not fundamentally different from those of other networks. On the one hand, they must cope with an uneven distribution of

Table 2.2

Types of violent organisations according to visibility and legality

	Legal	Illegal
Overt	Rwandan Patriotic Front	Liberia under Charles Taylor
Covert	Nigerian Intelligence Agency	Al Qaeda, Ansar Dine Cocaine trafficking

Source: Adapted from Milward, H. and J. Raab (2006[21]), "Dark networks as organizational problems: Elements of a theory", *International Public Management Journal*, Vol. 9/3, pp. 333–360 and Oliver, K. et al. (2014[22]), "Covert Networks: Structures, Processes, and Types", University of Manchester Mitchell Centre Working Paper.

assets, enforce trust and ideology, recruit and co-ordinate activities at a distance, disseminate decisions about goals, and distribute funds and resources. On the other hand, dark networks must remain concealed from authorities, which sets them apart from legal covert organisations and illegal overt organisations (Table 2.2). Consequently, direct communication between members needs to be restricted, weapons, explosives and financial assets must be moved without being detected by security agencies, and recruitment and training must be carried out in secret.

This approach to classification also has limitations, namely a reliance on the visible attributes of the organisations. In other words, while the nature and objectives of covert illegal organisations are typically well documented, far less is known about their operations, internal structures and connections to other similar organisations. While the formal attributes of such organisations matter, a significant part of their strength comes from their capabilities to connect people and places rather than from just their military might, technological advance or numerical size.

RELATIONSHIPS BETWEEN VIOLENT NON-STATE ORGANISATIONS

The diversity of violent non-state organisations is a significant part of the complexity of conflict in North and West Africa. Indeed, in most contemporary conflicts, states are confronted by a shifting set of overt, covert, value-driven, and illegal groups that are often interacting with each other, as well as with state forces. In general, this has led to a complicated and dynamic political milieu in the region where the relationships between non-state groups are characterised by shifting patterns of both co-operation and opposition. This section discusses the circumstances involved in these relationships, with an emphasis on what is known about the alliances and rivalries between non-state actors.

Alliances

While violent non-state organisations have been known to enter into partnerships with states, they are often reluctant to co-operate with other non-state groups. Non-state groups may see each other as potential competitors, especially if seizing the state or achieving territorial control over a region is their primary goal. Beyond zero-sum thinking about long-term objectives, co-operative relations with other groups can bring additional risks to a group's daily activities. For instance, working with an ally can make violent organisations more vulnerable to communication interception by counter-terrorism agencies, while joint action with another organisation can also bring more attention and pressure from the state, create new enemies among other non-state groups, or introduce divisions over tactics and strategy. In some situations, however, violent organisations choose to develop alliances with each other to overcome individual group weaknesses and vulnerabilities (Moghadam, 2017[23]). While risky, co-operation with other organisations can help promote an ideology, co-ordinate actions and bring more resources. Larger coalitions can facilitate the exchange of tacit knowledge between violent organisations and contribute to expanding their social or geographical reach.

The theories and typologies developed so far to explain why violent organisations co-operate tend to rely on qualitative assessments of individual cases rather than on a structural approach to networks of alliances (Bacon, 2014[24]). According to Karmon (2005[25]), co-operation among (terrorist) groups can take at least three main forms. First, groups can share a similar ideology and reinforce their collaboration through official statements. Secondly, groups can support each other financially, or share material, propaganda, weapons, information and training. In the Sahara-Sahel, AQIM has supported Boko Haram with arms and training in the early 2010s, for example (Werenfels, 2015[26]). Thirdly, violent organisations can conduct joint operations and share intelligence prior to or during attacks against government or civilian targets. In 2014, for example, Ansar al-Sharia Tunisia kidnapped Mohamed bin Sheikh, the secretary of the Tunisian ambassador in Tripoli, in collaboration with Libyan jihadists.

Perhaps because violent organisations tend to spend more time fighting each other than building alliances, the effect of intergroup alliances on conflict outcomes is less documented than the impact of fragmentation (Bapat and Bond, 2012[27]; Horowitz and Potter, 2014[28]; Popovic, 2018[29]). Large-N studies show that alliances are associated with variables such as the ability to control territory, moderate group size (100–999 members) and religious motivation (Phillips, 2018[30]). Among terrorist groups in particular, alliances are more frequent between groups that share a similar ideology, age, adversaries and region, and have small numbers of fighters (Asal et al., 2016[31]).

While intergroup alliances may be somewhat unusual in most conflicts, interdependencies can provide valuable resources, such as intelligence sharing and tactical support that groups can use against a well-organised and capable government (Akcinaroglu, 2012[32]). In North and West Africa, for example, the merger of Ansar Dine, AQIM, al-Mourabitoun, and Katibat Macina in March 2017 has been interpreted as a strategic action to maximise economic resources (Weiss, 2017[33]). A study conducted on 600 groups in the world from 1987 to 2005 shows that co-operation can help terrorist organisations survive, especially in more capable and more autocratic states (Phillips, 2014[34]). In conflict situations where an external party, such as a foreign military power, is capable of enforcing co-operation between warring parties that leads to a peace settlement, armed groups might have an interest in forming coalitions and aligning with the side they believe has the highest chance of winning the conflict (Christia, 2012[35]).

Although alliances between non-state groups may be useful in some circumstances, they may also be somewhat volatile over time. For instance, an agreement among actors can dissolve when conditions change, when a new opportunity for one group comes along or when a common enemy is defeated. When the French launched a military offensive in northern Mali in 2013, for example, fighters from Ansar Dine joined the MNLA or the newly created Islamic Movement of Azawad (IMA). A few months later, IMA integrated the new High Council for the Unity of Azawad (HCUA). During the same period, fighters of the MUJAO also created their own movement, the Arab Movement of Azawad (MAA), arguing that their goal was now to reach a peace agreement (Walther and Tisseron, 2015[36]).

The reasons why armed groups may co-operate for short durations are more frequently documented than the factors that could explain more persistent alliances. In conflict environments where non-state organisations proliferate, government forces, rebel groups and violent extremist organisations have numerous possibilities to forge longer-term alliances to advance their objectives. However, the literature has not yet explored such questions, and it is not clear what may motivate such choices.

One of the most promising approaches is the use of social network analysis to address this question, as illustrated by Gade, Hafez and Gabbay (2019[37]). The authors argue that agreements among non-state groups in civil wars are more likely if the groups share a common understanding of whom they are fighting for and against, of the intended post-conflict social, political and religious order and of their territorial aspiration. It is worth noting that these three elements form the foundations of ideology in

many value-driven organisations, which means that these types of groups may be more likely to form alliances. In addition to ideology, Gade, Hafez and Gabbay evaluate how the distribution of power between groups and state sponsorship inform alliance choices among rebels. Using the case of Syria, they find that the distribution of power between groups does not seem to be decisive in explaining alliances while having a common state sponsor does not encourage co-operation. Their study shows, however, that sharing a common ideological foundation prevents infighting by helping organisations recruit, co-ordinate action, enforce loyalty and prevent defection.

The fact that ideologically proximate organisations have a lower propensity for infighting than ideologically opposed ones in Syria is in line with other large-N studies that suggest that rebel groups who share a similar ideology are less prone to fragmentation (Fjelde and Nilsson, 2018[38]). However, the positive impact of ideology is only significant for leftist organisations, which are rare in North and West Africa, where the belief that Islam should guide all aspects of social and political life has led to a proliferation of Islamist organisations since at least the early 1980s.

Considering the importance of alliance formation in the resolution of conflict, there is a clear need for more research on the relational factors that can lead organisations to collaborate. This report contributes to filling this gap by documenting how the presence and duration of alliances among state and non-state actors evolve over time in North and West Africa.

Rivalries

In contrast with the current literature on co-operative relations among violent non-state organisations, a great deal is known about competition between such groups. Obviously, non-state actors operating in the same region can be operating from vastly different and incompatible agendas, which can lead to the development of hostile relations even when they have the same foes. For instance, in the Malian Tuareg rebellion of 2012, the efforts by MNLA to create an independent Tuareg state in northern Mali were initially supported by Ansar Dine. However, the two groups ultimately ended up fighting each other over Ansar Dine's strict vision of imposing Islamic rule over the region. In this way, the incompatibility of ideology discussed in the previous section is a major factor that explains that such groups may actively oppose each other even while they also oppose a government.

Another major issue in the literature is that non-state groups can be quite unstable over time and are particularly prone to fragmenting or splitting into separate and often competing factions. Thus far, several reasons have been suggested to explain the seemingly constant propensity for groups to fragment (Asal, Brown and Dalton, 2012[39]). It has been shown, for example, that infighting is particularly high when rebel organisations are engaged in areas with drug cultivation, when they exercise effective territorial control beyond government reach and are numerically strong (Fjelde and Nilsson, 2012[40]). Rivalries between terrorist groups in the world have also been associated with competition over drug trafficking and state sponsorship as well as with ethnic differences, especially when operating within a civil conflict country (Phillips, 2018[30]).

While common, fragmentation among violent organisations is also risky, destructive and resource consuming. Internal divisions that lead to a group splitting tend to increase the potential for civil war because the multiplication of belligerents creates uncertainties as to what concessions could be made and what commitments could resolve a conflict through non-violent means (Cunningham, 2013[41]). A lack of intra-movement cohesion among rebel organisations also increases the level of violence directed against civilians who increasingly fall victim to rape, kidnapping, looting and murder (Metelits, 2009[42]). Fragmented groups are therefore more likely to resort to violence to achieve their political goals than unitary groups (Bakke, Cunningham and Seymour, 2012[43]; Cunningham, Bakke and Seymour, 2012[44]). A longitudinal analysis of terrorist incidents from 1970 to 1997 confirms that competition between religious and nationalist terrorist organisations leads to more violence (Nemeth, 2014[45]).

Considering the costs of fragmentation, one could wonder why violent organisations spend

Table 2.3

Factors that lead to fragmentation among violent organisations

Internal factors	External factors
Ideology: What are the ideological foundations of the organisation?	**State strength**: How capable is the state to counter the organisation?
Objectives, strategy and tactics: How should violence be used? Who is a legitimate enemy?	**State support**: Does the state support one party in the conflict?
Resources: What resources should be used to advance the organisation's agenda?	**State concession**: What can be won from the state?
Structure: How was the organisation structured before the conflict, and is it internally divided today?	**Foreign support**: Which external power supports the organisation?
Power: How is power distributed internally?	**Competition**: How much inter-organisational fighting is going on?
Size: How many organisations compete and how many fighters do they have?	**Battlefield performance**: How capable is the organisation militarily?

Source: Compiled from Staniland, P. (2014[47]), *Networks of Rebellion: Explaining Insurgent Cohesion and Collapse*, Cornell University Press, Ithaca; Bakke, K.M., Cunningham, K.G. and L.J.M. Seymour (2012[43]), "A plague of initials: Fragmentation, cohesion, and infighting in civil wars", *Perspectives on Politics*, Vol. 10/2, pp. 265–283; Gade, E.K., Hafez, M.M. and M. Gabbay (2019[37]), "Fratricide in rebel movements: A network analysis of Syrian militant infighting", *Journal of Peace Research*, https://doi.org/10.1177/0022343318806940; Gartenstein-Ross, D. et al. (2019[48]), "When Jihadist factions split: A data-driven network analysis", *Studies in Conflict & Terrorism*, pp. 1–25; Asal, V., Brown, M. and A. Dalton (2012[39]), "Why split? Organizational splits among ethnopolitical organizations in the Middle East", *Journal of Conflict Resolution*, Vol. 56/1, pp. 94–117; Moghadam, A. and B. Fishman (eds.) (2011[49]), *Fault Lines in Global Jihad: Organizational, Strategic, and Ideological Fissures*, Routledge, New York.

such considerable amounts of time and resources fighting each other when they could be fighting the government (Nygård and Weintraub, 2015[46]). The many factors identified in the literature point to two complementary explanations. A first strand of literature tends to explain fragmentation in terms of internal issues. These self-inflicted wounds include such factors as diverse as competing ideologies, definition of objectives, access to resources, structural fault lines, distribution of power and size. Another strand of the literature explains the lack of cohesion among violent organisations in terms of external factors, most notably the counterinsurgency and counter-terrorism efforts developed by states, foreign support, competition with other organisations and battlefield performance (Table 2.3).

Internal factors of fragmentation

One of the most convincing frameworks that explains why violent organisations are divided internally can be found in *Fault Lines in Global Jihad*, written ten years after the 9/11 attacks (Moghadam and Fishman, 2011[49]). The authors argue that Al Qaeda, like many other violent organisations, is divided between several ideological streams that compete against each other. Internal disputes in Al Qaeda also arose around the goals, strategy and tactics to be employed, particularly when it came to defining a common enemy and using violence against Muslim populations. Internal struggles have also centred on the generation and distribution of resources between Al Qaeda and its regional affiliates, such as AQIM in North and West Africa. Al Qaeda is also bitterly divided by internal disputes pertaining to the leadership structure of the organisation and the need to organise militants of different tribal or ethnic origins. Finally, Al Qaeda has struggled with how to exert power over a global network while maintaining a decentralised structure. Each of these factors is relevant to the North and West African violent organisations examined in this report.

Ideology

Ideology is a Janus-faced factor that can explain both fragmentation and cohesion among violent organisations. In North and West Africa and beyond, sharing a common Islamist ideology can hardly be seen as a factor of cohesion among violent organisations. The example of Al Qaeda and the Islamic State tends to suggest that shared ideology is not a sufficient condition for terrorist organisations to co-operate

(Moghadam, 2017[23]). Organisations with similar ideology often compete, and splits occur within ideologically like-minded groups. Conversely, groups with different ideology can co-operate when they have a common opponent. This is because ideologies such as communism, nationalism, or Islamism are large umbrellas under which both extremist and centrist organisations can operate (Hafez, 2020[50]). In the Middle East, the Shia militant group Hezbollah and the Sunni fundamentalist organisation Hamas, for example, have shared financial, symbolic and training resources against their common enemy, Israel (Price, 2019[4]).

Islamism is a divided ideology. While fundamentalists promote a literal interpretation of the Quran and the words and acts of Muhammad (Sunna) and strict adherence to religious law (sharia), they frequently disagree on the means to be adopted to advance their religious and political agenda. For example, the Salafi movement, which is the dominant form of Islamist activism in North and West Africa, is composed of several branches that compete against each other depending on whether they promote an extremist or centrist agenda. Members of the quietist branch, such as the Sufi orders in West Africa, have adopted a peaceful and non-political approach that stresses religious education and proselytising instead of political activism. This branch is increasingly challenged by an activist school that advocates for more direct yet non-violent involvement in political affairs, as the Muslim Brotherhood or the Ennahda Movement in Tunisia. At the other end of the spectrum, jihadist groups such as the Group for Supporting Islam and Muslims (Jama'at Nusrat al-Islam wa-l-Muslimin, JNIM) seek to overthrow secular governments, cut their ties with the West and "purify" other Muslims, using violence.

Jihadist organisations share three ideological views that set them apart from other reform religious movements in North and West Africa (Ibrahim, 2017[51]). First, they see the world through the prism of a clash of religions and consider that it is the duty of all Muslims to confront the West and its local allies through military means and terrorist tactics. Second, jihadist organisations reject what they regard as anti-Islamic practices, such as Sufism, and Western-inspired institutions such as democracy, nation-states or modern education (Thurston, 2018[7]). Third, they see fellow Muslims who do not strictly adhere to a literal interpretation of the Quran and the Sunna as infidels who must abandon their religious practices or be eliminated.

Quietist, activist and jihadist Islamist organisation often compete in the same region. In Northern Nigeria and Niger, for example, traditional Sufi brotherhoods compete with more conservative Islamist movements, such as the Society for the Removal of Innovation and Re-establishment of the Sunna (Izala), which promotes a non-violent reformist agenda (McCullough et al., 2017[52]). The Izala movement rejects ostentation and expensive social obligations that prevent many entrepreneurs from enriching themselves, which make it especially popular among West African traders (Kuépié, Tenikue and Walther, 2016[53]). Izala members compete with the Salafi-Jihadist organisation Boko Haram, which emerged as a mass religious movement in Northern Nigeria in the early 2000s before transforming into one of the deadliest armed groups in the world (Thurston, 2018[7]). Its attacks have targeted Sufi and Salafi religious movements, the wider Muslim and Christian civilian population, and the Nigerian state, which the movement regards as corrupt and illegitimate.

Objectives and the use of violence

Fragmentation within non-state organisations often comes from disagreements over goals, strategy and tactics. The most controversial issues are those who relate to the use of violence. Disagreements over who constitutes a legitimate target and over mass destruction tactics and the killing of innocent Muslims explain major splits within violent organisations in the region. Of particular importance for the organisations fighting in North and West Africa is the controversial notion of *takfir* (or ex-communication) that determines who is a Muslim and who is an infidel, and specifies under what circumstances a Muslim can be killed. Violent organisations have different interpretations of *takfir* and therefore differ as to who can represent a legitimate target.

Significant differences in the use of violence have been observed in the last decades among violent organisations in North and West Africa.

Box 2.4
Abdelmalek Droukdel

Abdelmalek Droukdel (aka Abu Musab Abdel Wadoud) was born in 1970, in Meftah, Algeria. He attended the University of Blida where he studied mathematics. In 1993, Droukdel joined one of the armed groups participating in the Algerian Civil War, which had broken out in 1991. By the mid-1990s, he was part of the GIA, working as a bomb maker and then as a battalion leader (Droukdel, c. 2005[57]). He then joined the GIA breakaway called the GSPC, rising to become head of its Council of Notables in 2003. Droukdel was selected as the GSPC's leader in 2004 after the death of the previous emir, Nabil Sahraoui (New York Times, 2008[58]). In 2006, Droukdel pledged allegiance to Osama bin Laden and, the following year, renamed his organisation AQIM. Droukdel served as the emir of AQIM until he was killed by French soldiers in northern Mali on 3 June 2020.

Presumably operating mostly from Kabylia, Droukdel co-ordinated numerous attacks against the government and civilian targets in northern Algeria, such as the government palace and the criminal investigation department in Algiers in April 2007, or against United Nations (UN) officers and the Constitutional Court building in Algiers in December 2007. Droukdel and AQIM struggled, however, to sustain an effective campaign of violence within Algeria, and occasional spates of violence, as in 2011, did not seriously threaten the Algerian state.

Droukdel was more effective in overseeing an expansion of AQIM's activities into the Sahara-Sahel region. Yet he had recurring disputes with a key Saharan field commander, Mokhtar Belmokhtar, who broke away from AQIM in late 2012 before re-joining in 2015 (Callimachi, 2013[59]). Droukdel was unable to prevent splinter groups from developing their own terrorist and smuggling activities south of the Sahara (Chapter 1). In 2011, some components of AQIM split to form the MUJAO. Amid the northern Malian rebellion of 2012, AQIM supported and fought alongside the jihadist organisation Ansar Dine, led by Iyad ag Ghali. Ansar Dine, AQIM and MUJAO ruled northern Mali during roughly the second half of 2012. Droukdel ordered his fighters not to impose sharia law in occupied areas so harshly that it would scare off the local population. However, his orders were partly disregarded, and consequences that Droukdel warned of – namely a foreign intervention in Mali – came to pass. In 2017, several AQIM and Ansar Dine units formed JNIM, formally subordinate to Droukdel's authority. By the time of his death, however, Droukdel's influence may have been less than that of JNIM's leader, Iyad ag Ghali.

Source: Original text provided by Susanna Goewey and Alexander Thurston.

The Armed Islamic Group (GIA), which fought against the Algerian government during the civil war (1991–2002), is representative of the most violent approach (Hafez, 2020[50]). In addition to targeting the state and other Islamist groups such as the Islamic Salvation Front (FIS), GIA used extreme violence against civilians, journalists and foreigners to achieve its goal of destroying the secular government and instituting an Islamic state governed by religious law (Martinez, 2000[54]). This hard-liner strategy caused massive desertion within GIA. While the Islamic Salvation Army (AIS) declared a unilateral ceasefire with the government in 1997, members of the GIA disillusioned with its policy of indiscriminate massacre created the Salafist Group for Preaching and Combat (GSPC) in 1998.

In the 2010s, major disagreements around the use of violence opposed the leadership of AQIM established in northern Algeria and its Saharan units (Lacher, 2015[16]). While AQIM leader Droukdel advocated for the establishment of durable alliances with local tribes in northern Mali, regional leaders of AQIM, MUJAO and Ansar Dine, such as Mokhtar Belmokhtar and Abu Zaid, followed an opposite strategy characterised by violent confrontation with the local population and its traditional leaders (Siegel, 2013[55]). In a letter recovered by the Associated Press in Timbuktu in January 2013, Droukdel

Box 2.5
Mokhtar Belmokhar

Mokhtar Belmokhtar was born in 1972 in Ghardaïa, Algeria. In 1991, he relocated to Afghanistan where he fought against the communist regime of Mohammad Najibullah and met a number of jihadists. After the outbreak of the Algerian Civil War, Belmokhtar returned to his home country by 1993 (Wojtanik, 2015[60]). Upon his arrival, he formed the Martyr's Brigade that would be eventually absorbed by the GIA. His unit was responsible for most operations across the Sahara and was primarily financed through kidnappings, cigarette smuggling, and the weapons and drug trade.

When the GIA began to crumble, Belmokhtar as commander for Zone 9 (southern Algeria) helped form the GSPC. As one of the leaders of the GSPC, Belmokhtar was in control of a large portion of the Algerian desert but quickly moved to widen his control to northern Mali, Mauritania and Niger. He built ties to influential local communities through marriage, economic arrangements and diplomatic outreach. Belmokhtar was crucial in attracting Mauritanian and Malian recruits, in particular, to the GSPC (Ould M. Salem, 2014[61]).

Belmokhtar helped facilitate connections between the GSPC and Al Qaeda, paving the way for the GSPC's transformation into AQIM in 2006–07. He hosted an Al Qaeda envoy to the Sahara and Algeria in 2000–01, and Belmokhtar's 2005 attack on a military outpost in Lemgheity in Mauritania garnered the praise of Osama bin Laden. During his time with AQIM, Belmokhtar had a role in many of the group's hostage negotiations involving foreigners (Wojtanik, 2015[60]). Yet Belmokhtar had recurring tensions with AQIM emir Abdelmalek Droukdel, as well as with another prominent AQIM Saharan field commander, Abdelhamid Abu Zaid.

Belmokhtar participated in the 2012 jihadist takeover of northern Mali but had bitter disputes with Droukdel and Abu Zaid during that same period. In late 2012, Belmokhtar broke with AQIM, making his unit al-Mulathamun (The Veiled Men) independent, though still loyal to Al Qaeda central. Al-Mulathamun joined forces with the MUJAO in August 2013 to form al-Mourabitoun. One of their attacks of note was conducting one of the worst hostage crises in decades on an Algerian gas plant, which would result in the death of 38 people. Belmokhtar and al-Mourabitoun re-joined AQIM in late 2015. In November 2016, Belmokhtar was targeted in a French airstrike in Libya. AQIM never confirmed his death, but he has not been seen in public since.

Source: Original text provided by Susanna Goewey and Alexander Thurston.

urged his Saharan lieutenants and the leader of Ansar Dine, Iyad ag Ghali, to cultivate local support to resist a foreign military intervention (Associated Press, 2013[56]). He criticised their decision to declare an Islamic State in Azawad, to enforce religious law by force and complained about the destruction of the Timbuktu shrines, which were strongly condemned by the international community. Droukdel also opposed the decision to terminate the strategic alliance forged with the MNLA that would have provided additional military strength and local legitimacy to the jihadists (Box 2.4 and Box 2.5).

In recent years, controversies on the use of violence against civilians have also contributed to dividing Boko Haram, the jihadist organisation active in the Lake Chad region. Founded by Mohammed Yusuf around 2002, the group has historically been led by two deputies, Abubakar Shekau and Mamman Nur, and a close associate, Khalid al-Barnawi (Campbell and Page, 2018[62]). After Nigerian government forces killed Yussuf in custody in 2009, Nur and al-Barnawi broke with Shekau to establish Ansaru, a group that targeted Christians and security forces. The use of indiscriminate violence against civilians by Shekau is one of the many factors that has motivated this split. In 2016, disagreement within the Boko Haram leadership over the killings of civilians led to yet another split within the organisation (Thurston, 2018[7]). In August, the Islamic State announced that it had appointed Abu-Musab

al-Barnawi as the new leader of the Islamic State West Africa Province (ISWAP), the name adopted by Boko Haram since March 2015 under the leadership of Shekau. The organisation split between a faction supporting the newly appointed Barnawi and a faction supporting Shekau, who referred to his group as Jama'at Alhul Sunnah Lidda'wati wal Jihad, the name previously adopted by Boko Haram until it pledged allegiance to the Islamic State (Zenn, 2019[63]).

Far and near enemy

Another central point of contention within violent organisations is whether they should target local regimes, which they see as corrupt and apostates, or their international allies, such as the United States, France and Israel. The debate around the near and far enemies of Islam is as old as the Salafi-Jihadist ideology. In the late 1970s, Mohammed Abdelsalam Faraj, the Egyptian leader of the Islamist group al-Jihad involved in the assassination of Anwar Saddat argued that the jihadist movement should target the near enemy represented by political regimes in the Muslim world rather than focusing on Israel, the far enemy (Brooke, 2011[64]). Faraj thought that the establishment of a caliphate in the countries ruled by secular regimes was a precondition to the (re)conquest of Israel.

Other Islamist thinkers strongly contested this vision and argued that jihadists around the world were part of a broader fight that aimed at reconquering Israel and expelling non-Muslims from Muslim countries. The main proponents of this internationalist approach were Osama Bin Laden and Ayman al-Zawahiri, who published a legal opinion (*fatwa*) known as the "International Islamic Front for Jihad on the Jews and Crusaders" in 1998. The *fatwa* indicates that the killing of civilian and military Americans and their allies "is an individual duty for every Muslim who can do it in any country in which it is possible to do it, in order to liberate the al-Aqsa Mosque and the holy mosque [Mecca] from their grip, and in order for their armies to move out of all the lands of Islam" (Bin Laden et al., 1998[65]). The new focus given by Bin Laden and al-Zawahiri on the far enemy and its expanded definition to the United States provoked major disputes with Abu Musab al-Zarqawi, Abdullah Yusuf Azzam and the Taliban, who advocated a much more localised jihad in Iraq and Afghanistan.

Despite strong resistance, Al Qaeda played an important role in re-orienting the nationalist orientation of many local Islamist groups, at least officially. These local franchises opportunistically used the Al Qaeda brand to attract international recognition. The Algerian Civil War provides a good illustration of these shifts. When the war started in 1991, Islamist groups initially targeted state security personnel (the local enemy) but, as the violence intensified in the 1990s, internal struggles within Islamist groups over the definition of the enemy rose rapidly (Le Sueur, 2010[66]). Within GSPC, leaders such as Hassan Hattab wanted to target state representatives and develop a national agenda. In contrast, others wanted to expand the fight to the far enemy, particularly France, as Al Qaeda recommended. Nabil Sahrawi eventually replaced Hattab in 2003, who joined the national reconciliation programme in 2005. GSPC changed its name to AQIM in 2007 under the leadership of Abdelmalek Droukdel and declared its intention to attack American and European targets.

In recent years, the debate on the primacy of the near or far enemy has been obscured by the fact that Western countries have intervened militarily in Muslim countries, and have paradoxically become much closer to Salafi-Jihadists movements than before. In the Middle East and Afghanistan, the United States and other Western countries such as France can now be seen both as a near and far enemy by violent organisations. Therefore, there is a need to distinguish between the intended impact of an attack and its actual geographic location. Both can be near or far (OECD/SWAC, 2020[67]). Violent organisations that target the far enemy do not necessarily have to carry out attacks far away from their home countries. They can choose to target individuals or interests locally, by taking hostages or attacking bars, restaurants and hotels frequented by foreigners. While armed groups may direct their propaganda against the far enemy, their immediate attacks may be much more limited geographically.

Some attacks may target local regimes (near enemy) and be intended to produce near impacts. In a region where extremist organisations have

rarely developed a global agenda and have limited organisational and military means, this pattern characterises the vast majority of violent organisations. An example is when Islamist militants of Boko Haram kill representatives of the Nigerian state and Christian populations in the Lake Chad region. Near-enemy attacks can also be conducted in order to bring about change in foreign or global politics. This occurs when terrorist groups attack facilities owned or operated by Westerners, such as the Radisson Blu Hotel attack in Bamako in 2015 by AQIM and al-Mourabitoun.

Militants can also choose far-enemy targets to induce change in local politics. In the early 2000s, for example, GSPC kidnapped 32 European tourists in the Sahara, in order to bring resources to a movement that was essentially targeting the Algerian government. The ransom paid by European governments substantially helped the GSPC to expand its operations south of the Sahara. Finally, militants can conduct far-enemy attacks intending far impacts to strike at the heart of Western countries while maximising the global audience. While spectacular, these attacks are rare, because none of the regional franchises of Al Qaeda and the Islamic State in North and West Africa has the ability to conduct military operations far from their homeland.

Resources

The availability and distribution of resources is another popular explanation for the rivalries observed within violent organisations, particularly when these resources can help fight central governments (Fjelde and Nilsson, 2012[40]). In the Sahara-Sahel, where most of the resources come from the ability to move people and goods rather than from localised industrial production (Retaillé and Walther, 2013[68]), the lucrative business of trafficking drugs and arms has become a source of versatile conflicts and alliances, which transcend political and religious boundaries between groups (Walther and Tisseron, 2015[36]). Money flows generated by trafficking explain many episodes of violence between armed groups that compete for control of key trans-Saharan roads. Rebel groups, traffickers and terrorist organisations have increasingly targeted artisanal mines in eastern Burkina Faso, Mali and Niger, where mining has intensified since the early 2010s due to the discovery of new goldfields (International Crisis Group, 2019[69]).

Occasionally, groups forge alliances of convenience in order to conduct their business and maintain their influence. Two such deals took place between northern businesspersons and warlords in the commune of Anéfis, Mali in October 2015 and 2017, with the aim of keeping smuggling routes open and diminishing competition among traffickers (International Crisis Group, 2018[70]). Local traffickers and political leaders negotiate such deals in parallel with peace negotiations with the Malian state and its international backers. Yet, there are reasons to believe that the extent of the drug-terror nexus has often been exaggerated in the region (Lacher, 2013[71]). First, politically motivated organisations affiliated with Al Qaeda and the Islamic State have not transformed into criminal groups overnight. Their Islamist rhetoric is deeply embedded in their history and does not appear as a mere cover for their criminal activities (Boeke, 2016[72]). Second, jihadist organisations are not the only ones involved in trafficking in the region: state officials, militias, rebel groups and nomadic tribes also participate actively in the circulation of drugs and weapons across the Sahara (Strazzari, 2015[73]). A recent United Nations report (2018[74]) notes, for example, that drug traffickers from eastern Mali used Islamist organisations, pro-government militias and separatist groups for security purposes before the French-led intervention of 2013. Ever since the Accord for Peace and Reconciliation in Mali emanating from the Algiers process was signed in 2015, drug traffickers have sought protection from the signatory armed groups rather than terrorist organisations "in order to be less exposed" and benefit from their legitimacy (United Nations, 2018, p. 33[74]).

Structure

Fragmentation is exacerbated by structural factors that pertain to how each organisation and individual actors within them are tied to each other (Gartenstein-Ross et al., 2019[48]). The need to find a balance between efficiency and security has led violent organisations to adopt a variety of structures. Some organisations such as the Mafia in the United States or the Provisional Irish

Republican Army (IRA) in Northern Ireland have opted for a rather centralised structure in which decisions and resources flow from the top down. These structures are theoretically more efficient than decentralised ones but are also less resilient to threats, which explains why they are particularly rare. Instead, most criminal and terrorist organisations tend to adopt a decentralised structure built around independent cells that are unlikely to compromise the entire structure if destroyed, and loose hierarchies where great autonomy is granted to regional commanders (Price, 2019[4]). Decentralised networks in which individual cells are relatively independent of the core include such diverse organisations as the Islamic State or the local franchises of Al Qaeda in Africa and the Arabian Peninsula. Their relative lack of formal hierarchy makes them difficult to dismantle but also much more challenging to co-ordinate than centralised networks.

The balance between efficiency and security is frequently the source of significant tensions within violent non-state organisations, which are often bitterly split between those who emphasise greater co-ordination and those who prefer decentralised units. Extant research has focused on two important factors. First, studies focusing on intragroup dynamics suggests that the internal structure of warring groups is central to explaining the trajectories of insurgent groups (Staniland, 2014[47]). Social ties forged before and during war make violent organisations more cohesive and less prone to factionalisation. They also facilitate recruitment and allegiance during conflicts. Second, research has shown that extremist organisations were often bitterly divided by ethnic, tribal and national fault lines that crippled their growth and prevented their transnational expansion (Moghadam and Fishman, 2011[49]).

In that respect, pastoralist societies are particularly prone to fragmentation, a principle highlighted by structural anthropologist Evans-Pritchard (1940[75]), who noted that factions of the same order tended to attack each other, while they united against factions of a superior order. For example, in a society divided into tribes and factions, two factions belonging to the same tribe would attack each other but ally with one another against another tribe. More generally, many conflicts within North and West African violent organisations reflect tribal, regional and social divisions. The Tuareg, a nomadic society that thus far has been unable to unite at the national or supranational level despite sharing a common linguistic and cultural heritage, provide a good example of this structural principle.

The Tuareg society is divided between several groups defined according to social status and racial categories: noble warriors (*imajeghen*), religious scholars (*ineslemen*), dependents or vassals (*imghad*), craftsmen (*inadan*) and former slaves (*iklan*) (Lecocq and Klute, 2019[76]). All but the craftsmen and the former slaves are perceived to be racially white. Noble tribes, such as the Ifoghas, have conflicting relationships with vassal tribes, other noble tribes from other regions, and with former slaves, also called *bellah* locally. These conflictual relationships were exacerbated during the 1990 rebellion in Mali, during which former slaves took arms against their former masters (Lecocq, 2005[77]). The Popular Liberation Front of Azawad (FPLA) and the Revolutionary Army for the Liberation of the Azawad (ARLA) represented lower social strata while the Peoples Movement for the Liberation of Azawad (MPLA) represented nobility. Similar divisions marked the 2012 Tuareg rebellion: MNLA, Ansar Dine and HCUA represented the Ifoghas nobles while the Imghad Tuareg Self-Defense Group and Allies (GATIA) militia of General El Hadj ag Gamou represented the vassals (Box 2.6). Other fault lines include wealth differentials between individuals enriched by the trafficking business and those whose livelihood has been destroyed by repeated droughts and the collapse of the tourist industry. Finally, bitter disputes oppose the chiefs who had allied with the government since the rebellion of 1963 to preserve their privileges and unemployed young men who came back from Algeria and Libya in the 1990s (Lecocq, 2004[78] and OECD/SWAC, 2020[67]).

In addition to structural factors, fragmentation can also be explained by more mundane factors such as dissatisfaction with leadership, managerial issues, perception of incompetence or corruption (Asal, Brown and Dalton, 2012[39]). The letters exchanged between radical leaders and their subordinates as well as the documents recovered during raids against them usually

Box 2.6
Opportunistic shifts in Mali and Niger

The recent history of the Sahel provides many examples of opportunistic actors who do not hesitate to pass from the ranks of the army to the rebellion, from the rebellion to religious extremists, and from religious extremist groups to the rebellion or pro-government groups, if circumstances are favourable.

Iyad ag Ghali, the current leader of JNIM, is a case in point. Born in a noble Tuareg tribe of the Kidal region in Mali, ag Ghali fought as a mercenary in the Foreign Legion of the late Colonel Gaddafi in the 1980s and as a rebel in his own country in the 1990s. In the early 2000s, ag Ghali then worked as a negotiator for the Malian government in a hostage release and was appointed as a diplomat in Saudi Arabia in 2008. Having established ties with Islamists, he returned to Mali, unsuccessfully tried to take the lead of the secessionist MNLA movement before founding Ansar Dine, a jihadist group that merged with other radical groups in 2017 to form JNIM (Walther and Christopoulos, 2015[79]).

A similar trajectory characterises the career of Brigadier General El Hadj ag Gamou, who comes from a vassal Tuareg tribe near Menaka, in eastern Mali. Ag Gamou started his career as a foreign fighter in the Foreign Legion in 1980 where he met ag Ghali. He took part in the conflicts in Syria, Libya and Lebanon before returning to Mali in 1988. There, he joined the Tuareg rebellion of the early 1990s as part of the FPLA before integrating into the Malian army. During the latest rebellion, ag Gamou took part in the fight against the MNLA and the Islamist groups. He created his own militia in 2014 while still a member of the Malian army.

Other cases are well documented. In Niger, Aghaly Alambo started as a rebel within the Niger Movement for Justice (NMJ) before becoming the advisor to the President of the National Assembly (Grégoire, 2013[80]). In Mali, the jihadist Oumar Ould Hamaha successively belonged to AQIM, Ansar Dine and MUJAO before being killed by French forces in the north of the country in 2014 (Boeke, 2016[72]). Another example of shifting allegiance is Assalat ag Habi, a senior Malian officer and former rebel who defected from the army in 2011, joined the MNLA and founded the Movement for the Salvation of Azawad (MSA) (Desgrais, Guichaoua and Lebovich, 2018[81]). A few weeks after being arrested by French soldiers, the former police chief of MUJAO, Yoro Ould Daha, was released by the Malian government and joined a pro-government faction of the MAA (Walther and Tisseron, 2015[36]).

Source: Original text provided by Olivier Walther.

provide a rare glimpse into these internal struggles (Associated Press, 2013[56]). An appealing example from Sub-Saharan Africa is the creation of Ansar Dine in December 2011. The split occurred as a result of the competition for leadership within the Tuareg rebellion. The leaders of the newly founded MNLA refused to appoint Iyad ag Ghali as the new secretary-general of the secessionist movement because they feared that he would be too close to Algeria and too extreme in his Islamist views (Bencherif and Campana, 2017[82]). In reaction, ag Ghali offered his services to AQIM, who ultimately encouraged him to create his own movement, Ansar Dine.

Power[1]

The distribution of power is frequently the source of major disputes within violent organisations. For some authors inspired by neorealist structuralism, power considerations rather than identity and ideology drive the formation and fracturing of rebel alliances (Christia, 2012[35]). Fragmentation results from deliberate calculations rather than a complex set of causal mechanisms that may be outside the control of the individual organisations and their leaderships. Rebel organisations fight to establish or embed themselves in a "minimum winning coalition" possessing "enough aggregate power to win the conflict, but with as few partners as possible so that the group can maximise its share

of post-war political control" (Christia, 2012, p. 240[35]).

As a reaction against the tendency to regard armed rebel movements as coherent challengers to the state, Bakke, Cunningham and Seymour (2012[43]) propose an interpretation of rebellions as being comprised of a shifting set of actors who share a central identity but may also engage in malleable allegiances and possess diametrically opposing interests. Consequently, the organisations that constitute a movement will all claim to share the same overarching identity but will also possess and pursue their own particular interests. It is in this nexus between common purposes of the movement and private interests of its constituent organisations that fragmentation occurs. As organisations compete for leadership and influence among the same constituency, dual contests within a movement can lead to infighting.

Bakke, Cunningham and Seymour (2012[43]) suggest that three related variables can explain internal divisions. The first variable is the number of organisations. Although the existence of many organisations within a movement suggests a multitude of internal differences, numerically fragmented movements may still be internally balanced if they manage to pursue their collective interests in concert. Conversely, a rebellion consisting of only two organisations may suffer from conflicts of interest and strategy, which may lead to infighting between two competing centres of gravity.

The second variable that affects the overall level of fragmentation is the level of institutionalisation that exists between the organisations. Cohesive movements have durable institutional links that tie the organisations together and co-ordinate their behaviour. In contrast, fragmented movements lack the networks that make co-ordinated military and political action possible. Overarching institutional structures such as intra-organisational alliances, central committees and practices of co-ordination with exiled rebels have a cohesive effect on the entire movement. They require that the institutional structures possess breadth and depth to produce political synchronisation, co-ordinate strategic efforts and constrain the actors included in the institutional framework.

The third variable is how power is distributed within the rebellion. The risk of fragmentation rises when power is dispersed across numerous organisations as it opens up windows of opportunity for individual factions to pursue their own interests. The risk of fragmentation decreases in rebellions dominated by one hegemonic organisation, as the ability of subordinate organisations to affect the collective goals of the rebellion is limited.

In summary, a rebellion will be extremely fragmented if it consists of numerous organisations with weak or no interconnecting institutional links and if power is dispersed among the groups. In contrast, a rebellion will be extremely cohesive if it consists of few organisations tied together by strong institutional links and if power is concentrated in one hegemonic organisation (Walther and Pedersen, 2020[83]).

External factors of fragmentation

Divisions within violent organisations are also reinforced by external factors pertaining to their relationships to the state and to other non-state actors (Seymour, Bakke and Cunningham, 2016[84]). Rebel groups often fight each other instead of forming coalitions when the government lacks repressive power. In Ethiopia's Eritrea and Tigray Provinces, for example, rivalries increased when insurgent groups saw expansion opportunities and faced relatively weaker rivals, including the government (Pischedda, 2018[85]). Counterinsurgency and counterterrorism efforts frequently lead violent organisations to split, either because a faction of the militants decides to surrender or adopts a more peaceful approach to conflict. During the Algerian Civil War, for example, the government of Abdelaziz Bouteflika offered armed Islamist militants the option to take advantage of a new amnesty law or be mercilessly killed by the government.

While peace negotiations are usually favourable to the creation of new coalitions, the signature of peace accords frequently leads to the fragmentation of armed groups. In 1991, for example, peace accords with the Tuareg rebellion were generally followed by internal divisions according to tribal lines (Walther and Tisseron, 2015[36]). Internally divided movements are also

more likely to receive concessions from the state than unitary ones because states often "divide and concede" rather than "divide and conquer" (Cunningham, 2011[86]). In the Sahara-Sahel, states have often encouraged these trends by integrating former rebels into the state apparatus, either in the military or in the government. In Niger, Rhissa ag Boula became an advisor to President Mahamadou Issoufou in 2011 after having played a key role in the 1990–95 and 2007–09 Tuareg rebellions. Other examples of former rebels appointed to government jobs include Aghaly Alambo, who became an advisor to the President of the National Assembly; Mohamed Anako, who presided the Regional Council of Agadez; Rhissa Feltou, the mayor of Agadez; and Issoufou ag Maha, the mayor of Tchirozérine (Grégoire, 2013[80]).

This strategy has been so successful that, for some rebel movements, the objective of the war is not so much to challenge the authority of the state than to claim better access to its resources. Nowhere is this more obvious than in Mali, where alliances between armed groups have been motivated by future political dividends (Desgrais, Guichaoua and Lebovich, 2018[81]). Rebels of the MNLA and other factions have artificially inflated the number of combatants that could be demobilised in order to provide steady jobs to their members in the Malian army. Rebels who had fled the Malian army and fought against it have even demanded that health benefits and salary arrears be paid and that rank progression and privileges during desertion be considered prior to their reintegration into the army (United Nations, 2018[74]).

Internal divisions also arise when states increase or withdraw their support to violent organisations, which they can use as proxies to fight wars within their own territory or abroad. For example, the First and Second Congo Wars were characterised by numerous rebel groups that were supported by neighbouring governments, including Angola, Rwanda and Uganda (Prunier, 2008[87]). Tracing the arc of the Rassemblement Congolais pour la Démocratie (RCD) during the Second Congo War is illustrative. Following the overthrow of Mobutu Sese Seko in 1997, the RCD was the primary proxy force for both Rwanda and Uganda operating against the Congolese government. However, the RCD split in 1999 into two competing factions as the two supporting governments found themselves at odds over who would have full control over the RCD and over valuable and exploitable resources in the Eastern Democratic Republic of the Congo. The relations between the competing RCD factions mirrored the deterioration in the partnership between Rwanda and Uganda and led to open fighting in 1999 and 2000. Although not the only reason for the fragmentation of the RCD, it is also impossible to discuss the split fully without understanding the role of state sponsorship at the time.

This dynamic is present in wars outside the region as well. For instance, the case of the Syrian Civil War clearly shows how foreign support can cause significant divisions within violent organisations. Since its inception, the rebel movement in Syria has faced internal divisions and outright infighting along fault lines of religious extremism, political ideology and power struggles between rivals (Lister, 2015[88]). The Saudi-Qatari rivalry, for example, undermined the Supreme Military Council, an effort to provide a cohesive command structure for the Free Syrian Army (FSA), itself the major umbrella for so-called "mainstream" Syrian rebels (Walther and Pedersen, 2020[83]). While the Saudi government funded secularist groups, the Qatari government funded primarily Islamist groups. With different potential international backers to please, the number of groups proliferated, and the internal cohesion of the FSA diminished. Similarly, the United States and Turkish governments caused divisions among the FSA over the issue of co-operation with the Kurdish People's Protection Units (YPG). While the United States pressed its allies in both the FSA and the YPG to co-operate to fight the Islamic State under the umbrella of the Syrian Democratic Forces (SDF), Turkey rejected any partnership of its FSA allies with the Kurdish YPG (Barfi, 2016[89]). Instead, Turkish forces co-operated with and funded some FSA groups to fight the SDF.

Extant studies on third-part interventions and civil wars focus on their impact on the outcome and duration of conflicts (Findley and Marineau, 2015[90]), primarily by conceiving of the civil war itself as a two-actor model (government vs. armed group). Foreign interventions in

civil wars can either be biased if they support one belligerent over the other, or unbiased otherwise. Generally, studies argue that biased third-party interventions help to shorten wars by tipping the domestic balance of power significantly to one side, while unbiased interventions tend to stagnate the conflict by stabilising the balance of power (Balch-Lindsay and Enterline, 2000[91]; Regan, 2002[92]). From 1816 to 1997, for example, third-party intervention on behalf of the government or the opposition tended to increase the likelihood of a negotiated settlement, while interventions that bolstered both the government and opposition led to longer conflict (Balch-Lindsay, Enterline and Joyce, 2008[93]).

The security outcomes of foreign interventions are still disputed. Recent research conducted at the world level since the end of the Cold War suggests that UN peacekeeping operations mitigate both the impact of fragmentation on conflict duration and intensity, by making conflict shorter and preventing battle deaths (Ari and Gizelis, 2020[94]). In Sub-Saharan Africa, where former colonial powers have intervened repeatedly since the 1960s (OECD/SWAC, 2020[67]), the military interventions launched to protect civilian populations and/or fight against extremist organisations have often led to a militarisation of local politics that encourages authoritarian regimes, to present themselves as the guarantors of international security (Schmidt, 2018[95]).

Other studies eschew the balance of power framework and approach civil wars instead as a series of negotiations between rational actors who nevertheless have only incomplete information about their opponents and the conflict in general (Filson and Werner, 2002[96]; Slantchev, 2003[97]; Smith and Stam, 2004[98]; Walter, 2009[99]). Events, such as battles, serve to "update" actors' information about their own capabilities and those of other actors. Theoretically, complete knowledge of all actor's capabilities would lead to settlement of the conflict through a greater willingness to negotiate. Since interventions can update the incomplete information known by the actors, this literature finds that interventions decrease the duration of civil wars. Cunningham (2006[100], 2010[101]) argues, however, that because interventions increase the number of actors involved in a conflict, they should tend to lengthen civil wars. More actors means a greater risk of information asymmetries and more alliances that could shift. It also introduces a smaller range of acceptable terms for conflict resolution since more parties have demands they want met.

EXPLORING HOW NETWORKS AFFECT CONFLICT COMPLEXITY

It is undeniable that current conflicts in North and West Africa are characterised by complexity in several forms. One key element of this complexity is the involvement of numerous and varied non-state violent organisations in conflicts. Several typologies of non-state organisations have been proposed (overt/covert, value-driven/profit-driven, legal/illegal) to help to highlight key differences between the groups operating in the region. These typologies are useful in identifying why value-based organisations, such as secessionist rebels or jihadist terrorists, pose intractable problems for states as their political goals can threaten the territorial integrity or the overall existence of the state in a way that differs from profit-driven organisations, like mercenary armies. These typologies are also useful as they help to illuminate the limits of what can be known for scientific inquiry of such conflicts. Many of the groups operating in the region are largely covert and illegal, which diminishes the potential for reliable observations of a group's characteristics, such as the number of members or the resources available to them.

Another key element to the complexity of conflicts in the region is the various relationships that violent non-state organisations develop with states and with each other. Because these organisations are often challenging states in the region, there can be incentives for them to work together in pursuit of their goals, even on a temporary or ad hoc basis. However, relatively little is practically known about this aspect of conflict, despite prominent examples of such co-operation in Mali and elsewhere. Much more attention has been given to developing the reasons why

non-state organisations would oppose each other, including factors that have both to do with the internal workings of an organisation and the external circumstances each organisation encounters. Further, the dynamics of both types of relationships, co-operative and oppositional, have been unexplored. This means little is known about which type of relation predominates or how stable these relations may be over time. In sum, the crucial relational element of the complexity of conflicts in the region has not been fully explored.

While many of these details of violent non-state organisations are typically obscured, their actions and effects are not. The attacks they undertake in the pursuit of their goals are well documented in both time and space, and this information can be used to leverage new insights into how different types of organisations relate to the state and each other. To accomplish this requires concepts and methods that focus on the relationships between these organisations, rather than on their various attributes or characteristics, and a set of robust data on the actions they undertake toward each other. This study adopts just such a relational approach using social network analysis to a regional-wide multi-year dataset on attacks initiated by these groups toward other organisations.

While significant gaps remain in the literature on the complexity of conflict involving violent non-state organisations, this study also embraces the clear need to contextualise these issues within the region. Sensitivity to context is applied by mapping how violent organisations are embedded within a larger network of alliances and rivalries. It is also done by recognising the importance of both a geographic and temporal perspective as well. Many of the topics discussed in this chapter have an underlying geography to them, which can in turn lead to spatially uneven outcomes depending on the location or setting in which an organisation primarily operates. For example, while the ideology of an organisation may transcend a specific place or region, such as Islamic extremism, many organisations develop an amalgam of a "global" ideology adapted to specific local, regional or national conditions. Further, any relationships undertaken by violent non-state organisations are unlikely to remain permanent over time. Taken together, this requires ongoing consideration of questions of where and when relationships are undertaken, in addition to the more fundamental questions about who is co-operating with or is in opposition to whom. These approaches and the ideas behind them are discussed further in Chapter 3.

The complexity of today's conflict is also reinforced by external military interventions, which often have a broad impact on the patterns of alliances and rivalries between state forces, rebel groups and violent extremist organisations. Despite recent progress in the conflict literature, the impact of foreign interventions on alliances and rivalries between non-state organisations has rarely been examined formally. One of the objectives of this report is to contribute to filling this gap by adopting a more structural and systematic approach to networks of conflicts. Building on the principles of network analysis, this study assumes that the introduction of a new actor such as an intervening power is likely to alter the balance of power in the conflict environment, potentially leading to more, or less, violence. The outcome of the intervention depends on the relationships between the intervening power and the belligerents as much as on the relationships between the belligerents themselves. The policy implications of this study are quite evident. Understanding the structural consequences of a military intervention is not only crucial for external powers who hesitate to intervene in a conflict, but also for those who are forced to evaluate their contribution after several years of military intervention in a foreign country, as in the Sahel today.

Notes

1 This section builds on Walther and Pedersen (2020[83]) with the authorisation of the authors.

References

Akcinaroglu, S. (2012), "Rebel interdependencies and civil war outcomes", *Journal of Conflict Resolution*, Vol. 56/5, pp. 879–903. [32]

Ari, B. and T. Gizelis (2020), "Civil conflict fragmentation and the effectiveness of UN Peacekeeping Operations", *International Peacekeeping*, pp. 1–28. [94]

Asal, V., M. Brown and A. Dalton (2012), "Why split? Organizational splits among ethnopolitical organizations in the Middle East", *Journal of Conflict Resolution*, Vol. 56/1, pp. 94–117. [39]

Asal, V. et al. (2016), "'With friends like these…' Why terrorist organizations ally", *International Public Management Journal*, Vol. 19/1, pp. 1–30. [31]

Associated Press (2013), *Al-Qaida Papers: Al-Quaida's Sahara Playbook*, AP, www.documentcloud.org/documents/838898-aqp-sahara-playbook.html. [56]

Bacon, T. (2014), "Alliance hubs: Focal points in the international terrorist landscape", *Perspectives on Terrorism*, Vol. 8/4, pp. 1–15. [24]

Bakke, K., K. Cunningham and L. Seymour (2012), "A plague of initials: Fragmentation, cohesion, and infighting in civil wars", *Perspectives on Politics*, Vol. 10/2, pp. 265–283. [43]

Balch-Lindsay, D. and A. Enterline (2000), "Killing time: The world politics of civil war duration, 1820–1992", *International Studies Quarterly*, Vol. 44/4, pp. 615–642. [91]

Balch-Lindsay, D., A. Enterline and K. Joyce (2008), "Third-party intervention and the civil war process", *Journal of Peace Research*, Vol. 45/3, pp. 345–363. [93]

Bapat, N. and K. Bond (2012), "Alliances between militant groups", *British Journal of Political Science*, Vol. 42/4, pp. 793–824. [27]

Barfi, B. (2016), "Ascent of the PYD and the SDF", *Research Notes*, No. 32, Washington Institute for Near East Policy. [89]

Bencherif, A. and A. Campana (2017), "Alliances of convenience: Assessing the dynamics of the Malian insurgency", *Mediterranean Politics*, Vol. 22/1, pp. 115–134. [82]

Bin Laden, O. et al. (1998), *Jihad Against Jews and Crusaders. World Islamic Front Statement*, https://fas.org/irp/world/para/docs/980223-fatwa.htm. [65]

Boeke, S. (2016), "Al Qaeda in the Islamic Maghreb: Terrorism, insurgency, or organized crime?", *Small Wars & Insurgencies*, Vol. 27/5, pp. 914–936. [72]

Brooke, S. (2011), "The Near and Far Enemy Debate", in Moghadam, A. and B. Fishman (eds.), *Fault Lines in Global Jihad: Organizational, Strategic, and Ideological Fissures*, Routledge, New York. [64]

Callimachi, R. (2014), "Paying Ransoms, Europe Bankrolls Qaeda Terror", *The New York Times*. [15]

Callimachi, R. (2013), "In Timbuktu, al-Qaida Left Behind a Manifesto", *Associated Press*, www.pulitzer.org/files/2014/international-reporting/callimachi/04callimachi2014.pdf. [59]

Campbell, J. and M. Page (2018), *Nigeria: What Everyone Needs to Know*, Oxford University Press, Oxford. [62]

Christia, F. (2012), *Alliance Formation in Civil Wars*, Cambridge University Press, Cambridge. [35]

Cunningham, D. (2010), "Blocking resolution: How external states can prolong civil wars", *Journal of Peace Research*, Vol. 47/2, pp. 115–127. [101]

Cunningham, D. (2006), "Veto players and civil war duration", *American Journal of Political Science*, Vol. 50/4, pp. 875–892. [100]

Cunningham, D., S. Everton and P. Murphy (2016), *Understanding Dark Networks: A Strategic Framework for the Use of Social Network Analysis*, Rowman & Littlefield, Lanham. [19]

Cunningham, K. (2013), "Actor fragmentation and civil war bargaining: How internal divisions generate civil conflict", *American Journal of Political Science*, Vol. 57/3, pp. 659–672. [41]

Cunningham, K. (2011), "Divide and conquer or divide and concede: How do states respond to internally divided separatists?", *American Political Science Review*, Vol. 105/2, pp. 275–297. [86]

Cunningham, K., K. Bakke and L. Seymour (2012), "Shirts today, skins tomorrow: Dual contests and the effects of fragmentation in self-determination disputes", *Journal of Conflict Resolution*, Vol. 56/1, pp. 67–93. [44]

de Tessières, S. (2018), "At the Crossroads of Sahelian Conflicts: Insecurity, Terrorism, and Arms Trafficking in Niger", *Small Arms Survey*. [13]

Desgrais, N., Y. Guichaoua and A. Lebovich (2018), "Unity is the exception. Alliance formation and de-formation among armed actors in Northern Mali", *Small Wars & Insurgencies*, Vol. 29/4, pp. 654–679. [81]

Droukdel, A. (c. 2005), *Hiwar ma'a Amir 'Al-Jama'a al-Salafiyya li-l-Da'wa wa-l-Qital' (Dialogue with the Emir of the 'Salafist Group for Preaching and Combat')*, http://www.ilmway.com/site/maqdis/MS_27385.html. [57]

Ellis, S. (1998), *Liberia's Warlord Insurgency*, James Currey, Oxford. [2]

Evans-Pritchard, E. (1940), *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*, Clarendon Press, London. [75]

Filson, D. and S. Werner (2002), "A bargaining model of war and peace: Anticipating the onset, duration, and outcome of war", *American Journal of Political Science*, Vol. 46/4, pp. 819–838. [96]

Findley, M. and J. Marineau (2015), "Lootable resources and third-party intervention into civil wars", *Conflict Management and Peace Science*, Vol. 32/5, pp. 465–486. [90]

Fjelde, H. and D. Nilsson (2018), "The rise of rebel contenders: Barriers to entry and fragmentation in civil wars", *Journal of Peace Research*, Vol. 55/5, pp. 551–565. [38]

Fjelde, H. and D. Nilsson (2012), "Rebels against rebels: Explaining violence between rebel groups", *Journal of Conflict Resolution*, Vol. 56, pp. 604–628. [40]

Gade, E., M. Hafez and M. Gabbay (2019), "Fratricide in rebel movements: A network analysis of Syrian militant infighting", *Journal of Peace Research*, https://doi.org/10.1177/0022343318806940. [37]

Gartenstein-Ross, D. et al. (2019), "When Jihadist factions split: A data-driven network analysis", *Studies in Conflict & Terrorism*, pp. 1–25. [48]

Gerdes, L. (ed.) (2015), *Illuminating Dark Networks: The Study of Clandestine Groups and Organizations*, Cambridge University Press, Cambridge. [20]

Grégoire, E. (2013), "Islamistes et rebelles touaregs maliens: alliances, rivalités et ruptures", *EchoGéo*, https://journals.openedition.org/echogeo/13466. [80]

Hafez, M. (2020), "Fratricidal rebels: Ideological extremity and warring factionalism in civil wars", *Terrorism and Political Violence*, Vol. 32/3, pp. 604–629. [50]

Hoffman, B. (2017), *Inside Terrorism*, Columbia University Press, New York. [6]

Horowitz, M. and P. Potter (2014), "Allying to kill: Terrorist intergroup cooperation and the consequences for lethality", *Journal of Conflict Resolution*, Vol. 58/2, pp. 199–225. [28]

Ibrahim, I. (2017), "The Wave of Jihadist Insurgency in West Africa: Global Ideology, Local Context, Individual Motivations", *West African Papers*, No. 7, OECD Publishing, Paris, https://dx.doi.org/10.1787/eb95c0a9-en. [51]

International Crisis Group (2019), *Getting a Grip on Central Sahel's Gold Rush*, ICG. [69]

International Crisis Group (2018), *Drug Trafficking, Violence and Politics in Northern Mali*, ICG. [70]

Karmon, E. (2005), *Coalitions between Terrorist Organizations: Revolutionaries, Nationalists and Islamists*, Martinus Nijhoff, Leiden. [25]

Kuépié, M., M. Tenikue and O. Walther (2016), "Social networks and small business performance in West African border regions", *Oxford Development Studies*, Vol. 44/2, pp. 202–219. [53]

Lacher, W. (2015), "Libya: A Jihadist Growth Market", in Steinberg, G. and A. Weber (eds.), *Jihadism in Africa: Local Causes, Regional Expansion, International Alliances*, German Institute for International and Security Affairs, Berlin. [16]

Lacher, W. (2013), *Challenging the myth of the drug-terror nexus in the Sahel*, Center on International Cooperation, New York. [71]

Lacher, W. (2011), "Organized crime and terrorism in the Sahel: Drivers, actors, options", *SWP Comments*, Vol. 1. [11]

Larémont, R. (2011), "Al Qaeda in the Islamic Maghreb: Terrorism and counterterrorism in the Sahel", *African Security*, Vol. 4/4, pp. 242–268. [12]

Le Sueur, J. (2010), *Between Terror and Democracy: Algeria Since 1989*, Fernwood, Halifax. [66]

Lecocq, B. (2005), "The bellah question: Slave emancipation, race, and social categories in late twentieth-century northern Mali", *Canadian Journal of African Studies*, Vol. 39/1, pp. 42–68. [77]

Lecocq, B. (2004), "Unemployed intellectuals in the Sahara: The Teshumara nationalist movement and the revolutions in Tuareg society", *International Review of Social History*, Vol. 49/12, pp. 87–109. [78]

Lecocq, B. and G. Klute (2019), "Tuareg Separatism in Mali and Niger", in de Vries, L., P. Englebert and M. Schomerus (eds.), *Secessionism in African Politics*, Palgrave Macmillan, Cham. [76]

Leuprecht, C. et al. (2017), "Hezbollah's global tentacles: A relational approach to convergence with transnational organised crime", *Terrorism and Political Violence*, Vol. 29/5, pp. 902–921. [14]

Levitt, M. (2013), *Hezbollah: The Global Footprint of Lebanon's Party of God*, Georgetown University Press, Georgetown. [10]

Lister, C. (2015), *The Syrian Jihad: Al-Qaida, the Islamic State and the Evolution of an Insurgency*, Oxford University Press, New York. [88]

Mandaville, P. (2014), *Islam and Politics*, Routledge, New York. [5]

Martinez, L. (2000), *The Algerian Civil War, 1990–1998*, Columbia University Press, New York. [54]

McCullough, A. et al. (2017), *Understanding Trajectories of Radicalisation in Agadez*, Overseas Development Institute, London. [52]

Metelits, C. (2009), "The consequences of rivalry: Explaining insurgent violence using fuzzy sets", *Political Research Quarterly*, Vol. 62/4, pp. 673–684. [42]

Miklaucic, M. and J. Brewer (2013), *Convergence: Illicit Networks and National Security in the Age of Globalization*, National Defence University Press, Washington, DC. [8]

Milward, H. and J. Raab (2006), "Dark networks as organizational problems: Elements of a theory", *International Public Management Journal*, Vol. 9/3, pp. 333–360. [21]

Moghadam, A. (2017), *Nexus of Global Jihad: Understanding Cooperation Among Terrorist Actors*, Columbia University Press, New York. [23]

Moghadam, A. and B. Fishman (eds.) (2011), *Fault Lines in Global Jihad: Organizational, Strategic, and Ideological Fissures*, Routledge, New York. [49]

Morselli, C., C. Giguère and K. Petit (2007), "The efficiency/security trade-off in criminal networks", *Social Networks*, Vol. 29/1, pp. 143–153. [17]

Nemeth, S. (2014), "The effect of competition on terrorist group operations", *Journal of Conflict Resolution*, Vol. 58/2, pp. 336–362. [45]

New York Times (2008), "An Interview With Abdelmalek Droukdal", www.nytimes.com/2008/07/01/world/africa/01transcript-droukdal.html. [58]

Nygård, H. and M. Weintraub (2015), "Bargaining between rebel groups and the outside option of violence", *Terrorism and Political Violence*, Vol. 27/3, pp. 557–580. [46]

OECD/SWAC (2020), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/02181039-en. [67]

Oliver, K. et al. (2014), "Covert Networks: Structures, Processes, and Types"*, University of Manchester Mitchell Centre Working Paper*. [22]

Ould M. Salem, L. (2014), *Le Ben Laden du Sahara: Sur les traces du jihadiste Mokhtar Belmokhtar*, Éditions de la Martinière, Paris. [61]

Phillips, B. (2018), "Terrorist group rivalries and alliances: Testing competing explanations", *Studies in Conflict & Terrorism*, pp. 1–23. [30]

Phillips, B. (2014), "Terrorist group cooperation and longevity", *International Studies Quarterly*, Vol. 58/2, pp. 336–347. [34]

Pischedda, C. (2018), "Wars within wars: Why windows of opportunity and vulnerability cause inter-rebel fighting in internal conflicts", *International Security*, Vol. 43/1, pp. 138–176. [85]

Popovic, M. (2018), "Inter-rebel alliances in the shadow of foreign sponsors", *International Interactions*, Vol. 44/4, pp. 749–776. [29]

Price, B. (2019), *Targeting Top Terrorists: Understanding Leadership Removal in Counterterrorism Strategy*, Columbia University Press, New York. [4]

Prunier, G. (2008), *Africa's World War: Congo, the Rwandan Genocide, and the Making of a Continental Catastrophe*, Oxford University Press, Oxford. [87]

Regan, P. (2002), "Third-party interventions and the duration of intrastate conflicts", *Journal of Conflict Resolution*, Vol. 46/1, pp. 55–73. [92]

Reno, W. (2011), *Warfare in Independent Africa*, Cambridge University Press, Cambridge. [1]

Retaillé, D. and O. Walther (2013), "Conceptualizing the mobility of space through the Malian conflict", *Annales de Géographie*, Vol. 6, pp. 595–618. [68]

Ruggiero, V. (2019), *Organized Crime and Terrorist Networks*, Routledge, London. [9]

Schmidt, E. (2018), *Foreign Intervention in Africa After the Cold War: Sovereignty, Responsibility and the War on Terror*, Ohio University Press, Athens. [95]

Seymour, L., K. Bakke and K. Cunningham (2016), "E pluribus unum, ex uno plures: Competition, violence, and fragmentation in ethnopolitical movements", *Journal of Peace Research*, Vol. 53/1, pp. 3–18. [84]

Siegel, P. (2013), "AQIM's playbook in Mali", *CTC Sentinel*, Vol. 6/3, pp. 9–11. [55]

Slantchev, B. (2003), "The power to hurt: Costly conflict with completely informed states", *American Political Science Review*, Vol. 97/1, pp. 123–133. [97]

Smith, A. and A. Stam (2004), "Bargaining and the nature of war", *Journal of Conflict Resolution*, Vol. 48/6, pp. 783–813. [98]

Staniland, P. (2014), *Networks of Rebellion: Explaining Insurgent Cohesion and Collapse*, Cornell University Press, Ithaca. [47]

Steinberg, G. and A. Weber (eds.) (2015), *Going "glocal": Jihadism in Algeria and Tunisia*, German Institute for International and Security Affairs, Berlin. [26]

Strazzari, S. (2015), "Azawad and the rights of passage: the role of illicit trade in the logic of armed group formation in northern Mali", in *Norwegian Peacebuilding Resource Centre Report*. [73]

Thurston, A. (2018), *Boko Haram: The History of an African Jihadist Movement*, Princeton University Press, Princeton. [7]

United Nations (2018), *Letter dated 8 August 2018 from the Panel of Experts established pursuant to resolution 2374 (2017) on Mali*, United Nations Security Council, New York. [74]

Van der Hulst, R. (2011), "Terrorist networks: The threat of connectivity", in Scott, J. and P. Carrington (eds.), *The SAGE Handbook of Social Network Analysis*, Newbury Park. [18]

Walter, B. (2009), "Bargaining failures and civil war", *Annual Review of Political Science*, Vol. 12, pp. 243–261. [99]

Walther, O. and D. Christopoulos (2015), "Islamic terrorism and the Malian rebellion", *Terrorism and Political Violence*, Vol. 27/3, pp. 497–519. [79]

Walther, O. and W. Miles (eds.) (2018), *African Border Disorders. Addressing Transnational Extremist Organizations*, Routledge, New York. [3]

Walther, O. and P. Pedersen (2020), "Rebel fragmentation in Syria's civil war", *Small Wars & Insurgencies*, Vol. 31/3, pp. 445–474. [83]

Walther, O. and A. Tisseron (2015), "Strange bedfellows: A network analysis of Mali's northern conflict", *The Broker*. [36]

Weiss, C. (2017), "Merger of al Qaeda groups threatens security in West Africa", *FDD's Long War Journal*. [33]

Wojtanik, A. (2015), *Mokhtar Belmokhtar: One-Eyed Firebrand of North Africa and the Sahel*, West Point, Combating Terrorism Center. [60]

Zenn, J. (2019), "Boko Haram's factional feuds: Internal extremism and external interventions", *Terrorism and Political Violence*, http://dx.doi.org/10.1080/09546553.2019.1566127. [63]

Chapter 3

A dynamic analysis of conflict networks in North and West Africa

Conflicts in North and West Africa are characterised by a high degree of complexity in which hundreds of rebel groups and violent extremist organisations are involved in a shifting series of alliances and rivalries with government forces and with each other. In order to map this complex conflict environment, this chapter develops a novel approach, known as dynamic social network analysis (DSNA) capable of modelling the creation and dissolution of ties, either positive or negative, among a violent group of actors over time. The DSNA approach relies on several metrics that show how co-operative and opposition networks evolve, change and adapt to foreign military interventions. The analysis of the evolution of conflict networks is conducted at the regional level (North and West Africa) and through three case studies (Mali and Central Sahel, Lake Chad, Libya). It leverages political event data from the Armed Conflict Location & Event Data Project (ACLED) that has catalogued violent extremist incidents in Africa since 1997.

KEY MESSAGES

- **Political violence is a relational process in which the structure underpinning the network of allies and foes provides constraints and opportunities for violent organisations.**
- **Relational approaches are well adapted to capture the complexity of contemporary conflicts due to their ability to represent and model networks of large numbers of actors that contain both positive and negative relations.**
- **Networks with positive ties convey more resources, ideas and knowledge than networks based on hatred, avoidance or conflict, which tend to aim at neutralising foes.**
- **The report introduces a dynamic approach to conflict networks to assess which violent organisations are the most structurally important and what the overall architecture of the conflict environment is in North and West Africa.**
- **The study also develops several simple metrics that measure how co-operation and opposition networks change over time, particularly with respect to foreign military interventions.**

A NETWORK APPROACH TO ALLIANCES AND RIVALRIES

This report adopts a formal analytical approach known as social network analysis (SNA) to map the changing relationships between government forces, rebels, violent organisations and civilians across North and West Africa. Unlike other social science approaches that might focus on the military strength or ideology of the belligerents, SNA assumes that political violence is a relational process in which the structure underpinning the network of allies and foes provides both constraints and opportunities for violent organisations.

Relational approaches such as SNA have been increasingly used since the early 2000s to model terrorist and criminal networks whose structure is often elusive and versatile (Krebs, 2002[1]; Pedahzur and Perliger, 2006[2]; Koschade, 2006[3]; Everton, 2012[4]; Zech and Gabbay, 2016[5]). It is only recently that formal approaches have been applied to Sub-Saharan Africa (Walther and Christopoulos, 2015[6]; African Networks Lab, 2020[7]). In North and West Africa, for example, actors in conflict form sparse and decentralised networks in which jihadist organisations such

Box 3.1
Clarifying terms

This report focuses on all forms of political violence in North and West Africa, including military attacks, rebellions, terrorism and communal violence. The term "**conflict**" used in the report refers to prolonged conditions of open fighting between groups, organisations or government forces without formal declarations of war or the possibility of an armistice. It describes a particular armed struggle, such as "the Malian conflict", or characterises warfare in general, as when the report discusses "actors in conflict" or a "conflict network". For this reason, conflicts differ from formal wars between states that typically have a clear beginning and end. In a region where inter-states wars are rare, the vast majority of the armed struggles studied in this report are conflicts rather than wars.

Several terms are used to describe the relationships, outcomes and structural properties that form a conflict network (Table 3.1). Positive relationships (or "ties" in the language of networks) between organisations are described as "**co-operation**", while negative ties are described as "**opposition**". The outcome of co-operative ties between groups is an "**alliance**", while the outcome of opposition ties is a "**rivalry**". In structural terms, alliances tend to reinforce the "**cohesion**" of the conflict network, whereas rivalries encourage "**fragmentation**".

Table 3.1
Various terms used for positive and negative ties, outcomes and properties

	Positive	**Negative**
Ties	Co-operation	Opposition
Outcome	Alliances	Rivalry
Structural properties	Cohesion	Fragmentation

Source: Authors.

as Al Qaeda in the Islamic Maghreb (AQIM) or Boko Haram occupy a prominent structural position due to their conflicts with civilian and government forces in several countries (Walther, Leuprecht and Skillicorn, 2018[8]). In Central Africa, recent research confirms that conflict networks are deeply embedded in the larger society. In the Democratic Republic of Congo, for example, demobilised combatants maintain extensive personal connections with many armed groups, blurring the distinction between covert and overt networks (Stys et al., 2019[9]).

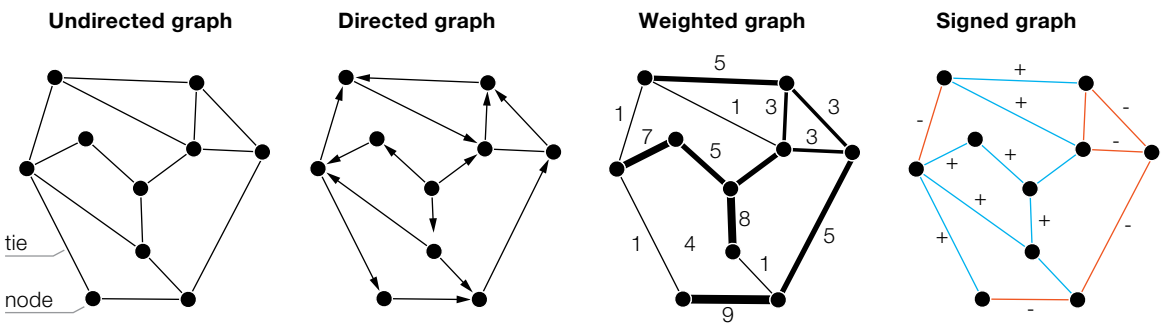
In East Africa, social networks contribute to explaining how violent groups emerge and lead to intergroup conflict (Box 3.1). Among the Nyangatom agro-pastoralists who live between South Sudan and Ethiopia, for example, violent raids to capture livestock are initiated by leaders who are particularly central in the network of raiders (Glowacki et al., 2016[10]). Other individuals are more likely to participate in intergroup violence if they are directly connected by friendship to a leader of a raid, suggesting that violence is affected by an individual's position in a social network. Similarly, studies conducted in Rwanda show that participation in genocidal violence is partly determined by the interpersonal networks in which individuals were embedded: individuals who are strongly connected through kinship or neighbourly ties are more likely to participate in killings than others (McDoom, 2014[11]).

Social network analysis

A social network is a set of individuals or groups that are connected to each other. Taken together, the collected set of actors and the relationships that connect them can be thought of as forming a network. In a basic sense then, social network analysis is the investigation of social patterns

Figure 3.1

Sociograms showing different ways to represent social ties between nodes



Source: Adapted from OECD/SWAC (2017[12]), *Cross-border Co-operation and Policy Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264265875-en.

through these networks. Accordingly, SNA has developed a set of distinctive theoretical perspectives. Chief among these is a focus on the relationships between actors rather than on the attributes of actors, such as age, gender or nationality, and an assumption that actors are interdependent rather than independent. SNA also argues that the structure of a social network impacts the choices and conduct of actors and that social networks have emergent effects that are more than the sum of their parts.

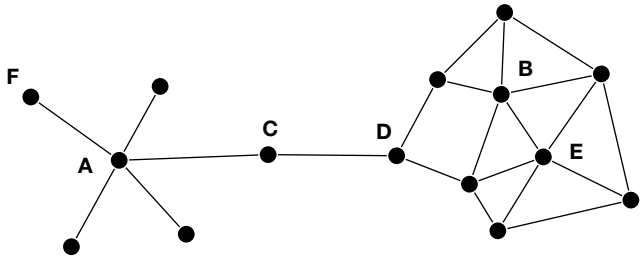
SNA has also developed distinctive concepts and associated terminology to support the investigation of social networks, which merit some mention here. For example, a social network is often represented visually with a specialised graph called a **sociogram** (Figure 3.1). In such graphs, each actor is a **node**, and the presence of a relationship is called a **tie**. A pair of nodes is known as a **dyad** and represents the smallest possible example of a network. However, a common level of analysis in a network is among **triads**, or groups of three nodes. Larger numbers of nodes can form a sub-community within a network, and these are typically referred to as a **clique**.

Because SNA emphasises relationships, the ties between nodes are important aspects of sociograms. Ties between actors can be **directed**, when the relationship involves some form of direction (sending and receiving information, for instance), or **undirected**, when the relationship does not imply directionality (such as friendship) or when the direction of the relations between actors is unknown. Networks can be **weighted** when the ties connecting actors have a value that varies in strength or intensity, or **unweighted** when only the presence or absence of a tie is represented. Finally, ties can represent positive relations, such as friendship or collaboration, or negative relations, such as opposition, avoidance or hatred. These **signed** networks are the main topic of this report (Figure 3.1).

Several concepts in SNA involve aspects of relations at the dyadic level. An important example between two actors is the idea of **reciprocity**, referring to a situation within which two actors acknowledge that they are engaged in mutual interaction. Reciprocity has various implications for the actors involved in opposition and co-operation networks. When organisations are opposed to each other, reciprocity is almost always guaranteed. Similarly, organisations that establish political or military alliances with other organisations expect that their partners will also treat them as allies.

Other important concepts emphasise the situation of individual actors within the entire network. For instance, the overall importance, influence or prominence of an actor is often deduced from their **centrality** to the set of relations in the network. Numerous measures have been developed to measure how centrality varies according to the structural context in which actors are embedded (Borgatti, 2005[13]; Everett and Borgatti, 2010[14]). Among the most commonly used forms of centrality are degree, eigenvector, betweenness and closeness centrality:

Figure 3.2
Degree, eigenvector, betweenness and closeness centrality

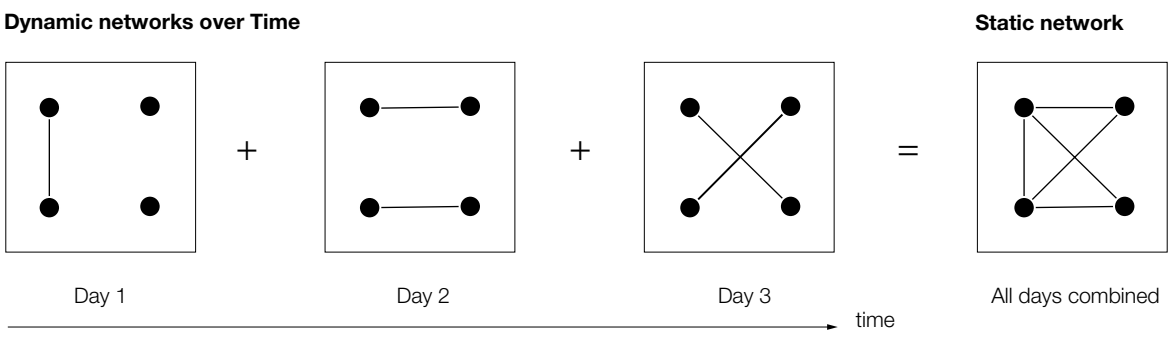


Source: OECD/SWAC (2019[15]), *Women and Trade Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://doi.org/10.1787/7d67b61d-en.

- **Degree centrality**: Certain actors are central because they have numerous connections with others. Their high degree centrality indicates that they are rooted within a dense community of friends, parents or allies, which impart confidence and stability. Degree centrality is a local measure that simply counts the number of ties that an individual or an organisation possesses. It does not consider ties at further degrees of separation within the entire network, which can also have impacts on individual autonomy. In the network portrayed in Figure 3.2, for example, actors A, B and E have the highest degree centrality with five links each. Their structural positions, however, differ when the whole network is considered: while B and E are linked to other actors that are themselves well-connected, A is connected to four actors that are only linked to him or her.
- **Eigenvector centrality**: The number of relationships is often less important than their quality. If it is important to be connected to many people, it is also crucial to be connected to individuals who are themselves central, such as B and E in Figure 3.2. Eigenvector centrality measures the degree to which nodes are connected to other well-connected nodes and is an indicator of influence. Eigenvector centrality is a general measurement that reflects structural constraints within a network better than degree centrality.
- **Betweenness centrality**: Some actors are considered central because they link communities that, without them, would be disconnected. These brokers have a high betweenness centrality because they have access to resources or information that is not immediately available in their community of origin. In West Africa, large traders leverage this form of centrality by taking advantage of different legislative environments in different countries to supply markets (OECD/SWAC, 2019[15]). Actor C in Figure 3.2 has a very high betweenness centrality because it connects two subgroups.
- **Closeness centrality**: Centrality can reflect the distance that separates individuals or organisations from the rest of the network. This closeness centrality is particularly important for actors that are the closest to the highest spheres of political and economic power without actually being in charge. Closeness centrality assumes that every actor in the network is connected by at least one link, such as in Figure 3.2, where actor F is particularly far away from the centre of the network and, as a result, has quite weak closeness centrality.

The centrality of a node depends not just on the number of ties that they have established with their immediate neighbours, but also on the overall structure of the network. SNA has developed numerous metrics to capture global structural constraints and opportunities upon which individual actors have little control. While the concept of centrality can assess the structural role of an individual node, the concept of **centralisation** describes the general shape of a network, or topology. It indicates whether the network is more or less centralised according

Figure 3.3
Dynamic and static social network analysis



Source: Adapted from Uddin, S., A. Khan and M. Piraveenan (2015[18]), "A set of measures to quantify the dynamicity of longitudinal social networks", *Complexity*, Vol. 21/6, pp. 309–320.

to various centrality measures. Centralised networks are built around certain very well-connected actors who possess numerous ties to other actors (degree), are capable of playing an intermediary role between disconnected clusters (betweenness), are very close to the centre of the network (closeness) or are well-connected to other central actors (eigenvector).

An example of a very centralised network is the star network, in which all actors are connected to a central node without being connected to each other. This kind of structure is known for generating relations of dependence between the centre and the periphery while being very effective in transmitting information, orders and resources. American mafia networks are an example of a strongly centralised network in which power is concentrated in the hands of a few influential actors, who transmit orders to the bottom of the pyramid (Mastrobuoni and Patacchini, 2012[16]).

By contrast, decentralised networks have few exceptionally well-connected actors, and their measures of centralisation are generally weak. The lack of a central authority makes these networks far less capable of co-ordinating sophisticated activities than centralised networks, but also quite resilient to external attacks and more egalitarian when it comes to the distribution of roles and resources. The "leaderless" network suggested by Marc Sageman (2008[17]) to characterise the current organisation of global jihadist organisations is an example of a decentralised structure in which individual cells possess a great degree of autonomy to plan and conduct attacks around the world.

Dynamic social network analysis

Traditional SNA represents networks at single moments in time and explores the associated concepts described above with the assumption that the set of actors and relations among them are stable across the duration captured by the analysis. As this assumption is often not met with most real-world phenomena, dynamic social network analysis, or DSNA, has been advanced to explore "structural positions of actors across sets of network data that have been collected in time periods [that are] shorter than the overall duration of the longitudinal social network" (Uddin, Khan and Piraveenan, 2015: 2[18]).

Because DSNA emphasises the realisation of relationships over time, it is a fundamentally different form of investigation from a traditional SNA. Figure 3.3 illustrates some key differences between a static network approach and a DSNA approach. Given a set of actors and some relation between them, ties can be observed across a defined time interval (in this case, a total duration of three days is arbitrarily chosen, but the same approach can be applied to much longer time periods).

A traditional SNA approach would be to summarise and aggregate all the ties present at any time point during that total duration into a single network indicated by the right-most graph. This would yield one network for the time

period in question but would not record information about which tie came first or second, the duration or persistence of ties over time, and so on. In other words, the resulting aggregated network gives minimal insight into the dynamic process that yielded the overall outcome. It also assumes that once a tie is present, it is permanent. In contrast, a DSNA approach would observe the same group of actors but at multiple time intervals, which allows for a consideration of the issues described above. Consequently, there is no single aggregated network associated with a DSNA. Instead, there are a series of sequenced networks, one for each observed time period.

A DSNA approach is inherently descriptive, recording when actors come and go and when ties form and end. Several key DSNA metrics have been proposed, including connectivity, communities, and influence (Nicosia et al., 2013[19]). Similar to static social network analysis, these are metrics that emphasise measurement either at the level of individual actors, such as degree centrality, or at the level of the entire network, such as network centralisation. The key difference in these DSNA metrics from their SNA counterparts is in the inclusion of time, which can influence methods that are based on tie paths, such as betweenness and closeness centrality. As tie paths may come and go over time, DSNA metrics often require some adjustment to account for this dynamism from their more traditional static counterparts (Grindrod et al., 2011[20]; Holme and Saramäki, 2012[21]).

DSNA is especially useful when a group operates over long periods, as it allows for a temporally disaggregated understanding of their relationships and actions. For example, the Islamist group Ansar al-Sharia (AaS) operated between 2012 and 2017 in eastern Libya and was responsible for more than 130 attacks during that time (ACLED, 2019[22]). Their efforts were mostly focused against the forces of the Libyan National Army (LNA), the de facto secular government in the east since 2015. As part of the larger Islamist military coalition called the Shura Council of Benghazi Revolutionaries (SCBR) formed in mid-2014, AaS routinely co-operated with other Shura Council groups, like the February 17th Martyrs and the Libya Shield Brigade. Taking a static network approach over the duration of AaS's existence would simply result in a network showing a single co-operative tie with other Shura groups. However, a finer-grain perspective over time shows that these co-operative relationships actually ebbed and flowed. AaS conducted numerous attacks with other Shura groups between June and August 2014 but operated alone for much of the remainder of 2014. Co-operation then resumed at the beginning of 2015. Without the perspective offered by DSNA, this gap in co-operation could not be observed, and shorter-term changes in a group's position in a conflict network would be invisible.

DSNA's focus on how ties may change over short time intervals has led to efforts to measure the creation and dissolution of ties, either positive or negative, among a group of actors over time (Snijders, Van de Bunt and Steglich, 2010[23]). This approach helps to understand how networks evolve, change, adapt and how they can be destabilised (Carley, Lee and Krackhardt, 2002[24]; Carley, 2003[25]; Carley and Pfeffer, 2012[26]; Everton and Cunningham, 2013[27]). The principle behind this approach is to detect changes in a network over time. In Syria, for example, examining the daily changes in overall network density among the various groups involved in the conflict showed how the United States intervention between 2014 and 2018 had two separate effects. First, anti-Assad groups increased their co-operation with each other to pursue their goals of overthrowing the regime just by taking on nominal opposition to the Islamic State. A similar effect occurred among pro-Assad groups, and Iran activated and mobilised several militias that all co-operated with one another. The net effect was a steady increase in the overall amount of co-operation among many groups, even as conflict remained focused on the Syrian regime and the Islamic State rather than with each other. The second effect was to draw in other foreign interveners, primarily the Russians, in fear of a defeat for Assad. This served to prop up Assad in a way the Iranians could not, and made it harder for any group to change their position. Until either the Islamic State or Assad was defeated, the patterns of both co-operation and opposition were going to be difficult to disrupt (Radil and Russell, 2019[28]).

NETWORKS AND CONFLICT

SNA and DSNA are particularly well adapted to capture the complexity of contemporary conflicts due to their ability to represent and model networks of large numbers of actors that contain both positive and negative relations. In network science, these configurations of actors are known as signed networks (Harrigan, Labianca and Agneessens, 2020[29]). Positive ties develop when social actors overcome collective-action problems, co-operate based on trust or a shared ideology, co-ordinate activities at a distance, distribute resources, disseminate ideas and make joint decisions. Alliances between states or rebel groups are typical of positive-tie networks. By contrast, negative ties develop among actors that dislike, avoid or fight one another, as when one terrorist group launches an attack against civilians or government targets.

There are important differences between networks with positive and negative ties (Everett and Borgatti, 2014[30]). Networks based on friendship, alliance and collaboration typically possess more ties and display more clustering of ties around actors that share similar values than networks containing negative ties, because actors tend to have more friends than enemies (Huitsing et al., 2012[31]). For obvious reasons, networks with positive ties also tend to allow the sharing of more resources, ideas and knowledge than do networks based on hatred and avoidance, which tend to aim at neutralising foes. As a consequence, many centrality measures are based on the assumption that social networks serve as conduits for flows of information, advice or influence. These assumptions are unrealistic in the case of negative tie networks where very little actually circulates, except violence itself, of course. For example, being connected to numerous actors is an asset in a co-operative network where having several friends is synonymous with social prestige or influence. In a network of rivals, however, having many enemies is a liability that can threaten the existence or the daily operations of an organisation.

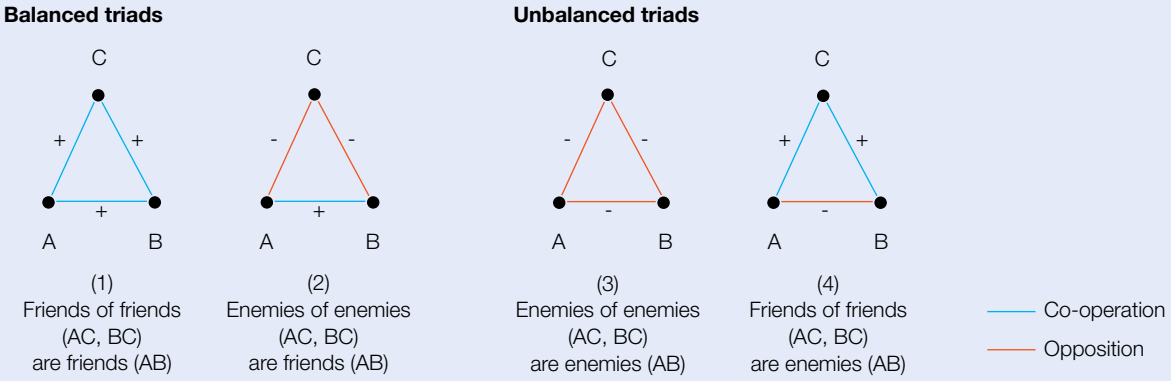
A growing literature in network science and related social sciences suggests that, despite their differences, co-operative and conflictual networks should be analysed simultaneously (Labianca and Brass, 2006[32]; Grosser, Kidwell-Lopez and Labianca, 2010[33]; Rambaran et al., 2015[34]; Yap and Harrigan, 2015[35]; Marineau, Labianca and Kane, 2016[36]). This is because most if not all individuals or organisations are embedded in both types of relations and make choices by drawing on their understanding of their options relative to their allies and enemies. This is an especially relevant point to consider in conflict networks. With that in mind, there are several key concepts in SNA that have been applied to signed networks and are useful in explaining the interplay between the two types of relations in this study. These include the concepts of structural balance, transitivity, spectral embedding and centrality. Each is discussed in turn below.

Balance within groups of actors

Perhaps the most straightforward way to incorporate alliances and rivalries in a conflict network is to use structural balance theory, which assumes that social relations among a group of three actors (known as a triad) can either be stable or unstable, depending on the number of positive and negative ties they have. Balance theory argues that relations among a triad of actors are stable over time if they have either no negative ties or if two out of the three possible ties are negative (Doreian and Krackhardt, 2001[37]; Hummon and Doreian, 2003[38]). A triad formed by three actors, for example, is theoretically stable if all the possible relations are positive or if two actors have negative relations with a third party (Figure 3.4). The first case represents the idea that "friends of a friend are friends" while the second case represents the idea that "enemies of an enemy are friends". In contrast, triads formed of two positive and one negative tie ("friends of a friend are enemies") and of three negative ties ("enemies of an enemy are enemies") are theoretically unstable.

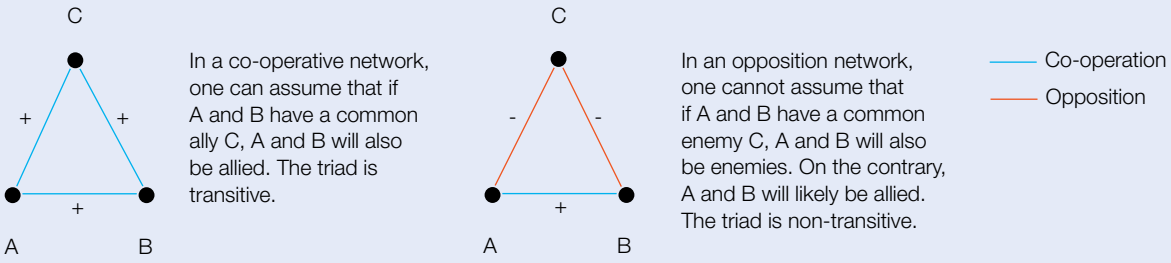
Over time, balance theory argues that such unbalanced triads will evolve over time towards a balanced triad. This is because the unbalanced

Figure 3.4
Balance theory



Source: Authors.

Figure 3.5
Transitivity



Source: Authors.

triads involve pressures on each actor that can only be resolved by altering views, behaviours and relationships. For example, consider triad 4 in Figure 3.4 where two actors A and B, who share a common ally (actor C), but are in conflict with each other. Actor C will find it difficult to preserve his/her positive relationship with both A and B while these actors are opposing each other. Over time, actor C may find him or herself pressured to "pick a side", which would alter the relationship, causing it to become balanced, as in triad 2. This principle is commonly demonstrated in international relations (Doreian and Mrvar, 2015[39]). States that have shared a common enemy are less likely to fight each other and are more likely to become allies than a randomly chosen sample of countries that interacted within the international system (Lerner, 2016[40]).

Transitivity within groups of actors

The issues of structural balance described above draw on another concept in SNA called transitivity, a principle that assumes that two actors sharing a connection to a third actor are likely to be connected to each other as well. Co-operative networks are usually transitive, meaning that if actors A and B have a common friend C, A and B will likely be friends. Networks containing negative ties are well known for having a low level of transitivity (Everett and Borgatti, 2014[30]), and in rivalry networks, it is unrealistic to assume that if A and B are fighting C, A and B are also enemies (Figure 3.5). Quite the contrary: it is more likely to assume that A and B are allied against C, and therefore the triad between A, B and C is non-transitive.

Box 3.2

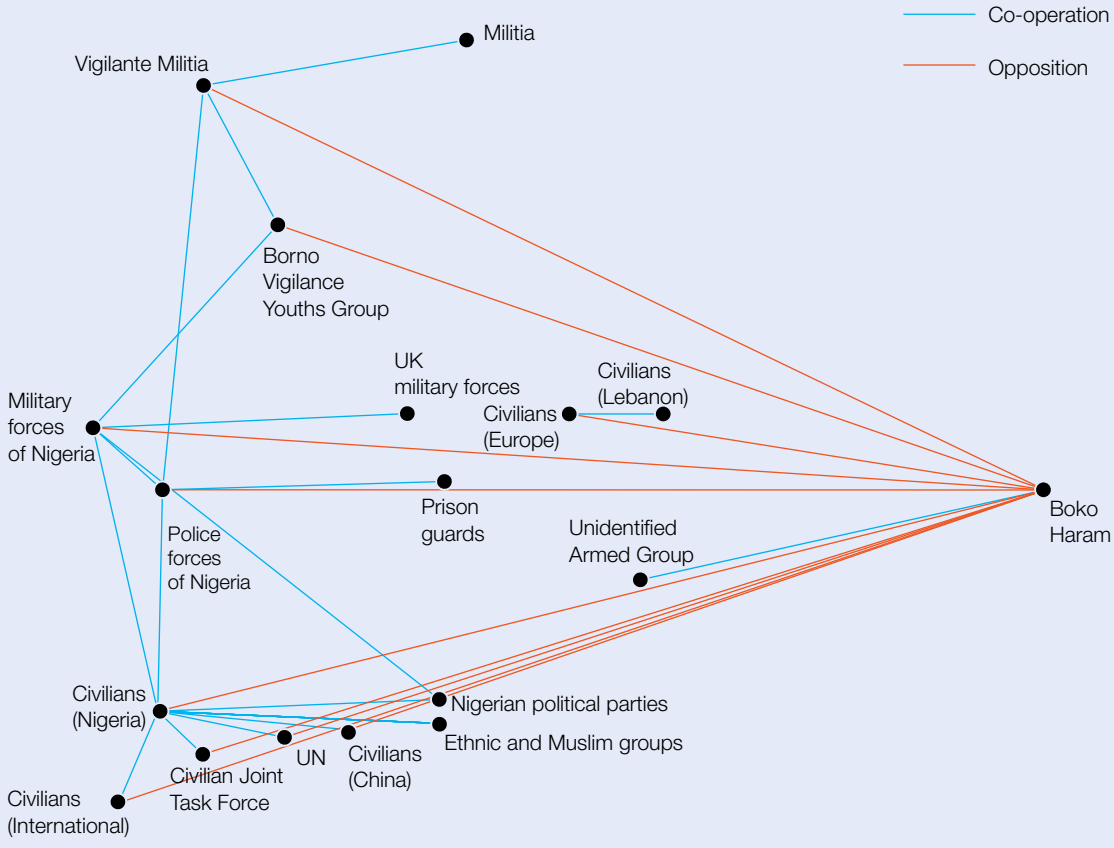
Visualising signed networks

Sociograms of a signed network can be quite visually complex. As a consequence, visualisation methods have been developed specifically for them. A meaningful way to visually represent a network with both positive and negative ties is to use the distance between any pair of actors as a proxy for their relational dissimilarity. Known as spectral embedding, this technique makes it possible to place the nodes that represent organisations at the position that best balances the "pull" of allies against the "push" of enemies (Zheng, Skillicorn and Walther, 2015[42]). In this type of sociogram, rival actors appear visually far from each other, while allies are placed close to one another.

Spectral embedding shows that groups with similar allies and foes form clusters that correspond to their structural position in North and West Africa (Walther, Leuprecht and Skillicorn, 2020[43]). The contrast between allies and enemies is particularly evident for Boko Haram, who is opposed to virtually every other actor in the region, particularly governmental forces and civilians from Nigeria and Cameroon (Figure 3.6).

Figure 3.6

Spectral embedding showing Boko Haram and its enemies



Source: Adapted from Walther, O., C. Leuprecht and D. Skillicorn (2020[43]), "Political fragmentation and alliances among armed non-state actors in North and Western Africa (1997–2014)", *Terrorism and Political Violence*, Vol. 32/1, pp. 167–186.

(Continues overleaf)

(Box 3.2 continued)

Spectral embedding also shows that groups with similar allies and enemies have similar patterns of aggression. The attack patterns of Ansar Dine, the Movement for Unity and Jihad in West Africa (MUJAO) and al-Mourabitoun, three jihadist groups from Mali, differ from those of the Armed Islamic Group (GIA), the Salafist Group for Preaching and Combat (GSPC) and AQIM, who originally came from Algeria. These findings suggest that the propensity to use political violence corresponds to an organisation's position in the network rather than to their actions per se. In other words, mapping how violent actors are connected enables understanding how violent they can be.

Source: Original text provided by Olivier Walther.

In North and West Africa, low levels of transitivity (1%) have been found in the conflict network connecting violent organisations in the region since the late 1990s (Walther, Leuprecht and Skillicorn, 2018[8]) (Box 3.2 and Figure 3.6 for a visualisation of Boko Haram and its enemies). This suggests that enemies of enemies are indeed allies. In Syria, where infighting between groups with a common opponent is frequent, a substantial level of transitivity of 15% has been observed in recent years (Kuznar, Jonas and Astorino-Courtois, 2018[41]).

Centrality

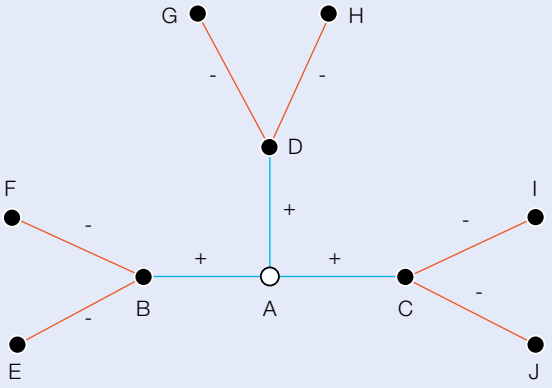
An emerging approach to examining signed networks is to jointly measure the importance or centrality of each actor relative to both types of relationships. However, most traditional metrics have examined centrality for positive ties separately from negative ties, as signed networks assume differing conceptualisations of power in a network. Smith et al. (2014[44]) characterised these approaches as "power-as-access" to resources and "power-as-control" over resources. Positive networks tend to be associated with the power-as-access perspective, while negative or mixed networks tend to be associated with power-as-control. For example, access to other actors in a network, either directly (as with degree centrality) or indirectly (eigenvector centrality), can be seen as a proxy for power if flows such as information exchange are unimpeded in a network of allies. In a network of rivals, such flows are often curtailed or manipulated to the detriment of other actors. In such circumstances, it would be important to be less reliant on connections that may be interrupted or restricted. In short, an actor is assumed to benefit from many ties in a positive network but the same condition in a negative network would be a detriment.

For this reason, traditional centrality metrics have either been implemented only for positive networks or calculated separately to account for the differences between positive and negative tie patterns (e.g. Bonacich power centrality; Bonacich, 1987[45]). However, new metrics have been recently proposed that strive to produce a joint account of centrality for signed networks. This is the logic behind the development of the Political Independence Index or PII (Smith et al., 2014[44]), which builds on the power-as-control approach when there are both positive and negative ties. The PII is a centrality measure that assumes that powerful actors are those with few direct adversaries and with many allies that rely primarily on them or who have few other alternatives for support. Conversely, weak actors are those with many direct adversaries and few allies that largely rely on them.

This principle is illustrated in Figure 3.7, which compares the structural autonomy of an actor connected to several allies in two different situations. On the left-hand side of the figure, A has three allies B, C and D, who themselves have many enemies (E-J). This makes B, C and D dependent on A for their security and therefore increases the structural autonomy of A. On the right-hand side of the figure, A has the same number of allies, but each of them has many allies. This makes B, C and D autonomous from

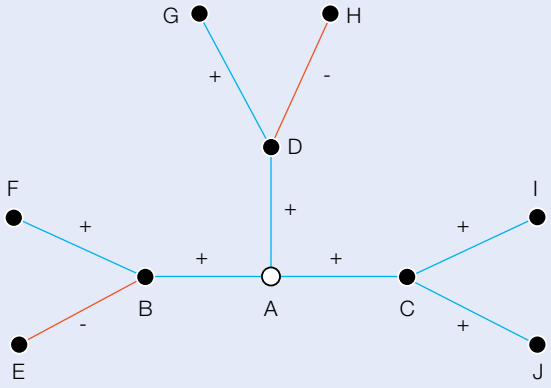
Figure 3.7
Political independence

A network of allies providing greater autonomy to A



A has three allies B, C and D who themselves have many enemies (E-J). This provides greater structural autonomy to A, who can choose from several allies who themselves have little choice but to ally with A.

A network of allies reducing the autonomy of A



A has three allies B, C and D who themselves have many allies (F, G, I, J). This reduces the autonomy of A because B, C and D are not constrained to ally exclusively with A.

Co-operation Opposition

Source: Adapted from Smith, J. et al. (2014[44]), "Power in politically charged networks", *Social Networks*, Vol. 36, pp. 162–176

A for their security and therefore decreases the structural independence of A.

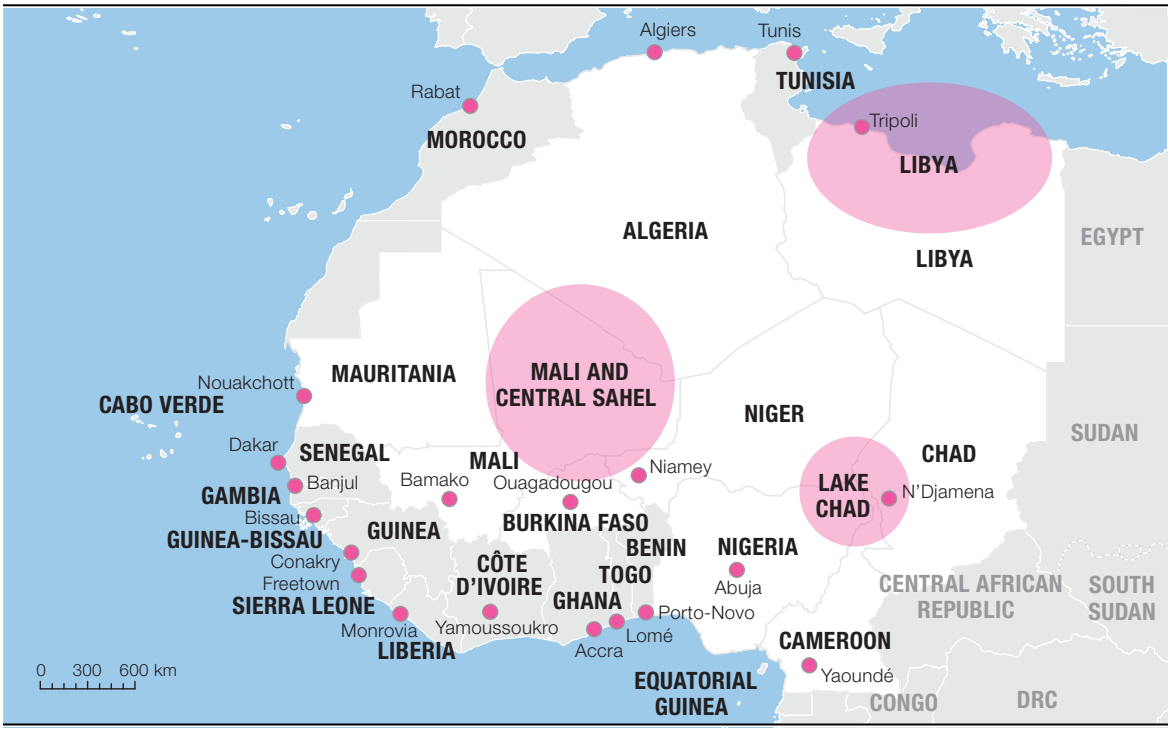
Because the presence of positive ties among other actors is considered a detriment for the PII measure, it may have limited utility for conflict networks characterised by numerous alliances. For this reason, the report utilises another important new joint metric called the Positive-Negative or PN centrality measure (Everett and Borgatti, 2014[30]). PN centrality draws on both notions of power and reflects the idea that having positive ties is not necessarily a detriment to an actor. Although PN centrality has not yet been widely applied in the literature, it has significant promise as a centrality measure as it attempts to balance both approaches of power in a signed network. This report is the first application of PN centrality to the study of conflict. It will use PN centrality to identify which actors are the most prominent or important in the region when taking both their alliance and rivalries into consideration.

HOW TO ASSESS CONFLICT NETWORKS IN NORTH AND WEST AFRICA

A regional approach and disaggregated data

This report leverages political event data from the Armed Conflict Location & Event Data Project (ACLED), which provides detailed and georeferenced information on violent events and actors in conflict since 1997 (Raleigh et al., 2010[46]; ACLED, 2020[47]). The analysis is conducted across 21 North and West African countries, including Algeria, Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Libya, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal, Sierra Leone, Togo and Tunisia. (Map 3.1). This rather large geographical scope reflects both the origins and

Map 3.1
Location of case studies



Note: The pink circles indicate the case studies discussed in this report.
Source: Authors.

current mobility patterns of violent organisations, which can hardly be contained within a single country or region.

This regional analysis is followed by a study of three case studies: the Mali insurgency and its consequences in the Central Sahel since 2012; the Boko Haram insurgency in the Lake Chad region since 2009; and the First and Second Libyan wars since 2011. In these regions, violent organisations have developed rapidly since the mid-2000s and have extended beyond state boundaries, causing significant numbers of violent events and deaths. In each of the regions, regional or international coalitions have intervened militarily to protect civilians and stop the territorial expansion of jihadist organisations. How these interventions have contributed to reshuffling the co-operative and opposing relationships of local actors in conflict remains largely unknown.

From 1 January 1997 to 30 June 2020, the ACLED dataset provides detailed information on 36 760 events that have caused 155 375 fatalities in North and West Africa. ACLED distinguishes between violent events, demonstrations and non-violent actions, 6 types of events and 25 sub-event types. The study focusses on three types of politically motivated violent events exclusively: battles, explosions and remote violence, and violence against civilians (Table 3.2). Non-violent events such as agreements, arrests, disrupted weapons use, headquarters established, looting, demonstrations and non-violent transfer of territory are excluded from the analysis.

- A **battle** is defined by ACLED (2019, p. 7[22]) as "a violent interaction between two politically organised armed groups at a particular time and location." Battles can occur between any state and non-state actors and involve at least two armed and organised actors. This category is subdivided into three sub-event types, depending on whether non-state actors or government forces overtake territory or whether there is no territorial change.
- **Explosions** and **remote violence** are "one-sided violent events in which the tool for engaging in conflict creates asymmetry by taking away the ability of the target to respond" (ACLED, 2019, p. 9[22]). These acts

Table 3.2

Number of violent events and fatalities in North and West Africa, by type, 1997–2020

Type	Number of violent events	Number of fatalities
Battles	**16 309**	**77 637**
Armed clash	14 508	68 521
Government regains territory	966	4 815
Non-state actor overtakes territory	835	4 301
Remote violence	**6 368**	**22 429**
Air/drone strike	2 138	7 931
Grenade	56	50
Remote explosive/landmine/improvised explosive device (IED)	2 341	7 935
Shelling/artillery/missile attack	1 334	1 576
Suicide bomb	499	4 937
Violence against civilians	**14 083**	**55 309**
Abduction/forced disappearance	1 869	0
Attack	12 067	54 393
Sexual violence	147	916
Total	**36 760**	**155 375**

Note: Data available through June 2020.

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

of violence can be carried out using devices such as bombs, grenades, improvised explosive devices (IEDs), artillery fire or shelling, missile attacks, heavy machine-gun fire, air or drone strikes or chemical weapons.

- **Violence against civilians** is a growing concern in the region. They include "violent events where an organised armed group deliberately inflicts violence upon unarmed non-combatants. By definition, civilians are unarmed and cannot engage in political violence. The perpetrators of such acts include state forces and their affiliates, rebels, militias, and external/other forces" (ACLED, 2019, p. 11[22]). Civilians are not just caught up in the crossfire that inevitably occurs between state forces, rebels and violent extremist organisations. They have also become the primary objectives of many insurgencies for whom controlling the resources, allegiances, social behaviours and religious beliefs of civilians are often more important than holding territory (OECD/SWAC, 2020[48]). In consequence, the cost paid by civilians to modern conflicts has increased dramatically, particularly in West Africa where the number of civilian deaths reached 5 029 victims in 2019. The number of direct attacks, kidnappings and sexual assaults against civilians now exceeds the number of armed battles between state forces and armed groups in West Africa (Figure 3.8).

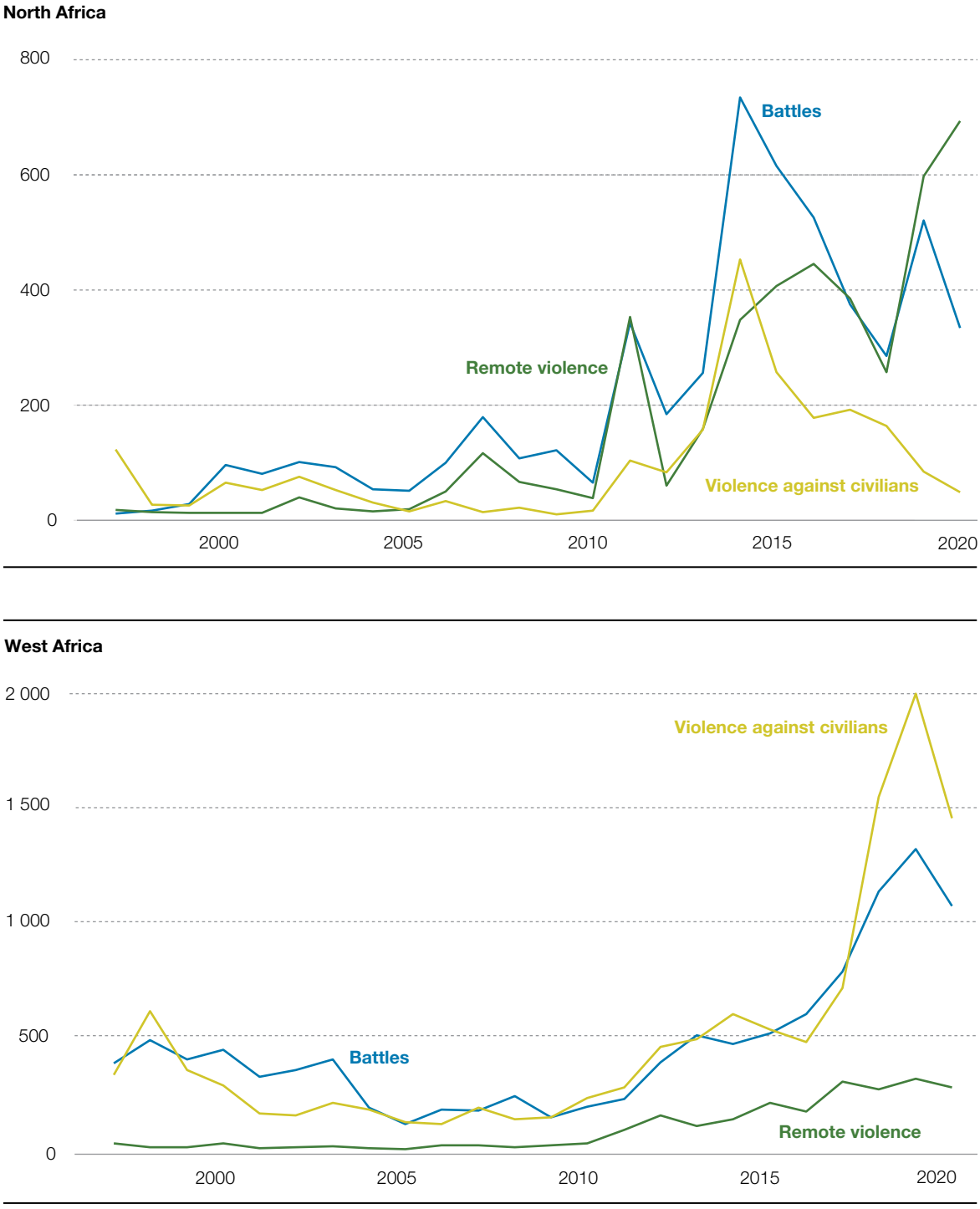
A focus on organisations

The study builds on the classification provided by ACLED, which distinguishes between eight categories of actors based on their goals and structure and, where possible, on their "spatial dimension and relationships to communities" (ACLED, 2019, p. 19[22]) (Table 3.3). Some of these actors are formal organisations, such as state forces, rebels, militias and external forces. Other actors are informal groups of people (ethnic communities, rioters, protesters) or non-combatant categories (civilians).

- **State forces** are collective actors that exercise de facto state sovereignty over a

Figure 3.8

Violent events in North and West Africa by type, 1997–2020



Note: Data available through June 2020.

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Table 3.3

Number of actors in North and West Africa by category, 1997–2020

Type of actors	Number	Examples
State forces	378	Military forces of Algeria, Police forces of Mali
Rebels	131	Polisario Front, National Movement for the Liberation of Azawad (MNLA), Al Qaeda in the Islamic Maghreb (AQIM)
Political militias	459	Democratic Alliance of 23rd May for Change (ADC), Ansar Sharia, Al-Salafiya Al Jihadia
Identity militias	1 405	Chaamba Ethnic Militia, Raffour Communal Militia, Group for Supporting Islam and Muslims (JNIM)
Rioters	3	Rioters (Chad)
Protesters	6	Protesters (Togo)
Civilians	696	Civilians (Mali)
External forces	68	Military forces of France, NATO
Others and unknown	12	Nigeria Petroleum Development Company (NPDC)
Total	**3 158**	

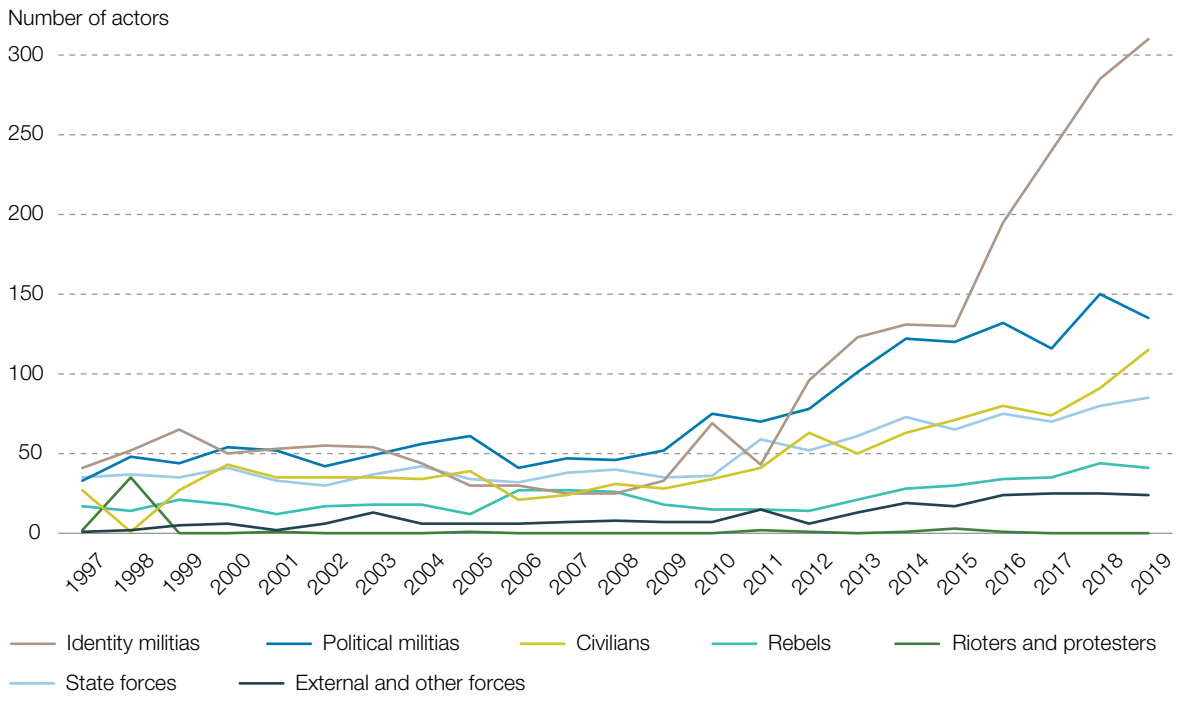
Note: Data available through June 2020.

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

given territory. They include military and police forces from the region. External military actors such as the French armed forces, for examples, are coded separately. In Libya, competing groups that have a claim to government functions, such as the National Salvation Government, are coded as state forces. State forces from the region represent 13% of the actors.

- **Rebel groups** are organisations whose political agenda is to overthrow or secede from a given state. They represent less than 5% of the recorded actors. Splinter groups or factions that emerge from a rebel group are recorded as distinct actors.
- **Militias** are by far the most represented category of actors, with 1 864 unique organisations overall, which represents almost 60% of all violent actors identified by ACLED in the region. The numerical importance of militias in North and West Africa reflects a larger trend on the continent, where political elites, religious leaders, and community strongmen use political and identity militias as "private armies" to compete over access to resources, settle disputes and strengthen local power (Raleigh, 2016[49]). Since the 1990s, competition within and between political parties has increased the use of these informal violent groups in democratising states (Figure 3.9).
- ACLED defines **political militias** as organisations whose goal is to influence and impact governance, security and policy in a given state through violent means. Unlike rebel groups, political militias "are not seeking the removal of a national power, but are typically supported, armed by, or allied with a political elite and act towards a goal defined by these elites or larger political movements" (ACLED, 2019, p. 22[22]). **Identity militias** are a heterogeneous group of militants structured around ethnicity, religion, region, community and livelihood. Events perpetrated by identity militias are often described as "communal violence" as they involve groups embedded in local conflicts over resources and power. This category includes tribal, communal, ethnic, local, clan, and religious and caste militias (ACLED, 2019[22]).
- ACLED identifies several categories of **civilian actors**. Firstly, **rioters** are individuals or groups engaged in disorganised violence during demonstrations. They are unarmed yet may engage in violent

Figure 3.9
Evolution of actors in North and West Africa by category, 1997–2019



Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

activities against civilians, government forces or other armed groups. Rioters are identified by their country of origin. Those affiliated with a political party or leading an event are named in the respective associated actor category. Secondly, **protesters** are peaceful and unarmed demonstrators who engage in a public event. They are identified by their country of origin. Those affiliated with a political party or leading an event are named in the respective associated actor category. Finally, **civilians** refer to the unarmed and unorganised victims of violent events. They are identified by their country of origin and represent 23% of the actors.

- **External and other forces** include international organisations, foreign military forces, private security firms and independent mercenaries engaged in violent events. Military forces operating outside of their home state are also included in this category, as when Cameroonian, Chadian and Nigerien forces fight Boko Haram in neighbouring Nigeria, for example.

This report follows ACLED's classification of actors and uses the "organisation" as its main unit of analysis for all combatant actors. **Organisations** are defined as political actors with a particular purpose and a distinct structure, such as AQIM, a formal organisation with a leader, an executive and religious council, and several committees responsible for military affairs, finance, medical care, politics and international relations (Counter-Extremism Project, 2019[49]). Organisations are an intermediary unit of analysis that lie below political movements, which are defined as collective efforts by people working toward a common objective, but above groups and individuals (Table 3.4). In northern Mali, for example, the rebellion comprises a coalition of several nationalist organisations (Coordination of Azawad Movements, or CMA) and a pro-government coalition of militias and other "popular" fronts (known as Plateforme). Each of these movements contains numerous organisations such as the National Movement for the Liberation of Azawad (MNLA) and the High Council for the Unity of Azawad (HCUA) that

Table 3.4
Levels of analysis

Level	Definition	Example in Mali
Movements	Movements are a collective effort by people working toward a common objective.	The jihadist movement
Organisations	Organisations are discrete institutions or associations that have a particular political purpose; they are made up of members and have administrative and functional structures.	Katibat Macina, a jihadist organisation founded in 2015 that joined JNIM in 2017
Groups	Subgroups are collective subcomponents of organisations; they usually perform different functions under the direction of the overall organisation.	The Katibat Serma, a semi-autonomous group of Katibat Macina operating between Gao and Mopti
Individuals	Individuals are single human beings.	Abu Jalil al Fulani, the leader of Katibat Serma

Source: Adapted from OECD/SWAC (2020[48]), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://doi.org/10.1787/02181039-en.

maintain separate structures and only join the movement for advancing their individual goals.

The boundaries between movements, organisations, groups and individuals are often thin in North and West Africa, where mergers and splits among armed actors are particularly frequent. In Mali, for example, the MNLA calls itself a movement because it results from the fusion of several rebel groups. However, it is also an organisation with its own hierarchy, political and military wings, public relations, social media office and flag (Lecocq and Klute, 2019[51]). Similarly, the Group for Supporting Islam and Muslims (JNIM) resulting from the merger in 2017 of Ansar Dine, Katibat Macina, Al-Mourabitoun and the Saharan branch of AQIM can be seen as a new organisation or as a coalition of jihadist organisations that maintain great strategic and operational autonomy.

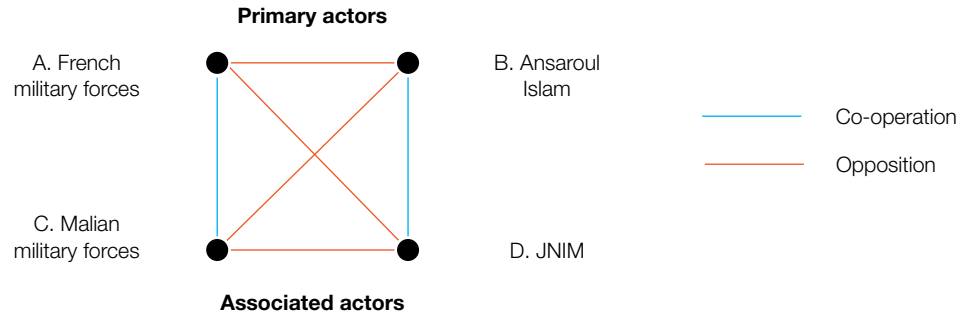
Given this framework, it is important to clearly distinguish between the types of actors that appear in this study that fit the conceptualisation of an "organisation", such as AQIM, and those that appear, but are clearly not an organisation, such as "civilians". As a general social category, civilians do not align with any of the four levels presented in Table 3.4 and cannot be meaningfully said to possess any sense of political agency. This means there is not a conscious and collective pursuit of a goal for this type of actor as there are with the other levels. For this reason, civilians are present in the study but are not treated the same as an organisation. In particular, the study presumes that civilians can only be the targets of violence but that these actors cannot engage in partnerships with actual organisations. Consequently, a dyad involving a civilian actor and an organisation can only result in a negative tie between them if civilians are targeted for violence by the organisation. As it is not possible by definition for a civilian actor to be involved in an active alliance or co-operative relationship, this type of dyad cannot result in a positive tie.

A focus on politically violent events

The main purpose of the ACLED database is to record politically violent "events". An **event** is defined as "a single altercation where often force is used by one or more groups toward a political end" (ACLED, 2019, p. 6[22]). Because a given event can involve many different types of actors that can have friendly or conflictual relationships, this study makes four primary adjustments to the ACLED dataset when it is used to model networks.

The first change is to create a unique name for each organisation. In the ACLED database, some government forces are sometimes identified differently depending on their patterns of behaviour or time period. For example, the actor called the "Military Forces of Mali" in ACLED is listed six different ways in the database, according to the regime they have served and the type of unit involved in the events. The study simplifies this classification

Figure 3.10
Primary actors and associated actors



Source: Authors.

and considers the military of each country as the same actor without other qualifiers. The same logic is applied to police forces and other governmental agencies.

The second change involves the fact that ACLED data do not classify organisations according to their ideology. As a result, organisations that share an Islamist agenda are usually coded either as rebels (AQIM, Ansar Dine, Boko Haram, Islamic State, MUJAO), political militias (Ansar Sharia, Those Who Signed in Blood, Libyan brigades) or identity militias (JNIM). Because much of today's political violence in North and West Africa is due to organisations with a religious agenda, the study creates a sub-category of actors coded "Violent Islamist Organisations". The organisations listed in this sub-category: 1) promote a "vision of Islamic political order that rejects the legitimacy of the modern sovereign nation-state and seeks to establish a pan-Islamic polity or renewed caliphate"; and 2) emphasise "violent struggle (jihad) as the primary or even the exclusively legitimate method for the pursuit of political change" (Mandaville, 2014, p. 330[52]). The database contains 153 such organisations involved in political violence in the region from 1 January 1997 to 30 June 2020.

The third change addresses how the ACLED dataset records multiple actors involved in a single event. ACLED describes (up to) four actors in each event: a primary actor involved in a violent incident (actor A), a collaborator with actor A in the attack (actor C), a second primary actor involved in the incident (actor B), and a secondary collaborator with actor B (actor D). Actors C and D are coded as "associated" actors in the ACLED database, which means that they "may be allies in actions, like two armed organised groups that are engaging in attacks against a common enemy" (ACLED, 2019, p. 18[22]). For example, on 29 March 2019, the French (A) and Malian (C) military forces conducted a joint operation targeting presumed Ansaroul Islam (B) and JNIM (D) militants in the Douentza region in Mali, killing an estimated ten people (incident MLI2755). The two primary actors were the French military (A) and Ansaroul Islam (B), and the associated actors were the Malian military (C) and JNIM (D). Taken together, these fours actors that were involved in the event form a network that can be decomposed into four different pairs of actors (known as dyads), and three groups of three actors (triads) (Figure 3.10).

In less than 2% of the incidents listed between January 1997 and June 2020, ACLED codes two or more actors in the same associated actor field, as when the explosion of an IED causes the death of both civilians and military forces. In these cases, rather than just four actors (two primary actors and two associated actors), there can be several additional associated actors. This causes a problem when the data is transformed into a network, in which a node in the network can only represent a single actor. In order to address this issue, the study duplicates the events in which more than two primary actors are involved as an ally or an enemy and divides the total number of fatalities of each event by the number of newly created events.

Table 3.5
A double-entry table representing oppositional events between four actors

	Ansar Dine	MUJAO	French forces	Malian troops
Ansar Dine	-	0	72	61
MUJAO	0	-	17	19
French forces	72	17	-	0
Malian troops	61	19	0	-

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Table 3.6
A double-entry table representing co-operation events between four actors

	Ansar Dine	MUJAO	French forces	Malian troops
Ansar Dine	-	11	0	0
MUJAO	11	-	0	0
French forces	0	0	-	52
Malian troops	0	0	52	-

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Finally, as this study does not consider civilians to have political agency, all instances of co-operative ties involving civilians have been removed. In general, these outcomes would have only been the result of ACLED recording that two groups of civilians, or of civilians and an organisation, were both attacked in the same event. While this was not common, including such outcomes as examples of co-operation would add little to the understanding of the behaviour or conduct of organisations in the region.

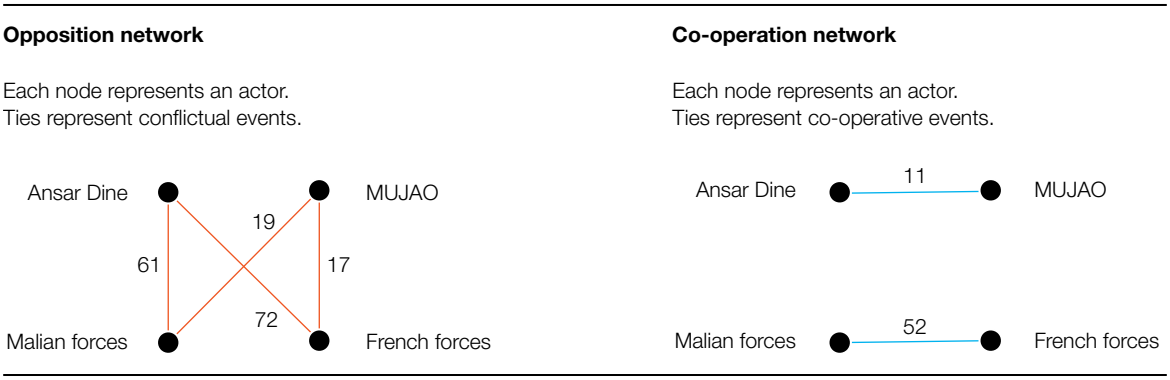
Building opposition and co-operation networks

The first step of the network analysis is to build two square matrices, which contain the names of all the organisations and other types of actors involved in at least one violent event from 1997 to 2019. In SNA, this is called an **adjacency matrix**, and it contains as many rows and columns as there are actors in the dataset. Each matrix can be represented as a double-entry table. The cells of the matrix are used to record information about the interactions or relationships between each pair of actors.

The cells in the first matrix (Table 3.5) record the number of events that have resulted from the confrontation of actors. Armed groups are often weak and try to avoid battles in the region. Therefore, the number of fatalities can be a misleading indicator of the intensity of conflict. This table then uses events instead of fatalities to provide the basis for an **opposition network**, which can provide crucial information on the intensity of political violence across the region. For example, between 2012 and 2019, jihadist organisations such as Ansar Dine and MUJAO have regularly confronted Malian and French military forces (Table 3.5). In this case, actors did not attack themselves and, therefore, the diagonal of the matrix is empty. However, violent events can result from friendly fire between actors on the same "side".

The cells in the second matrix (Table 3.6) also represent events but only counts those events in which two actors are associated with each other in a co-operative sense. Therefore, each cell is coded according to the number of times that actors have collaborated with each other against a common enemy. This **co-operation network** provides information on the coalitions that form

Figure 3.11
Opposition and co-operation networks



Source: Authors.

between actors and is an indispensable complement to the opposition network presented above. The example provided in Table 3.6 shows quite clearly that co-operation essentially takes place between jihadist organisations and between government forces.

The next step of the network analysis is to transform these matrices into a social network where the actors represent the organisations and the ties their alliances or rivalries (Figure 3.11). The social network of opposition shows negatively weighted ties between rivals. The social network that represents co-operation contains positively weighted ties between allies. Unfortunately, the ACLED data is coded in such a way that it is not always possible to distinguish between the perpetrator and the victim of an attack. The only exception is when the victim is a civilian, in which case the attacker is coded as Actor 1 and the civilian victims as Actor 2. Because ACLED does not provide information on the responsibility of the attacks, the ties have no direction associated with them, and the network is undirected. As a result, the matrix that represents clashes between actors is symmetric: there are as many events resulting from the confrontation between Ansar Dine and French forces than from French forces and Ansar Dine, for example.

Modelling dynamic networks

The final step is to model changes in both types of networks over time. To do so requires turning the list of events provided by ACLED into a list of paired actors. ACLED records all the actors that were involved in an event together, but social network analysis depends on listing actors' relationships with each other pairwise, as a dyad. To turn event data into dyadic event data, the study transforms each event into a series of dyads formed by of all the pairs of actors that were involved in the event. For example, if actors A and B are involved in a skirmish against C, this event will be listed three times to show all three pairings of actors involved: A and B co-operate, A fights C, and B fights C. This process is illustrated in Table 3.7 and Table 3.8, which show how a series of events involving two actors was progressively transformed into a series of relationships between pairs of actors.

This example uses the complicated relationship between a local coalition of Islamist militias known as the Shura Council of Mujahideen in Darnah, in eastern Libya, and the Libyan National Army (LNA), led by Field Marshal Khalifa Haftar. Following ACLED (2020[47]), the latter group is referred to as the Haftar Faction. The Haftar Faction is the military of the Tobruk-based House of Representatives (HoR), the mostly secularist governing body elected in Libya's contested election of 2014. It has battled the Tripoli-based Government of National Accord (GNA) for control of Libya since 2014 (Lacher, 2020[53]). Due to this legacy, the Haftar faction is generally secularist and opposed to Islamists, including Darnah's Shura Council. This ideological rift led to an intense rivalry in Darnah: from late 2014 to late 2018, the two groups fought

Table 3.7

Events involving Libya's Haftar Faction and the Shura Council of Mujahideen in Darnah

Event date	Actor 1	Associate actor 1	Actor 2	Associate actor 2
1 September 2015	Haftar Faction		Shura Council	
25 September 2015	Haftar Faction		Shura Council	
11 February 2016	Haftar Faction		Shura Council	
22 February 2016	Islamic State		Shura Council	Haftar Faction
20 April 2016	Haftar Faction	Shura Council	Islamic State	
21 April 2016	Haftar Faction		Shura Council	

Note: The first event is fictional and is present only to illustrate how temporally close events are consolidated into one tie.

Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

on 164 occasions and co-operated on just two occasions (ACLED, 2020[47]).

The example below examines the period containing the two instances of co-operation, when the groups temporarily abandoned their rivalry to face their common enemy, the Islamic State. Once the Islamic State had retreated from Darnah, the Shura Council and the Haftar Faction began fighting each other once again.

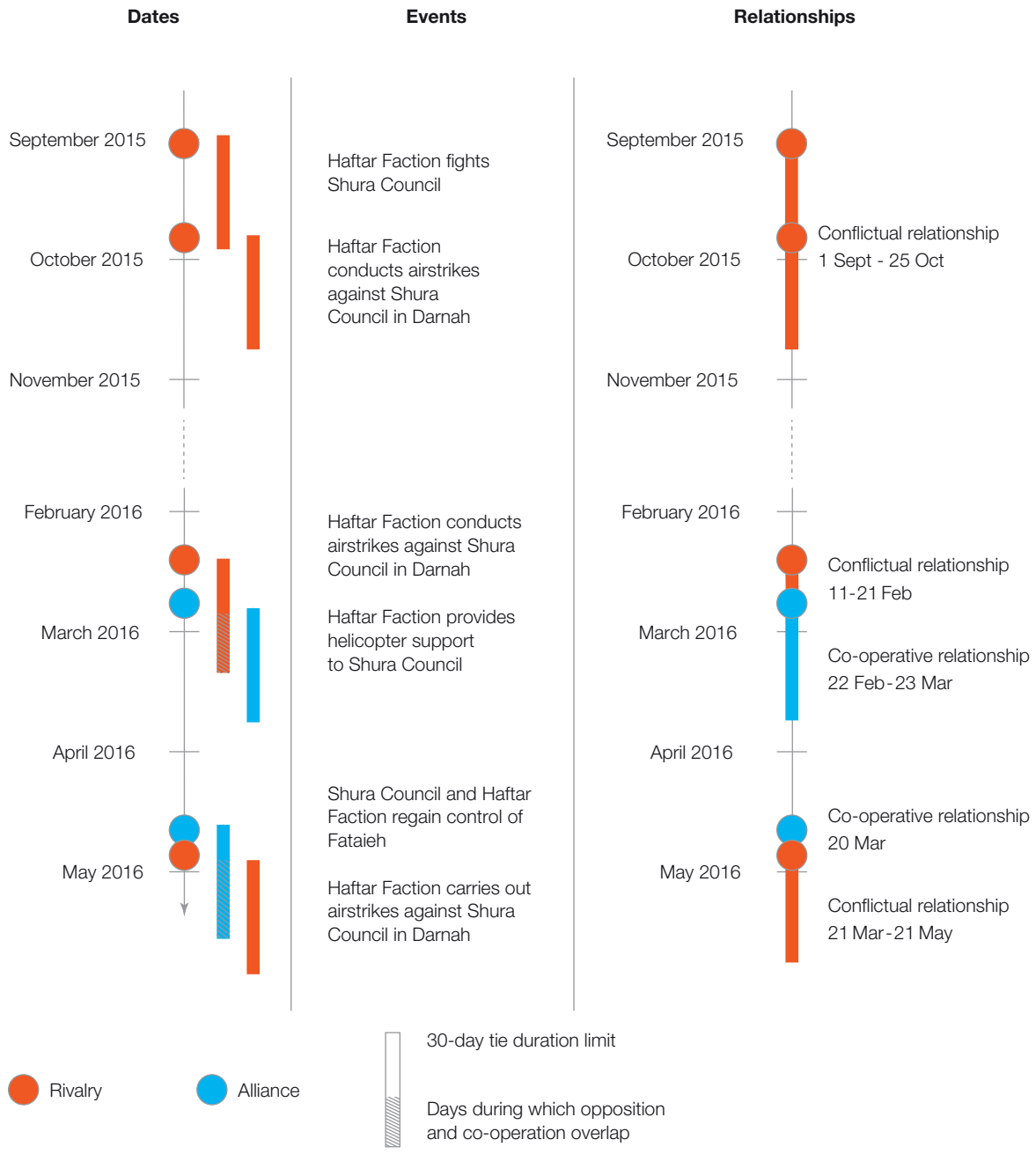
Once the event data is transformed into the pairs of actors involved, the study also records whether the relationship between that pair of actors in the event is oppositional or co-operative. These pairs of actors are then treated as a cumulative list of relationships (or an **edgelist** in SNA) that can be used to produce an adjacency matrix for any given time period or interval. The base time interval for the dynamic network analysis in the study is a single day. This means that the opposition and co-operation networks are each divided into one-day intervals during which network data is collected on the sets of enemies and of friends for each belligerent.

In addition to the steps described above, this study also uses the ACLED event data of interactions between two actors to define the duration of the actors' relationships over time. The study draws from the literature on temporal networks to assume that while an event will mark the initiation of relationship (either oppositional or co-operative) between two actors, the relationship itself will not continue indefinitely over time (Falzon et al., 2018[54]). Instead, the report establishes a base relationship duration of 30 days from an event. Once 30 days has passed since the initiation of a relationship, the relationship ends if no other events occur. This 30-day duration was empirically established by calculating the median duration between events among a pair of actors in the ACLED dataset.

This study also addressed how relationships may overlap temporally with two interrelated assumptions. First, when considering the same type of relations (either positive or negative but not a mix of both), the 30-day duration proceeds from the most recent event. In this way, events that occur in less than 30 days of each other can combine to form a continuous duration longer than 30 days for the relationship. Second, when considering the two different types of relationships (a mix of positive and negative), the 30-day duration for one relationship is always interrupted by an event to establish the beginning of an alternative relationship. This means that some relations may have durations of fewer than 30 days when they are replaced by an alternative relationship before the 30-day duration expires.

Both types of examples are illustrated in Figure 3.12, using the same sample data from Tables 3.7 and 3.8. In late 2015, for example, Libya's Haftar Faction and the Shura Council of Mujahideen in Darnah clashed twice in less than 30 days, resulting in a conflictual relationship

Figure 3.12
From isolated events to co-operative and conflictual relationships



Source: Authors.

between 1 September and 25 October. The same actors briefly clashed again in February 2016, before establishing an alliance, which translates into a conflictual relationship of 10 days, followed by a co-operative relationship of a maximum of 30 days. The opposite scenario occurs in late April, during which both parties briefly work together against the Islamic State before fighting each other for a longer period of time (Box 3.3).

Box 3.3
Data processing

Data processing steps were done using the open-source R software (R Core Team, 2019[55]) and a custom script that began with the list of ACLED events and the 30-day duration limit. The script records a tie for each pair of actors involved in an event that lasts 30 days from the date of the event. If the next event occurs but is beyond the 30-day duration, then the script simply records a new tie between the pair of actors that lasts 30 days. However, if the next event is within the 30-day duration and of the same type (oppositional or co-operative), then the tie duration is extended to last until 30 days after the new event. If the next event is within the duration limit but of a different type, then the original tie is interrupted by a new tie of the new type, even if the original tie had not yet reached the 30-day duration limit. The output of this script retains all relevant data from the original ACLED events, from their data identifiers, to information about the actors, to the geographic locations of the multiple events that can comprise the relationship.

Source: Authors.

Table 3.8
ACLED events transformed into pairs of actors

Event type	Event date	Actor X	Actor Y
Opposition	1 September 2015	Haftar Faction	Shura Council
Opposition	25 September 2015	Haftar Faction	Shura Council
Opposition	11 February 2016	Haftar Faction	Shura Council
Opposition	22 February 2016	Islamic State	Shura Council
Opposition	22 February 2016	Islamic State	Haftar Faction
Co-operation	*22 February 2016*	*Haftar Faction*	*Shura Council*
Opposition	20 April 2016	Haftar Faction	Islamic State
Opposition	20 April 2016	Shura Council	Islamic State
Co-operation	*20 April 2016*	*Haftar Faction*	*Shura Council*
Opposition	21 April 2016	Haftar Faction	Shura Council

Note: Co-operative events are indicated in blue and italic, oppositional events in red.
Source: Authors, based on data from ACLED (2020[47]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

KEY METRICS FOR CONFLICT NETWORKS

The goal of this report is to map alliances and rivalries between violent organisations, assess how these relationships change over time and evaluate the effects of military interventions on their social patterns (Table 3.9). To address these questions, this study develops a novel approach to assess how structurally important each violent organisation is in the region and what the overall architecture of the conflict environment is in which violent organisations operate. The study also relies on a series of simple metrics that measure how alliance and rivalry networks change over time, particularly with respect to foreign military interventions.

To measure how key properties that describe the efficacy of a network change over time at the node level, the study considers the total number of ties that an organisation has within a given unit of time, also known as temporal degree centrality (Table 3.10). In a co-operation network, actors

Table 3.9

Questions and approaches to assessing social networks

Research questions	Approaches
1) Who is allied with whom? Who is in conflict with whom?	Assess the structural importance of violent organisations (centrality) and topology of the entire network (centralisation)
2) How do conflict networks change over time?	Assess signed network change statistics (density)
3) How do military interventions affect conflict networks?	Assess the impact of interventions on signed network change statistics (density, centralisation)

Source: Authors.

Table 3.10

Selected metrics

	Positive ties	Negative ties	Positive and negative ties
Node	Temporal degree: Number of actors an organisation collaborate with within a given unit of time (Falzon et al., 2018[54]).	Temporal degree: Number of actors an organisation is in opposition with within a given unit of time (Falzon et al., 2018[54]).	PN centrality: Structural importance of an organisation simultaneously connected to allies and enemies (Everett and Borgatti, 2014[30]).
Network	Network density: Proportion of co-operative ties actually present in the network during a specified time interval. Network centralisation: indicates whether the network is more or less centralised around a few key actors.	Network density: Proportion of opposition ties actually present in the network during a specified time interval. Network centralisation: indicates whether the network is more or less centralised around a few key actors.	No existing joint measure

Source: Authors.

with high temporal degree centrality have many allies, which enhances their structural importance in a network. An increase in centrality over time means more alliances between actors. In an opposition network, actors with high temporal degree centrality have many enemies. An increase in centrality over time means that actors have an increasing number of enemies.

Signed networks are typically encoded as separate matrices where negative and positive relations are recorded as negative numbers (e.g. –1) and positive numbers (+1), respectively. This might imply that negative networks are conceptually simply the inverse of a positive network. However, because negative networks tend to have different structural forms than do positive networks, most measures designed around the structural patterns of positive relations are difficult to interpret and apply (Everett and Borgatti, 2014[30]). This is especially true for metrics that are based on concerns about reachability, flows and influence, such as betweenness or closeness centrality that measure how an organisation can work as a bridge between disconnected parts of a network and how far an organisation is from the centre of the network, respectively. For this reason, there have only been a few metrics that have been developed specifically for negative networks. Fewer still address the problems of a combined set of positive and negative relations.

Positive and negative networks conceptualise power differently, and the literature characterises two different approaches to power: power-as-access and power-as-control (Smith et al., 2014[44]), as mentioned above. Positive networks are associated with the power-as-access perspective and negative networks with power-as-control. Though separate metrics have been developed for each type of network, the development of metrics that bridge both interpretations for a mixed network comprised of both positive and

negative relations has only recently occurred. This is the logic behind the development of the Positive-Negative centrality measure (Everett and Borgatti, 2014[30]). This metric was developed for mixed signed networks and captures both aspects of power in a joint centrality measure. The PN centrality measure reflects both the ideas that positive ties contributes positively to an actor's influence and that negative ties diminish it (Bonacich and Lloyd, 2004[56]). Actors connected to many well-connected allies or who have few negative ties to central others will have higher PN scores.

At the network level, this study considers density, which represents the number of ties actually present in a network divided by the number of ties that could potentially exist, and network centralisation, which indicates whether the network is centralised around a few key organisations. A high density of co-operative ties means that the network contains large political or military coalitions. A temporal increase in density can either mean that there are fewer violent actors in the conflict and/or that actors have more collaborative ties between them. A high density of conflictual ties means that the network contains few coalitions and many clusters of actors in conflict. If density increases over time, it means that there are more violent actors and/or that actors have more conflictual ties between them. To distinguish between the two situations, the report considers the total number of actors as an additional metric (Table 3.10). A similar logic applies to network centralisation.

The creation and disappearance of nodes and ties is a powerful, albeit simple, way to assess whether the overall number of parties involved in a network tend to expand or contract. Density provides crucial information about the temporal evolution of networks: sudden increases in density means that actors are increasingly involved in violent confrontations or building more alliances between each other, depending on the variable considered to study the network. There is no joint measure of density for signed networks that can capture both positive and negative ties.

These metrics are applied to foreign military interventions, regarded as the introduction of foreign actors that use force into an existing conflict. The study first identifies if and to what extent an intervention tends to modify the patterns of alliances and conflict in which local actors are already embedded. The study then detects changes in the co-operation and opposition networks that can be attributed to a military intervention using the PN centrality.

Four main types of external actors are taken into consideration: intergovernmental organisations such as the United Nations and NATO; regional bodies such as the Economic Community of West African States (ECOWAS), the military forces of nation-states from other continents such as France and the United States, and the military forces of African countries acting outside their own territory. Some of the interventions are still ongoing or have lasted for years (OECD/SWAC, 2020[48]) Therefore, for each intervention, it is necessary to identify one or several time periods during which military operations were conducted that would have had a direct impact on insurgents on the ground.

This study focusses on three military interventions that have significantly affected the conflict environment of the region: 1) the French-led intervention in Mali since 2013 that initially aimed at reasserting control over the north of the country (Operation Serval) and is now focussed on fighting jihadist organisations (Operation Barkhane); 2) the offensive of the Multinational Joint Task Force (MNJTF) initiated by Nigeria and the surrounding countries in the Lake Chad region in 2015 against Boko Haram; and 3) Operation Unified Protector launched by NATO in 2011 in Libya, which began as a humanitarian intervention to protect civilians during the Arab Spring and ultimately led to the end of the Gaddafi government (OECD/SWAC, 2020[48]).

References

ACLED (2020), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/. [47]

ACLED (2019), *Armed Conflict Location and Event Dataset (ACLED) Codebook*, ACLED, www.acleddata.com/wp-content/uploads/dlm_uploads/2017/10/ACLED_Codebook_2019FINAL_pbl.pdf. [22]

African Networks Lab (2020), *SNA in Africa*, ANL, University of Florida, https://africannetworkslab.net/sna-in-africa/. [7]

Bonacich, P. (1987), "Power and centrality: A family of measures", *American Journal of Sociology*, Vol. 92, pp. 1170–1182. [45]

Bonacich, P. and P. Lloyd (2004), "Calculating status with negative relations", *Social Networks*, Vol. 26/4, pp. 331–338. [56]

Borgatti, S. (2005), "Centrality and network flow", *Social Networks*, Vol. 27/1, pp. 55–71. [13]

Carley, K. (2003), "Dynamic Network Analysis", in Breiger, R., K. Carley and P. Pattison (eds), *Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers*, The National Academies Press, Washington, DC, https://doi.org/10.17226/10735. [25]

Carley, K., J. Lee and D. Krackhardt (2002), "Destabilizing networks", *Connections*, Vol. 24/3, pp. 79–92. [24]

Carley, K. and J. Pfeffer (2012), *Dynamic Network Analysis (DNA) and ORA*, Proceedings of the 2nd International Conference on Cross-Cultural Decision Making, San Francisco, 21-25 July. [26]

Counter-Extremism Project (2019), *Al-Qaeda in the Islamic Maghreb (AQIM)*, CEP, Washington, DC. [50]

Doreian, P. and D. Krackhardt (2001), "Pre-transitive balance mechanisms for signed networks", *Journal of Mathematical Sociology*, Vol. 25, pp. 43–67. [37]

Doreian, P. and A. Mrvar (2015), "Structural balance and signed international relations", *Journal of Social Structure*, Vol. 16/2, pp. 1–15. [39]

Everett, M. and S. Borgatti (2014), "Networks containing negative ties", *Social Networks*, Vol. 38, pp. 111–120. [30]

Everett, M. and S. Borgatti (2010), "Induced, endogenous and exogenous centrality", *Social Networks*, Vol. 32/4, pp. 339–344. [14]

Everton, S. (2012), *Disrupting Dark Networks*, Cambridge University Press, Cambridge. [4]

Everton, S. and D. Cunningham (2013), "Detecting significant changes in dark networks", *Behavioral Sciences of Terrorism and Political Aggression*, Vol. 5/2, pp. 94–114. [27]

Falzon, L. et al. (2018), "Embedding time in positions: Temporal measures of centrality for social network analysis", *Social Networks*, Vol. 54, pp. 168–178. [54]

Glowacki, L. et al. (2016), "Formation of raiding parties for intergroup violence is mediated by social network structure", *Proceedings of the National Academy of Sciences*, Vol. 113/43, pp. 12114–12119. [10]

Grindrod, P. et al. (2011), "Communicability across evolving networks", Physical Review. E, Statistical, Nonlinear, and Soft Matter Physics, Vol. 83/4, p. 046120. [20]

Grosser, T., V. Kidwell-Lopez and G. Labianca (2010), "A social network analysis of positive and negative gossip in organizational life", *Group & Organization Management*, Vol. 35, pp. 177–214. [33]

Harrigan, N., G. Labianca and F. Agneessens (2020), "Negative ties and signed graphs research: Stimulating research on dissociative forces in social networks", *Social Networks*, Vol. 60, pp. 1–10. [29]

Holme, P. and J. Saramäki (2012), "Temporal networks", *Physics Reports*, Vol. 519/3, pp. 97–125. [21]

Huitsing, G. et al. (2012), "Univariate and multivariate models of positive and negative networks: Liking, disliking, and bully–victim relationships", *Social Networks*, Vol. 34/4, pp. 645–657. [31]

Hummon, N. and P. Doreian (2003), "Some dynamics of social balance processes: Bringing Heider back into balance theory", *Social Networks*, Vol. 25/1, pp. 17–49. [38]

Koschade, S. (2006), "A Social Network Analysis of Jemaah Islamiyah: The applications to counterterrorism and intelligence", *Studies in Conflict and Terrorism*, Vol. 29, pp. 559–575. [3]

Krebs, V. (2002), "Mapping networks of terrorist cells", *Connections*, Vol. 24/3, pp. 43–52. [1]

Kuznar, L., A. Jonas and A. Astorino-Courtois (2018), *Network analysis of Middle Eastern regional conflict: Findings and policy implications*, unpublished conference presentation, National Security Institute and US Army TRADOC. [41]

Labianca, G. and D. Brass (2006), "Exploring the social ledger: Negative relationships and negative asymmetry in social networks in organizations", *Academy of Management Review*, Vol. 31, pp. 596–614. [32]

Lacher, W. (2020), *Libya's Fragmentation. Structure and Process in Violent Conflict*, Bloomsbury, London. [53]

Lecocq, B. and G. Klute (2019), "Tuareg separatism in Mali and Niger", in de Vries, L., P. Englebert and M. Schomerus (eds.), *Secessionism in African Politics*, Palgrave Macmillan, Cham. [51]

Lerner, J. (2016), "Structural balance in signed networks: Separating the probability to interact from the tendency to fight", *Social Networks*, Vol. 45, pp. 66–77. [40]

Mandaville, P. (2014), *Islam and Politics*, Routledge, New York. [52]

Marineau, J., G. Labianca and G. Kane (2016), "Direct and indirect negative ties and individual performance", *Social Networks*, Vol. 44, pp. 238–252. [36]

Mastrobuoni, G. and E. Patacchini (2012), "Organized crime networks: An application of network analysis techniques to the American mafia", *Review of Network Economics*, Vol. 11/3, pp. 1–41. [16]

McDoom, O. (2014), "Antisocial capital: A profile of Rwandan genocide perpetrators' social networks", *Journal of Conflict Resolution*, Vol. 58/5, pp. 865–893. [11]

Nicosia, V. et al. (2013), "Graph metrics for temporal networks", in Saramäki, J. and P. Holmes (eds.), *Temporal Networks*, Springer, Berlin. [19]

OECD/SWAC (2020), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/02181039-en. [48]

OECD/SWAC (2019), *Women and Trade Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/7d67b61d-en. [15]

OECD/SWAC (2017), *Cross-border Co-operation and Policy Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264265875-en. [12]

Pedahzur, A. and A. Perliger (2006), "The changing nature of suicide attacks: A social network perspective", *Social Forces*, Vol. 84/4, pp. 1987–2008. [2]

R Core Team (2019), *R: A language and environment for statistical computing*, www.R-project.org. [55]

Radil, S. and D. Russell (2019), *Networks, Complexity, and War: Investigating the Impact of Foreign Interventions in Syria*, American Association of Geographers Annual Meeting, Washington, DC, 3-7 April. [28]

Raleigh, C. (2016), "Pragmatic and promiscuous: Explaining the rise of competitive political militias across Africa", *Journal of Conflict Resolution*, Vol. 60/2, pp. 283–310. [49]

Raleigh, C. et al. (2010), "Introducing ACLED: An armed conflict location and event dataset", *Journal of Peace Research*, Vol. 47/5, pp. 651–660. [46]

Rambaran, J. et al. (2015), "The development of adolescents' friendships and antipathies: A longitudinal multivariate network test of balance theory", *Social Networks*, Vol. 43/4, pp. 162–176. [34]

Sageman, M. (2008), *Leaderless Jihad: Terror Networks in the Twenty-First Century*, University of Pennsylvania Press, Philadelphia. [17]

Smith, J. et al. (2014), "Power in politically charged networks", *Social Networks*, Vol. 36, pp. 162–176. [44]

Snijders, T., G. Van de Bunt and C. Steglich (2010), "Introduction to stochastic actor-based models for network dynamics", *Social Networks*, Vol. 32/1, pp. 44–60. [23]

Stys, P. et al. (2019), "Brokering between (not so) overt and (not so) covert networks in conflict zones", *Global Crime*, Vol. 21/1, pp. 74–110. [9]

Uddin, S., A. Khan and M. Piraveenan (2015), "A set of measures to quantify the dynamicity of longitudinal social networks", *Complexity*, Vol. 21/6, pp. 309–320. [18]

Walther, O. and D. Christopoulos (2015), "Islamic terrorism and the Malian rebellion", *Terrorism and Political Violence*, Vol. 27/3, pp. 497–519. [6]

Walther, O., C. Leuprecht and D. Skillicorn (2020), "Political fragmentation and alliances among armed non-state actors in North and Western Africa (1997-2014)", *Terrorism and Political Violence*, Vol. 32/1, pp. 167–186. [43]

Walther, O., C. Leuprecht and D. Skillicorn (2018), "Networks and spatial patterns of extremist organizations in North and West Africa", in Walther, O. and W. Miles (eds.), African Border Disorders, Routledge, Abingdon. [8]

Yap, J. and N. Harrigan (2015), "Why does everybody hate me? Balance, status, and homophily: The triumvirate of signed tie formation", *Social Networks*, Vol. 40, pp. 103–122. [35]

Zech, S. and M. Gabbay (2016), "Social network analysis in the study of terrorism and insurgency: From organization to politics", *International Studies Review*, Vol. 18/2, pp. 214-243. [5]

Zheng, Q., D. Skillicorn and O. Walther (2015), "Signed directed social network analysis applied to group conflict", *IEEE International Conference on Data Mining*, Vol. 1, pp. 1007–1014. [42]

Chapter 4

Networks of violence in North and West Africa

This chapter examines how rivalries and alliances affect the long-term evolution of violence in North and West Africa. Building on a dataset of 36 760 violent events, the chapter maps how state and non-state actors are embedded in ever-changing opposition and co-operation networks (relations) from 1997 to 2020. The chapter shows that the number of belligerents has increased dramatically since 1997. Organisations in conflict form a loose network dominated by jihadist organisations in Mali, the Central Sahel and Lake Chad region and by government forces in Libya. This network is becoming increasingly dense and more centralised over time, a worrying trend that suggests that violence is more persistent than ever. The chapter also shows that alliances remain fragile and circumstantial, particularly among rebels and jihadist groups, whose political loyalties remain ambivalent. The decentralised structure of the co-operation network is strikingly similar to the opposition network, suggesting that organisations are frequently shifting allegiances. Co-operation has exhibited a slight upward trend since the mid-2010s, fuelled by regional military alliances in Mali and the Lake Chad region, and the consolidation of authority in Libya.

KEY MESSAGES

- **Violent organisations have many more enemies and conflictual relations than allies.**
- **Networks of enemies are becoming denser and more centralised since 2017, suggesting that violence is more widespread and polarised around key organisations than ever.**
- **Alliances remain fragile everywhere in the region and are dominated by government forces, their allied militias and foreign forces.**
- **The lack of long-lasting coalitions that could tilt the balance of power is a serious obstacle to the peaceful resolution of conflict in North and West Africa.**

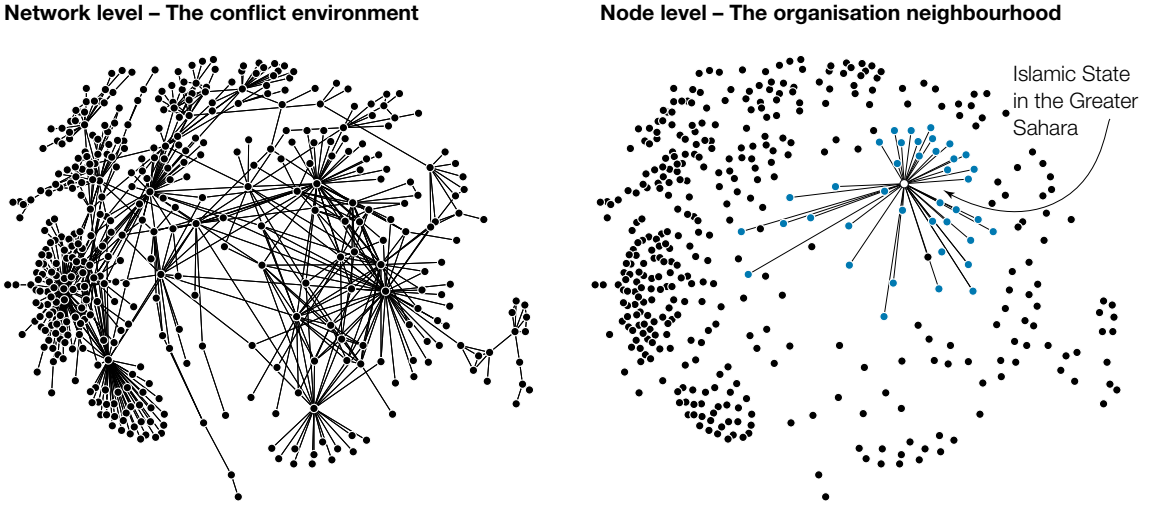
NETWORKED VIOLENCE

Contemporary conflict in North and West Africa is characterised by a high degree of complexity in which hundreds of rebel groups and extremist organisations are involved in a shifting series of alliances and rivalries with regional governments and with each other. These changing relationships can be represented as a network that provides both opportunities and constraints to violent organisations. To better address this complexity, this chapter models the temporal evolution of both opposition and co-operation networks using detailed data for North and West Africa beginning from the late 1990s. This relational approach assumes that the evolution of political violence in the region depends as much on the general architecture of the conflict environment as on the position of each organisation in the opposition and alliance networks.

This chapter argues that violent encounters between armed organisations do not occur in isolation. Rather, violent organisations and their members are enmeshed within a complex web of

Figure 4.1

Two levels of network analysis: The conflict environment and an organisation's neighbourhood



Note: Each node represents an organisation involved in politically motivated events from January to June 2020 in North and West Africa. Ties between organisations indicate that they were in conflict with one another at least once over the studied period.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

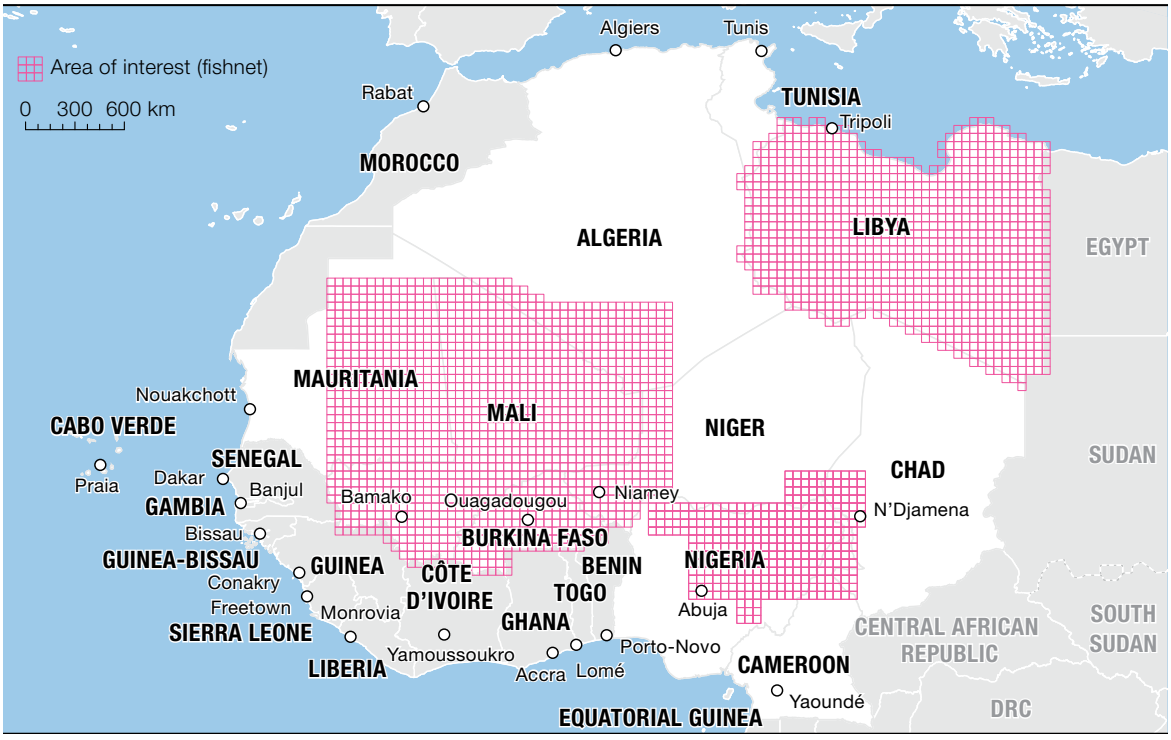
relations that aggregates to form a larger region-wide community of violence. The left-hand side of Figure 4.1 illustrates such a conflict environment: each node represents an organisation involved in politically motivated events from January to June 2020 in North and West Africa, while ties between organisations indicate that they are in conflict with one another. The overall architecture of this network limits the autonomy of violent organisations and imposes structural constraints on which objectives they may achieve. When an organisation is attacked, for example, its ability to respond militarily is limited by the general patterns of violence in the region. Militias may retaliate more eagerly in a situation where violence is diffuse than when the government is capable of co-ordinating military action against a limited number of rebel or extremist groups.

Violence can also spread well beyond an organisation's immediate social ties because members that are not directly involved or harmed will respond collectively in the name of the organisation. That response can be directed toward the original aggressor group or toward others that may be perceived as associated with the aggressor group. This means that investigating individuals is likely to overlook much of the complexity involved in the patterns of violence of the region. Aggregating violence to the organisation level, as in this report, provides an advantage in terms of assessing patterns of conflict over time.

This chapter also argues that organisations have their own capacity to act independently (agency) and make choices that affect their ability to defeat their enemies and collaborate with their allies. The right-hand side of Figure 4.1 represents the conflict neighbourhood of one of the most violent organisations of North and West Africa, the Islamic State in the Greater Sahara (ISGS), which was in conflict with 38 government forces, militias, civilian actors and other armed groups in the first half of 2020. An initial act of violence by an organisation like ISGS can set in motion a sequence of interactions and fuel conflict well beyond its immediate enemies. Of critical importance in understanding how conflict spreads is the structure of the organisation's "neighbourhood", which includes every enemy that a focal organisation is fighting as well as all the ties formed by acts of violence among them. In the language of network science, the conflict neighbourhood is an "egocentric" perspective, providing a glimpse into the

Map 4.1

Areas of interest in Mali and Central Sahel, the Lake Chad region and Libya



Source: Authors.

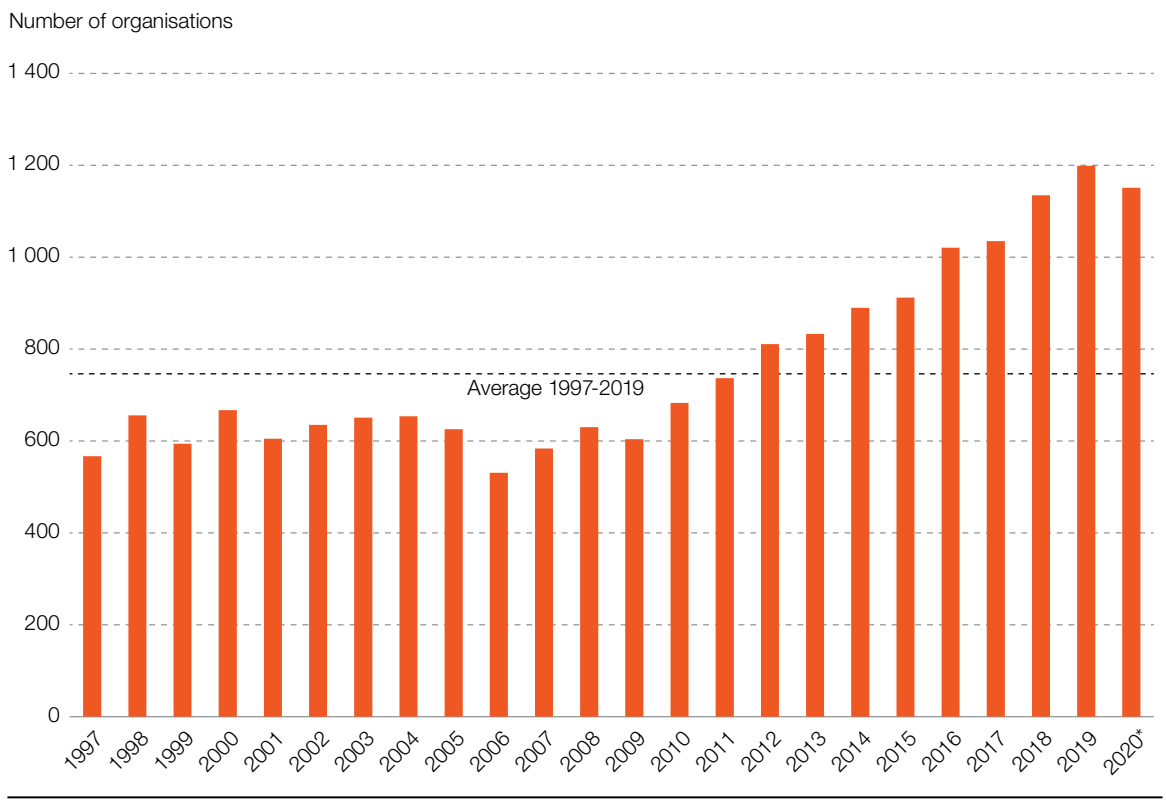
context within which a focal organisation, or "ego", is embedded. These neighbourhoods are important because they influence what information organisation receive, how they perceive other organisations and how they react to violent events that are directed at them, their enemies or their allies.

The network approach used in this study makes it possible to simultaneously take into account both the structure and agency of violent organisations and how these two factors have evolved since the late 1990s (see Chapter 3 for a methodological overview). The analysis is first conducted at the regional level, by considering all politically motivated events that took place in 21 North and West African countries from January 1997 to June 2020 (Map 4.1). The analysis then focuses on three regions that have been particularly affected by violence since the early 2010s: Mali and the Central Sahel, the Lake Chad region (that comprises northern Nigeria and the neighbouring regions of Cameroon, Chad and Niger) and Libya. From 2009 to 2020, North Africa has recorded 11 691 violent events causing 35 772 deaths, while West Africa has recorded 25 069 events and 119 603 deaths.

SHARING A COMMON ENEMY, NOT A COMMON GOAL

One of the distinctive features of the conflicts that are tearing North and West Africa apart is the very large number of actors involved. This multiplication of actors is explained by the lack of a common political goal among many violent organisations, who often share a common enemy without necessarily collaborating with each other. Violent organisations may even compete against each other despite sharing a common ideological background (Chapter 2). In the first half of 2020, no less than 562 organisations were involved, as victims or perpetrators, in acts of violence across the region, four times those involved in building alliances. Fuelled by

Figure 4.2
Organisations in conflict in North and West Africa, 1997–2020



* Data available through 30 June 30 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

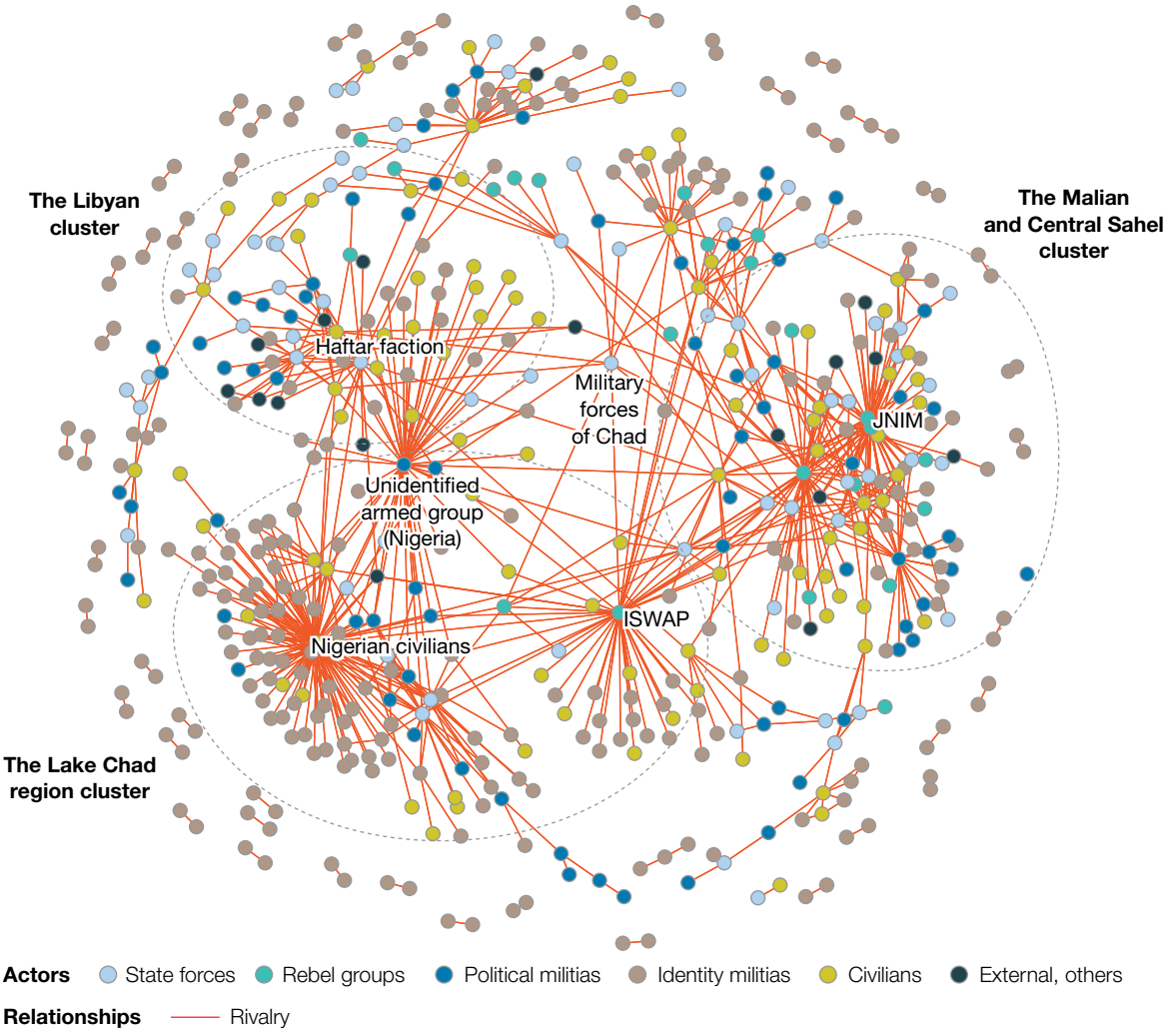
numerous insurgencies, rebellions and coups d'état, the overall number of organisations in conflict has almost doubled from 604 in 2009 to 1 199 in 2019. If the situation continues to deteriorate, 2020 will be by far the most violent year recorded since 1997, with 1 151 organisations recorded through June (Figure 4.2).

A cosmopolitan network of enemies

To assist in understanding how violent organisations fight each other in North and West Africa, the following section maps the network of their enemies and models their conflictual relationships over time. Mapping how violent organisations fight reveals how diffuse, and yet persistent, political violence is in the region. In 2020, the network that connects the organisations involved in conflictual events in North and West Africa has a decentralised structure explained by the fact that not all of them are necessarily fighting in the same theatre of operations. For example, the Libyan cluster of actors visible on the left-hand side of Figure 4.3 is indirectly connected to the Nigerian and Malian clusters through a number of jihadist organisations and government forces that are active internationally.

A loose and decentralised structure such as the one that connects organisations in conflict in the region is typical of a "cosmopolitan" network. Actors embedded in a cosmopolitan network have few linkages, tend to form few closely-knit communities, and are far apart from each other. As a result, the density, average number of links and agglomeration co-efficient are low in this kind of structure, while the average number of steps required to link one actor to all others is high (Table 4.1). A distinctive feature of cosmopolitan networks is the presence of key brokers who act as bridges between communities that would otherwise be disconnected from each other. In West Africa, for example, the rice trade network

Figure 4.3
Opposition network in North and West Africa, 2020



Note: Each node represents a violent organisation or its victims. Ties between organisations represent rivalries between January and June 2020. ISWAP stands for Islamic State West Africa Province, and JNIM is Jama'at Nusrat al-Islam wa-l-Muslimin (Group for Supporting Islam and Muslims).

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

that connects producers, assemblers, wholesalers and retailers across the region has a clear cosmopolitan structure in which each merchant entertains a limited number of trusted business partners (OECD/SWAC, 2019[2]).

Cosmopolitan networks differ from "provincial" networks, which tend to be structured around dense communities of actors connected through parentage, business, friendship or alliance relationships. Accordingly, provincial networks have high densities of ties, numerous ties per actor, a tendency to form a large single component and few steps between actors (Table 4.1). A distinctive feature of provincial networks is to contain numerous actors who have established dense ties to others, or are strategically connected to well-connected actors. For example, the social network of a traditional chief in West Africa has a clear provincial structure: almost everyone in the village is connected to the chief through kinship, clientelist or friendship ties. The social network formed by these ties is based on trust, reciprocity and allegiance.

Provincial and cosmopolitan networks build on two different types of centrality: embeddedness and brokerage. Embeddedness is associated

Table 4.1

Characteristics of provincial and cosmopolitan social networks

Measure	Definition	Provincial networks	Cosmopolitan networks
Density	Percentage of existing ties in the network compared to potential ties	High	Low
Average degree	Number of ties per actor	High	Low
Agglomeration co-efficient	Tendency to form tightly-knit clusters	High	Low
Average length of the shortest path	Number of separations between the actors of the network	Low	High

Source: Adapted from Everton, S. (2012[3]), *Disrupting Dark Networks*, Cambridge University Press, Cambridge and OECD/SWAC (2019[2]), *Women and Trade Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/7d67b61d-en.

Table 4.2

Composition and density of opposition networks by region, 2020

	Number of nodes	Number of ties	Density, %
North and West Africa	562	828	0.5
Mali and Central Sahel	137	237	2.5
Lake Chad	126	183	2.3
Libya	50	71	5.8

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

with trust between friends, parents, commercial partners or political allies; it reduces risks associated with social, economic and political activities. Highly embedded actors occupy very central positions, surrounded by other actors with which they frequently interact to exchange information, raise resources, transmit instructions or establish alliances. Military forces that have established alliances with ethnic or community militias find themselves in such a position: as the dominant node of the alliance, they receive detailed intelligence about the enemy from each of their allies without necessarily having to share it with the entire network. Brokerage, by contrast, offers access to resources or information that are not available in the immediate neighbourhood of actors. Brokers manage to build bridges between their communities and the rest of the network in three ways. They can transfer resources between two disconnected parties, facilitate the connection of two actors to mutual benefit, or co-ordinate the activities of others without creating direct connections between them, reinforcing their dependence on the broker (Spiro, Acton and Butts, 2013[4]; OECD/SWAC, 2017[5]). Brokers are often used in conflict situations. In the Sahel, for example, the regime of Blaise Compaoré in Burkina Faso has long played the role of broker between jihadist organisations and Western governments willing to negotiate ransom payments (Thurston, 2020[6]).

The analysis of the regional opposition network confirms that violent organisations tend to favour brokerage over embeddedness, which is understandable as having many enemies is hardly an advantage (Table 4.2). The opposition network consists of 562 organisations linked by 828 negative ties, which means that only 0.5% of the ties that could potentially exist in the region are actually present in the network. The density of the regional network is much smaller than the one observed in Mali and the Central Sahel (2.5%), in the Lake Chad region (2.3%) and in Libya (5.8%). This is hardly surprising since the density of a network usually decreases with its size, due to the impossibility of maintaining a large number of conflicting relationships simultaneously (Valente, 2010[7]). The nature of

Table 4.3

Are the opposition networks rather provincial or cosmopolitan?

Measure	North and West Africa	Lake Chad	Mali and Central Sahel	Libya
Density, %	0.5	2.3	2.5	5.8
Average number of enemies	3.0	2.9	3.4	2.8
Clustering co-efficient	0.5	0.6	0.3	0.6
Average path length	4.2	3.0	2.8	2.4
Type of network	Cosmopolitan	Neither cosmopolitan nor provincial	Rather cosmopolitan	Rather cosmopolitan

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

opposition networks also encourages low densities, as violent organisations tend to have as few enemies as possible.

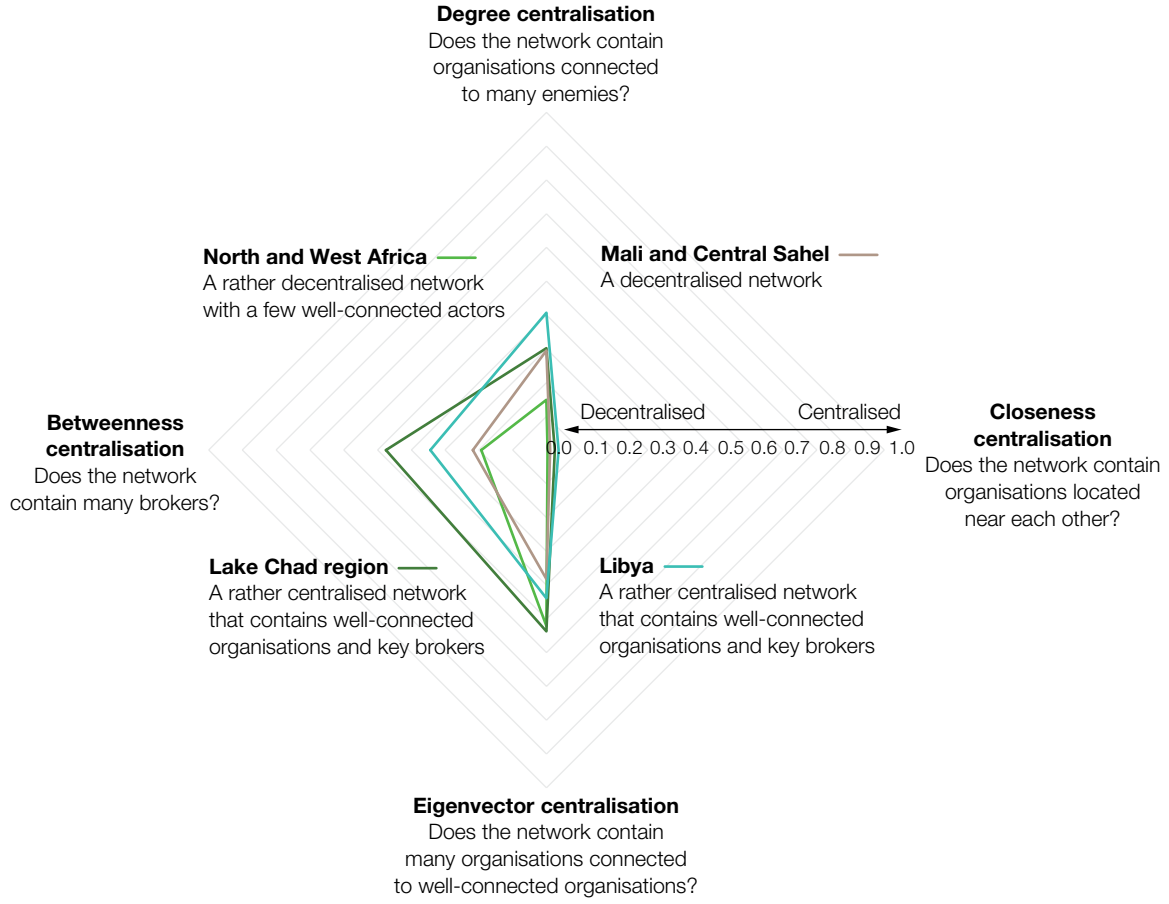
Further analysis of the overall structure of the network confirms that the organisations in conflict in the Lake Chad region have adopted a far less cosmopolitan structure than in the rest of the region and regionally (Table 4.3). In 2020, each organisation has, on average, 3.0 enemies in North and West Africa, Lake Chad and Libya, and 3.5 enemies in Mali and the Central Sahel. Conflict networks have a rather compact structure, as evidenced by the rather low clustering coefficient that indicates whether organisations tend to form small, closed communities characterised by a high density of ties. The only exception is the Lake Chad region, where a relatively high clustering coefficient suggests the existence of a more cohesive network. The average number of steps required to link organisations in conflict does not exceed three in all of the regional conflicts, suggesting that most enemies can be reached easily. Violent organisations are further apart in the regional network, with 4.2 steps on average between them.

These results do not imply that the regional network lacks cohesion. Far from being fragmented into multiple groups, the regional network of conflict is remarkably compact, considering the significant distance that separates some of the organisations involved across North and West Africa. Three-quarters of all actors (74%) can be found in the main component of the network, which brings together many of the organisations involved in the Libyan, Malian and Nigerian conflicts. This remarkable compactness is explained by the existence of major brokers, i.e. organisations that are targeted by several types of enemies. Civilian groups occupy this unfortunate position in many countries: both government forces and jihadist organisations tend to attack them more than they attack each other. In other words, civilian groups are the glue that holds enemies together, with disastrous consequences for both themselves and the political stability of the region.

Another way to characterise how violent organisations are fighting each other is by looking at the centralisation of their network, which indicates whether they are rather centralised around a few key nodes, or rather decentralised. The analysis shows that the regional and local opposition networks have few actors with exceptionally high centrality, as shown by the measures presented in Figure 4.4, which determines the degree of inequality in the network. These figures vary between "0" if no actor is more central than another and "1" if a single actor's centrality is greater than every other actor, such as when an individual occupies the centre of a star network in which everyone is connected to a central node. If opposition networks were centralised, most of their centralisation measures would be above 0.5, and the space between the four edges of the radar chart would be nearly full. It is clearly not the case. Generally speaking, the network is the least centralised in Mali and the Central Sahel, and the most centralised in the Lake Chad region.

Figure 4.4

Are the opposition networks rather centralised or decentralised?



Note: Data available through 30 June 2020.

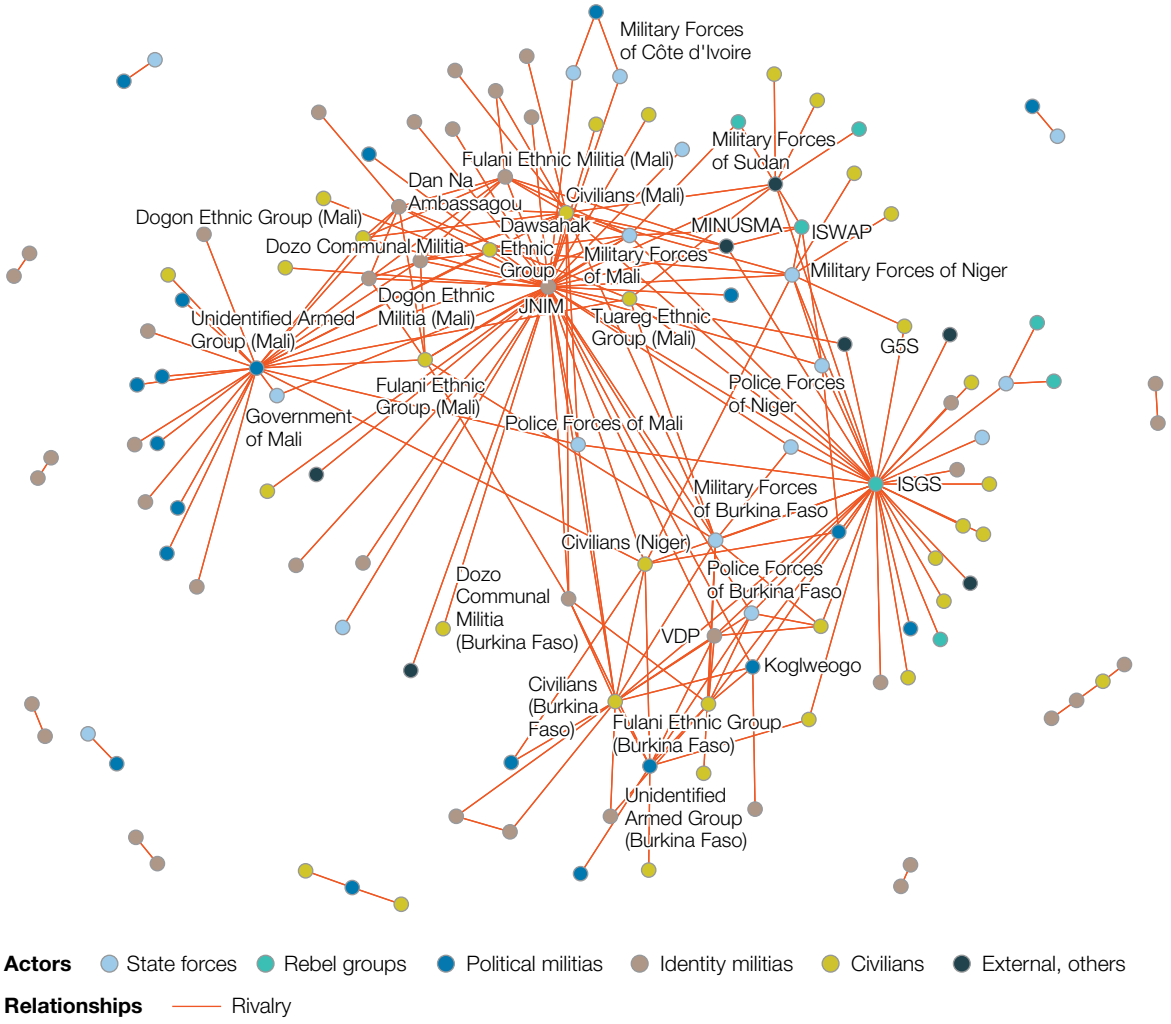
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Degree centralisation is below 0.3 for all opposition networks, indicating that the number of conflictual relationships does not vary substantially among the organisations in conflict. Low closeness centralisation scores are observed everywhere, which suggests that no single actor is particularly close to the centre of the network. Eigenvector centrality is relatively high (>0.5) in the region and in Lake Chad, which suggests that some organisations may fight a disproportionately large number of enemies who themselves have numerous enemies. Finally, low betweenness centralisation (<0.5) is recorded in all regions, indicating that no one broker is particularly central.

Who is fighting whom in Mali and the Central Sahel?

The Malian conflict started in January 2012, after a provisional alliance between the Tuareg rebels of the National Movement for the Liberation of Azawad (MNLA) and Al Qaeda-affiliated groups launched a military offensive against the Malian army. The insurgents took over all major cities of northern Mali in a matter of weeks, including Tessalit and Kidal, where the offensive started, as well as Menaka, Timbuktu and Gao. Soon enough, the jihadist groups, Movement for Oneness and Jihad in West Africa (MUJAO) and Ansar Dine, exploited Tuareg grievances and started to fight against their former allies. In January 2013, a

Figure 4.5
Opposition network in Mali and the Central Sahel, 2020



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

military offensive by the jihadists towards Mopti in Central Mali convinced the interim Malian government to request the intervention of the French army, which launched Operation Serval. The French army rapidly retook northern Mali after an operation on a scale not witnessed since the Algerian war and paved the way for the deployment of the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) and the European Union Training Mission in Mali (EUTM Mali).

Though the French intervention achieved its immediate military goals, a political solution to the conflict in Mali failed to materialise (OECD/SWAC, 2020[8]). In February 2014, Burkina Faso, Chad, Mali, Niger and Mauritania launched the G5 Sahel with a view to co-ordinating their efforts against jihadist organisations. Six months later, France replaced Operation Serval with Operation Barkhane, a regional effort to combat transnational terrorist and trafficking activities in the Sahara-Sahel region. Eight years after Serval, the insecurity fostered by rivalries between government forces, former rebels, religious extremists, militias and international forces remains higher than ever. Initially limited to northern Mali, violence has spread to central and eastern Mali, and to neighbouring Burkina Faso and Niger. In

Box 4.1
Group for Supporting Islam and Muslims (JNIM)

The Group for Supporting Islam and Muslims, or Jama'at Nusrat al-Islam wa-l-Muslimin (JNIM), is a Salafi-Jihadist organisation under Al Qaida's banner. It was formed in March 2017 after a merger between Ansar Dine, including the unit called Katibat Macina, and the southern branches of AQIM, including the strike force al-Mourabitoun, which had rejoined AQIM in 2015 after a period of tension. The emir of JNIM is Iyad ag Ghali, the former leader of Ansar Dine. Other prominent figures in the organisation have included AQIM's Djamel Okacha (aka Yahya Abu al-Hammam, 1978–2019) and Katibat Macina's leader Amadou Kouffa (Center for Strategic and International Studies, 2018[9]). The second in command to ag Ghali, Ali Maychou, was killed in October 2019.

JNIM is active in northern and central Mali as well as in Niger and Burkina Faso. JNIM, and especially Kouffa, have close ties to the Burkinabè jihadist group, Ansaroul Islam (Box 4.3). JNIM units under Kouffa may also be establishing a presence along the Burkina Faso-Côte d'Ivoire border. JNIM's targets include French counter-terrorism forces in the Sahel, UN peacekeepers, Sahelian military forces, local militias and other jihadist organisations. JNIM and its components have perpetrated some of the deadliest attacks of the entire ongoing Sahelian conflict, including a June 2018 attack that forced the regional G5 Sahel Joint Force to relocate its headquarters from central Mali to the capital Bamako.

JNIM may have complex and opaque ties to more mainstream political actors in the Sahel, and especially in northern Mali. There are recurring accusations that JNIM and particularly ag Ghali, have an ongoing relationship with the Coordination of Azawad Movements (CMA), an ex-rebel bloc that is politically dominant in Mali's Kidal Region; several senior leaders of the CMA were leaders of Ansar Dine during 2012–13. The United Nations Security Council has sanctioned individual CMA leaders over charges of abetting and co-ordinating with JNIM (United Nations Security Council, 2018[10]). In 2020, the prominent CMA leader Ahmada ag Bibi, also a former Ansar Dine leader, was a central negotiator of a prisoner exchange between JNIM and the Malian government. Overall, ag Ghali's long-term intentions are unclear – JNIM has agreed in principle to begin wider negotiations with the Malian government, but JNIM's insistence on the withdrawal of French combat forces may make such talks effectively a non-starter.

Source: Original text provided by Alexander Thurston and Susanna Goewey.

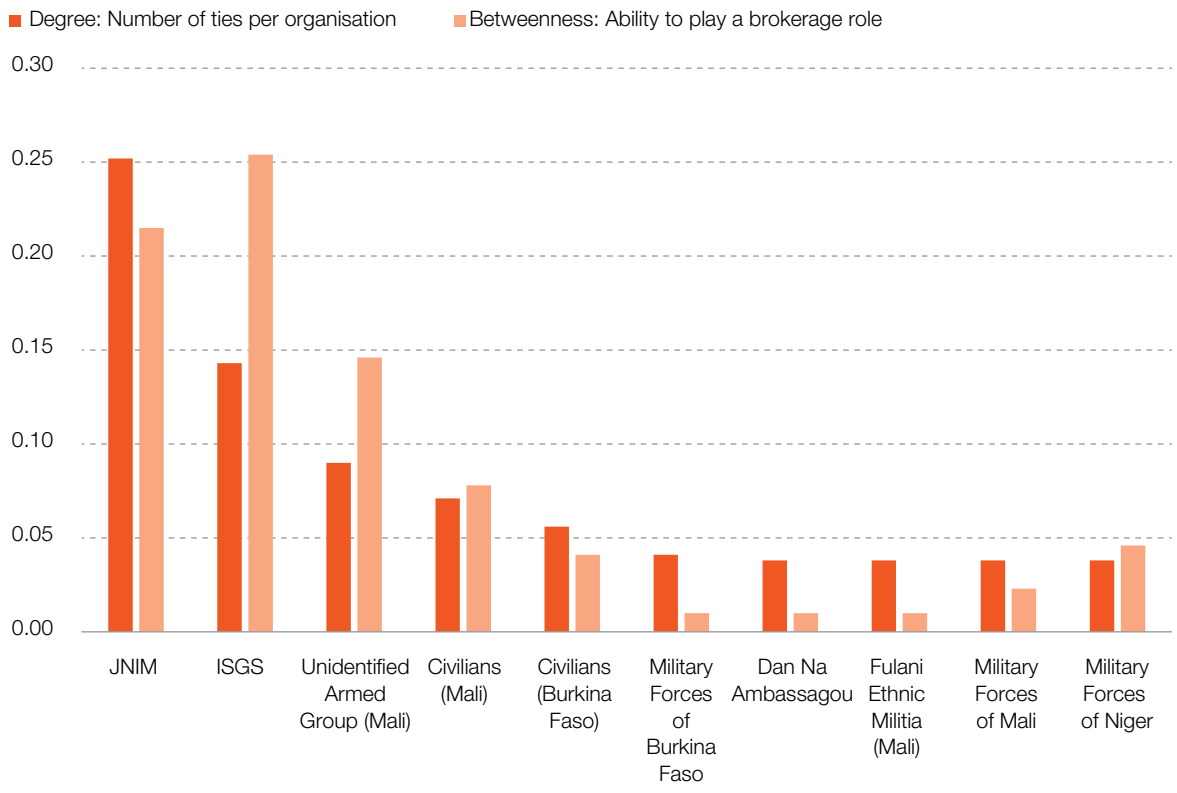
spite of punctual anti-terrorist successes, such as the killing of Abdelmalek Droukdel, the emir of Al Qaeda in the Islamic Maghreb (AQIM), by French forces in June 2020, Mali remains the epicentre of a regional cluster of violence dominated by violent organisations affiliated with Al Qaeda and the Islamic State.

The decentralised structure of this opposition network is clearly visible in Figure 4.5, which represents organisations in conflict in the first half of 2020 in Mali and the Central Sahel. None of the 137 individual organisations represented according to their type is particularly central. Nearly 80% of the organisations are connected with each other within the main component of the network. The relatively small number of organisations disconnected from the conflict network is a sure sign that Mali and the Central Sahel form a theatre of operations that transcend national boundaries.

The organisations with the most enemies are the Group for Supporting Islam and Muslims (JNIM), a coalition of jihadist groups affiliated with Al Qaeda, formed in 2017 (Box 4.1), and ISGS, founded in 2015. JNIM and ISGS are also among the largest brokers of violence in the region, as evidenced by their very high betweenness centrality scores, which means that these organisations often lie between two actors that do not fight each other, for example, government forces and their allied militias (Figure 4.6). In purely structural terms, being surrounded by numerous enemies or bridging different clusters of enemies in an opposition network is a liability for any organisation. In a

Figure 4.6

Centrality for top-scoring organisations in Mali and the Central Sahel, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network (brokers). These measures are standardised so that networks of different size can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

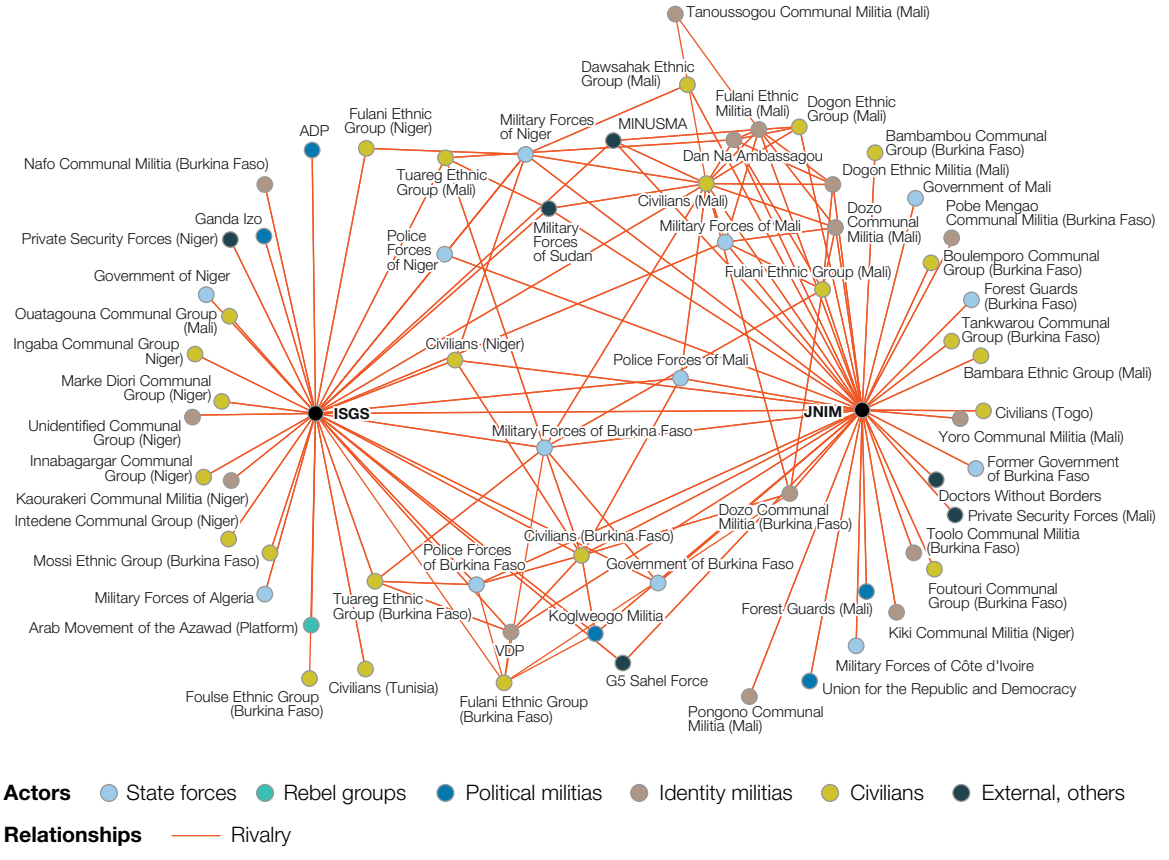
conflict network where ties between actors represent rivalries, brokers are likely to be targeted by various sides and find themselves in a precarious situation. Contrary to positive-tie networks, such as those who connect traders or political allies together, negative-tie networks are detrimental to organisations that have a large number of connections, for the simple reason that each new connection brings more violence.

In 2020, JNIM was in conflict, at some point or another, with 44 unique organisations, the largest number recorded in the region, while ISGS counted 37 enemies. The most striking feature of these organisations is their ability to fight a wide range of enemies: in addition to clashes with police and military forces from six countries, JNIM and ISGS are fighting with ethnic militias such as the Dogon-based group Dan Na Ambassagou, communal militias formed in response to political insecurity, rebel groups, the G5 Sahel, the UN stabilisation mission, private security forces, non-governmental organisations such as Doctors Without Borders (MSF) and numerous civilian groups. The structural representation of these conflicts highlights how government forces are fighting both JNIM and ISGS simultaneously and how civilians are caught in between (Figure 4.7).

Until the end of the 2010s, ISGS conducted numerous attacks with Al Qaeda-affiliated groups against their common enemies (Le Roux, 2019[11]), due to close interpersonal ties between senior commanders. In recent years, however, ISGS and JNIM have increasingly clashed over ideological and strategic issues (Nsaibia and Weiss, 2020[12]). From January to June 2020, ISGS fought JNIM 28 times, resulting in 303 fatalities. The geography of these attacks shows that both organisations worked together to expand their activities in central Mali, northern Côte

Figure 4.7

JNIM and ISGS opposition network in the Central Sahel, 2020



Note: Data available through 30 June 2020. ADP stands for Alliance for the Defense of the Homeland and VDP stands for Volunteers for the Defense of the Homeland.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

d'Ivoire, and in the Séno plain and Gourma region between Mali and Burkina Faso. ISGS is currently competing with JNIM in three specific regions: the lower Inner Delta in Mali, the Sahel Region of Burkina Faso, and along the eastern border of Burkina Faso (Map 4.2).

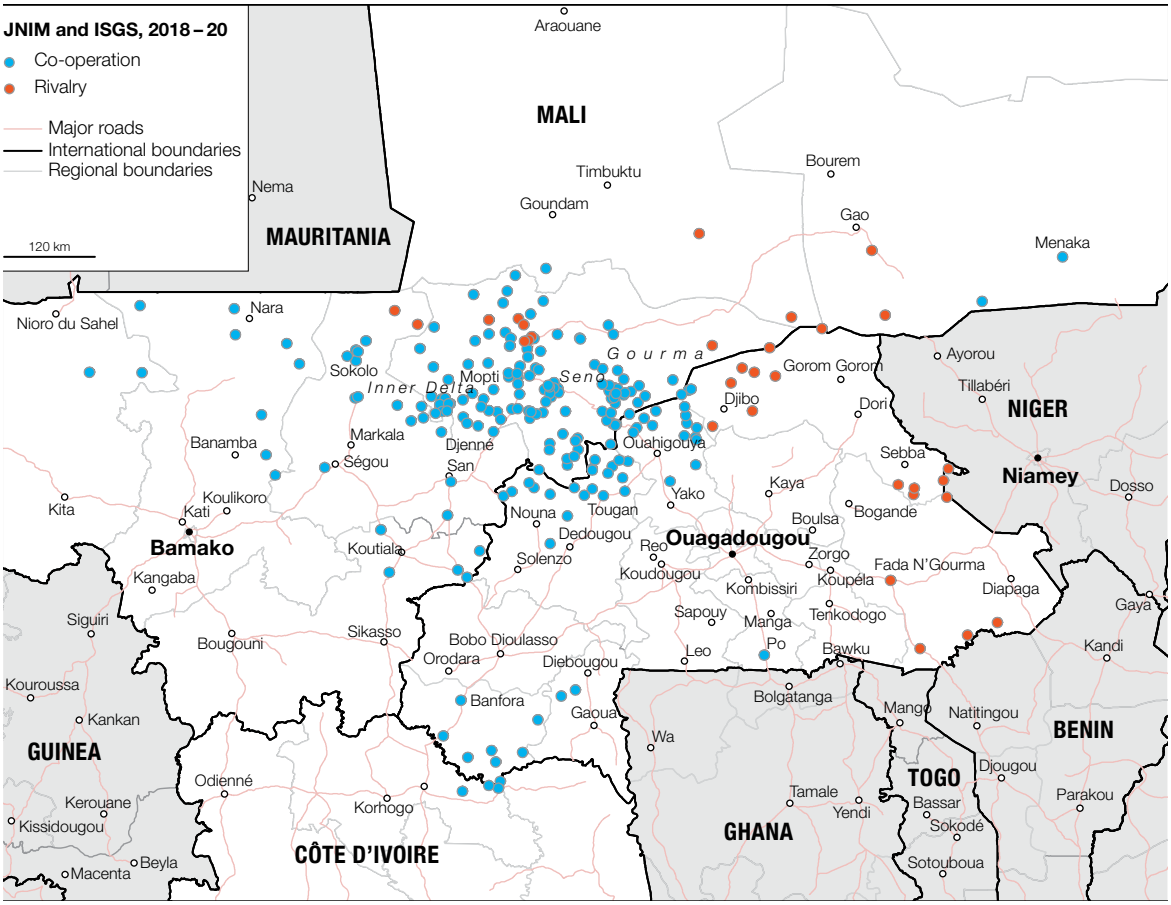
Who is fighting whom in the Lake Chad region?

The impoverished Lake Chad region is the centre of a major insurgency launched by the jihadist organisation commonly known as Boko Haram against the Nigerian government in 2009. Boko Haram, which means "Western-style education is forbidden [by Islam]", was a slogan used by the group's early leader, Muhammad Yusuf (1970–2009), but it was never the group's official name. Since the 2010s, the group has gone by "Jama'at Ahl al-Sunna li-l-Da'wa wa-l-Jihad" or "The Society of Muhammad's True Followers [who are] for Preaching and Holy War".

The origins of the group are debated (Thurston, 2018[13]). The dominant perspective is that it coalesced in the early 2000s as a hard-line, but mostly non-violent, preaching movement centred around Yusuf in the north-eastern Nigerian city of Maiduguri. Another perspective asserts that it grew in the 1990s out of a cell directly encouraged by Al Qaeda and/or Algerian militants and jihadists. In either case, the first violent uprising involving parts of Boko Haram occurred in 2003 in Yobe State, Nigeria. A much larger uprising occurred in summer 2009 in Maiduguri (Nigeria). Yusuf was killed by police afterwards and was succeeded by his close companion, Abubakar Shekau.

Map 4.2

Rivalry and co-operation between JNIM and ISGS in the Central Sahel, 2018–20



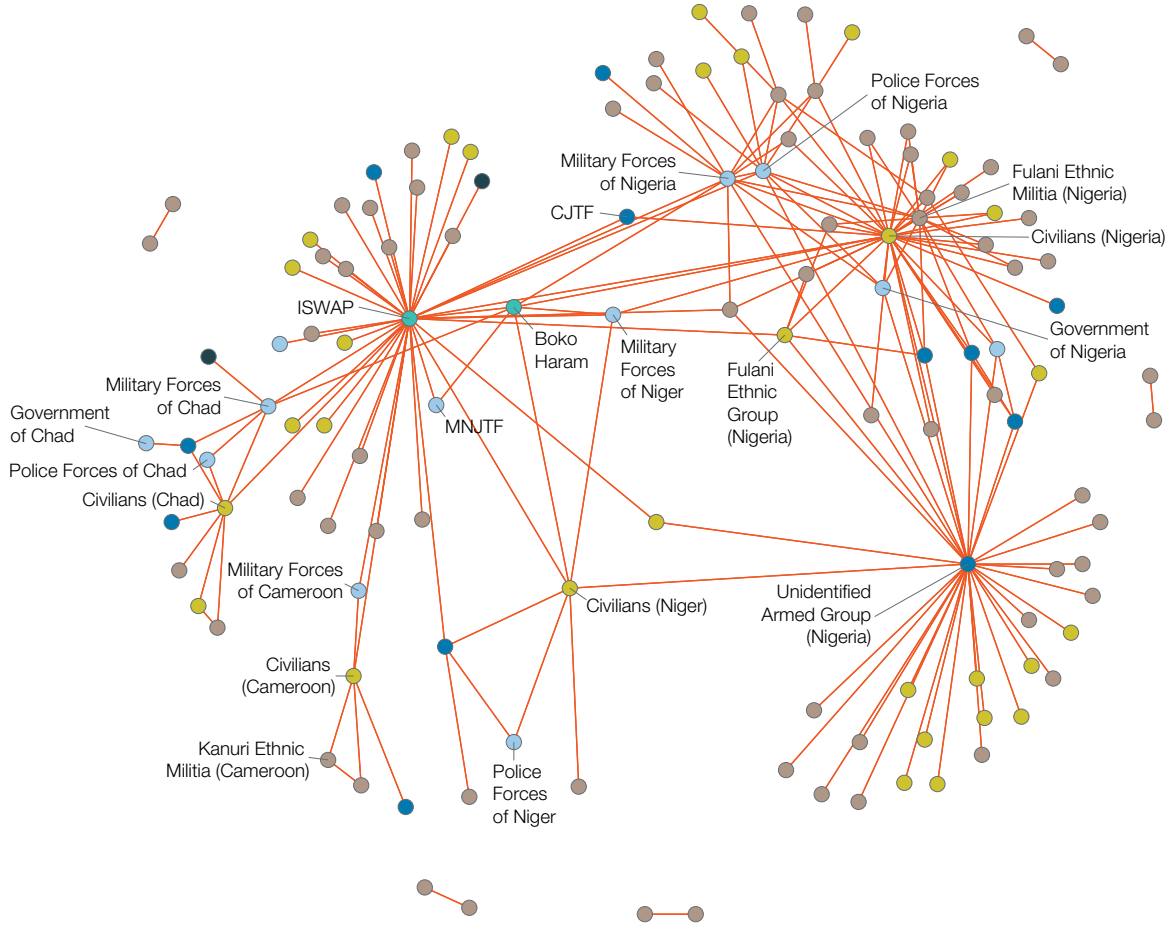
Note: The map shows the events for which JNIM and ISGS were opposed or allies, not the attacks conducted by each organisation separately. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

During Yusuf's time, Boko Haram had individual-level connections to AQIM, who offered broader funding and training after the 2009 uprising. However, AQIM's efforts to control Shekau failed. A group of AQIM-backed Boko Haram dissidents broke away in 2011–12 and formed Jama'at Ansar al-Muslimin fi Bilad al-Sudan (the Group of Muslims' Defenders in the Land of the Blacks, commonly known as Ansaru). Ansaru faced assassinations from Shekau's side as well as manhunts from the Nigerian security services and failed to thrive beyond sporadic operations. In 2015, Boko Haram pledged allegiance to the Islamic State and became its "West Africa Province." In 2016, the majority of fighters broke away, taking the Islamic State's endorsement with them. Analysts now refer to the smaller faction as Boko Haram or Jama'at Ahl al-Sunna li-l-Da'wa wa-l-Jihad led by Shekau, while referring to the larger, breakaway group as Islamic State West Africa Province (ISWAP) under the leadership of Abu Mus'ab al-Barnawi (Zenn, 2020[14]).

Since 2009, the group has conducted waves of terrorism, primarily within north-eastern Nigeria. The magnitude of the Boko Haram insurgency is often underestimated: more than six times more people have been killed around Lake Chad since the early 2010s than during the entire Malian civil war that started in 2012 (OECD/SWAC, 2020[8]). Considered together, the two factions of Boko Haram are by far the deadliest insurgent groups in the region. No fewer than 4 895 violent events involving Boko Haram or ISWAP have been recorded by ACLED since 2009, which represents almost 20% of all

Figure 4.8
Opposition network in the Lake Chad region, 2020



Note: Data available through 30 June 2020.

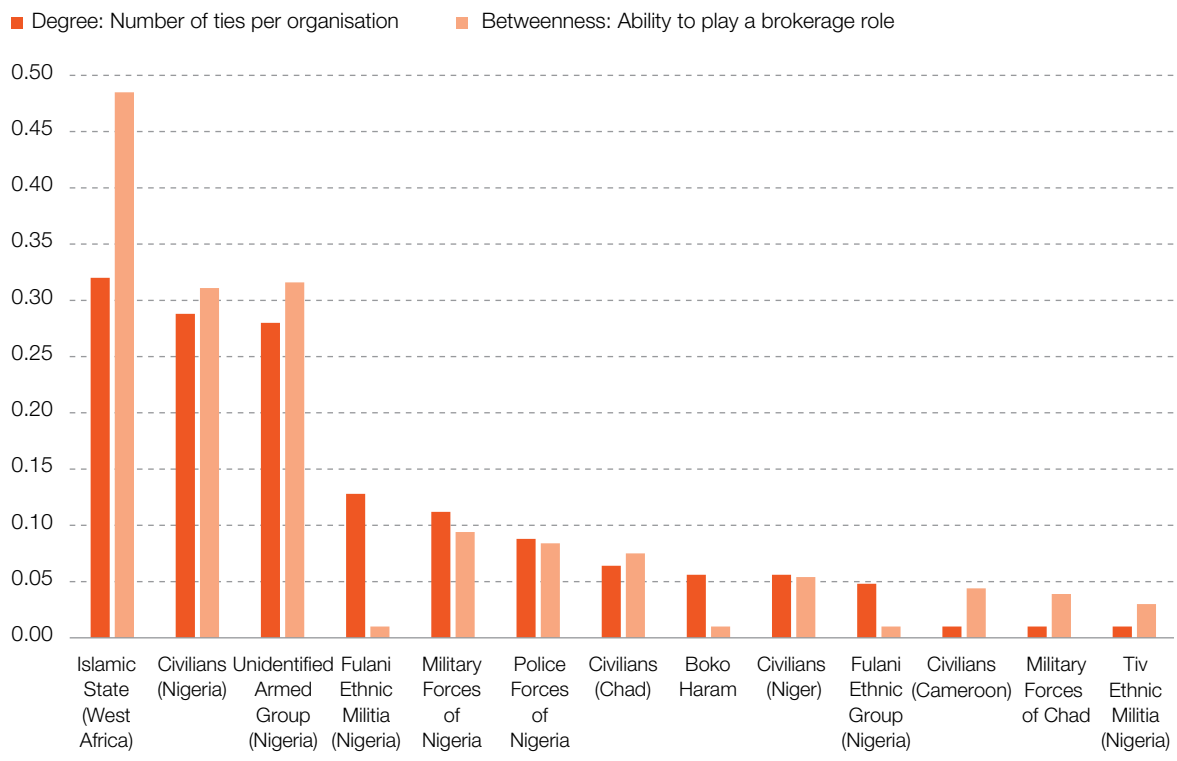
Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

events recorded in West Africa. Initially focused on cities, Boko Haram spread to rural areas, under pressure from government forces and vigilante groups such as the Civilian Joint Task Force (CJTF). In 2014–15, under the leadership of Shekau, Boko Haram seized territory in Borno, Yobe and Adamawa states, where they attacked markets (Van Den Hoek, 2017[15]), levied taxes on agricultural, pastoral and fishery resources and displaced hundreds of thousands of refugees.

In response, the Government of Nigeria launched several large-scale military offensives and reactivated the Multinational Joint Task Force (MNJTF), a joint effort to secure the borders of the region. Boko Haram and its offshoots then resumed a campaign of violence in north-eastern Nigeria, south-eastern Niger, south-western Chad, and northern Cameroon. While the MNJTF's operations made it possible to reduce the intensity of the insurgency, violence within the Lake Chad region remains quite high, and the insurgency, entrenched in a few strongholds, is far from defeated. The study of mobility patterns suggests that the two main factions of Boko Haram are composed of highly mobile cells capable of travelling over long distances repeatedly. These 50–60 cells can relocate to remote places that are difficult for government troops

Figure 4.9

Centrality for top-scoring organisations in the Lake Chad region, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network (brokers). These measures are standardised so that networks of different sizes can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

to access, such as islands of Lake Chad and the Mandara Mountains on the Cameroonian border (Prieto Curiel, Walther and O'Clery, 2020[16]).

The centrality of Boko Haram and ISWAP is clearly visible in the opposition network presented in Figure 4.8. One should note, however, that conflict in the Lake Chad region is far from being limited to Boko Haram and its enemies. Communal violence is widespread in the region, as evidenced by the dense cluster of enemies structured around Fulani and communal self-defence groups, identified as "identity militias" in the ACLED dataset. Less documented than the Boko Haram insurgency, these conflicts over agricultural and pastoral resources, land rights, access to markets and political disagreements, are nonetheless extremely deadly. While the origins and political motivations of the Boko Haram insurgency and communal violence are clearly different, both contribute to increasing the intensity of the conflict environment by spurring violence between other actors in the network. Since Boko Haram started its campaign of violence in the late 2000s, the region has experienced an increase in conflicts between armed actors that did not fight Boko Haram or ISWAP (Dorff, Gallop and Minhas, 2020[17]). This suggests that the entrance of a major opponent to the state, such as Boko Haram, can indirectly lead to increasing the likelihood of a battle between any of the belligerents of the north-eastern Nigeria conflict.

ISWAP is the organisation with the highest degree centrality in the region. Together, Boko Haram and ISWAP are opposed to 44 enemies in the region, far more than any other violent organisation in northern Nigeria and the surrounding countries, and the same number as JNIM in Mali (Figure 4.9).

Civilians are the second-most central actors in the network, an unfortunate position that results in their being targeted both by government forces, Boko Haram and ISWAP. While

the number of civilian fatalities has strongly decreased since its peak in the mid-2010s, more than 16 000 civilians have been killed in clashes with Boko Haram and ISWAP since the beginning of the insurgency.

As in Mali and the Central Sahel, unidentified armed groups are responsible for a significant number of attacks in the Lake Chad region. Their degree and betweenness centrality are next only to ISWAP and Nigerian forces. These groups remain unidentified either because the attackers left the scene without being recognised, did not claim their attack, killed all witnesses or were killed themselves. Could these unidentified groups be either Boko Haram or ISWAP? The patterns of aggression recorded in 2020 suggest otherwise: unidentified armed groups share only 14 out of 69 enemies in common with either Boko Haram or ISWAP. This means that events attributed to unidentified armed groups are committed by numerous other organisations operating in northern Nigeria as well. Some of these incidents are more criminal than political by nature, as when unidentified armed men attack traders or steal cattle. However, an alarming number of these incidents concern local politicians abducted or killed by unidentified gunmen in local government areas (LGAs) in Nigeria.

Who is fighting whom in Libya?

The first Libyan civil war started in February 2011 after security forces responded with violence to protests against the oppressive regime of Muammar Gaddafi. In response to these events, the United Nations Security Council (UNSC) authorised a military intervention to prevent attacks on civilians in Libya. The North Atlantic Treaty Organization (NATO) launched Operation Unified Protector on 23 March to cut off the flow of weapons to Libya by sea and soon began a bombing campaign to destroy government forces and enforce the UN-mandated no-fly zone. Gaddafi was killed on 20 October, and Operation Unified Protector ended 11 days later. The NATO intervention did not put an end to the conflict. Fighting between different factions of the rebellion started shortly after the National Transition Council (NTC) declared Libya "liberated" in October 2011. In May 2014, rivalries between the House of Representatives (HoR) government and the General National Congress (GNC) government led to the Second Libyan Civil War, a conflict that continues to devastate Libya to this day.

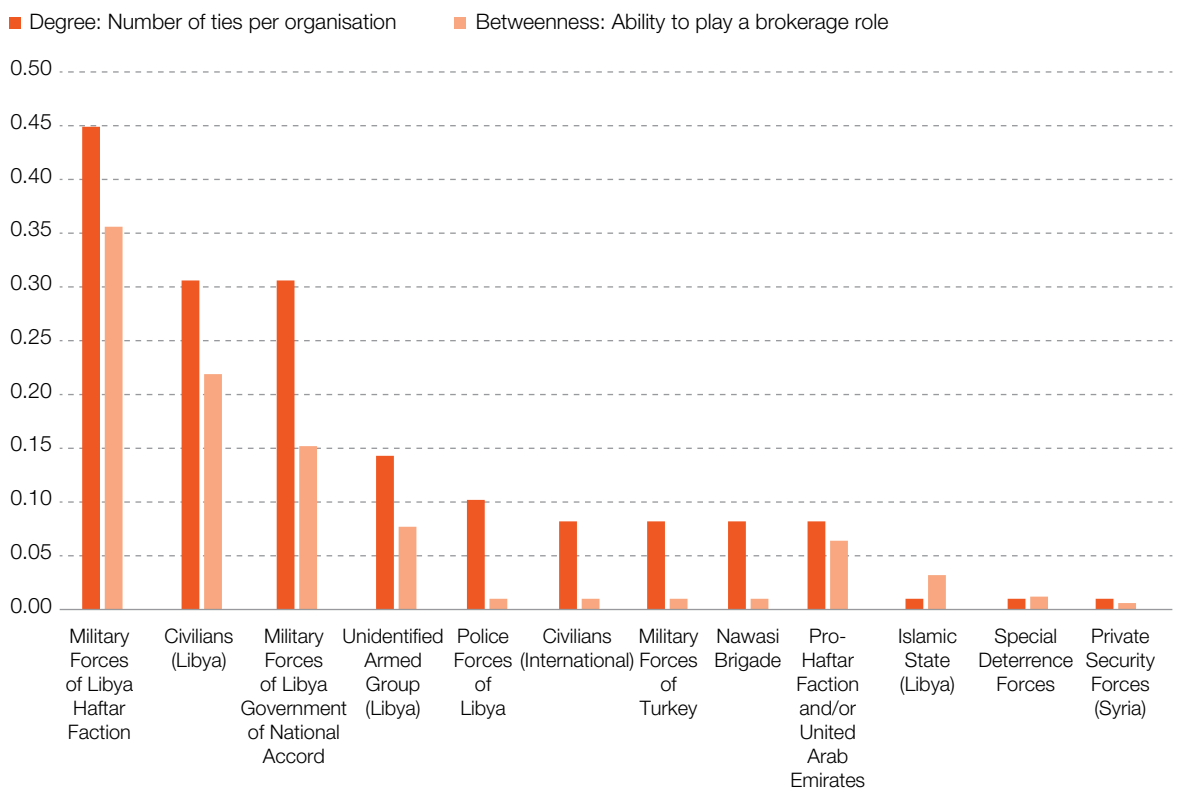
Since Gaddafi's death in late 2011, the Libyan conflict has clearly been a civil war amid state collapse rather than an insurgency against a state, as in Mali, Burkina Faso or in northern Nigeria. The war has also been marked by a clear political and military divide between eastern and western Libya. On one side has been the Tripoli-based Government of National Accord (GNA) put in place in 2015 as part of the UN-brokered Libyan Political Agreement. On the other side has been the eastern Libyan National Army (LNA) in Benghazi (also known as the Libyan Arab Armed Forces) that is affiliated with the HoR in Tobruk. The LNA is led by Field Marshal Khalifa Haftar and has been accused of perpetrating many human rights abuses. There are countless other militias and tribes involved in this conflict fighting for both sides, as well as small pockets of terrorist groups like the Islamic State (IS) and Al Qaeda that have complicated the civil war.

Militarily, the Libyan conflict is dominated by the GNA and the LNA, who have a much higher degree and betweenness centrality than any other organisation in the country (Figure 4.10). Other prominent organisations include the Islamic State, and the Nawasi Brigade and Special Deterrence Forces, two militias that functioned as a police and a fighting force in Tripoli against LNA. Because both LNA and GNA were initially part of a unified force, the former is coded "Military Forces of Libya – Haftar Faction" and the latter "Military Forces of Libya – Government of National Accord" by ACLED. The Libyan conflict is also characterised by a strong military involvement of private security forces and foreign military forces, whose impact on the conflict is discussed below and in Chapter 5.

These specificities are well reflected in the structure of the opposition network in 2020 (Figure 4.11). In addition to fighting each other, the GNA and the LNA are in conflict with numerous militias, private security forces and civilians. Because GNA and LNA forces form the main nodes of the network, both are in conflict with organisations that have fewer enemies than themselves,

Figure 4.10

Centrality for top-scoring organisations in conflict in Libya, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network (brokers). These measures are standardised so that networks of different sizes can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

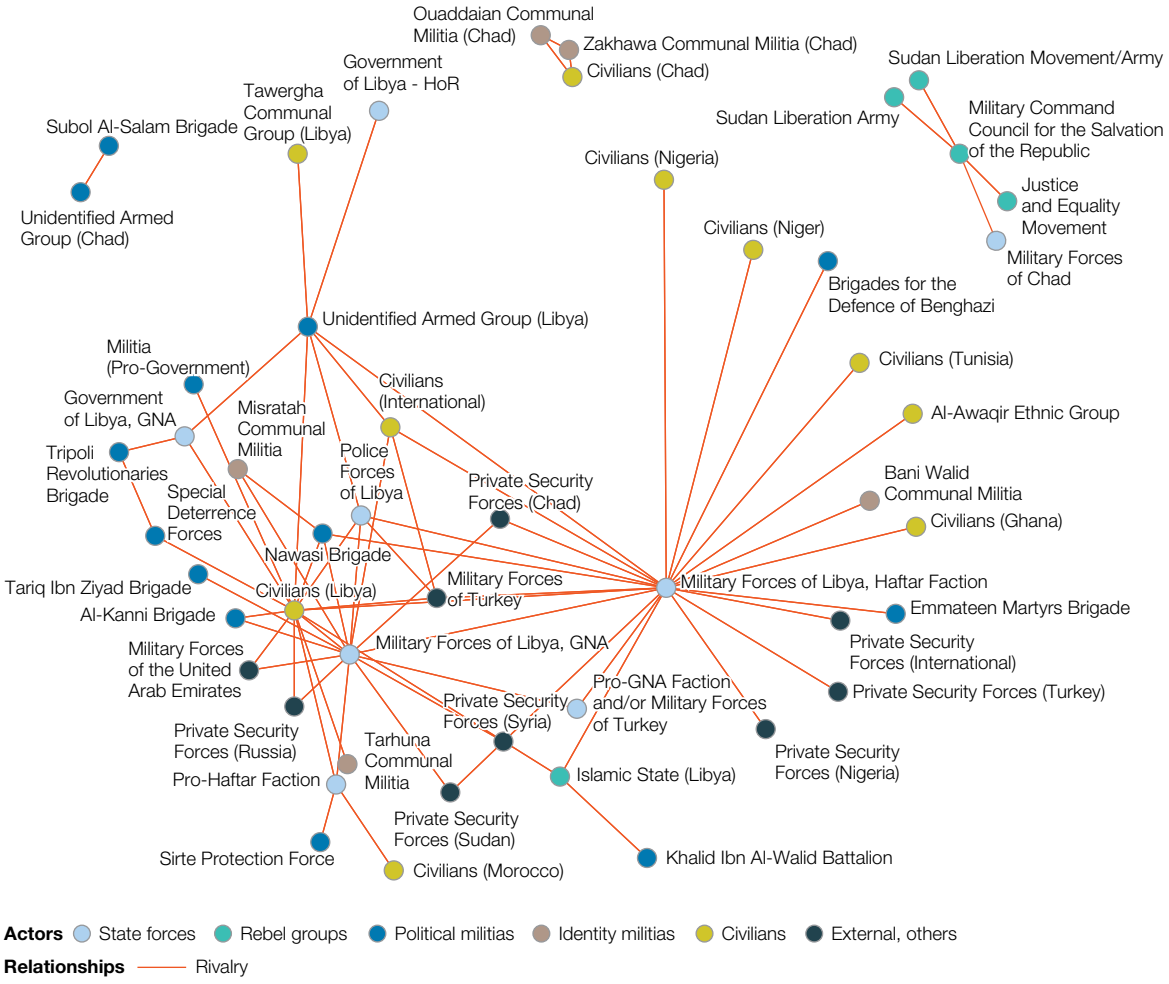
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

leading to a more centralised and less fragmented network than in Mali or Lake Chad.

In April 2019, after years of back and forth fighting between GNA and LNA forces, as well as multiple peace attempts by international actors, Haftar's forces launched an assault on Tripoli (Lacher, 2019[18]). A few foreign governments were openly supportive of this initiative, namely the United Arab Emirates (UAE), the Russian Federation (hereafter, Russia) and Egypt, who sent everything from troops to drones, while states like Saudi Arabia and France provided funding, weapons and intelligence. One of the prime justifications these states gave for their involvement was in response to Haftar's proclaimed anti-political Islamist sentiment, a significant issue for states like Saudi Arabia, the UAE and Egypt who strongly oppose the political Islam of the Muslim Brotherhood in their territory and abroad.

The conflict also has been characterised by the steady provision of arms from abroad. This flow of arms has been in violation of a UNSC arms embargo that has been in place against Libya since 2011, and a pervasive issue that the UN has struggled to address. On 29 July 2019, the former Special Representative of the Secretary-General (SRSG) and Head of the UN Support Mission in Libya (UNSMIL), Ghassan Salamé, presented a plan to seek peace in Libya to the Security Council, proposing: 1) a truce during Eid al-Adha, an important Islamic holiday; 2) a high-level international conference of all countries concerned to work towards a ceasefire, and implement the arms embargo; and 3) a meeting of Libyan leaders to agree on a Libyan-led way forward. The Eid al-Adha truce was soon agreed upon, and planning began for Salamé's second initiative. During this time, between September and November of 2019, 200 mercenaries from

Figure 4.11
Opposition network in Libya, 2020



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

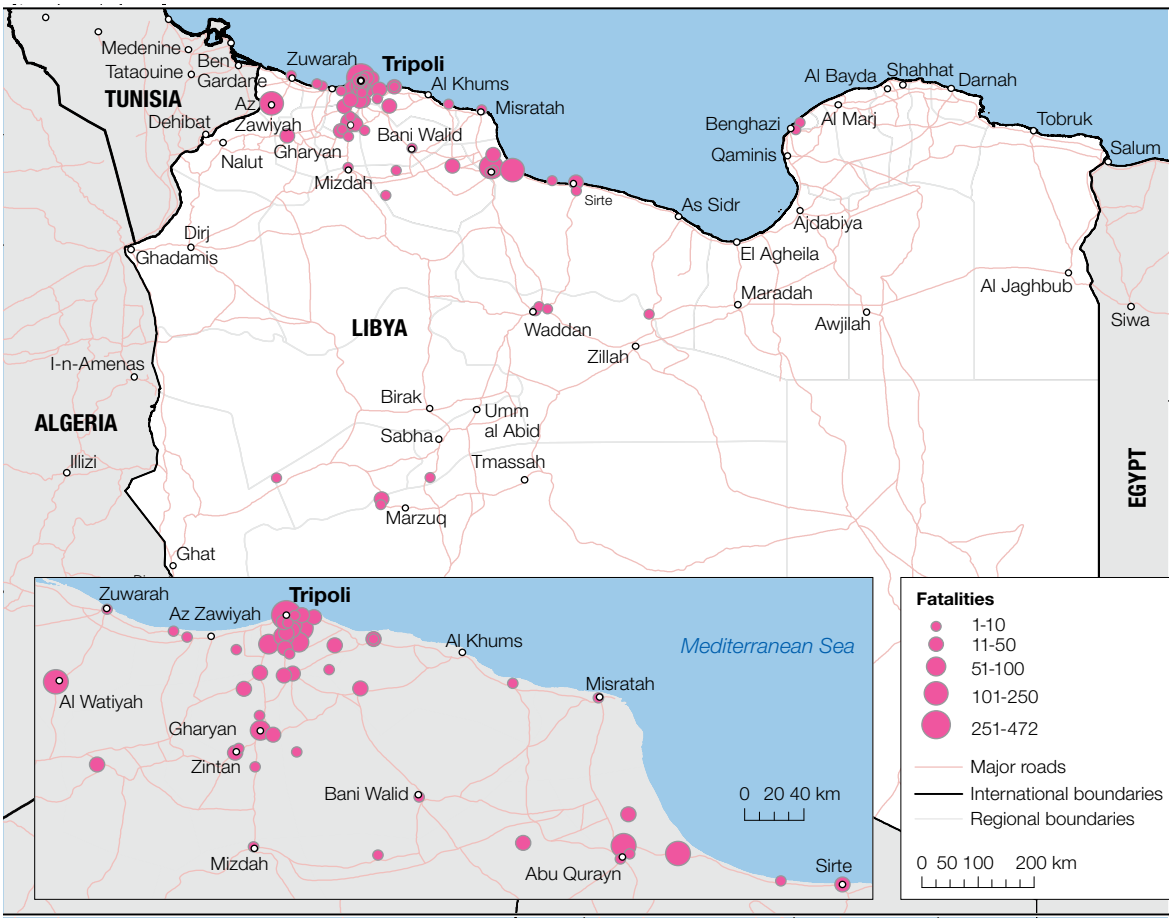
the Wagner Group, owned by a Kremlin-linked businessman, were deployed to Libya in support of Haftar's forces, which allowed them to make additional gains into Tripoli.

Faced with an encroaching LNA, the GNA turned to one of its most supportive international backers: Turkey. On 27 November, Turkey and the GNA signed agreements that cemented their partnership against the LNA and allowed for Turkish support to be sent to Libya. This led to Turkey providing weapons, air defence support, advisors, drones and thousands of Syrian, Turkish-backed fighters that began to push the LNA out of Tripoli in early 2020 (Blanchard, 2020[19]). Since April 2019, Haftar's LNA forces and the GNA have clashed 1 215 times, resulting in 2 260 deaths, according to the ACLED database (Map 4.3).

On 19 January 2020, the second initiative of former SRSG Salamé's plan came into being with the Berlin Conference, following a failed cease-fire negotiation attempt by Turkey and Russia earlier that month. Many states concerned with Libya, including Egypt, France, Turkey, Russia, and the UAE attended, committing to halting foreign influence and arms provisions. They also endorsed the creation of a Joint Military Commission (JMC) made up of Libyan military officials from both sides to work towards a lasting cease-fire. The Berlin Conclusions were endorsed by the Security Council in Resolution 2510 soon after. The first round of Libyan 5+5 JMC talks started

Map 4.3

Clashes between LNA and GNA, 2018–20



Note: Data available through 30 June 2020.

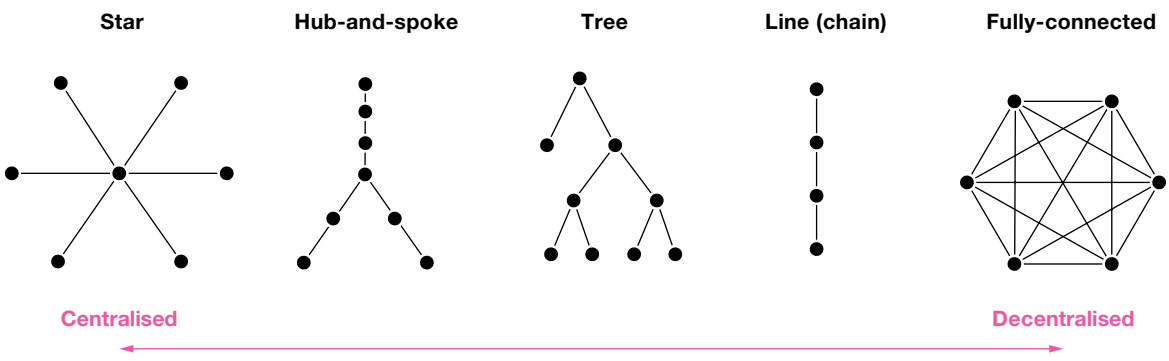
Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

on 3 February, and the progress made there led to a second JMC meeting in late February 2020, where officials worked on a ceasefire agreement that would let some civilians return to their homes. However, an increase in violence in March stalled the talks while arms shipments continued to both sides and GNA forces pushed the LNA out of Tripoli.

In May 2020, the GNA pushed Haftar's forces back to Sirte, a city seen as the gateway to the eastern, oil-rich region. On 6 June, in a meeting with Field Marshal Haftar and HoR President Aguila Saleh Issa, Egyptian President Abdel Fattah el-Sisi called for a ceasefire to start on 8 June, for all foreign troop and mercenaries to leave the country, and for all militaries and militias to hand over their weapons to the LNA, among other points. This Cairo Declaration was largely ignored by the GNA, which regarded it as a one-sided proposal and said they would continue on to Sirte (Melcangi and Dentice, 2020[20]).

Later that same month, President el-Sisi declared that the presence of GNA forces in Sirte was "a red line" for Egypt and that direct intervention would be justified as self-defence if the GNA continued. Three days later, Russia called for ceasefire negotiations, followed by similar calls from France, Germany, the United States, Italy and the Arab League. However, even if a ceasefire were to be called now, the violence since spring 2020, supported by many international actors pursuing their own interests, has already cost thousands of lives, internally displaced over 425 000 Libyans and put some 650 000 other African refugees in Libya in danger (Baldwin-Edwards and Lutterbeck, 2019[21]).

Figure 4.12
Centralisation in networks



Source: Adapted from OECD/SWAC (2019[52]), *Women and Trade Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://doi.org/10.1787/7d67b61d-en.

The changing structure of opposition

How has the overall structure of the opposition network changed over time? The evolution from 2009 to 2020 shows that there is an overall trend toward increased conflict in North and West Africa. It also confirms that opposition networks are increasingly centralised on a few key actors. Each of the subnational conflict theatre networks self-evidently displays higher levels of conflict than does the overall region. However, there is also a significant amount of volatility in the structure of Libya's opposition networks, while Lake Chad has been more consistent over time. By contrast, Mali and the Central Sahel's opposition networks have rapidly changed since 2017, after several years of relative stability.

These results build on two key network-level metrics, density and centralisation, calculated both in the entire region and in each of the three subnational conflict theatres (Mali and Central Sahel, Lake Chad, Libya). The concepts of density and centralisation refer to differing aspects of the overall "compactness" of a network. Density describes the general level of cohesion within a network. It measures the overall proportion of relations present within a network to the maximum number of relations possible. The metric's score ranges from a minimum of 0 to a maximum of 1. Centralisation describes the extent to which this cohesion is organised around particular organisations and ranges from 0 (highly decentralised) to 1 (highly centralised).

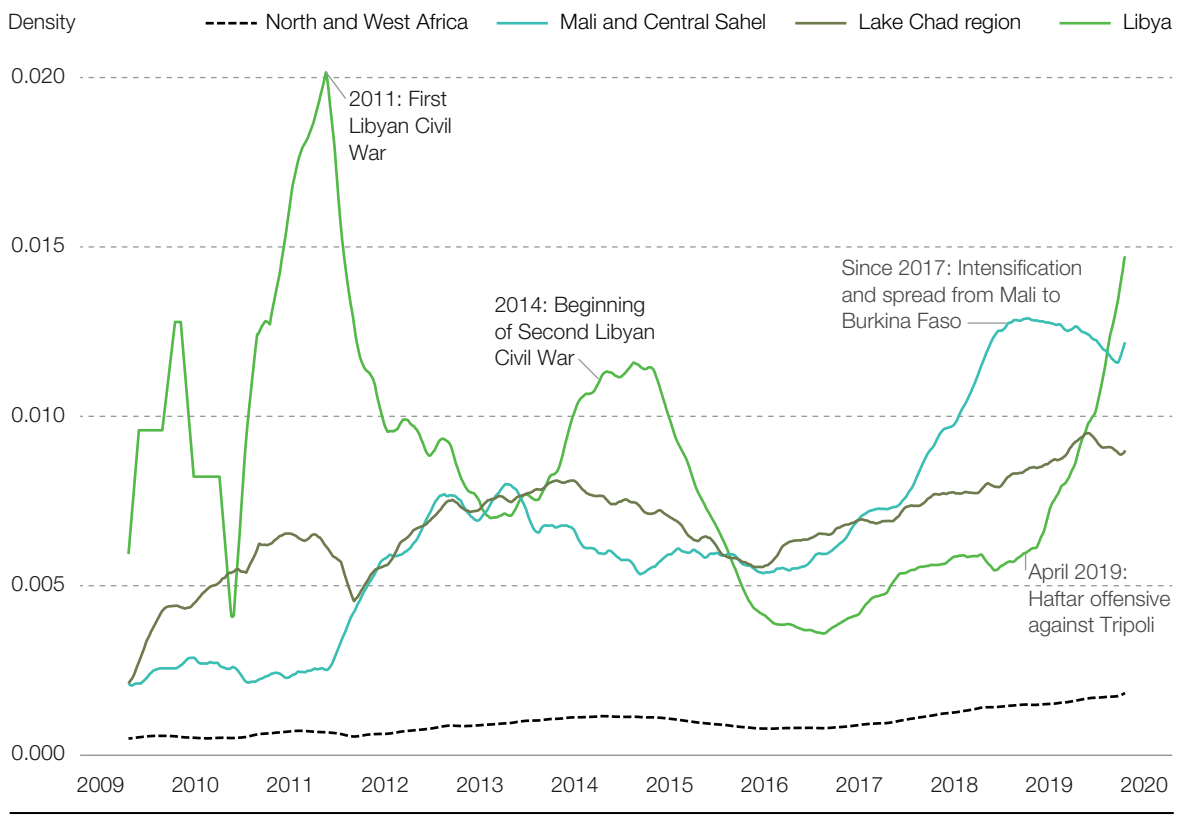
Density and centralisation, therefore, are important complementary measures of a network's overall structure. As previously discussed, there are several different ways to conceptualise centrality in a network. This analysis uses group degree centralisation, which emphasises the structural difference between a highly centralised (star-like) network, where one organisation is linked to all others, and a highly decentralised (fully-connected) network, where all organisations are linked to each other (Figure 4.12).

Each of these key metrics is observed daily for opposition and alliance relations across the entire duration of the study to consider how these networks have evolved over time. The daily density and centralisation metrics are analysed as a formal time series, which is composed of the following elements: an overall trend, a seasonal component and random fluctuation. To simplify the presentation of such a complex and dynamic temporal network time series, only the overall trend element for each metric is presented here. The following discussion considers these trends for the opposition network; the alliance network is discussed later in the chapter.

An increasingly dense and centralised network of opposition

The density of the overall opposition network in the region has been consistently low over time (Figure 4.13). Despite the overall low density, there is a gradual and noticeable increase in density

Figure 4.13
Opposition network density, 2009–20



Note: The graphs begin in July 2009 rather than January 2009 because there is never a trend to observe on the first time point and because the data are smoothed using a 90-day moving-average window.

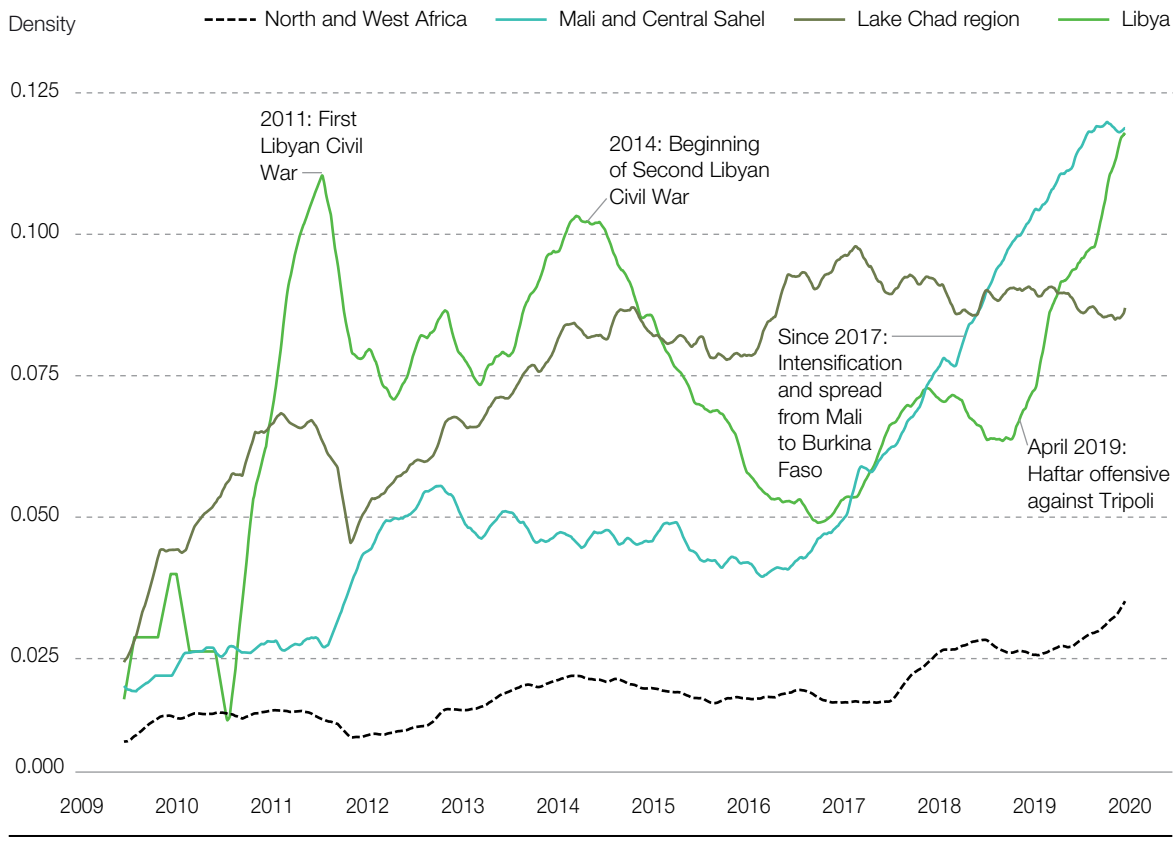
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

scores since 2009, largely a result of the impact of the three conflict theatres: Libya, Mali and the Central Sahel, and the Lake Chad region. The increase in density is an alarming sign for the region, as it means that there are more conflictual relationships between organisations since the late 2000s. It is also alarming because density is increasing even as the number of organisations is also increasing, which typically is expected to reduce network density. While each of the three theatres has consistently higher densities than the regional network, there is significant volatility present.

The overall trend is towards increased density, but there are episodes where the density drops dramatically, only to return to higher levels later. This is most noticeable in Libya, which had the highest density between 2009 and 2016, the lowest density between 2017 and 2019, and the highest again in the first half of 2020, marked by the failed offensive against Tripoli by Haftar forces. The Central Sahel and Lake Chad theatres had been more consistent over time while also exhibiting the graduate upward climb that characterises the region at large. The case density trends largely correspond with major escalations and de-escalations within each theatre. For example, the intensification and spread of the Sahelian conflict from Mali to Burkina Faso since 2017 resulted in a significant and corresponding density increase as well.

In contrast with low density measures, the opposition networks have been relatively more highly centralised over time (Figure 4.14). This means that the overall regional relations have exhibited a star-like structure that involves many conflicts with a few key organisations (Figure 4.12) over time. This points to the importance of states as key combatants in these conflicts as state forces will typically attract and prosecute

Figure 4.14
Opposition network centralisation, 2009–20



Note: The graphs begin in July 2009 rather than January 2009 because there is never a trend to observe on the first time point and because the data are smoothed using a 90-day moving-average window.

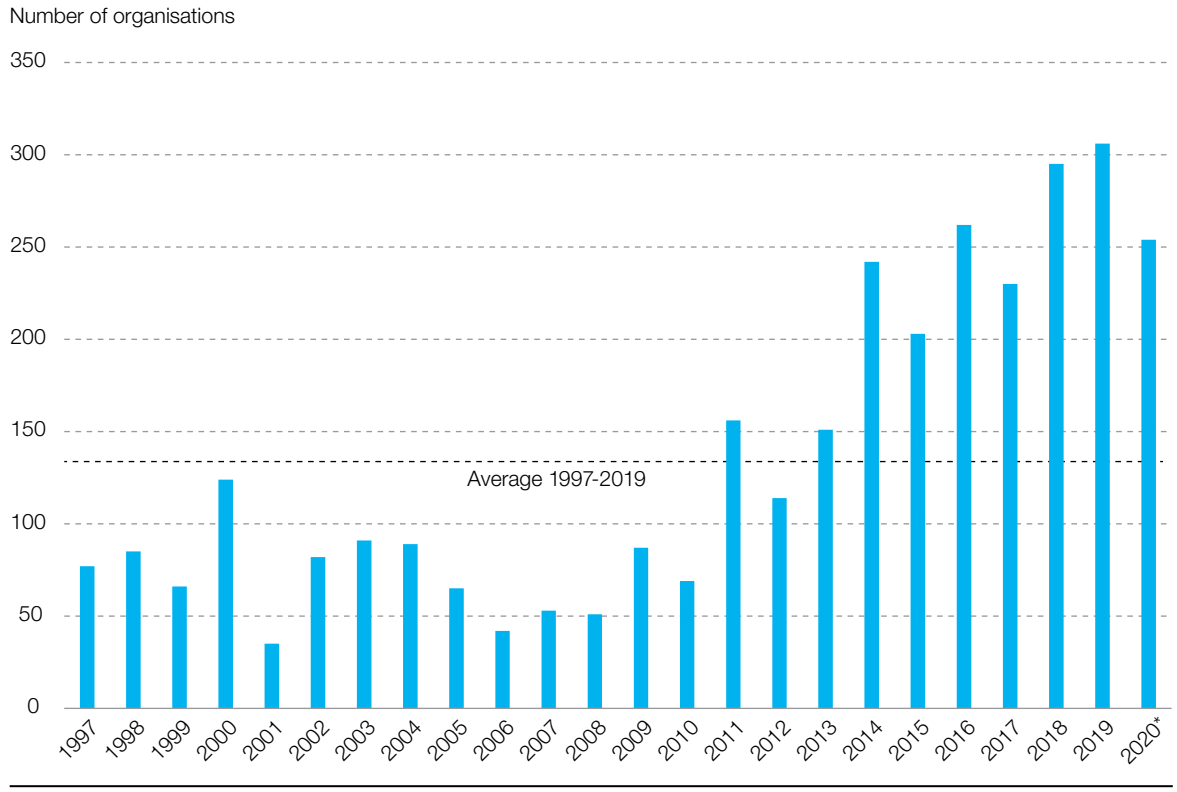
Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

violence against competing non-state organisations within their territory. It also points to the importance of a few non-state violent groups, like JNIM, ISGS, Boko Haram and ISWAP, in pressing the conflicts in the individual theatres. Like states, these types of organisations will also be involved in many more oppositional ties than the average group in the network.

While the overall trend has been toward more centralised opposition networks, Libya has been more volatile than has the Central Sahel and Lake Chad conflict theatres, with significant oscillations between higher and lower centralisation. These episodes reflect the tendency of the Libyan network to decentralise during ceasefires and peace talks and to recentralise around the two main opponents, the GNA and the LNA, when those processes have failed. By contrast, Lake Chad has been far more consistently centralised over time, with few clear periods of decentralisation since 2012. The conflict has experienced a gradual intensification and a multiplication of the number of actors targeted by both government forces and jihadist militants, with no periods of ceasefire or negotiations. Different still is the Mali and Central Sahel opposition network, which has become more rapidly centralised since 2017, after several jihadist organisations merged into JNIM and expanded within Mali and into neighbouring Burkina Faso.

These dynamics speak not only to the fluidity of the conflicts but also to a persistent centralised architecture found in these opposition networks. Given that each theatre is composed of a series of non-state organisations seeking to challenge or replace state forces (Central Sahel and Lake Chad) or to fill the void in a collapsed state (Libya), it is likely that the opposition networks will remain centralised even as the networks themselves continue to expand in terms of participants.

Figure 4.15
Co-operative organisations in North and West Africa, 1997–2020



Note: *Data available through 30 June 2020.
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

ALLIANCES WITHOUT COALITIONS

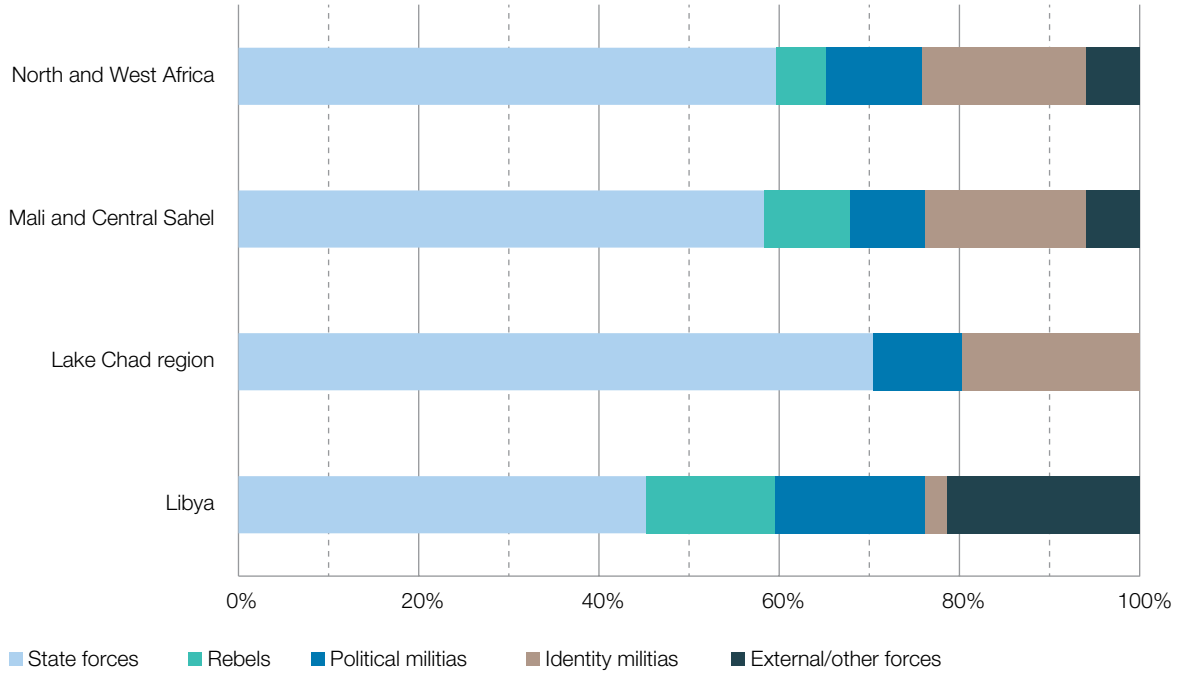
Fewer alliances than conflicts

North and West Africa have experienced a rise in the number of alliances since the early 2010s. Only 87 organisations involved in co-operation were recorded in 2009, against 306 ten years later (Figure 4.15). This evolution first reflects the overall increase in the number of violent actors in the region. While there were fewer than 200 organisations at the beginning of the 2000s, there were 704 in 2019. The region still counts far fewer alliances than conflicts. In 2019, only 127 organisations were involved in co-operative events, against 562 for conflictual events. Similarly, co-operative events in which two or more organisations have established a partnership against a common enemy represent less than 20% of all the events recorded from 1997 to 2020.

The increase in the number of alliances can also be linked to new military partnerships among state forces. State forces are the most likely type of actor to build co-operative relationships with other organisations (Figure 4.16). In 2020, state forces represented 60% of the co-operative organisations in the region, a proportion that is roughly similar to the one found in Mali and the Central Sahel. In the Lake Chad region, where there are no alliances involving rebel groups, state forces represent 70% of the co-operative organisations. External and other forces are particularly represented in Libya where the LNA is supported by Egypt, France, the UAE and Russian mercenaries, while the GNA receives military aid from Turkey, Italy and Qatar.

Alliances among rebels or jihadist organisations remain fragile and opportunistic. In Mali, for example, the awkward alliance between

Figure 4.16
Co-operative organisations by actor and region, 2020



Note: Data available through 30 June 2020.
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

the secular rebels of the MNLA and the Jihadists of Ansar Dine against the Malian army in 2012 was short-lived. Alliances are also built on circumstances rather than common objectives or ideology. The Libya Dawn alliance launched by Tripoli's Islamists and Misratan militias, and the Dignity alliance built around Haftar's faction of the LNA proved unable to prevent the growing fragmentation of the political landscape in 2014 (Lacher, 2020[22]). In the Lake Chad region, Boko Haram and ISWAP have few if any allies, which also contributes to explaining the prominence of alliances built around state actors.

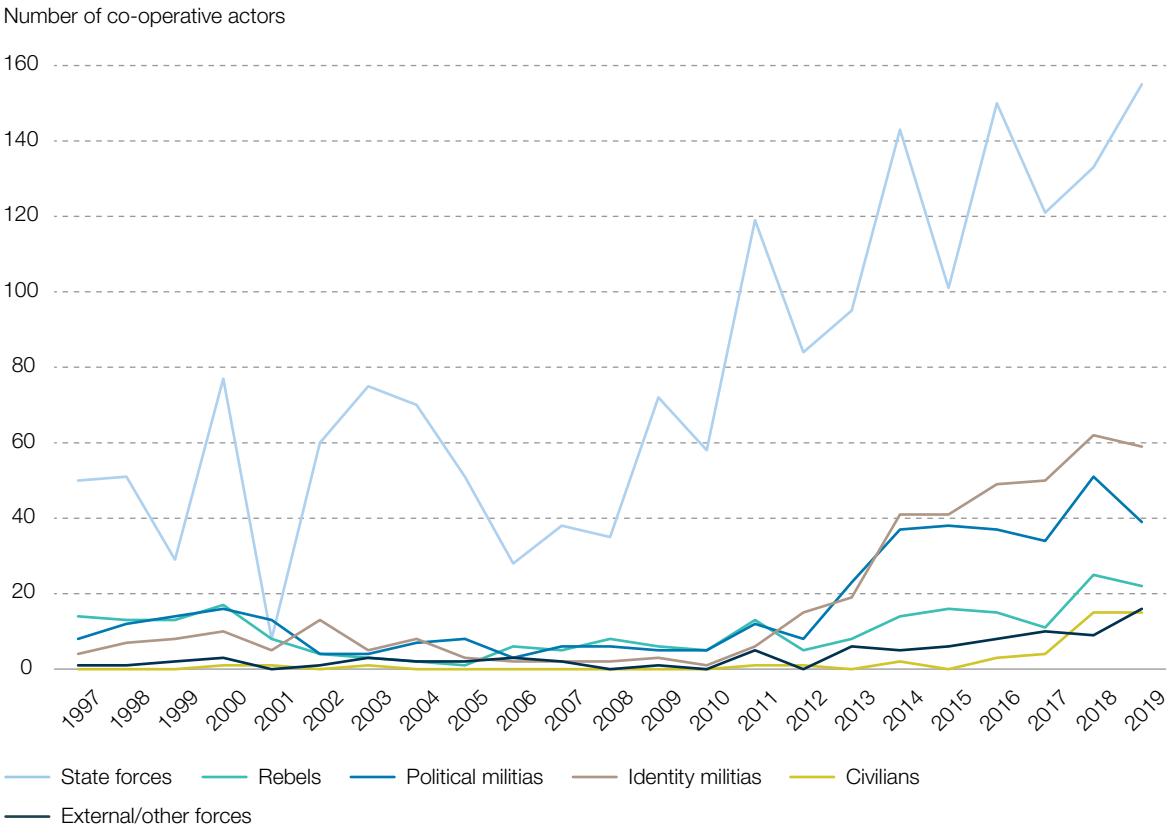
State actors are also those who have established the fastest-growing number of alliances: there were less than 40 co-operative state forces in 2007 against nearly 150 ten years later (Figure 4.17). The need for more alliances can be read as a response to the multiplication and spread of conflict in the region. These alliances have taken many shapes: reactivation of joint forces such as the MNTJF around Lake Chad, co-operation with foreign troops in Mali, increased use of ethnic militias such as Dan Na Ambassagou or the Imghad Tuareg Self-Defense Group and Allies (GATIA) in Mali, self-defence groups such as the Civilian Joint Task Force (CJTF) in northern Nigeria or the Koglweogo in Burkina Faso. The strong increase in the number of alliances among states is reflected, with a short delay, in the rise of political and identity militias since the early 2010s. While militias have sometimes proved effective in combating rebels or religious militants where state power is deficient, these organisations are increasingly used to serve political or private interests. In a conflict environment where violence is widespread, they continue to commit serious human rights abuses, further contributing to the intensification of violence across the region, particularly against civilians.

A sparse and decentralised network of allies

Violent organisations collaborate far less than they fight across the region. In 2020, the network that connects the organisations

Figure 4.17

Co-operative actors by type in North and West Africa, 1997–2019



Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Table 4.4

Composition and density of co-operation networks by region, 2020

	Number of nodes	Number of ties	Density, %
North and West Africa	129	147	1.8
Lake Chad	28	34	9.0
Mali and Central Sahel	44	55	5.8
Libya	24	28	10.1

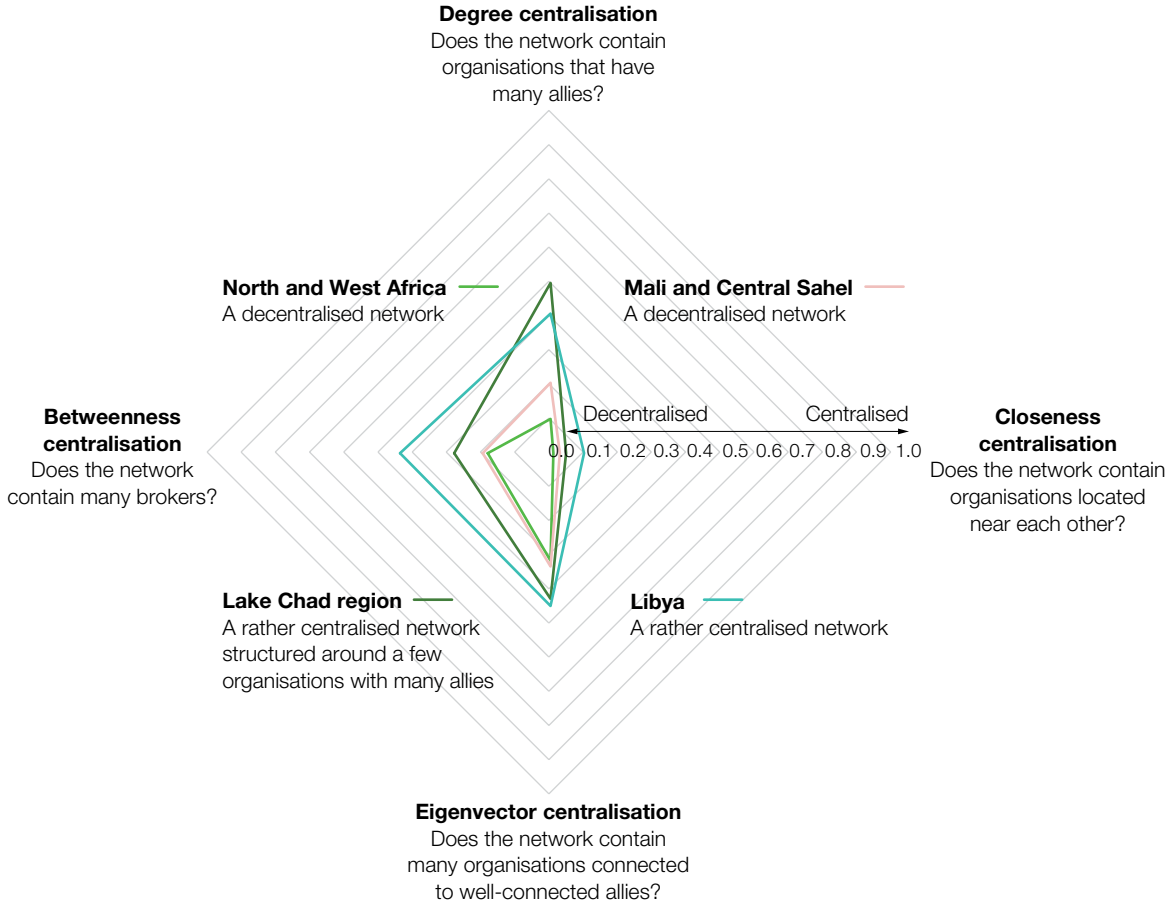
Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

involved in co-operative events in North and West Africa counted only 129 nodes, against 562 in the opposition network. Similar disparities are observed in each of the three theatres of operations: only 55 alliances were recorded in Mali and the Central Sahel, 34 around Lake Chad, and 28 in Libya in 2020 (Table 4.4).

The paucity of alliances reflects the difficulty of building long-lasting coalitions between organisations that often have divergent political agendas. It does not mean, however, that the density of the co-operation network is low. Despite the small number of organisations involved, co-operation networks are denser than their opposition counterparts, suggesting that the few violent organisations that collaborate have more allies than enemies on average. The density of ties is lowest at the regional level (less than 2%), due to the considerable distance between the actors, and highest in Libya and

Figure 4.18

Are the co-operation networks rather centralised or decentralised?



Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Lake Chad, where roughly 10% of possible ties are actually present in the network.

The most striking feature of the co-operation networks is not that their density is several times higher than the opposition networks. After all, this is quite understandable, as belligerents tend to have as many allies as possible, and as few enemies as possible. What makes the co-operation networks particularly unique is that their overall architecture is almost similar to the opposition networks. Despite representing two very different kinds of relations, both types of networks tend to have a cosmopolitan structure characterised by an abundance of loosely connected brokers. This structure differs from a provincial structure in which organisations are clustered around a few central players. In contrast, both types of networks are rather sparse and decentralised. This is particularly the case for the North and West African network, which has a low density, average number of ties (degree), and clustering coefficient, and in which organisations are separated by a rather large average number of steps (Table 4.5). The structure of the Malian and Libyan networks also largely conforms to this model. The Lake Chad region is the only case for which the structure of the actors presents features associated with both provincial and cosmopolitan networks.

Co-operation networks appear to contain few organisations that are particularly well connected, as suggested by the low levels of centralisation presented in Figure 4.18. Each centralisation measure ranges from 0 if the network is completely decentralised, to 1 if the network is perfectly centralised around a single actor. The North

Table 4.5

Are the co-operation networks rather provincial or cosmopolitan?

Measure	North and West Africa	Lake Chad	Mali and Central Sahel	Libya
Density, %	1.8	9.0	5.8	10.1
Average number of allies	2.3	2.4	2.4	2.3
Clustering coefficient	0.5	0.7	0.6	0.6
Average path length	4.3	1.9	2.7	2.5
Type of network	Cosmopolitan	Neither cosmopolitan nor provincial	Rather cosmopolitan	Rather cosmopolitan

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

and West Africa network is clearly a decentralised structure in which very few actors are either well-connected (degree) or capable of playing the role of brokers (betweenness). A similar structure can be found in Mali and the Central Sahel: none of the four centralisation measures considered here exceeds 0.3, a sure sign that most organisations tend to form loosely connected clusters. Co-operation networks in the other theatres of operations appear more centralised. Both the Lake Chad region and Libya network contain organisations that have established many alliances and/or are tied to well-connected allies, as evidenced by relatively high degree and eigenvector scores. The Libyan network also contains a significant number of important brokers that build alliances between local militias.

The decentralised structure of the regional co-operation network is particularly visible when each organisation is mapped as a node connected to its allies (Figure 4.19). To emphasise the role of key players, the size of the node is proportional to its brokerage centrality, i.e. the number of times that a node is located between two other allied nodes. Organisations that play the role of brokers appear bigger than the others. Three major clusters emerge from the region, each one structured around a major military organisation: the military forces of Field Marshal Haftar in Libya, the military forces of Nigeria around Lake Chad and the military forces of Niger in the Central Sahel. Governmental actors clearly dominate each theatre of operations and are densely connected to civilian organisations, political militias and identity militias. In contrast, violent extremist organisations such as ISGS occupy the periphery of the regional network due to their limited ability to build large-scale alliances.

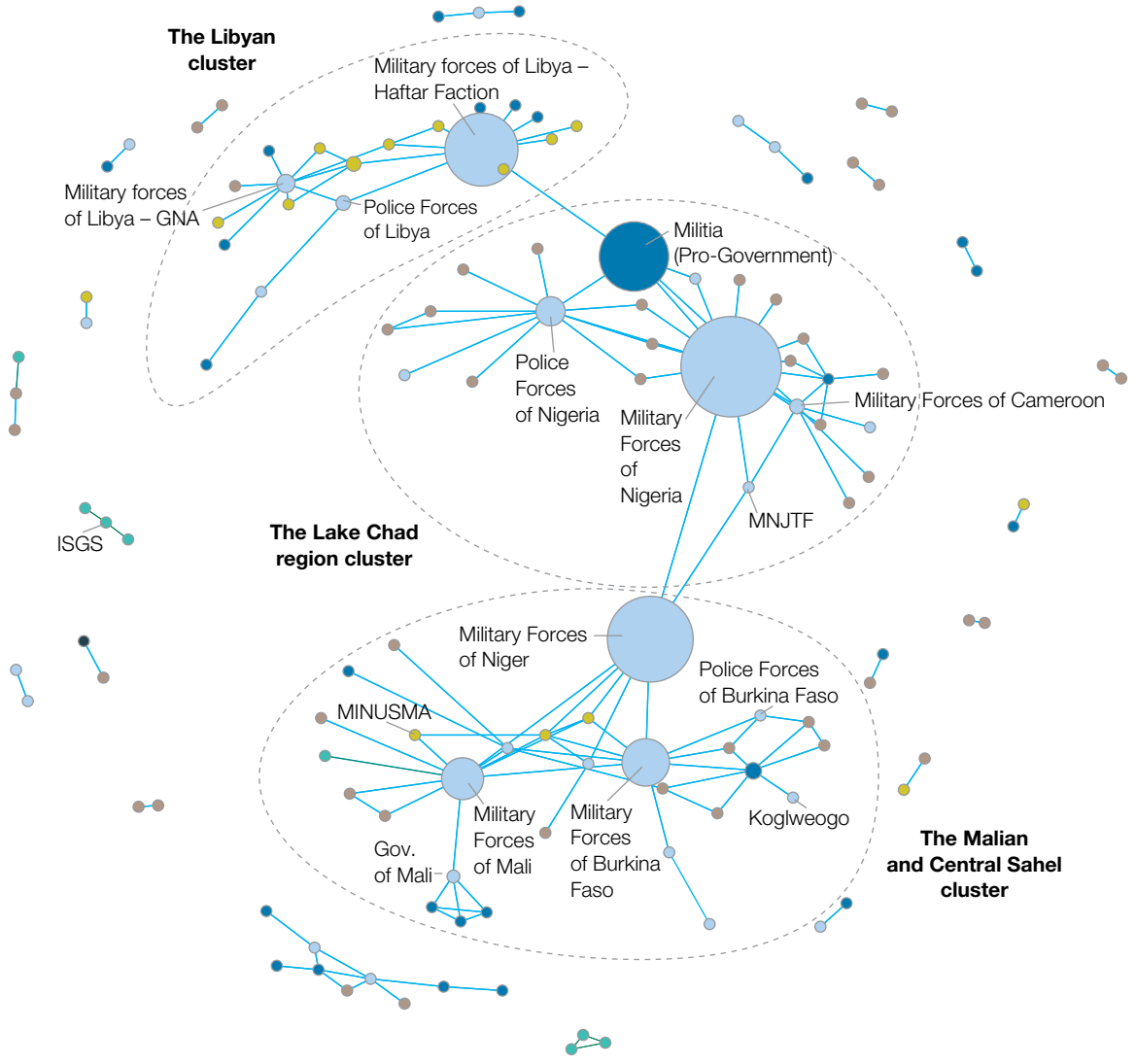
Who is allied with whom in Mali and the Central Sahel?

In Mali and the Central Sahel, the main component of the network is structured around the military forces of Mali, Niger, Burkina Faso, and secondarily, around the police forces of each country (Figure 4.20). Malian forces are allied with numerous communal and ethnic militias, such as Dan Na Ambassagou, a group founded in 2016 to defend Dogon communities from attacks from jihadist and Fulani-dominated groups. In March 2019, Dan Na Ambassagou massacred 160 Fulani near Bankass, more than 1 000 km from Bamako. Condemned by the international community, this incident led the Malian president to fire two generals and dissolve the group suspected of originating the attack. Amid growing pressure on insecurity in the country, this event also contributed to the resignation of the Malian government on 18 April. While Dan Na Ambassagou was formally disbanded in 2019, 48 events attributed to the group resulting in 300 deaths are recorded by the ACLED database in the first six months of 2020. The deadliest of them took place on 18 March 2020, when militants described either as JNIM fighters or Fulani self-defence militiamen clashed with Dan Na Ambassagou in the northern part of the Bandiagara Plateau, resulting in 109 deaths.

These events have contributed to intensifying conflict in the Dogon Country and Séno-Gondo

Figure 4.19

Co-operation network in North and West Africa, 2020

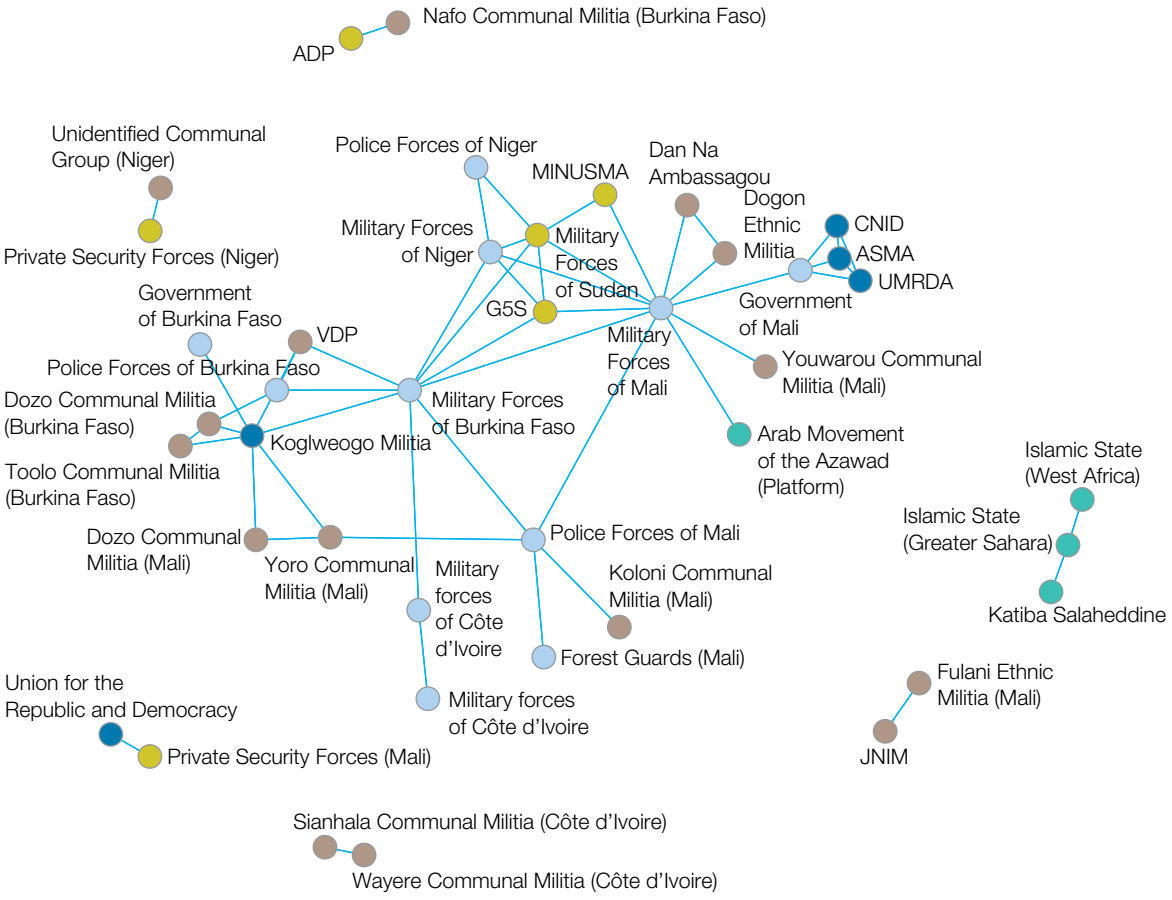


Note: The size of the node is proportional to its importance as brokers (betweenness centrality). Data available through 30 June 2020. ADP stands for Alliance for the Defense of the Homeland; VDP stands for Volunteers for the Defense of the Homeland; CNID stands for National Congress for Democratic Initiative; ASMA stands for Alliance for Solidarity in Mali; and UMRDA stands for Malian Union for the African Democratic Rally.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Figure 4.20

Co-operation network in Mali and the Central Sahel, 2020



Note: Data available through 30 June 2020. ADP stands for Alliance for the Defense of the Homeland; VDP stands for Volunteers for the Defense of the Homeland; CNID stands for National Congress for Democratic Initiative; ASMA stands for Alliance for Solidarity in Mali; and UMRDA stands for Malian Union for the African Democratic Rally.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

plain that extends towards Burkina Faso. While the development of religious extremism in central Mali fuels the attacks, the rivalries between local communities have deeper roots that are prone to resurface when left unaddressed by the authorities. In the Séno-Gondo plain, the expansion of the Fulani in the 19th century led Dogon farmers to withdraw from their villages on the plain and adopt defensive settlements in the Bandiagara Cliff. In the 20th century, the descendants of these farmers moved eastwards to fill the void left by the Fulani and have given rise to an agricultural front that they regard as their original lands (Box 4.2).

State forces occupy the centre of the co-operation network in Mali and the Central Sahel. Military and police forces indubitably have more allies than any other type of organisations: six of them can be found among the ten organisations that have the highest number of allies (degree centrality). State forces of Mali, Niger and Burkina Faso also play an important brokerage role between communal militias and self-defence groups that, by definition, have a narrow and local focus, and larger military coalitions such as the G5 Sahel that pursue a more regional mandate. One of the most central self-defence

Box 4.2

Rivalries between Dogon and Fulani in Central Mali

The Dogon arrived in the Bandiagara area in the 15th century and dispersed into relatively autonomous communities that colonised not only the Bandiagara Cliff and Plateau but also the vast plain of Séno-Gondo, a sandy area east of the cliff. In 1818, the Fulani conqueror Seku Amadu founded the Empire of Macina, which gradually extended from Segou in the south to Timbuktu in the north. The Fulani used their cavalry to raid the Dogon plateau and the plain of Séno-Gondo, destroying the crops of the farmers and enslaving the local populations. In response, the Dogon built spectacular fortress villages in the Bandiagara Cliff and Hombori Mountains. Those who remained in the plain of Séno-Gondo became the serfs of the Fulani.

The Dogon could hardly count on their military strength to defeat the Fulani. Instead, they allied themselves with El Hadj Umar Tall, a Toucouleur conqueror from Futa Toro who conquered the capital of Macina in 1862. El Hadj Umar Tall's nephew, Tidjiani Tall, settled in Bandiagara where he ensured the fidelity of the Dogon. The French arrived in the region in 1893 and supported the Toucouleur in their fight against the Fulani of Macina. The fall of the Macina Empire allowed the Dogon to resume their expansion in the plain of Séno-Gondo at the expense of the Fulani. The colonial administration feared that the local political chiefs would lose control over the population and would no longer be able to collect tax. France, however, never had the means to counter the Dogon migration. During this second colonisation of the Séno-Gondo plain, the Dogon reclaimed the lands their clans possessed before the Fulani conquest of the 19th century. Numerous families settled in the New Country east of the Bandiagara Cliff. Each of the old Dogon villages developed a colonisation corridor roughly perpendicular to the cliff (Gallais, 1975[23]).

The independence of Mali in 1960 did not challenge the colonisation of the Séno-Gondo plain by the Dogon. The plain transformed into an agricultural front where competition for land and water between farmers and herders was increasingly fierce. The Fulani progressively lost most of their cattle and turned to agriculture or small livestock. Politically, the Fulani could also not match the political support that the Dogon found within the Malian state. In recent decades, the Dogon migration from the cliff towards the Séno-Gondo plain has intensified due to demographic growth. New crops have replaced the pastures of the Fulani, whose way of life is now threatened by a lack of investment in the pastoral sector and recurring droughts. The presence of the Malian state in the region has also diminished as insecurity in the centre of the country increases. This explosive context encourages ethnic militias to capitalise on the fear of religious extremism to promote their local objectives.

Source: Original text provided by Olivier Walther.

groups in the co-operation network is the Koglweogo ("Guardians of the bush" in Mooré), as the vigilante that proliferated after the fall of Blaise Compaoré in rural Burkina Faso are known (Hagberg, 2018[24]). While initially supported by the Burkinabe government as a local response to attacks by JNIM and Ansaroul Islam (Box 4.3) in the north and east of the country, Koglweogo are criticised for undermining the state monopoly of legitimate violence and contributing to human rights violations (Leclercq and Matagne, 2020[25]).

Who is allied with whom in the Lake Chad region?

The co-operation network in the Lake Chad region is structured around the military forces of Nigeria (Figure 4.22), the organisation with the highest number of allies and the largest ability to bridge disconnected actors. In 2020, the Nigerian military forces were allied with 15 other organisations, including 4 foreign military forces and 7 communal militias. The indisputable predominance of the Nigerian military in the network of local alliances contrasts with the quasi absence

Box 4.3
Ansaroul Islam

Ansaroul Islam (Defenders of Islam) is a jihadist group in Burkina Faso. The group emerged in the Soum Province of northern Burkina Faso in 2016 and launched its first official attack on the Nassoumbou military base in December of that year. The group was founded by Ibrahim or Boureima Dicko, a preacher with ties to the Malian jihadists Amadou Kouffa and Iyad ag Ghali, who were key figures in creating the jihadist coalition JNIM in March 2017 (International Crisis Group, 2017[26]).

Dicko, often referred to by the title "Malam" (meaning teacher, from the Arabic mu'allim), had a preaching career in Soum dating back to the 2000s. He founded an initially non-violent religious network called al-Irshad (meaning guidance) and had ties to the local religious establishment, including a marriage to a daughter of the Emir of Djibo, capital of the Soum Province. By the early 2010s, Dicko began working to channel the frustrations of some Soum residents and particularly marginalised members of his own Fulani ethnic group. Due to local socio-economic tensions and the impact of the escalating crisis in neighbouring Mali, where Dicko appears to have received some training prior to 2016, his message became very militant around 2015–16. The Emir disowned him and al-Irshad split, with Dicko's followers then targeting the non-violent wing of al-Irshad. Dicko appears to have died, either of wounds or of an illness, in northern Burkina Faso in early 2017. He was succeeded by his brother Ja'far, about whom relatively little is known (Abba, 2017[27]).

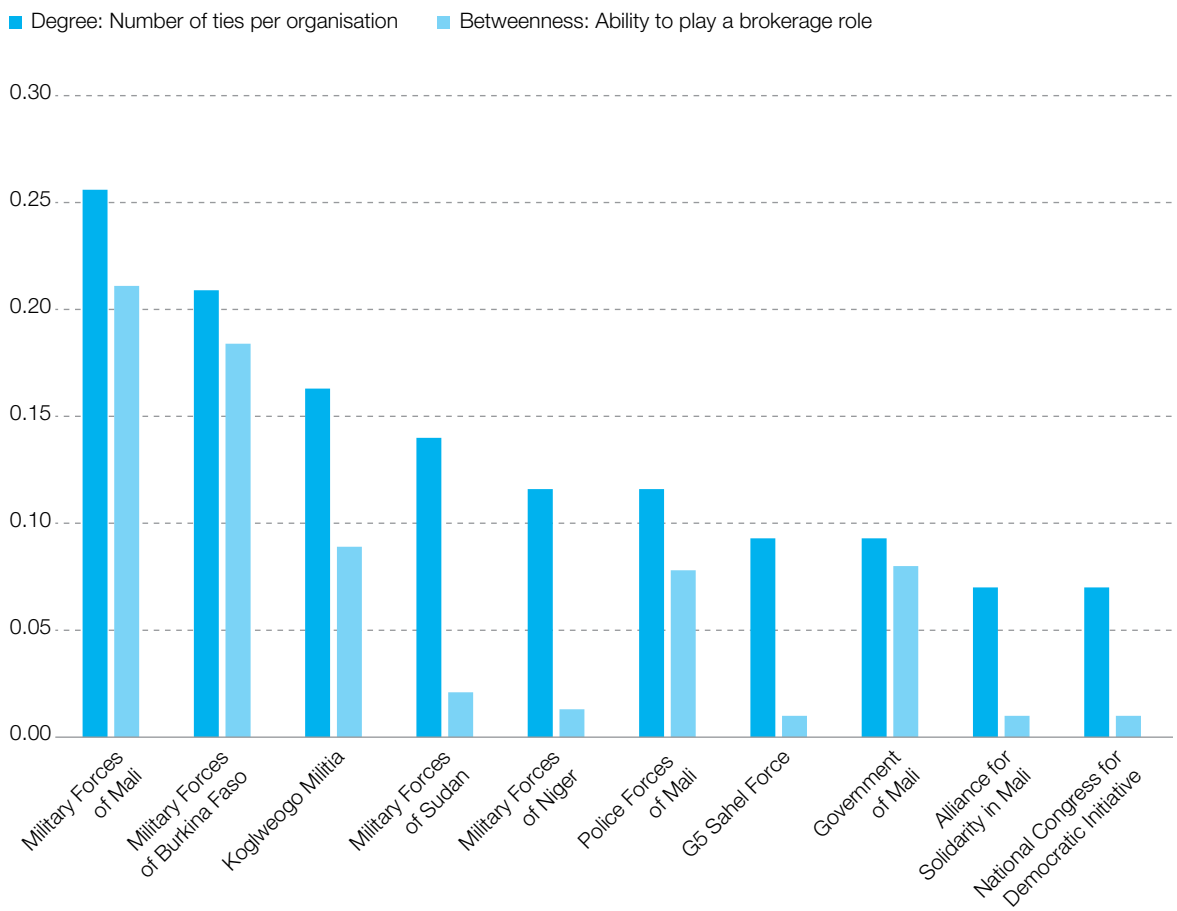
Ansaroul Islam's precise relationships with JNIM, and with JNIM's rival, the Islamic State in the Greater Sahara, have seemed fluid and opaque. Ansaroul Islam has played a key role in the escalating crisis in northern Burkina Faso. In a way loosely similar to dynamics in central Mali, jihadist violence contributed to state security forces' collective profiling of the Fulani as a whole, as well as to inter-ethnic conflict between the Fulani and other ethnic groups (Le Roux, 2019[28]). As of late 2020, the situation in eastern and northern Burkina Faso is dire, with over 1 million displaced and with Djibo under a de facto jihadist blockade.

Source: Original text provided by Alexander Thurston.

of jihadist organisations. Neither Boko Haram nor ISWAP is known for working particularly closely with allies. The speculations that Boko Haram and its offshoots have clandestine backers among local or national elites must be regarded as baseless conspiracy theories. Since 2009, only 17 co-operative events have been recorded between a Boko Haram faction and another organisation of the region, including a kidnapping with Ansaru in 2013; sporadic attacks with unidentified armed groups and Fulani militias; and formal claims on behalf of ISGS. With the exception of the kidnapping, none of these events denotes actual co-operation, and they represent only 0.3% of the events in which one of the factions of Boko Haram was involved in the last 11 years.

The Nigerian military is primarily responsible for fighting Boko Haram and ISWAP within the country, while rights of pursuit have been negotiated on a bilateral basis with Cameron, Chad and Niger (Albert, 2017[29]). As a result, the centrality of the military of Nigeria in the network of allies is unrivalled (Figure 4.23). The Nigerian military is the organisation that has the largest number of allies (degree), and that plays the largest role of broker in the region (betweenness). Nigerian troops form the core of the MNJTF, a military formation initiated by Nigeria in 1994 with a mandate to address cross-border security issues in the Lake Chad region under a joint command structure. Reactivated in 2012 by the African Union to confront the Boko Haram insurgency, the multinational force now includes Benin, Cameroon, Chad, Niger and Nigeria (Institute for Security Studies, 2016[30]). Nigeria and its neighbours have conducted numerous major operations against Boko Haram and ISWAP since 2015 (OECD/SWAC, 2020[8]). Half of the fatalities and nearly three-quarters of the events related

Figure 4.21
Centrality for top-scoring organisations in Mali and the Central Sahel, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network. These measures are standardised so that networks of different sizes can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

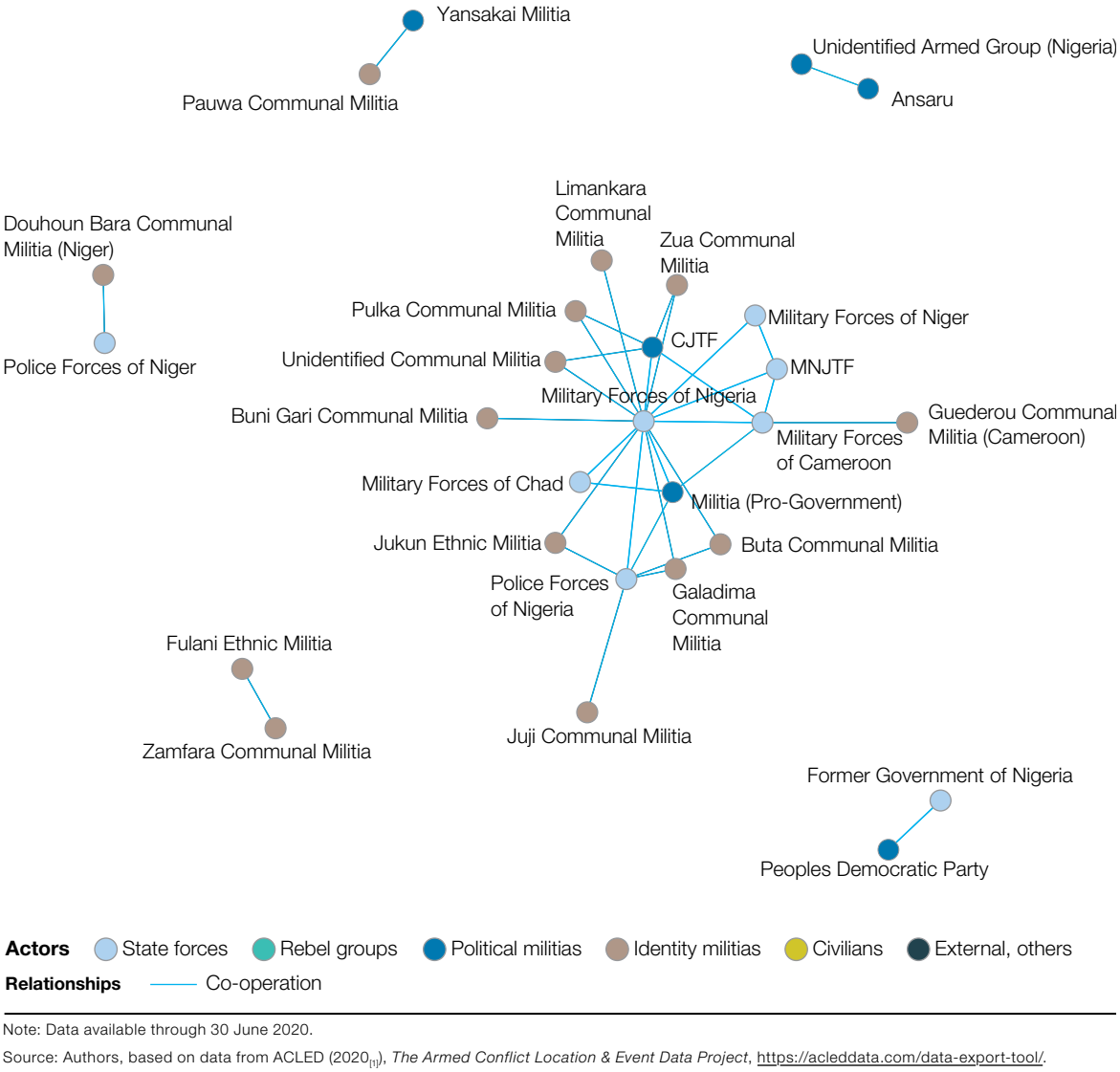
to these multinational operations have occurred in Borno State, which suggests that Nigeria conceives of MNJTF as a military instrument to secure its north-eastern borders.

Who is allied with whom in Libya?

In 2020, the Libyan co-operation network is dominated by two well-connected organisations, the GNA and the LNA of Field Marshal Haftar, each surrounded by numerous allies who do not necessarily work together (Figure 4.24). For example, Russian private security forces may support the LNA without having to conduct joint operations with other militias affiliated with Haftar forces. This particularity offers structural opportunities to the dominant actors of the alliance network, who can theoretically co-ordinate military actions in relative independence, without having to fear that their allies will join forces against them.

Consequently, the overall centrality of GNA and LNA is noticeably superior to any other organisation in 2020 (Figure 4.25). The reality on the ground is more elusive, and both the GNA and LNA have struggled to maintain alliances built on versatile and opportunistic allies. For example, the alliance built by Haftar with the Kaniyat militia from Tarhuna, the Tareq ben Ziyad Brigade, and other loyalist or marginalised communities from the west and south of the country relied on the assumption that Tripoli would be quickly taken in 2019. As Lacher (2020[22]) demonstrates, centralising command

Figure 4.22
Co-operation network in the Lake Chad region, 2020



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

over irregular forces has proved impossible in Libya since the fall of Gaddafi. As a result of continuously changing alliances, politicians and military commanders have been unable to exploit the advantages of joint forces for long periods.

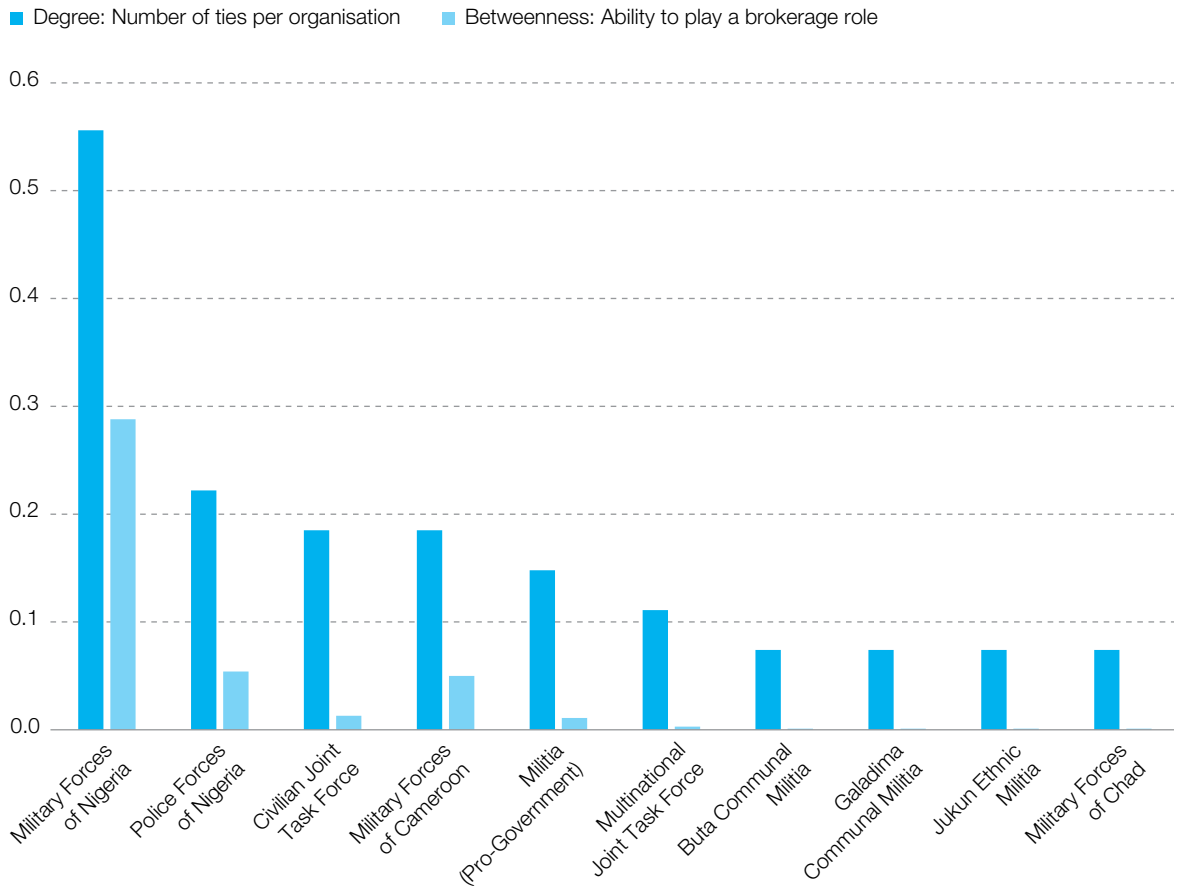
The changing structure of alliances

The evolution of co-operation between organisations shows that there is a slight overall trend toward increased co-operation since 2009, but that alliances remain the exception rather than the norm. However, each of the conflict theatres displays more evidence of co-operation than within the overall region. Further, alliances are highly volatile over time, particularly in Libya and Mali. Both demonstrate periods with low levels of co-operation punctuated by intervals with a great deal more co-operation.

The study presents the evolution of co-operation between organisations from 2009 to 2020 with regard to the entire region and each of the three subnational conflict theatres by considering network density and degree centralisation. Both were observed daily for alliance relations from 1997–2020. Density measures the

Figure 4.23

Centrality for top-scoring organisations in the Lake Chad region, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network. These measures are standardised so that networks of different sizes can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

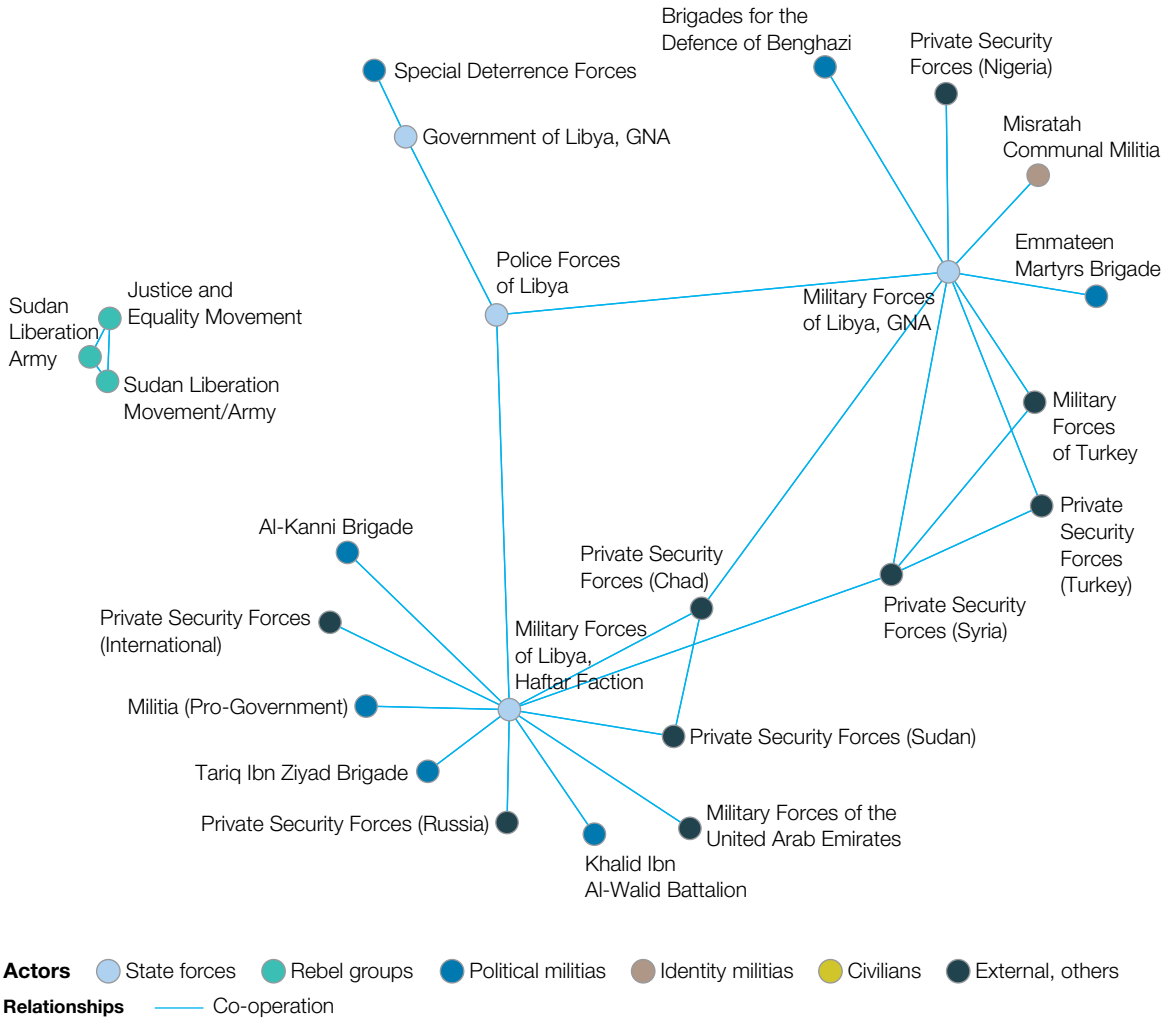
overall proportion of relations present within a network to the maximum number of relations possible, and the metric's score ranges from a minimum of 0 to a maximum of 1. Centralisation ranges from 0 (highly decentralised) to 1 (highly centralised). The daily density and centralisation metrics were analysed as a formal time series that is composed of the following elements: an overall trend, a seasonal component and random fluctuation. To simplify the presentation of such a complex and dynamic temporal network time series, the following discussion presents just the overall trend element for each metric.

A slight increase in co-operation

Co-operation within the entire region has exhibited a slight upward trend since 2014. This increase in co-operation is clearly visible in Figure 4.26, which presents the overall density trend of the alliance network by day. Even so, the baseline for such co-operation in the region has been, and remains, quite low. Consequently, when organisations do choose to act within the region, they have largely done so on their own. This is particularly true of non-state actors, as states can be more inclined to co-operation, either with each other or with groups that serve as proxies.

The slight overall trend toward increased co-operation is largely driven by the higher level of alliances present in each of the three conflict theatres. Libya, Mali and the Central Sahel, and the Lake Chad region have each exhibited persistently higher levels of co-operation than has North

Figure 4.24
Co-operation network in Libya, 2020



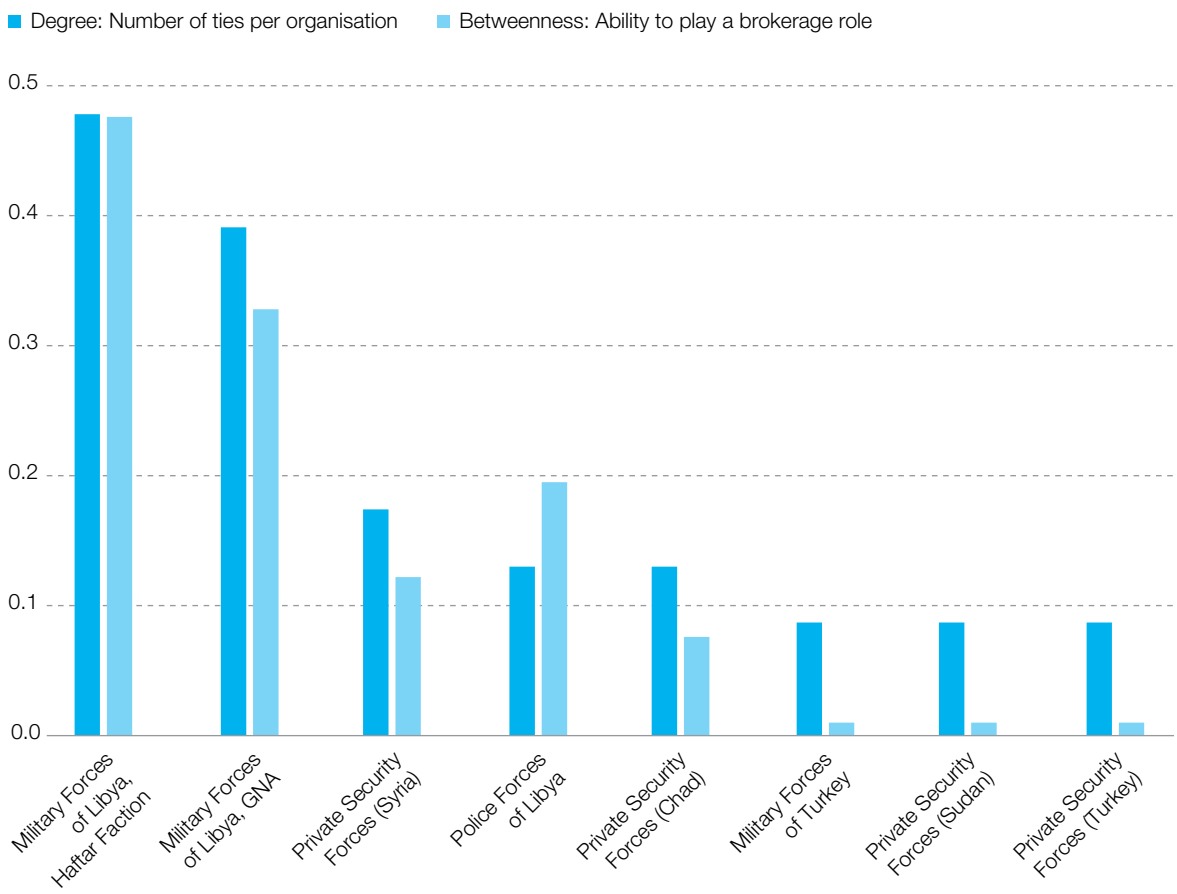
Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

and West Africa at large since 2010. Further, co-operation has been increasing again in Libya and Mali since 2017. Interestingly, both Libya and Mali have also exhibited episodic volatility in alliances, which speaks to the fact that most examples of co-operation are those of short-term convenience and are unlikely to lead to durable partnerships over time. It also points to the potential for such ephemeral relationships to be disrupted through the actions of other groups, regional governments or international actors (Chapter 5).

The periodic rise and fall of alliances in Libya and Mali may be thought of as representing waves of co-operation. For example, co-operation first peaked in Libya between late 2010 and 2012 as groups opposed to the Gaddafi regime worked together during the initial phase of civil war and the NATO intervention. As the second phase of civil war emerged in mid-2014, so too did another wave of heightened co-operative relations, as like-minded organisations again made common cause against common foes. Beginning in 2017, co-operation between organisations began to climb yet again and, as of mid-2020, co-operation in Libya had surpassed its previous peak in 2011. This recent evolution is explained by the military offensive launched by Field Marshal Haftar in April 2019 against the GNA in Tripoli,

Figure 4.25
Centrality for top-scoring organisations in Libya, 2020



Note: Degree centrality represents the number of ties an organisation has. Betweenness centrality refers to the ability of an organisation to bridge several parts of the network. These measures are standardised so that networks of different sizes can be compared, by dividing the number of actual ties by the maximum number of possible ties. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

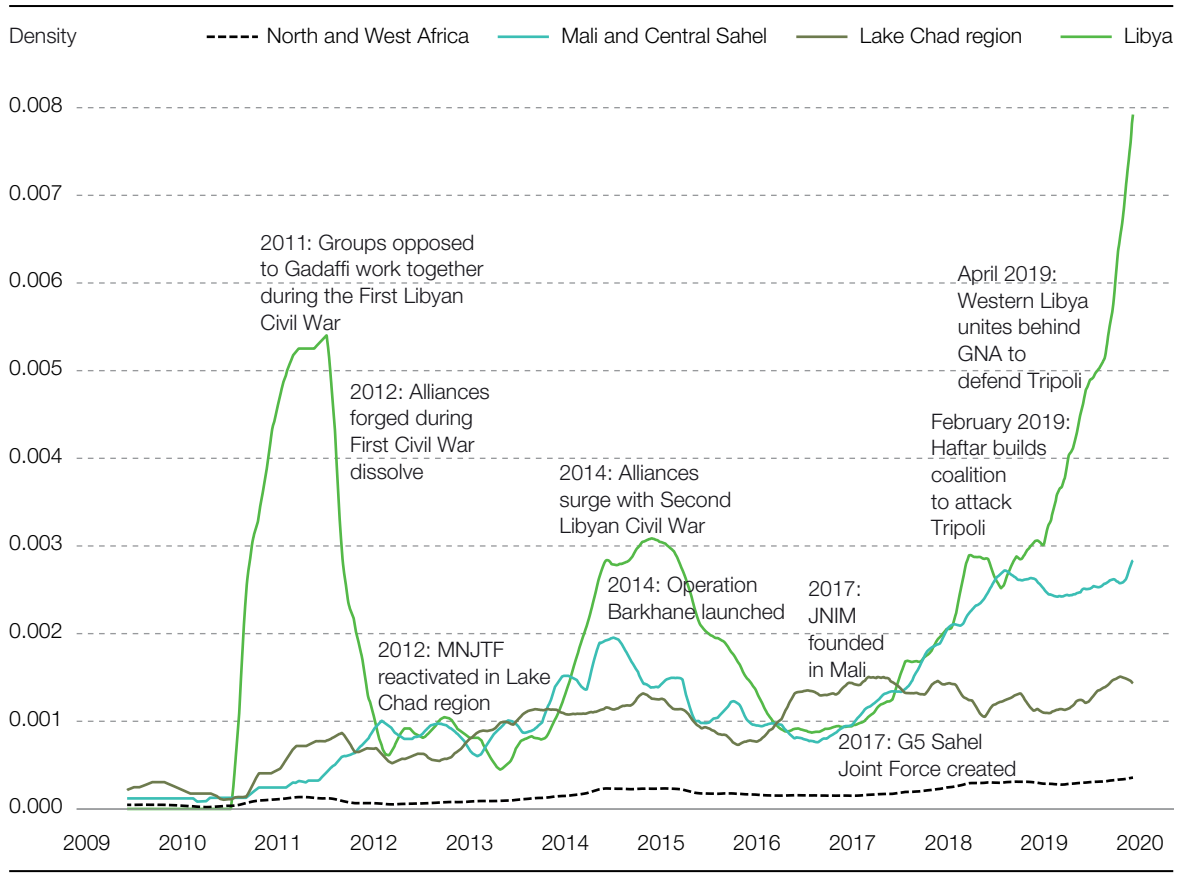
which contributed to uniting militias in defence of the capital. A similar, though less prominent, trend can be observed in Mali between 2014 and 2016. Like Libya, co-operation in Mali has also ticked up beginning in 2018, a period marked by increasing co-ordination between jihadist organisations, as the example of JNIM, the organisation led by Iyad ag Ghali, shows (Box 4.4).

By contrast, the Lake Chad theatre has been less volatile than the others. Co-operation there has been consistently above the region-wide baseline since Boko Haram's insurgency began in mid-2009, but without the sharp increases and decreases that have characterised the other conflicts. Boko Haram and ISWAP may be resilient, but they have been largely unable to build political alliances.

The low overall density of the alliance network suggests that most organisations tend to act alone in North and West Africa. This points toward a highly decentralised network structure where alliances are less likely to be centred on a few important organisations. However, there are periods of time when co-operation has relatively intensified within each of the conflict theatres. During those episodes, the network structure shifts, becoming less fragmented and more focused around a few important groups. For this reason, as alliance density increases (Figure 4.26), so too does alliance centralisation (Figure 4.27).

For alliances, this means that the overall regional network has trended slightly toward a star-like structure over time with a few central actors having many more co-operative ties to

Figure 4.26
Alliance network density, 2009–20



Note: The graph begins in July 2009 rather than January 2009 because there is never a trend to observe on the first time point and because the data are smoothed using a 90-day moving-average window.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

other organisations. However, this is again mostly attributable to the dynamics in each of the three theatres, notably Libya. Libya exhibits the highest levels of centralisation during episodes where there is a clear bipolarity in the conflict. Between 2011 and 2012, this meant the groups organised around the defence of the Gaddafi regime and its opponents, primarily the NATO-supported NTC. Since 2014, this has meant alignment around the main actors competing for control over the state, the LNA, the Libya Dawn coalition and the various branches of the Islamic State. Accordingly, Libya exhibits the most centralised alliance networks over time and the most volatility between more and less centralisation. Notably, however, all three theatres have been trending toward increased centralisation since 2016.

CONFLICTS THAT CANNOT END?

This chapter has examined the overall structure of opposition and co-operation networks in North and West Africa and in three regions that have been particularly affected by political instability since the late 2000s. Using a network approach, the study has highlighted surprising similarities between co-operation and opposition networks: both are rather decentralised and organised around a few key organisations. This structure, which we called "cosmopolitan" to emphasise the absence of closely-knit communities, suggests that violent organisations tend to reproduce

Box 4.4
Iyad ag Ghali

Iyad ag Ghali (born in 1958) is a Malian jihadist leader and politician. He is ethnically Tuareg, belonging to the Kel Adagh confederation of the Kidal Region of Mali, where the Kel Adagh are politically dominant. His father died during the 1963–64 rebellion in Kidal, fought by some Kel Adagh against the Malian state. Ag Ghali is the most famous member of the ishoumar (from the French *chômeur*, or unemployed), a generation of Tuareg who emigrated from Mali and Niger to Libya and other destinations in the 1970s and 1980s. Ag Ghali spent considerable time in Libya and fought on behalf of Colonel Muammar Gaddafi.

From 1990–2006, ag Ghali was the foremost rebel leader in northern Mali. In 1990, he launched a rebellion against the Malian state. He concluded peace agreements with Mali in 1991 and 1992, but the rebellion fractured along ethnic, clan and ideological lines (Lecocq, 2010[31]). In 2006, ag Ghali led another short rebellion. Once again, his authority was challenged: one of his sub-commanders kept fighting even after ag Ghali made peace. In 2011, ag Ghali was passed over for leadership of the MNLA, which launched an uprising in 2012. Throughout this period, ag Ghali had other roles as well, including a period around 2010 as a Malian diplomat in Jeddah, Saudi Arabia.

During the 2000s, ag Ghali developed financial, familial and political ties with what became AQIM. In late 2011, he formed his own jihadist group, Ansar Dine (Defenders of the Faith), which fought in the rebellion alongside the MNLA in early 2012, then forcefully supplanted the MNLA, ruling northern Mali in collaboration with AQIM and its offshoots. In January 2013, ag Ghali helped lead an offensive into central Mali, prompting a French-led military intervention that chased jihadists out of northern Malian cities.

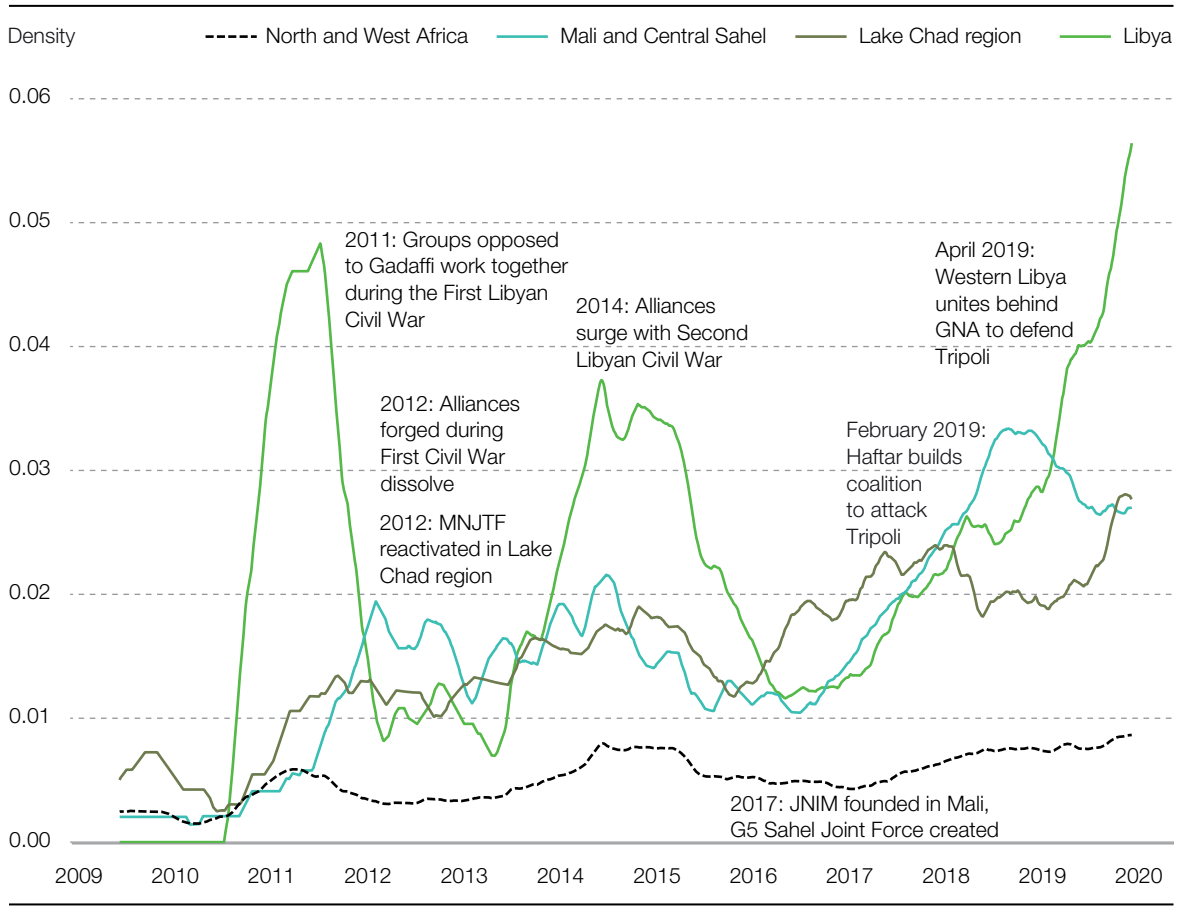
In 2017, ag Ghali became the formal leader of a jihadist coalition called JNIM. JNIM is formally subordinate to AQIM's central leadership, which is in turn formally subordinate to the central command of Al Qaeda. JNIM has become the most important jihadist force in Mali and the Sahel, targeting foreign and Sahelian militaries but also both wooing and intimidating local communities and politicians. Ag Ghali has been the foremost face of the group, including in halting negotiations with the Malian state, which are still unfolding at the time of writing (Thurston, 2020[6]).

Source: Original text provided by Alexander Thurston.

the same patterns irrespective of the nature of the ties that link them. This is a puzzling observation. Because building alliances or fighting an enemy are conceptually very different, one would have expected the structure of opposition and co-operation networks to be quite different from each other. The fact that they are not suggests that opposition and co-operation should be conceptualised as two possible, rather than exclusive, options to the belligerents. These results point to the fundamental flexible and opportunistic nature of relationships that bind violent organisations in the region. Rather than formal agreement or existential oppositions, rivalries and alliances should be conceived as two alternatives that can be mobilised as circumstances change.

The chapter also shows that both opposition and co-operation networks tend to be denser and more centralised over time. This evolution is alarming. It means that violent organisations tend to have an increasing number of enemies, a sure sign that conflicts are intensifying in the region and that each theatre of operation becomes increasingly focused on a limited number of key belligerents. This polarisation of the conflict environment has devastating consequences for civilian populations, who, as clearly showed in this chapter, are often targeted both by violent extremist organisations and government forces. The increasing density and centralisation observed in the network of allies among military forces should be regarded as a consequence of

Figure 4.27
Alliance network centralisation, 2009–20



Note: The graph begins in July 2009 rather than January 2009 because there is never a trend to observe on the first time point and because the data are smoothed using a 90-day moving-average window.

Source: Authors, based on data from ACLED (2020[1]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

the increase in conflict in the region. As the security conditions continue to deteriorate, government forces multiply their collaborations, in search of a more adapted security framework.

That these trends are present in combination with the ever-growing number of belligerents since 2009 is particularly distressing. The increasing number of belligerents, increasing density of conflictual relationships, and polarisation among powerful organisations capable of conducting extensive military operations make a peaceful resolution of the North and West African conflicts more elusive than ever. These conditions are present in varying degrees in all three of the primary conflict regions as well. More than a decade after the outbreak of the Boko Haram insurgency in northern Nigeria, political violence has evolved and coalesced into multiple conflictual subnational theatres that have resisted all efforts of resolution to date. Given the trends identified in this report, it is difficult to see an end to this process in the short term. It is reasonable to expect that the conflict networks will continue to enlarge, intensify, and centralise.

References

Abba, S. (2017), "Jafar Dicko, le nouveau visage du djihadisme au Burkina Faso", *Le Monde.* [27]

ACLED (2020), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/. [1]

Albert, I. (2017), "Rethinking the functionality of the Multinational Joint Task Force in managing the Boko Haram crisis in the Lake Chad Basin", *Africa Development*, Vol. 42/3, pp. 119–135. [29]

Baldwin-Edwards, M. and D. Lutterbeck (2019), "Coping with the Libyan migration crisis", *Journal of Ethnic and Migration Studies*, Vol. 45/12, pp. 2241–2257. [21]

Blanchard, C. (2020), *Libya: Conflict, Transition and U.S. Policy*, Congressional Research Service RL33142, Washington, DC. [19]

Center for Strategic and International Studies (2018), *Jama'at Nasr al-Islam wal Muslimin (JNIM)*, CSIS, Washington, DC. [9]

Dorff, C., M. Gallop and S. Minhas (2020), "Networks of violence: Predicting conflict in Nigeria", *The Journal of Politics*, Vol. 82/2, pp. 476-493. [17]

Everton, S. (2012), *Disrupting Dark Networks*, Cambridge University Press, Cambridge. [3]

Gallais, J. (1975), *Pasteurs et paysans du Gourma: La condition sahélienne*, CNRS, Paris. [23]

Hagberg, S. (2018), "Beyond regional radars: Security from below and the rule of law in the Sahel", *South African Journal of International Affairs*, Vol. 25/1, pp. 21–37. [24]

Institute for Security Studies (2016), "Assessing the Multinational Joint Task Force against Boko Haram", *West Africa Report* 19. [30]

International Crisis Group (2017), *The social roots of Jihadist violence in Burkina Faso's North*, ICG, Brussels. [26]

Lacher, W. (2020), *Libya's Fragmentation: Structure and Process in Violent Conflict*, Bloomsbury, London. [22]

Lacher, W. (2019), "Who is fighting whom in Tripoli? How the 2019 Civil War is transforming Libya's military landscape", *Small Arms Survey Briefing Paper*, August. [18]

Le Roux, P. (2019), *Ansaroul Islam: The rise and decline of a militant Islamist group in the Sahel*, Africa Center for Strategic Studies, 29 July. [28]

Le Roux, P. (2019), *Exploiting borders in the Sahel: The Islamic State in the Greater Sahara*, Africa Center for Strategic Studies, Washington, DC, June. [11]

Leclercq, S. and G. Matagne (2020), "'With or without you': The governance of (local) security and the Koglweogo movement in Burkina Faso", *Stability: International Journal of Security and Development*, Vol. 9/1. [25]

Lecocq, B. (2010), *Disputed Desert: Decolonisation, Competing Nationalisms and Tuareg Rebellions in Northern Mali*, Brill, Leiden. [31]

Melcangi, A. and G. Dentice (2020), *Libya's crisis is a tough puzzle to solve for Egypt*, Atlantic Council, 18 June. [20]

Nsaibia, H. and C. Weiss (2020), "The end of the Sahelian anomaly: How the global conflict between the Islamic State and al-Qa'ida finally came to West Africa", *CTC Sentinel*, Vol. 13/7, pp. 1–14. [12]

OECD/SWAC (2020), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/02181039-en. [8]

OECD/SWAC (2019), *Women and Trade Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/7d67b61d-en. [2]

OECD/SWAC (2017), *Cross-border Co-operation and Policy Networks in West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264265875-en. [5]

Prieto Curiel, R., O. Walther and N. O'Clery (2020), "Uncovering the internal structure of Boko Haram through its mobility patterns", *Applied Network Science*, Vol. 5/1, pp. 1–23. [16]

Spiro, E., R. Acton and C. Butts (2013), "Extended structures of mediation: Re-examining brokerage in dynamic networks", *Social Networks*, Vol. 35/1, pp. 130–143. [4]

Thurston, A. (2020), *Jihadists of North Africa and the Sahel: Political Islam and Rebel Groups*, Cambridge University Press, Cambridge. [6]

Thurston, A. (2018), *Boko Haram: The History of an African Jihadist Movement*, Princeton University Press, Princeton. [13]

United Nations Security Council (2018), *2374 Sanctions Committee amends list entries of seven individuals*, UNSC, New York, 14 January. [10]

Valente, T. (2010), *Social Networks and Health: Models, Methods, and Applications*, Oxford University Press, New York. [7]

Van Den Hoek, J. (2017), "Agricultural market activity and Boko Haram attacks in northeastern Nigeria", *West African Papers*, No. 9, OECD Publishing, Paris, https://dx.doi.org/10.1787/13ba9f2e-en. [15]

Zenn, J. (2020), *Unmasking Boko Haram: Exploring Global Jihad in Nigeria*, Lynne Rienner, Boulder. [14]

Chapter 5

Conflict networks and military interventions in North and West Africa

This chapter examines the impact of military interventions on conflict networks in North and West Africa. It illustrates that the French involvement in the Sahel, NATO's Operation Unified Protector in Libya, and the joint offensive against Boko Haram around Lake Chad, were interventions that aimed to tip the balance of power to one side. None of these efforts, however, has achieved a lasting resolution to the violence that continues to tear apart North and West Africa. The impact of these interventions on conflict networks has been limited in duration and the jihadist and rebel organisations have strengthened following the initial shock. Finally, there has been an ever-increasing price paid by civilians in the region since 2010, reminding of the need for future interventions to act more in favour of protecting civilians.

KEY MESSAGES

- **Military interventions in Mali, Libya and around Lake Chad have reshuffled the conflict environment in which violent organisations operate across North and West Africa.**
- **Military interventions temporarily weakened their opponents without achieving long-lasting stability. Jihadist and rebel organisations have strengthened following the initial shock of the interventions.**
- **Jihadist groups weakened by military interventions have either pledged allegiance to violent global organisations, split according to ethnic and geographical lines or merged with other groups.**
- **Jihadist groups have also responded to military interventions by moving to more remote or less monitored areas, participating in the regional diffusion of violence observed in North and West Africa since the late 2000s.**

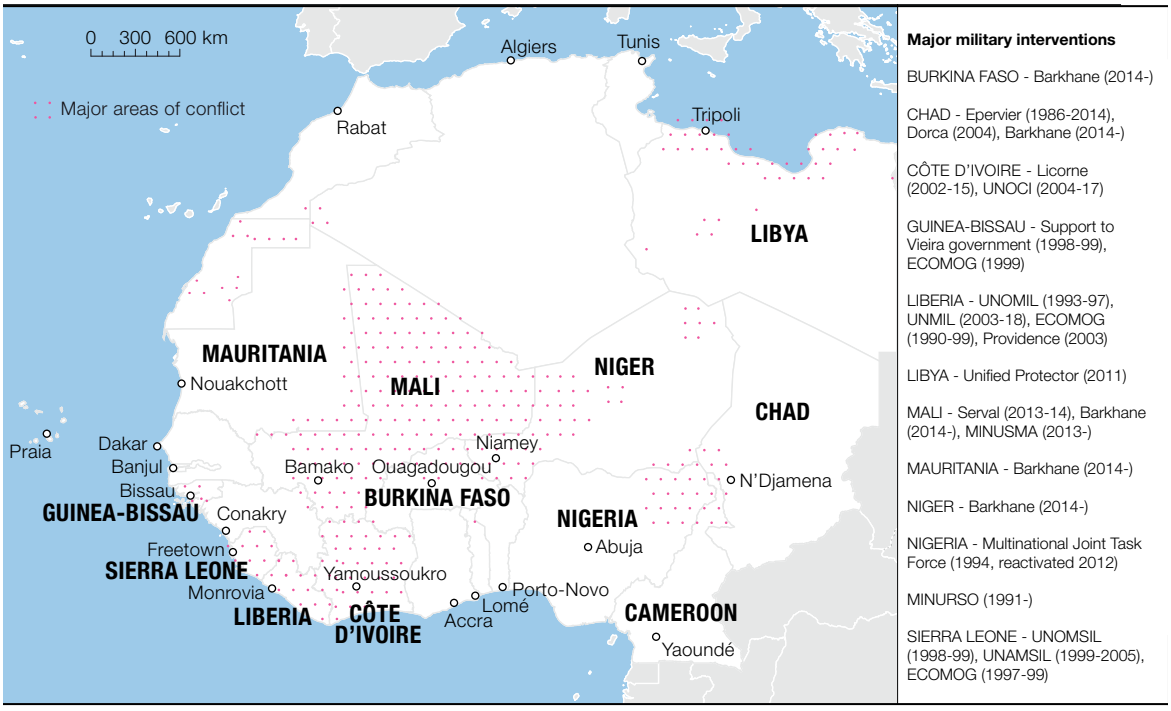
MILITARY INTERVENTIONS IN NORTH AND WEST AFRICA

Military interventions have punctuated the recent history of North and West African countries with regularity (Schmidt, 2018[1]). Since the end of the Cold War, no fewer than 20 major military interventions have been carried out to prevent war crimes, restore political stability or fight against extremist organisations in 12 countries, from Guinea-Bissau to Chad (Map 5.1). In a region where interstate conflicts are rare, the vast majority of these interventions have been initiated by multinational organisations, military alliances and regional economic communities (OECD/SWAC, 2020[2]) for a detailed account).

The United Nations (UN) has intervened six times in the region since 1997. The Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) established by Security Council resolution 2100 of 25 April 2013 is the latest UN mission in the region. It is the most expensive current operation run by the UN, with an annual cost of USD 1.22 billion, from July 2019 through June 2020. MINUSMA is also the third most dangerous UN mission in operation, with 225 personnel killed as of November 2020, after the United Nations–African Union Mission in Darfur (UNAMID, 284 killed) and the United Nations Interim Force in Lebanon (UNIFIL) created in 1978 (320 killed). When the number of casualties resulting from "malicious acts" is considered, MINUSMA is the most dangerous mission ever established by the UN, after the United Nations Operation in the Congo (ONUC) conducted in the 1960s (United Nations, 2020[3]). The 133 personnel killed as a direct result of the Malian insurgency represent 13% of all casualties recorded by the UN in 77 missions since 1948.

Map 5.1

Major military interventions in North and West Africa, 1997–2020



Source: Adapted from OECD/SWAC (2020[2]), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://doi.org/10.1787/02181039-en.

In North Africa, the most important military intervention of the last decade was the North Atlantic Treaty Organization (NATO) Operation Unified Protector (2011), which initially took the form of an enforced no-fly zone and naval blockade against the regime of Colonel Gaddafi in Libya. While NATO does not track the operational costs to each member country, the cost of the operation to the United States alone amounted to more than USD 1 billion (Gertler, 2011[4]). In West Africa, the Economic Community of West African States (ECOWAS) has intervened three times to put an end to the civil wars of Liberia, Sierra Leone, and Guinea-Bissau in the 1990s using the Economic Community of West African States Monitoring Group (ECOMOG). The ECOWAS interventions relied heavily on Nigerian armed forces, while other African forces participated at different times. The overall cost of these interventions is unknown.

Several major interventions have also been launched by France in North and West Africa. France has intervened militarily in six of its former colonies (Burkina Faso, Chad, Côte d'Ivoire, Niger, Mali, and Mauritania) since the late 1980s. France also briefly participated in Liberia (Operation Providence), and more actively in NATO's intervention in Libya. From 1997 to 2019, French forces were directly involved in armed conflict in West Africa, making it the country with the longest record of intervention in the region. The end of Operations Epervier and Licorne in the early 2010s in Chad and Côte d'Ivoire coincided with the launch of Operation Serval in 2013 and Operation Barkhane in 2014 in the Sahel. The cost of Operation Serval and French support to MINUSMA is evaluated at EUR 642 million for 2013 (Sénat, 2015[5]). In 2017, France's operational budget for the Sahel was EUR 690 million, which is about half of the EUR 1 330 million earmarked by France for external operations (Sénat, 2018[6]). If spending remains constant this year, the French military will have spent around EUR 5 billion in the Sahel from 2013 to 2020, including the contribution to the European Union Training Mission in Mali (EUTM Mali).

HOW MILITARY INTERVENTIONS SHAPE CONFLICT NETWORKS

While the intervention of external powers may have multiple motivations, two main categories of intervention emerge depending on whom is ultimately the target of the intervention. In mediatory interventions, third parties get involved in a neutral fashion with the goal to reach a peaceful resolution of a conflict. Multinational and international organisations tend to favour this kind of intervention that mediates between warring parties. For example, the goal of the United Nations Operation in Côte d'Ivoire (UNOCI) established in the mid-2000s was to "observe and monitor the implementation of the comprehensive ceasefire agreement of 3 May 2003, and investigate violations of the ceasefire" (United Nations, 2004, p. 29[7]). In partisan interventions, third parties take sides with one of the belligerents, with the objective to influence the outcome of the conflict in their favour (Corbetta and Grant, 2012[8]). For example, Operation Epervier launched by France in Chad in 1986 provided military support to Chadian forces opposing an invasion of the north of the country by Libyan troops.

Theoretically, the impact of military intervention can be represented as a creation of a new tie between two actors, known as a dyad. The introduction of a third party can lead to six potential scenarios according to whether these two actors co-operate with, or compete against, each other (Figure 5.1).

1. The first scenario is when the intervening power (A) adopts a mediatory approach and supports two actors that already work together (B and C). This creates a stable group of three actors, known as a triad, in which "friends of friends are friends". In recent years, French Operation Barkhane, for example, has supported both the Malian military and some of its allied militias in the east of the country. The likely outcome of this kind of intervention is an increase in co-operation and the formation of a larger coalition.
2. Instead of supporting two actors that work together, the intervening power can also choose to fight each of them. This second scenario represents a mediatory strategy that also creates a stable situation in which "enemies of enemies are friends". This occurs when a foreign military attacks two terrorist organisations, for example. In Mali, French forces have targeted both the Islamic State in the Greater Sahara (ISGS) and the Group for Supporting Islam and Muslims (JNIM). There was more violence overall, as the intervening power multiplies the number of attacks in the region.
3. The intervening power may also choose to adopt a partisan strategy and support one actor while attacking another. This third scenario is likely to create an unstable situation in which "friends of friends are enemies". The newly created tension between B and C can lead to a shift of allegiance between them; instead of collaborating, one of them may decide to work with the intervening power against its former ally.
4. In the fourth scenario, the intervening power supports both belligerents in conflict. This mediatory strategy creates an unstable situation similar to the third scenario described above, where "friends of friends are enemies". The relationships within this unstable triad are likely to incite belligerents to change allegiance and create a triad in which all actors are co-operating with each other, as in the first scenario.
5. An intervening power can also decide to follow a mediatory strategy and attack both belligerents, which will create yet another unstable situation where "enemies of enemies are enemies". To resolve the tension between them, the belligerents will likely work together, which is likely to lead to a situation similar to scenario 2 above, in which violence has increased.
6. Finally, if the intervening power follows a partisan strategy and attacks one actor while supporting another, the triad is theoretically stable because "enemies of enemies are friends". The likely outcome of this intervention is more violence as one of the two belligerents is forced to fight one more enemy.

The six theoretical scenarios described above suggests that military interventions can influence the increase or decrease of violence depending

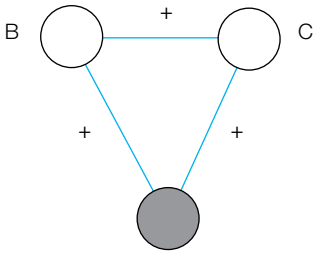
Figure 5.1

What happens when an external power intervenes in a conflict?

Intervention in a co-operative dyad

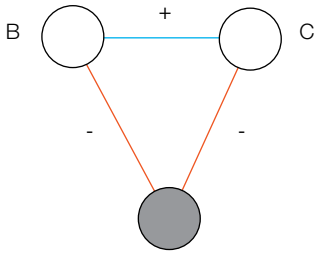
A is the intervening power, B and C are two allies

(1)



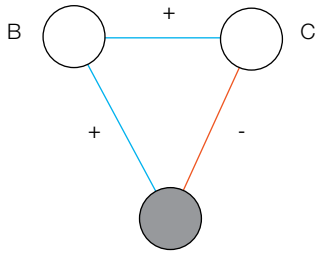
A supports both B and C. This mediatory strategy creates a stable situation (friends of friends are friends) conducive to **less violence** as A introduces more co-operation in the region.

(2)



A attacks both B and C. This mediatory strategy creates a stable situation (enemies of enemies are friends) conducive to **more violence** as A introduces more conflict in the region.

(3)

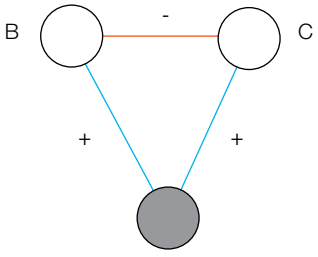


A supports B and attacks C. This partisan strategy creates an unstable situation (friends of friends are enemies) conducive to **more violence** as B and C shift allegiance and fight each other (see 6).

Intervention in a conflictual dyad

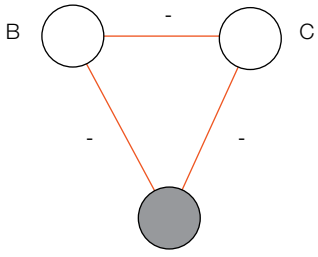
A is the intervening power, B and C are two enemies

(4)



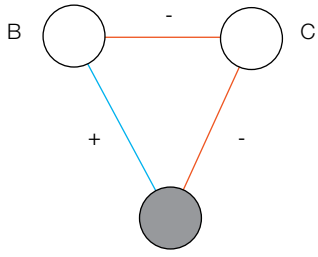
A supports both B and C. This mediatory strategy creates an unstable situation (friends of friends are enemies) conducive to **less violence** as B and C shift allegiances and work together (see 1).

(5)



A attacks both B and C. This mediatory strategy creates an unstable situation (enemies of enemies are enemies) conducive to **less violence** as B and C shift allegiance and work together (see 2).

(6)



A supports B and attacks C. This partisan strategy creates a stable situation (enemies of enemies are friends) conducive to **more violence** as C fights one more enemy.

Source: Authors.

Table 5.1
External interventions, impact on a conflict network and violence

Scenario	Type of external intervention	Impact on a conflict network	Outcome
1	Mediatory	Creates a stable situation conducive to co-operation between actors	Less violence
2	Mediatory	Creates a stable situation conducive to opposition between actors	More violence
3	Partisan	Creates an unstable situation that leads actors to shift allegiances and fight each other	More violence
4	Mediatory	Creates an unstable situation that leads actors to shift allegiances and collaborate with each other	Less violence
5	Mediatory	Creates an unstable situation that leads actors to shift allegiances and work together	Less violence
6	Partisan	Creates a stable situation conducive to opposition between actors	More violence

Source: Authors.

on the pre-existing relationships between actors involved in a conflict (Table 5.1). Each can lead to an increase or decrease in violence. If, as assumed above, the relationship between the intervening power and the belligerents cannot change over time, then the outcome of an external intervention relies entirely on the shoulders of the belligerents, whose shifts in allegiances can lead to more or less violence. Supporting or attacking belligerents indiscriminately can lead them to work together. The number of parties involved in real-world conflict is usually greater than in these theoretical scenarios, which further increases the importance of understanding pre-existing co-operative or conflictual relationships for an intervening party.

A NETWORK APPROACH TO POLITICAL POWER

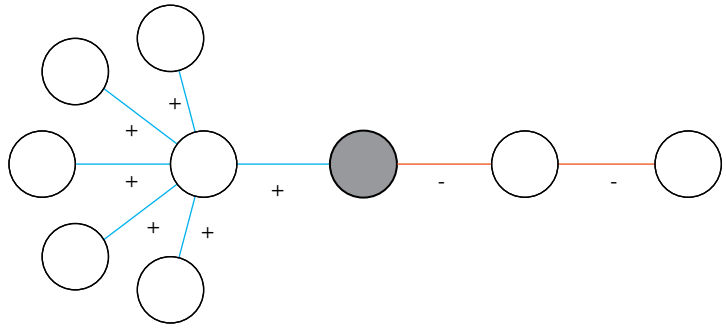
The impact of military interventions on conflicts is studied using the Positive-Negative (PN) centrality index developed to assess the political power of an organisation (Chapter 3). The PN index assumes that the power of an organisation derives from the constraints and opportunities offered by the entire network of enemies and allies in which an organisation is embedded. The PN builds on the assumption that "having positive ties to well-connected others contributes positively to a node's centrality" (Everett and Borgatti, 2014, p. 117[9]). Organisations with low PN centrality are allied with actors who are embedded in numerous alliances, and in conflict with those who have few other enemies. In other words, they are friends with those that have many friends, and enemies with those that have few other enemies. Organisations with high PN centrality represent the inverse circumstance. These groups are allied with actors who have few other allies and are in conflict with those who have many other enemies. Put differently, they are friends with those with few friends, and enemies with those who have many other enemies (Figure 5.2).[1]

The most important organisations in a network characterised by high levels of conflict and violence are typically those with the highest PN scores. For example, an organisation whose allies have fewer allies of their own are in a favourable position; the organisation is more influential within that network since their allies have few other options for co-operation. The same is true when considering the organisation's position relative to those they are opposed to. If their opponents themselves have many opponents, their opponents are more constrained to act.

Figure 5.2

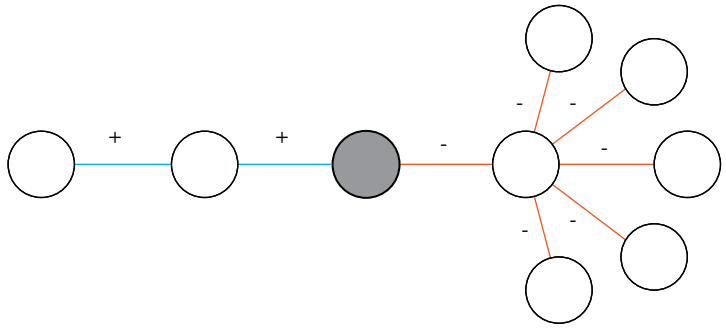
How low and high Positive-Negative centrality scores relate to political power

A - Low PN score



The focal actor (in grey) has a low PN score. It is allied with a group that has many other allies and is opposed to a group with few opponents of their own.

B - High PN score



The focal actor (in grey) has a high PN score. It is allied with a group that has few allies of their own and is opposed to a group with many other opponents.

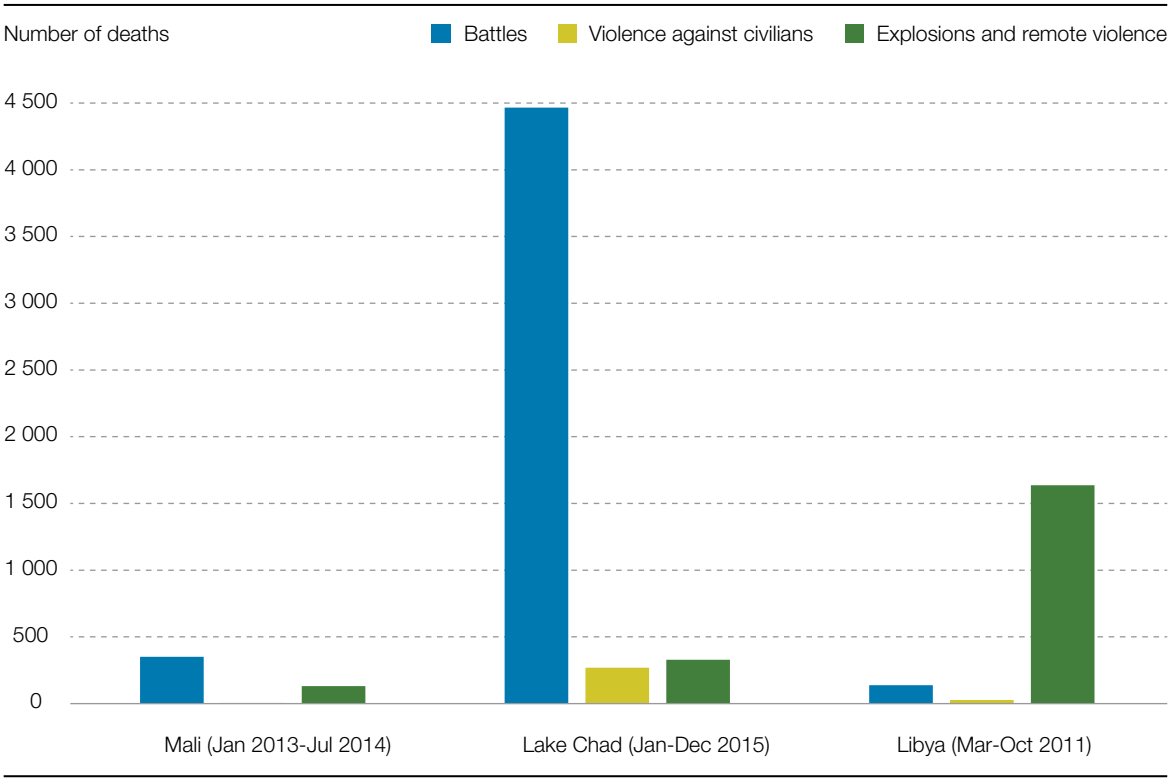
Source: Authors.

The PN index also makes it possible to identify shifts in a conflict network by comparing the political power of violent organisations before, during and after a military intervention. This study focuses on three military interventions that have shaped the conflicts in the region:

- The first military intervention is Operation Serval, carried out by France from 11 January 2013 to 15 July 2014 in Mali. Around 500 military and civilian deaths directly imputable to clashes between French forces and insurgents were recorded during the Operation in the Armed Conflict Location & Event Data Project (ACLED) database (Figure 5.3). Three-quarters of the fatalities were caused by battles between government forces, the French army, rebels and jihadist organisations. Operation Serval received logistical support from Belgium, Canada, Denmark, Germany, the Netherlands, Spain, the United Arab Emirates (UAE), the United Kingdom and the United States. Chad committed combat forces under French command. Serval was replaced by Operation Barkhane in July 2014 (Shurkin, 2020[10]). Barkhane received logistical support from Germany and the United Kingdom while Estonia committed combat forces under French command.
- The second military intervention is the offensive launched by Nigeria, Cameroon, Chad and Niger under the umbrella of the Multinational Joint Task Force (MNJTF) against Boko Haram and the Islamic State West Africa Province (ISWAP). This study focuses on the period from 23 January to 24 December 2015, during which some of the most decisive operations were conducted in the Lake Chad region. This ongoing intervention is by far the deadliest of the

Figure 5.3

Deaths related to military operations in Mali, Lake Chad and Libya



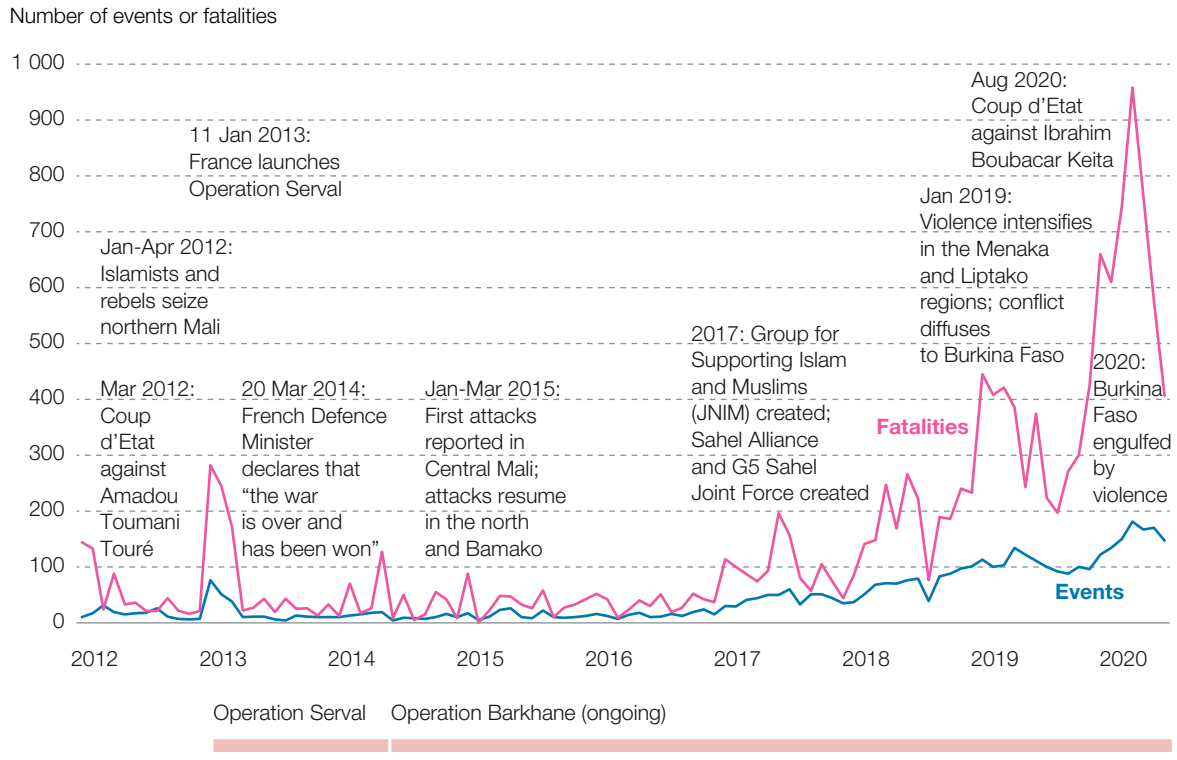
Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

region, with more than 5 000 deaths directly related to the intervention recorded by ACLED in 2015. As in Mali, battles represent the vast majority of the events and deaths (88%) involving the Nigerian and MNJTF forces against Boko Haram and ISWAP.

- The third intervention is NATO's Operation Unified Protector against the regime of Colonel Gaddafi in Libya, conducted from 23 March to 31 October 2011. The intervention was split between four different national operations conducted by Canada, France, the United Kingdom and the United States. Belgium, Denmark, Greece, Italy, the Netherlands, Norway, Qatar, Spain and the UAE committed forces under US command while Bulgaria, Jordan, Romania, Sweden and Turkey participated independently from US command. More than 1 800 deaths are related to Operation Unified Protector in the ACLED database. Nine of out ten victims died as a result of explosions and remote violence caused by bombardments, drones and improvised explosive devices (IEDs). This study also considers the Western Campaign initiated by the Libyan National Army (LNA) and their foreign backers against the Government of National Accord (GNA) in Tripoli. The campaign was launched on 4 April 2019 and ended with the withdrawal of LNA forces on 5 June 2020.

The analysis covers the entire region for which violent events related to one of the three military interventions described above as they have been recorded in the ACLED database. In Mali and Central Sahel, the area of conflict includes the whole of Mali and Burkina Faso as well as eastern Mauritania, western Niger and southern Algeria. Around Lake Chad, the study covers the regions where most Boko Haram and ISWAP attacks have been observed since 2009. This includes much of northern and eastern Nigeria, the southern part of the Diffa region in Niger, northern Cameroon, Lake Chad and the N'Djamena region. In Libya, the entire country is covered in the study (Map 4.1).

Figure 5.4
Events and fatalities in Mali and Central Sahel, 2012–20



Note: Data available through 30 June 2020.
Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

OPERATIONS SERVAL AND BARKHANE IN THE SAHEL

The French army launched Operation Serval to stop the advance of jihadist organisations affiliated with Al Qaeda towards Central Mali on 11 January 2013. French forces intervened at the request of the interim government of Mali that succeeded Amadou Toumani Touré, whose regime was overthrown by a military junta on 21–22 March 2012. A highly mobile and mechanised intervention backed by Malian and Chadian troops, Serval successfully reasserted control over the north of the country and killed hundreds of violent extremists in a few weeks (Chivvis, 2015[12]).

Overall, Operation Serval had a significant impact on the geography of violence. The Operation reduced the number of events and fatalities from pre-intervention levels, limited the locations of violent events within Mali, and reduced the concentration of violent events when they did occur. However, Serval and its successor Barkhane were largely unable to prevent a surge in violence and a return to pre-intervention conflict levels in subsequent years. As a result, violence in Mali and neighbouring countries has re-emerged since early 2017 and has now surpassed the levels that triggered the intervention in 2013 (Figure 5.4). Violence has taken other forms as well: in many parts of Mali and the Central Sahel, regions characterised by clustered events of high intensity are now surrounded by regions in which violence is more diffuse, suggesting a diffusion of the insurgency (OECD/SWAC, 2020[2]).

France's interventions and militant groups

In addition to producing a far more complex geography than was present in 2013, Serval and Barkhane have also contributed to reshuffling

Box 5.1
Al Qaeda in the Islamic Maghreb (AQIM)

Al Qaeda in the Islamic Maghreb (AQIM) is a jihadist group founded in Algeria whose units and offshoots have conducted operations from Algeria and Libya in the north to as far south as Côte d'Ivoire. AQIM originated in the late 1990s as the Salafist Group for Preaching and Combat (GSPC), itself a coalition of field commanders who broke away from the Armed Islamic Group (GIA). The GIA, at one time the most powerful hardliner faction within Algeria's 1991–2002 civil war, antagonised many of its own members as well as wide swaths of Algerian society by the mid-1990s due to its leaders' capriciousness, bloodthirstiness and ideological exclusivism. These traits led to both internal violence as well as massacres in Algerian villages and other atrocities. The GSPC stated in its founding charter that it remained committed to fighting the state, but that it rejected indiscriminate violence and ex-communication (*takfir*) against civilians. The GSPC had ties to Al Qaeda from virtually the moment of its creation: it pledged allegiance to Al Qaeda in 2003, formally became part of Al Qaeda in 2006, and took the name AQIM in 2007 (Bencherif, 2020[14]).

The GSPC's formation, however, overlapped with the decline of the civil war. Amnesty initiatives by the Algerian government, the killing of the GIA's last major emir in 2002, and the Algerian population's war fatigue all sapped the GSPC's potential for finding renewed mass support for jihadist violence in Algeria. As AQIM, the group launched devastating attacks inside Algeria in 2007 and 2011 – but only sporadically. The overall trend was a shift of AQIM's centre of gravity to the Sahara and the Sahel, where enterprising field commanders such as Mokhtar Belmokhtar (Box 2.5) and Abdelhamid Abu Zayd conducted lucrative kidnappings and developed multi-faceted economic and political relationships in Mali, Mauritania and Niger (Thurston, 2020[13]).

These ties facilitated AQIM's entry into the northern Malian rebellion of 2012, in which AQIM quickly came to play a major role, particularly in the jihadist occupation of Timbuktu (Bøås, 2014[15]). In 2013, AQIM suffered losses as a French-led military intervention expelled jihadists from northern Malian cities; Abu Zayd was killed in February 2013 in far northern Mali. Since 2013, French forces have hunted top AQIM leaders, killing senior leaders such as the group's long-time emir, Abdelmalek Droukdel, in 2020 (Box 2.4). Meanwhile, AQIM has suffered recurring splits and internal tensions, including defections to the Islamic State in both Algeria and the Sahel. However, working mainly through its Mali-centric subsidiary JNIM, AQIM remains a potent force in the Sahara-Sahel region, although Droukdel's death may mark the culmination of a trend where JNIM is eclipsing AQIM in importance and capacity.

Source: Original text provided by Alexander Thurston.

the relationships within and between violent organisations operating in the region. As Thurston (2020, p. 138[13]) has argued, "The intervention not only reversed the entire jihadist project but also splintered the Ansar al-Din coalition back into its prewar components." The jihadist organisation Ansar Dine was formed in December 2011 by Iyad ag Ghali, a Tuareg powerbroker who led secular rebellions against the Malian state in 1990 and 2006. Ag Ghali created Ansar Dine as an alternative vehicle for relevance and power after his bid for leadership of the separatist National Movement for the Liberation of Azawad (MNLA) had been rejected (Box 4.4). Ansar Dine attracted other senior Tuareg leaders and politicians in the Kidal Region of Mali. Its creation also reflected ag Ghali's increasingly close ideological, political and economic ties to Al Qaeda in the Islamic Maghreb (AQIM) (Box 5.1).

The French intervention, in turn, prompted a split within Ansar Dine. Ifoghas politicians from the Kidal region, who had initially regarded Ansar Dine as a vehicle "for protecting their political relevance and containing ag Ghali's radicalism" now considered their association with the jihadist movement as a liability (Thurston, 2020, p. 139[13]). Splitting with Ansar Dine, several prominent Tuareg leaders broke off to create a group initially

called the Islamic Movement of Azawad (IMA), which was quickly renamed the High Council for the Unity of Azawad (HCUA) under the leadership of Alghabass ag Intalla, a former mayor and deputy of Kidal and son of the paramount ruler (*amenokal*) of the Kel Adagh Tuareg. The HCUA also received political backing from the hereditary Tuareg establishment in the Kidal Region. Ag Ghali remained in the jihadist camp. In the years after France's intervention, his organisation continued launching attacks in northern Mali while also expanding southward. Together, ag Ghali's Ansar Dine, Kouffa's Katibat Macina, the Saharan units of AQIM and al-Mourabitoun (The Sentinels), formed a coalition called JNIM in 2017 (Roetman, Migeon and Dudouet, 2019[16]).

In eastern Mali, Operation Serval expelled the Movement for Unity and Jihad in West Africa (MUJAO) from the city of Gao and contributed to fragmenting the jihadist movement along ideological and geographical lines (Thurston, 2020[13]). Regionally minded militants linked to Mokhtar Belmokhtar conducted various attacks in the region. In August 2013, the Veiled Men Battalion (al-Mulathamun, also known as Those Who Sign in Blood) of Mokhtar Belmokhtar merged with MUJAO to form al-Mourabitoun. Some Arab militants joined the newly formed Arab Movement of Azawad (MAA). Other militants started to recruit locally, notably among the Fulani community of the Gao and Menaka region.

One of these enterprising militants was Adnan Abu Walid al Sahrawi, a former spokesman and head of MUJAO's Shura Council and deputy leader of al-Mourabitoun. In May 2015, al Sahrawi formed ISGS after internal conflicts within al-Mourabitoun. Al Sahrawi pledged allegiance to the Islamic State and Abu Bakr al Baghdadi in 2015, and the Islamic State accepted the pledge the following year (Warner, 2017[17]). In March 2019, ISGS formally became a regional unit of the Islamic State West Africa Province rather than a new province of its own (Nsaibia and Weiss, 2020[18]). Belmokhtar opposed the affiliation to the Islamic State, and his portion of al-Mourabitoun rejoined AQIM in late 2015, eventually becoming a founding component of AQIM's subsidiary, JNIM.

ISGS's most famous attack is the October 2017 ambush on a joint Nigerien-American patrol outside the Nigerien village of Tongo-Tongo. ISGS also conducted high-casualty attacks on Nigerien military outposts at Inates in December 2019 and Chinagodrar in January 2020. Despite its formal relationship with the Islamic State, until roughly the second half of 2019, there was accommodation and even sometimes co-ordination between ISGS and JNIM (Le Roux, 2019[19]). In recent years, however, ISGS and JNIM have increasingly clashed in the Mali-Burkina Faso border region over territory and strategic disagreements, including JNIM's willingness to negotiate with the Malian government (Map 4.2). The Islamic State's central leadership may also have pressured ISGS to confront JNIM as part of the global conflict between the Islamic State and Al Qaeda (Nsaibia and Weiss, 2020[18]).

Another group of former MUJAO jihadists returned to the Mopti region in Central Mali and joined Amadou Kouffa's Katibat Macina, formed in early 2015 (Box 5.2). The term Macina refers both to a geographical zone within present-day Mali and to an Islamic polity founded by the Fulani jihadist Seku Amadu in the early 19th century (Miles, 2018[20]). Katibat Macina has selectively invoked the name of Amadu's theocratic state and attacked its physical traces, including the mausoleum of its founder. Katibat Macina recruited heavily but not exclusively among the Fulani, from which Kouffa hails, and its opponents and victims sometimes responded to the jihadist violence by demonising the Fulani as a whole. Inter-ethnic violence, especially between Fulani and Dogon, but also between Fulani and Bambara, swept through the Mopti region. Kouffa has struck a tenuous balance between presenting Katibat Macina as the defender of the Fulani and presenting his battalion as a multi-ethnic jihadist force aiming to create a theocratic utopia (Thurston, 2020[13]). Kouffa benefits not just from inter-ethnic tensions but intra-ethnic tensions among the Fulani, recruiting from among young and marginalised Fulani herders and villagers who then targeted Fulani administrators, imams and oligarchs (Thiam, 2017[21]).

Under ag Ghali's ally Amadou Kouffa, the Ansar Dine-affiliated Katibat Macina initiated a campaign of violence in the Mopti and Ségou Regions of central Mali and then expanded mostly eastwards. The first attack took place in

Box 5.2
Amadou Kouffa

Amadou Kouffa is a Fulani preacher born in Niafunké, Mali, likely in the 1950s. The outlines of his early life are difficult to reconstruct, but he was an itinerant Qur'an student, and then a preacher of local renown, who joined many other Malian clerics in opposing a 2009 attempt to reform Mali's Family Code. Kouffa was also a member of the Da'wa preaching movement (known globally as Jama'at al-Tabligh). He may have travelled with Da'wa to Afghanistan and Pakistan. Through Da'wa, Kouffa met Iyad ag Ghali, the northern Malian politician and rebel leader and the future leader of Ansar Dine (and later JNIM) in northern Mali (Le Roux, 2019[19]). Between July and December 2012, Kouffa received military training from Ansar Dine in the Timbuktu region and participated in the offensive by AQIM, MUJAO and Ansar Dine against Malian forces into central Mali in January 2013.

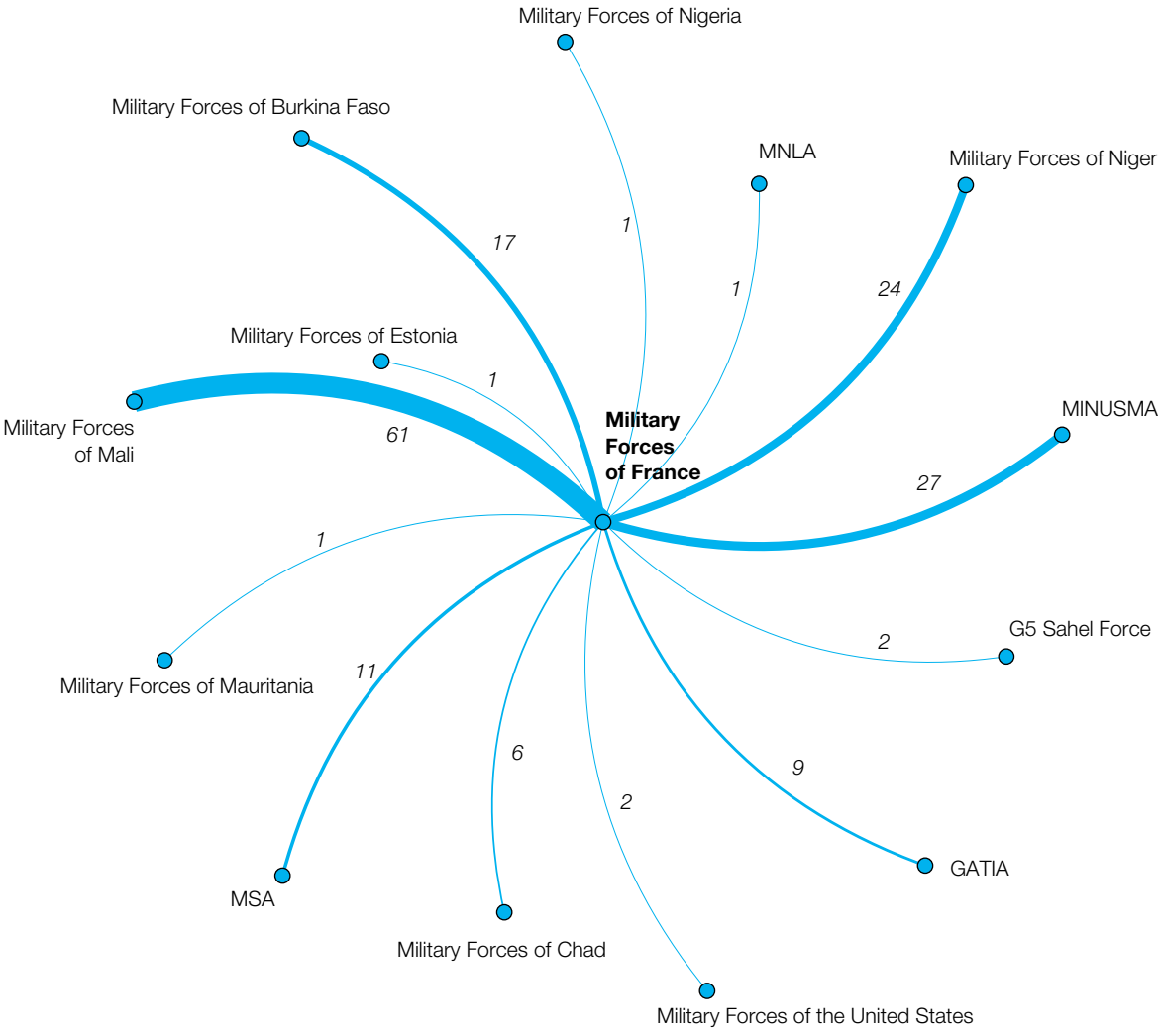
Source: Original text provided by Alexander Thurston.

January 2015 in the western part of the Niger River Inner Delta. Katibat Macina fighters may have participated in some of the most prominent terrorist attacks in the Sahel, including attacks in Bamako in 2015 and Ouagadougou in 2016. Katibat Macina was a founding component of the jihadist coalition, JNIM, in 2017. Kouffa is not the formal second in command, but given his importance in central Mali and northern Burkina Faso, and given French strikes against AQIM figures within JNIM, Kouffa has become the second-most important figure in JNIM after ag Ghali. In 2018, Kouffa was reported dead in a French raid (Lebovich, 2018[22]), but emerged alive in a February 2019 video. Meanwhile, as clashes grew between JNIM and ISGS in 2019–20, Kouffa was a central figure in the conflict, some of which concerned competition over territory in his zone of operations. Beyond Mali, Katibat Macina has been a key vehicle for Ansar Dine's, and then JNIM's, bridge building with militants in Burkina Faso. Kouffa reportedly had a close relationship with Ibrahim Dicko, founder of the Burkinabè jihadist group Ansaroul Islam (Box 4.3).

Operation Serval also led to major restructuring among the MNLA, a Tuareg-led movement that advocates the creation of a separatist state in northern Mali (Thomas and Falola, 2020[23]). The MNLA was formed in late 2011 by several constituencies – Tuareg activists in the diaspora, Tuareg returnees from Libya, Malian army defectors, and remnants of the rebel faction led by Ibrahim ag Bahanga, who died in a car accident in August 2011 in Mali. In early 2012, the MNLA launched its uprising to take control of northern Mali, aided by Ansar Dine, AQIM and MUJAO (Walther and Christopoulos, 2015[24]). Amid a power struggle following the MNLA's declaration of northern independence in April 2012, Ansar Dine, AQIM and MUJAO expelled the MNLA from Timbuktu, Gao, and Kidal (Baldaro and Raineri, 2020[25]). After the French intervention in January 2013, the MNLA swiftly returned to Kidal and became a key military and political actor there. The MNLA was considered an "anti-jihadist counterweight" by the French (Thurston, 2020, p. 139[13]) that "helped guide French forces and continued working with them in different capacities through the transition from Operation Serval to the regionally focused Operation Barkhane in August 2014" (Lebovich, 2019[26]).

In 2014, the MNLA, the HCUA and part of the Arab Movement of Azawad (MAA) formed the Coordination of Azawad Movements (CMA), a bloc for representing the ex-rebel movements and the Kidal establishment more broadly within peace talks and other venues. The CMA became one of three signatories to the 2015 Algiers peace accord, along with the Malian government and a coalition of anti-rebel militias known as the *Plateforme*. The CMA also gradually consolidated significant political and military control over Kidal, outmanoeuvring rival militias and signalling to the Malian state that state authority would have real limits in Kidal (Lebovich, 2017[27]).

Figure 5.5
French military forces and their allies in Mali and the Central Sahel, 2013–20



Note: The width of the ties between organisations is proportional to the number of collaborations events recorded over the entire study period. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

The MNLA retains a major role in the CMA and in the politics of what appears to be Kidal's de facto autonomy, but the HCUA's role within the CMA appears significantly stronger. Ag Ghali appears to maintain some level of communication with ex-Ansar Dine members who now belong to CMA, suggesting that the boundaries between rebel and jihadist organisations remain porous.

Allies and enemies of French forces

France's intervention in Mali in January 2013 placed French forces in the centre of the region's conflict network. The French were allied with Malian state forces, various pro-Malian government militias and other state forces operating throughout the region while being opposed to all the identity-based militias and rebel groups seeking to overthrow the Malian government. Since 2013, French forces have collaborated with state and non-state organisations 163 times, according to the ACLED database (Figure 5.5). The military forces of Mali are by far the biggest ally of France in the country, with 61 collaborations, followed distantly by MINUSMA, and the military forces of Niger and Burkina Faso. These collaborations

reflect the operations conducted by the French and their allies in the border region of Mali, Burkina Faso, and Niger. To improve the number and effectiveness of joint missions with Malian units, the French initiated Operation Takuba in 2019, a task force that will include other European special forces in co-ordination with G5 members and the UN (Shurkin, 2020[10]).

In early 2018, following the Tongo-Tongo attack, France's Operation Barkhane began partnering with two Malian militias to combat the ISGS in eastern Mali: the Imghad Tuareg Self-Defense Group and Allies (GATIA) led by El Hadj ag Gamou and the Movement for the Salvation of Azawad (MSA) founded by Moussa ag Acharatoumane. GATIA is a leading member of the Plateforme, a coalition of pro-government militias signatories of the 2015 peace agreement. Originally active in northern Mali, GATIA relocated in the Menaka region after the CMA established military dominance in the Kidal Region in the mid-2010s (Thurston, 2020[13]). As its name indicates, it has become a vehicle for the interests of Imghad Tuareg, whose political objectives often clash with those of the "noble" Ifoghas (OECD/SWAC, 2020[2]). Allied with GATIA, MSA presents itself as a militia defending the interests of the Daoussahak (or Idaksahak) Tuareg communities, whose pastoralist grounds strand the Niger-Mali border in the Menaka region. The anti-ISGS mission helped to fuel and accelerate complex processes of ethnic communities' alignment and realignment for, and against, the different sides, as Fulani, Tuareg, Daoussahak and other communities responded to atrocities committed by GATIA, MSA and ISGS (United Nations, 2018[28]).

French recourse to ethnic and communal militias in Mali and the Sahel has been limited, an undeniable sign of change from colonial approaches that relied heavily on auxiliary troops and militias (Shurkin, 2020[10]). Joint operations between the French, GATIA and MSA represent only 12% of the collaborations and are concentrated in the Gao, Ansongo and Menaka districts (*Cercles*) of eastern Mali. In late February 2018, for example, French forces and their allies conducted a joint operation against ISGS in the In-Delimane region east of Gao with a view to capturing or killing ISGS leader al Sahrawi. This joint offensive of Barkhane, GATIA and MSA pushed ISGS into new territories, including eastern Burkina Faso where it has dominated remote areas by taking over gold mines, expelling authorities and restoring locals' access to forests (Maclean, 2019[29]). In April of the same year, an attack by ISGS militants against MSA and GATIA militiamen was repelled with the support of Barkhane forces in the area of Akabar near the Niger border.

Conflicts involving French forces have killed more than 2 000 people in Mali and neighbouring Niger and Burkina Faso since Operation Serval was launched in January 2013. ISGS and JNIM remain by far the main opponents of French military forces in the region (Figure 5.6). More than half (54%) of the 315 violent events involving French military forces have been linked to these two organisations. Before they eventually merged with JNIM, Ansar Dine and AQIM were involved in 28% of the events recorded in the region. Clashes with rebel groups and militias represent a negligible share of the remaining events in which the French are involved. The lethality of these clashes reflects the evolution of the Malian conflict: after a peak of 422 fatalities recorded in 2013 due to Operation Serval, the number of people killed in clashes involving French forces reached an all-time low in 2016 with 12 fatalities, before accelerating in recent years. The year 2020 is the most lethal recorded so far, with 804 fatalities through June.

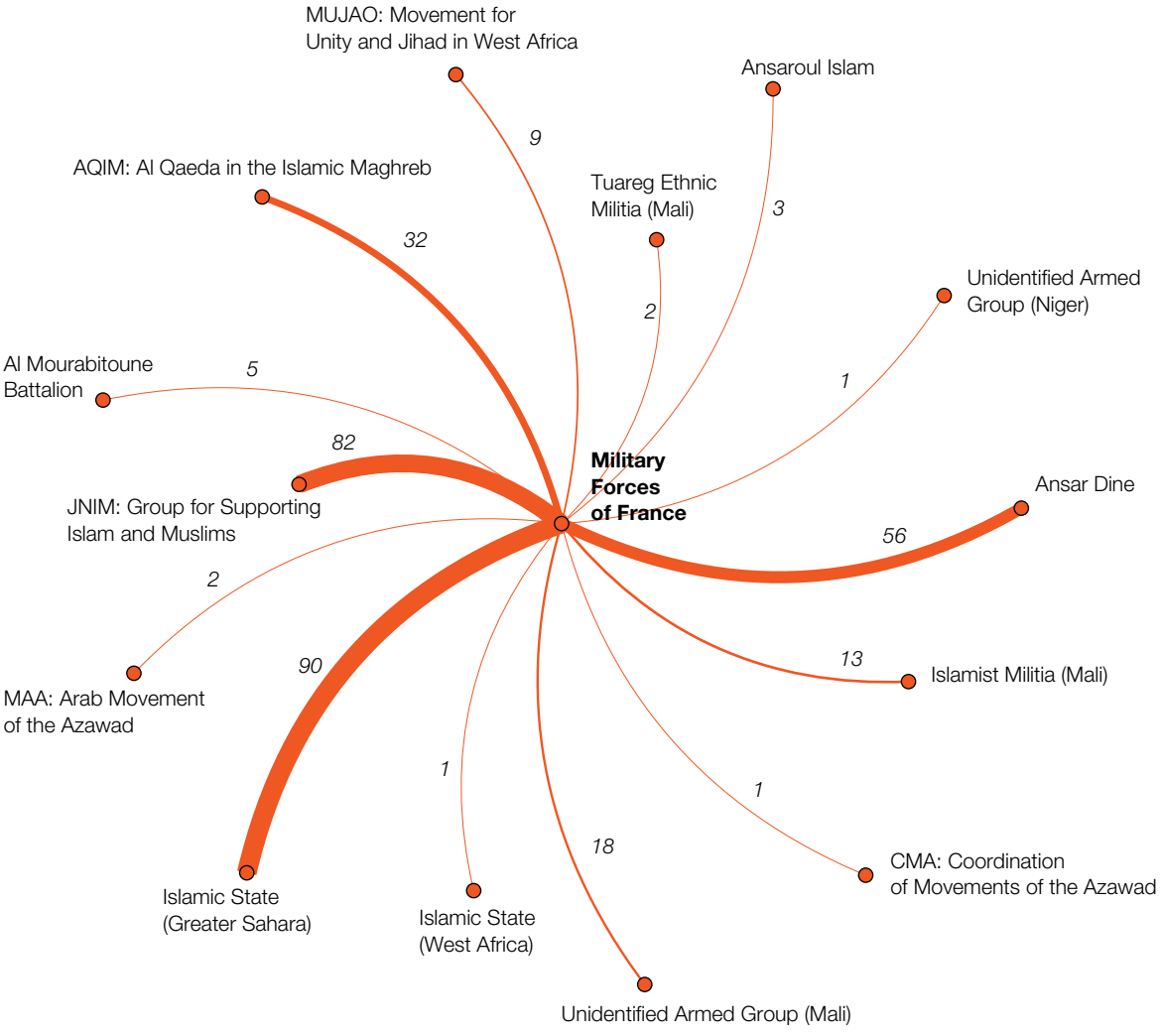
Operation Serval and political power in Mali

Because Serval was an intervention carried out on behalf of the Malian government, the inclusion of French forces reinforced the pre-intervention patterns of alliances and helped to harden the patterns of opposition. This created a dynamic that led first to higher levels of co-operation among the various rebel and jihadist groups but later to fractures between them (Box 5.3).

The intervention also had a noticeable effect on the relative power of the various groups important to the conflict. This can be seen in Figure 5.8, which summarises shifts in the PN index for key groups in Mali before, during and following Serval. Most importantly is the boost the intervention gave to

Figure 5.6

French military forces and their enemies in Mali and the Central Sahel, 2013–20



Note: The width of the ties between organisations is proportional to the number of conflictual events recorded over the entire study period. Organisations are listed according to their name at the time of each recorded violent event, which explains why sub-components of current jihadist organisations, such as AQIM and al-Mourabitoun, appear as individual nodes. Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

Malian forces after 2014. The Malian military's PN score increased significantly following the intervention, which means its overall position was improved relative to its various opponents. This shift reflects the fact that the number and relative position of the Malian state's allies were improved by the intervention, while the number of opponents and their relative position were reduced. From this perspective, Serval's intervention was a partial success; not only did the Malian state survive its challengers at the time, but it also emerged relatively empowered when compared to its foes following the intervention.

This improvement in the Malian military's status in the network was also a function of the weakening of its prime opposition during and after the intervention. For example, AQIM, MUJAO and Ansar Dine all exhibited markedly lower PN scores after the intervention. This means that their overall network position had deteriorated as a result of the intervention. In each case, each of these groups had fewer allies after the intervention or at least allies that were less reliant on them than they were before the intervention. These groups also had more enemies or enemies that were themselves

Box 5.3

An application of balance theory to the Malian conflict

The Malian conflict involves four main types of actors: government forces and their international allies, communal and ethnic militias, separatist rebels, and jihadist organisations (Desgrais, Guichaoua and Lebovich, 2018[30]). The links between these actors are positive when these types of actors tend to collaborate and are negative otherwise. The overall conflict environment can be decomposed into four groups of three actors (or triads), as indicated on the right-hand side of Figure 5.7. Are these configurations of ties more likely to promote a peaceful resolution of the conflict or, on the contrary, encourage violence between warring parties?

To address this question, balance theory can be used to predict which actors tend to form theoretically stable triads over time. Balance theory assumes that relations among a group of three actors are stable if all the possible relations are positive or if two actors have negative relations with a third party (Doreian and Krackhardt, 2001[31]) (Chapter 3). In the first case, "friends of a friend are friends" while in the second case, "enemies of an enemy are friends". In contrast, triads formed of two positive and one negative tie and of three negative ties are theoretically unstable, as friends of friends tend to become friends, and enemies of enemies also tend to become friends.

Stable triads in which actors fight each other reinforce the status quo and are unlikely to lead to a rapid resolution of the conflict. They make a peace agreement more difficult and have the potential to encourage more violence between the actors in conflict. Unstable triads may lead to changes in the balance of powers between actors that could facilitate the victory of one side against the others. In other words, conflicts in which stable triads dominate are theoretically more difficult to resolve than conflicts where unstable triads can lead to power changes.

All of the triads observed between government forces, militias, rebels and jihadists in Mali are theoretically stable because they are composed of two negative ties and one positive tie. In other words, "enemies of enemies are friends" in most situations: rebels and jihadists are opposed to states, while militias usually work with states against jihadist and rebel organisations. The relationship between the rebels and the jihadists is the only one that can occasionally change over time. While rebels usually have a much more secular agenda than jihadist organisations, they may occasionally join forces with them. When rebels and jihadists fight each other, two unstable triads composed of three negative ties are created, one between the government, the rebels and the jihadists (number 3 of Figure 5.7), and one between the rebels, militias and jihadists (number 4). In this case, "enemies of enemies are enemies", rather than allies.

The competition between rebels and jihadists is key to understanding the evolution of the conflict because it introduces a structural tension within the conflict environment that can only be resolved by a change of alliance. This change can take two theoretical forms. The first configuration is if the rebels and jihadists join forces against the government. In this case, the conflict is likely to end with state collapse. Such alliance happened once in the first phase of the Malian conflict in early 2012 but was short-lived: the jihadists of Ansar Dine rapidly took over the rebels of the MNLA after both groups conquered most of northern Mali (Bencherif and Campana, 2017[32]). The second configuration is when the government succeeds in convincing the rebels to work against the jihadists and form a larger coalition. This option is not as unrealistic as it sounds. Many rebels are fighting for better access to the government or the army, rather than actual independence and could put their grievances aside in exchange for a larger share of the national budget, regional investments or power positions within their region.

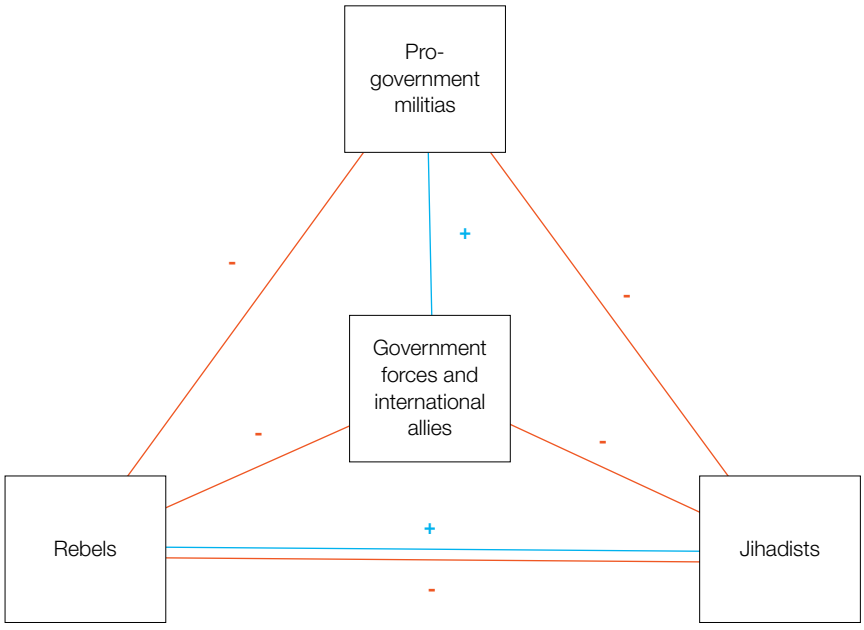
Source: Original text provided by Olivier Walther.

(continues overleaf)

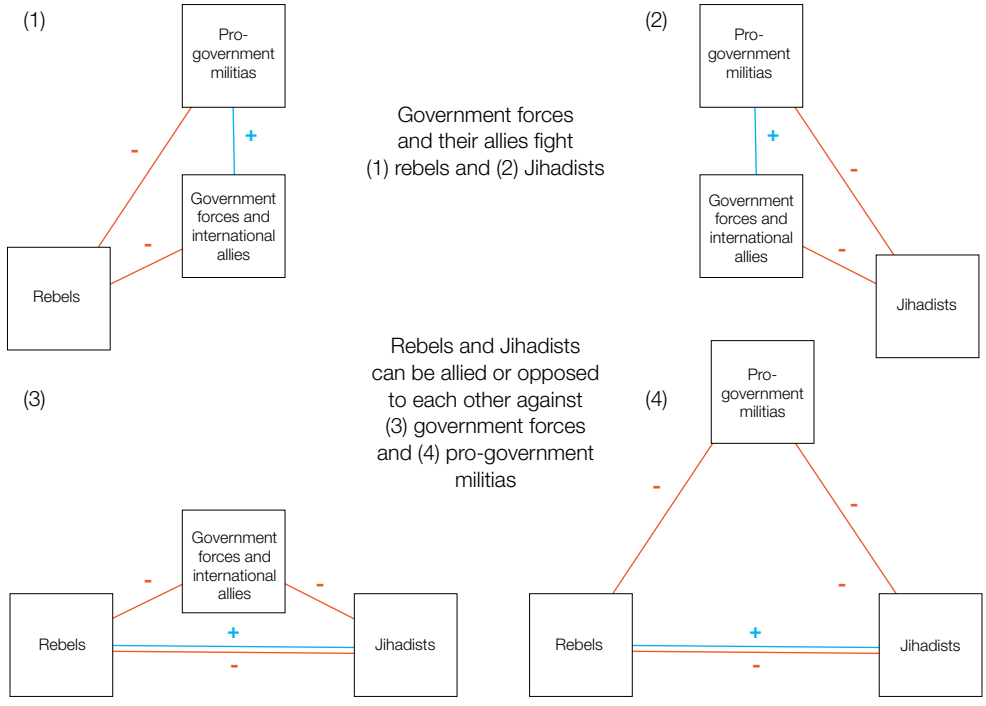
(Box 5.3 continued)

Figure 5.7
A schematic representation of alliances and conflicts in Mali

Simplified representation of the Malian network
Ties indicate alliances and opposition between actors



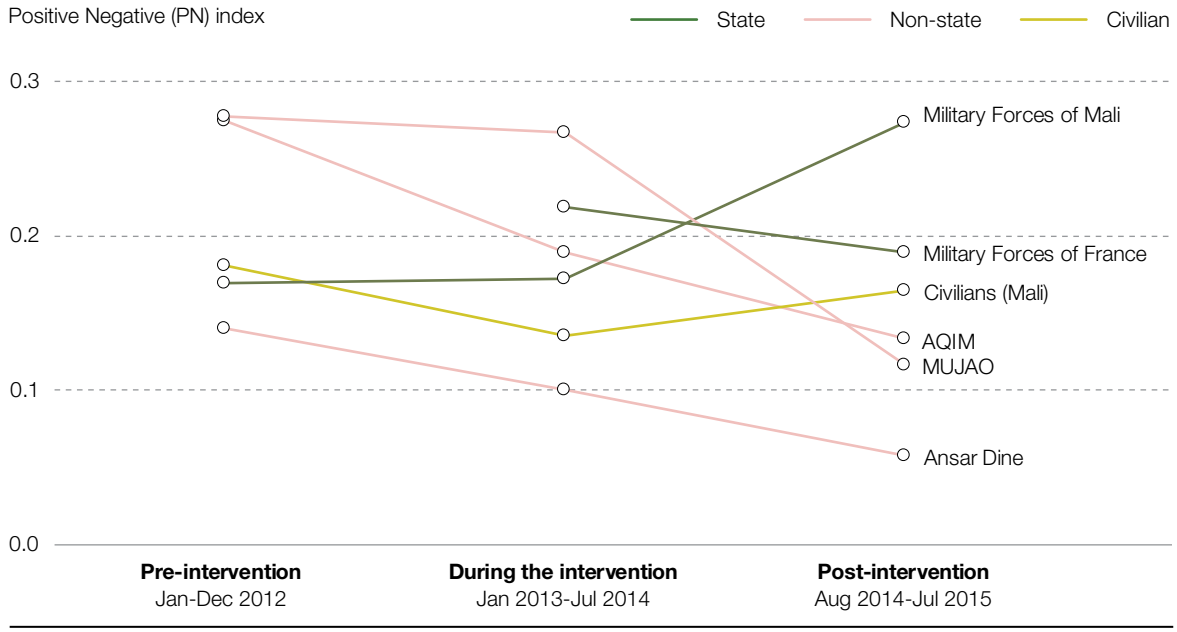
Four groups of three actors (triads)
Ties indicate alliances and opposition between actors



Source: Authors.

Figure 5.8

How France's Operation Serval affected political power in Mali, 2012–15



Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

less constrained than they were before, like the Malian military. This also highlights how the PN shifts produced by the French intervention also tended to reflect the dominant overall structure of the conflict network. Gains in network position by forces on one side were inevitably linked to losses in position by their opponents.

Finally, it is important to note the role of civilians in this conflict, as reflected in the PN. Civilians have borne the brunt of many of the conflicts in North and West Africa, including during the French intervention in Mali. The relative position of civilians was eroded during Serval and only marginally improved afterwards. Further, civilians were consistently among the entities with the weakest overall network position in the conflict network during all phases of Serval. This not only speaks to the increased targeting of civilians by groups like AQIM that occurred during the invention, but also to the ongoing vulnerability of civilians even following a "successful" intervention like Serval. While the intervention did allow the Malian state to survive, it did little to improve the conditions of civilians during or after the conflict.

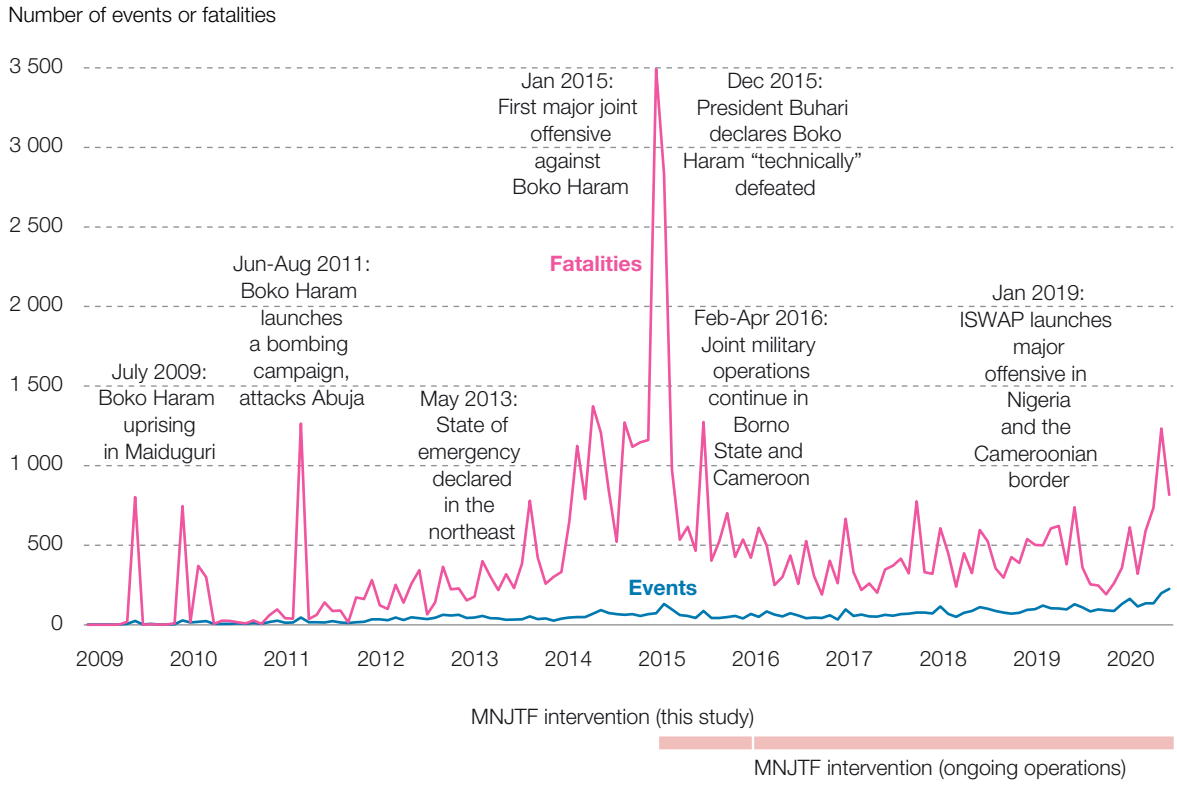
THE MULTINATIONAL OFFENSIVE AROUND LAKE CHAD

The Lake Chad region is the deadliest theatre of operation of the region, with nearly 59 000 people killed since January 2009, against 21 500 in Libya since 2011 and 14 650 in Mali and the Central Sahel since 2012. The region is the epicentre of a major insurgency led by the jihadist organisation Boko Haram and its breakaway group ISWAP against the Nigerian government (Chapter 4).

The 2015 offensive against Boko Haram

In 2015, the degradation of the security situation in northern Nigeria reached critical levels that prompted the Nigerian government to launch a major military counter-offensive under the umbrella of the MNJTF (OECD/SWAC, 2020[2]). The MNJTF is a military formation initiated

Figure 5.9
Events and fatalities in the Lake Chad region, 2009–20



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

by Nigeria in 1994 with a mandate to address cross-border security issues in the Lake Chad region under a joint command structure. It was reactivated in 2012 by the African Union to counter the Boko Haram insurgency and now includes Benin, Cameroon, Chad, Niger and Nigeria. The offensive is the deadliest operation conducted by military forces in North and West Africa since the late 1990s. A staggering 1 065 people were killed every month in the region during the MNJTF counter-offensive in 2015. This is almost twice as much as the average number of fatalities recorded in Mali and Central Sahel during Operation Serval in 2013–14 (540 victims per month), and during Operation Unified Protector in Libya in 2011 (562 victims per month).

Code-named Operation Lafiya Dolé (Peace by Force), the military intervention started in late January 2015 with an aerial bombardment on Boko Haram-controlled Malam Fatori in Borno State. Nigerian and Chadian forces launched several offensives in the far eastern corner of Borno State and in the Sambisa Forest. This area offers a sanctuary at a reasonable distance from both Maiduguri in the north and the Cameroonian border in the west. Airstrikes and ground operations allowed Nigerian and Chadian troops to reclaim several cities along the Nigerian and Cameroonian borders, including Gwoza, where the headquarters of Boko Haram was located, and to release hundreds of woman and child hostages used by the group as servile workers or sex slaves.

By the end of 2015, Boko Haram had lost much of its former territory in Borno State and neighbouring regions. Hundreds of fighters were killed by government forces. Those who escaped were unable to tax markets, extract food supplies from farmers or steal cattle on the same scale as before. Boko Haram also lost a sizable part of its arsenal and pick-up trucks. As a book published by ISWAP in 2018 recalls, "the mujahideen

remained scattered and dispersed on every occasion of the battles except the odd occasion, and they became wholly afflicted with hunger and poverty, such that they ate the leaves of trees, and the Tawagheet [idolaters] took prisoner many of the women and children of the mujahideen, and the matter reached the nadir, and people fell into despair" (Al-Tamimi, 2018[33]).

The military intervention of Nigeria and the MNJTF profoundly affected the geography of violence around Lake Chad. Violence intensified in the first two months of the intervention and stabilised to pre-intervention levels at the end of 2015, a pattern similar to the one observed in Mali during Operation Serval. As in Mali, the military intervention conducted under the umbrella of the MNJTF proved unable to eliminate violence, which has remained persistent in specific locations since then, particularly in regions that have experienced prolonged clashes since the early 2010s, such as in Borno, and Yobe states (Figure 5.9).

Despite the regional expansion of Boko Haram and ISWAP, Nigeria remains the main battleground against the insurgency. More than three-quarters (76%) of the deaths resulting from these clashes have been recorded in Nigeria. The most affected region within Nigeria remains, by far, the state of Borno, with more than 60% of deaths observed since the late 2000s. One out of ten victims of the violence between Boko Haram, ISWP and government forces was recorded in Maiduguri, the capital city of Borno State, which makes it the most dangerous location in the whole of North and West Africa (OECD/SWAC, 2020[2]). South of Maiduguri, numerous military operations have been launched since 2015 to dislodge Boko Haram from its sanctuaries of the Sambisa Forest, around Damaturu, and from the mountainous region that borders Cameroon. Military operations have also been launched to attack ISWAP's strongholds along the Niger border and in the lake region.

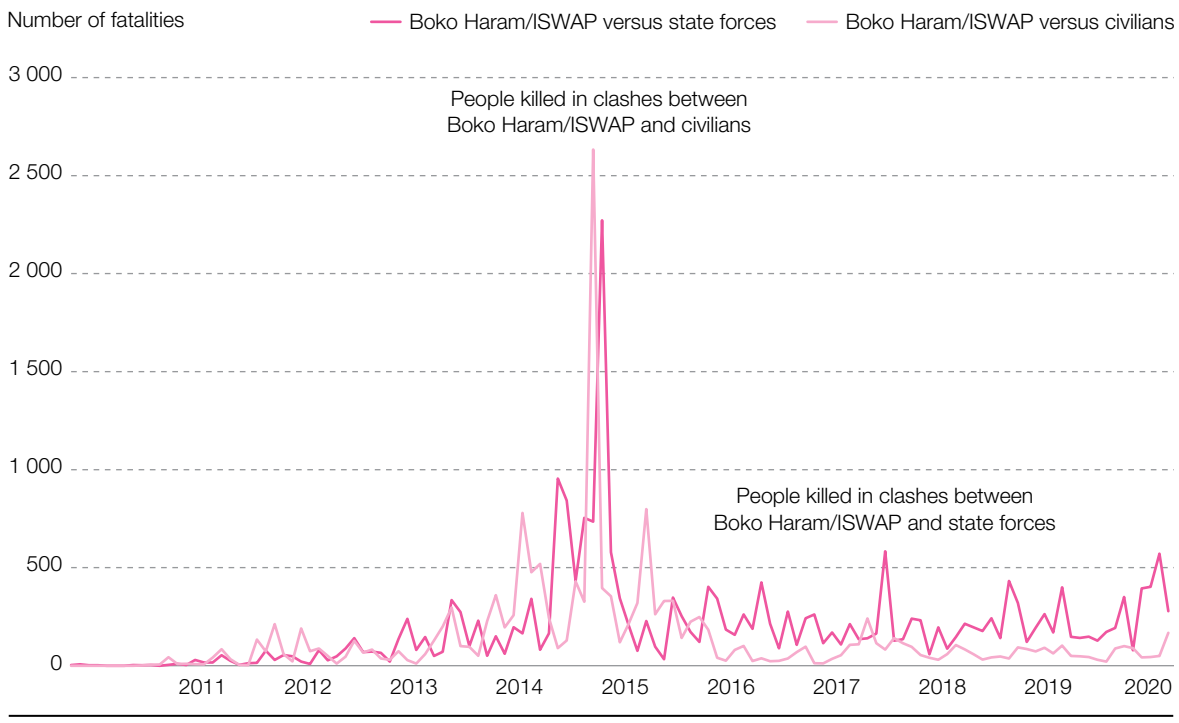
Military offensives against Boko Haram and ISWAP have claimed the lives of 26 000 soldiers and jihadist militants in the cross-border region. Since the Nigerian military reclaimed much of Borno State in 2015, the number of soldiers and militants killed as a result of clashes between state forces, and Boko Haram or ISWAP has nearly always been superior to the number of civilians killed by the jihadist organisations (Figure 5.10).

The MNJTF intervention against Boko Haram and ISWAP

The military intervention conducted under the MNJTF umbrella was also a key factor in prompting Boko Haram leader Abubakar Shekau to pledge allegiance to the Islamic State and become its West Africa Province in 2015. Interviews with Boko Haram and ISWAP defectors tend to confirm that the pledge of allegiance to Islamic State leader Abu Bakr al-Baghdadi on 7 March was a cry for help formulated at the worst possible moment for the organisations. As Foucher (2020, p. 3[34]) argues, "Shekau needed any assistance the Islamic State could provide, not only to beat back the Nigerian military and their allies but also to stem the renewed tide of internal criticism panning his performance as a leader. In the end, he saw swearing allegiance as a necessary risk."

The 2015 military intervention also exacerbated internal tensions within Boko Haram. In August 2016, the Islamic State announced that Shekau was eventually removed from his position as the leader (*wali*) of ISWAP and replaced by Abu Mus'ab al-Barnawi. A majority of the fighters broke away from Boko Haram, taking the Islamic State's endorsement with them. Since 2016, the two factions have fought each other nine times in the Diffa region of Niger and Borno State of Nigeria, resulting in 42 fatalities, according to the ACLED database. In September 2016, for example, in-fighting between the Shekau and al-Barnawi factions over a leadership tussle in Borno State led to an estimated 13 people killed. Both Boko Haram and ISWAP have also targeted civilians who allegedly provided supplies to the other faction, as in the village of Gogone near Bosso in February 2020. These incidents between Boko Haram and ISWAP represent a drop in the bucket compared to the 4 895 events and 42 877 fatalities related to both groups since June 2009.

Figure 5.10
Fatalities involving Boko Haram/ISWAP, state forces and civilians, 2010–20



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

The MNJTF intervention and political power around Lake Chad

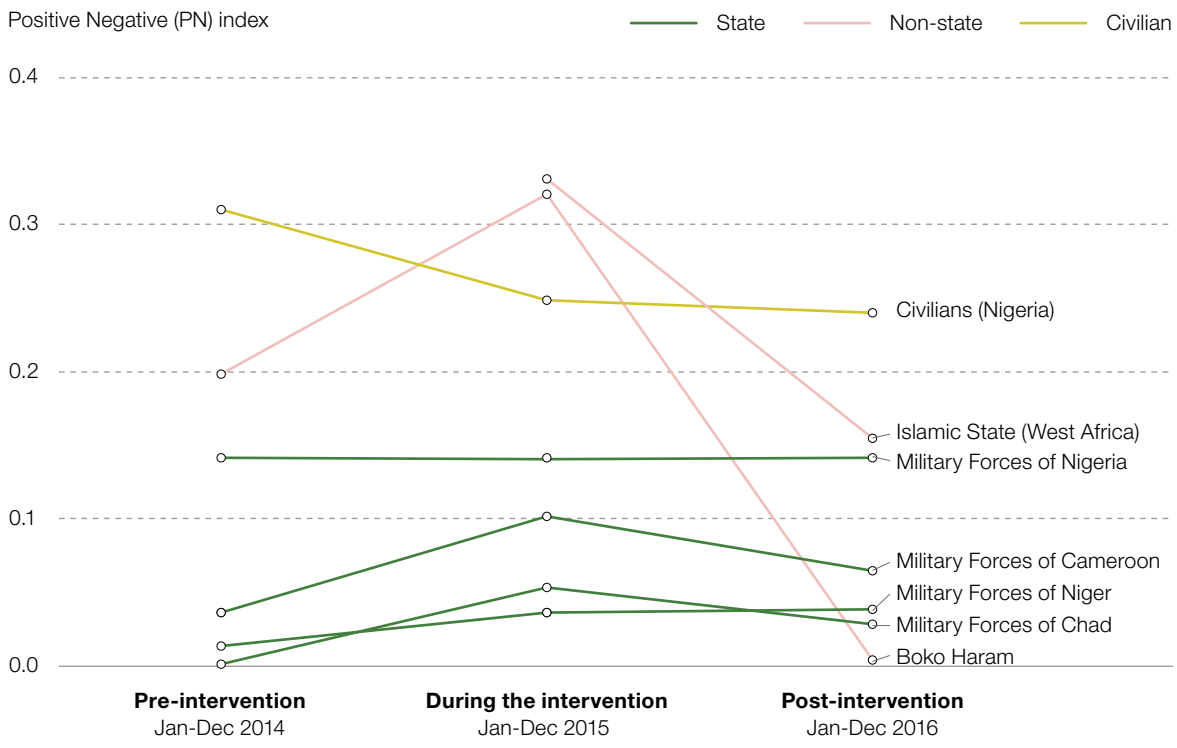
Like Operation Serval, the 2015 MNJTF campaign was a partisan intervention designed to end the Boko Haram insurgency in the Lake Chad region. The task force was made up of military units from Cameroon, Chad, Niger and Nigeria acting on behalf of their various governments but operating under a unified command structure led by Nigeria. Similar to Serval, this intervention also reflected the pre-existing patterns of non-state organisations that were challenging state forces. However, the campaign did significantly diminish Boko Haram and ISWAP's overall positions in the conflict network.

The PN centrality index shows the relative strength of Boko Haram and ISWAP's position in the conflict network before and during the MNJTF's campaign. As seen in Figure 5.11, Boko Haram's PN score was the highest of any major organisation in the region in 2014 and 2015, with scores well above that of the various state forces in opposition to it. This means Boko Haram was favourably positioned relative to both its allies and its enemies and its relative strength was seen in its successful attacks in early 2015, such as the destruction of MNTJF's headquarters in Baga, Nigeria in January of that year. However, following the intervention, Boko Haram's position had significantly degraded as its PN score in 2016 was now lower than all of its opponents. A similar shift in position was observed with ISWAP, a splinter group from Boko Haram, after the intervention. For these reasons, and similar to Serval, the 2015 MNTJF campaign was something of a limited success as it did serve to diminish Boko Haram and ISWAP.

Somewhat differently from Serval, however, the 2015 campaign did not fundamentally alter the status of the various state forces. For example, the Nigerian military's PN score was flat throughout the campaign, while scores of the other state forces only showed mild improvement during the intervention, followed by moderate declines afterwards. From this

Figure 5.11

How the multinational intervention affected political power around Lake Chad, 2014–16



Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

perspective, the intervention did not empower state forces at the expense of their opponents. This is likely due to two interrelated changes in the conflict network. First, a leadership dispute caused Boko Haram to splinter in early 2016. The two successor organisations, Boko Haram and ISWAP, were openly hostile to each other, rather than allied against the shared enemy of state forces. Second, the conflict network grew by 25% in terms of new organisations following the intervention campaign. Some of this reflected the splintering of Boko Haram but was mostly the result of the activation of various local defence militias, many of which were organised along ethnic communal lines. The combined effect of these shifts was twofold: previously empowered non-state groups like Boko Haram were diminished while states forces were not necessarily better positioned overall as they were now confronted with more potential opponents.

The growth of the conflict network again points to the centrality of civilians in the campaign. The PN score for civilians was decreased during the campaign, which highlights that they were increasingly the targets of violence. This underscores the relative vulnerability of civilians in the region, and the inability of the campaign to limit civilian casualties. As shown in Figure 5.10, civilian fatalities spiked during the campaign and such deaths were caused nearly as often by state forces as they were by Boko Haram and/or ISWAP. This helps explain the expansion of the conflict network after the campaign as many local militias were frequently opposed to both non-state organisations like Boko Haram or ISWAP as well as state forces.

NATO'S INTERVENTION AND THE WESTERN OFFENSIVE IN LIBYA

NATOS's Operation Unified Protector

NATO's Operation Unified Protector, launched on March 2011, was initially a mediatory military intervention against the Libyan government or the rebels with the aim of "enforcing an arms embargo, maintaining a no-fly zone and protecting civilians and civilian-populated areas from attack or the threat of attack" (NATO, 2012[35]). However, the initial mission to protect civilians morphed into a sustained air assault on Libyan forces even where they did not actively pursue rebels and, ultimately led, to a regime change. The Operation officially ended shortly after Muammar Gaddafi was killed in late October of that year.

The NATO intervention did not put an end to the conflict in Libya. Fighting between various factions of the rebellion started shortly after the end of the operation. After several years of trying to form a new national government, political rivalries between two primary factions, the House of Representatives (HoR) and the General National Congress (GNC), led to the start of the Second Libyan Civil War in May 2014, a conflict that continues to devastate Libya to this day (Chapter 4).

Since 2014, the war has been characterised by a competition between the Tripoli-based and UN-backed GNA put in place in 2015 as part of the Libyan Political Agreement brokered by the UN and the eastern LNA in Benghazi that is affiliated with the HoR in Tobruk. The GNA's armed forces comprise the remains of Libya's official military. In contrast, the LNA's forces are led by Field Marshal Khalifa Haftar, an officer who took part in the 1969 coup that brought Gaddafi to power before joining the opposition and moving to the United States in the 1990s. Numerous other ethnic or local militias and armed groups are involved in this conflict, fighting for both sides, as well as terrorist groups, such as the Islamic State and Al Qaeda.

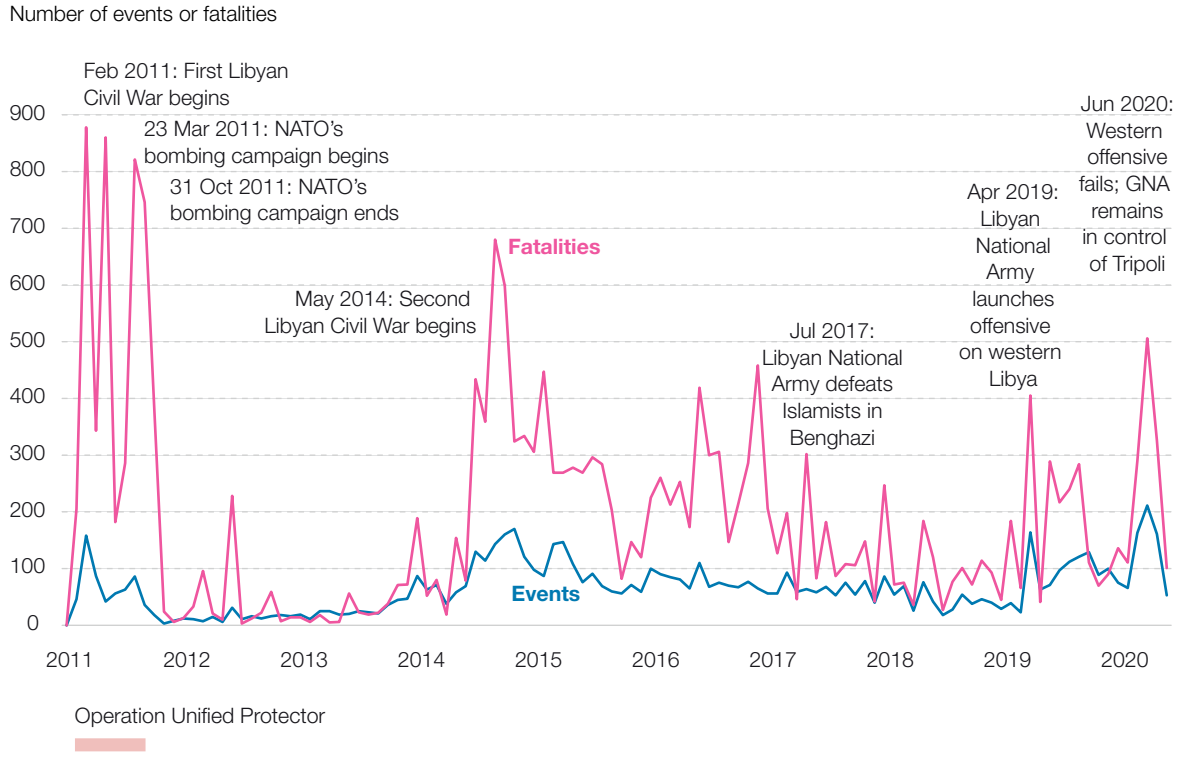
The Western Campaign

With the launch of the LNA's invasion of western Libya in April 2019, many militias that are based in that region began to fight against the LNA under the GNA's umbrella. Many of these groups were previously opponents of each other before the LNA's invasion, having recently fought among one another in western Libya. However, these now GNA-allied groups largely oppose the dictatorial figure they see in Haftar (Lacher, 2019[36]). This mobilisation of previously antagonistic forces has limited their ability to fight cohesively as one GNA force, instead of as separate communities fighting towards a similar goal.

LNA forces largely originate in eastern and southern Libya but have important supporters in western Libya as well. Many of the militias who support LNA include Madkhali Salafists, who fiercely oppose political Islam, a sentiment that the GNA has been accused of harbouring. The pro-LNA militias were also mostly Gaddafi regime loyalists in 2011, and the stigmatisation of loyalists by revolutionary supporters in Libya has driven some militias to support the LNA (Lacher, 2019[36]). Difficulty in convincing some of its militias to mobilise has led the LNA to hire Sudanese and Chadian mercenaries, although these have been mainly kept away from the front lines. The LNA's alliance of militias is considered more fragile than the GNA's because while the GNA depends on a common threat from the LNA to keep them together, the LNA's alliance of militias depends on the success of its aims to keep these forces loyal.

Both the GNA and LNA have support from international backers as well as from Libya militias. Turkey, as one of the GNA's largest supporters, has sent weapons, missiles, vehicles and drones in response to foreign support for the LNA, which includes weapons and drones sent by the UAE, as well as political and financial support from Egypt (International Crisis Group, 2020[37]; Lacher, 2020[38]). The LNA also receives support from Russian mercenaries (Reynolds, 2019[39]). The flow of arms into Libya from foreign backers has also been in contravention of the UN Security Council's arms embargo, which has been in place since 2011. Stopping the foreign flow of arms was also central to the January 2020 ceasefire brokered by the United Nations Support Mission in Libya (UNSMIL).

Figure 5.12
Events and fatalities in Libya, 2011–20



Note: Data available through 30 June 2020.

Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

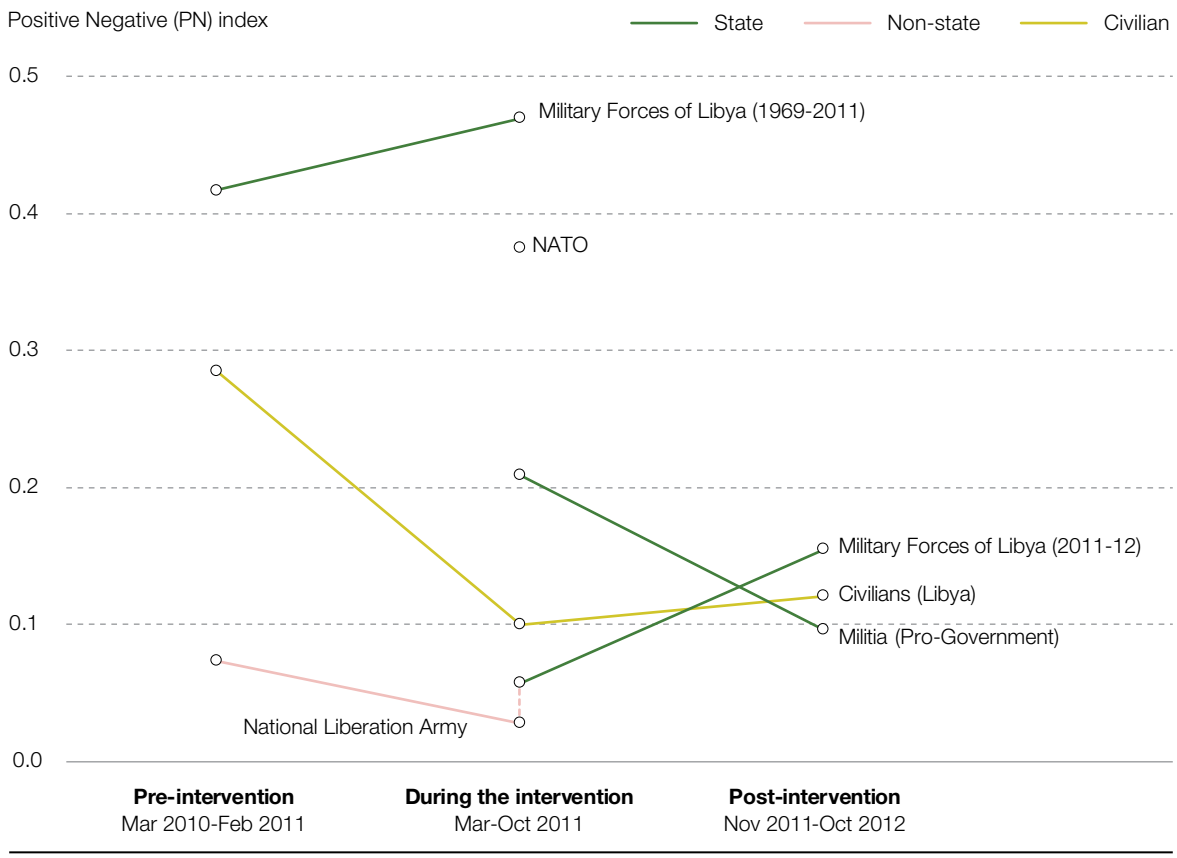
The LNA's offensive in April 2019 saw early successes with LNA forces surrounding Tripoli. Following several ceasefires in early 2020, GNA forces were able to push pro-LNA fighters out of Tripoli back east towards the city of Sirte, which is about halfway between Tripoli and Benghazi, in April and May of that year (Figure 5.12). As of July 2020, the front lines have remained close to Sirte (United Nations, 2020[40]), signalling the failure of Haftar's efforts to cripple the GNA. It is not possible to know whether the various coalitions organised in support of either side will remain intact, and if the flow of arms from foreign powers will continue.

NATO's intervention and political power in Libya

NATO's intervention profoundly altered the political power of the main belligerents of the Libyan conflict. The Libyan military was in a significantly improved network position relative to the rebel forces until the mid-point of the intervention in 2011, as seen in Figure 5.13. Comparing the Libyan military's PN index scores with those of the rebel National Liberation Army (NLA) before and during the campaign underscores how the rebellion was unlikely to have been successful absent the intervention. While the NLA emerged from the intervention somewhat weak from the perspective of the PN, it was better positioned against the various militias made up of ex-Libyan military forces following the military's collapse in October of 2011. As with the examples of the Malian and Lake Chad interventions, the NATO operation could be viewed as a success. It led to the collapse of the Libyan regime and its military and created a circumstance where the NLA was better positioned than the remaining pro-regime groups that were still resisting it after the intervention ended.

Like Serval and the MNJTF intervention, the NATO operation also had a negative impact

Figure 5.13
How NATO's Operation Unified Protector affected political power in Libya, 2010–12



Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

on civilians, as reflected by the PN scores. Even though the operation was launched in the name of protecting civilians, the position of civilians in the conflict network was significantly diminished during the intervention. This reflects an overall trend regarding civilian populations across all three interventions – civilian PN scores decreased during the interventions without much change after the interventions ended. This speaks to the overall inability of these types of interventions to create political conditions that lead to the full cessation of violence. It also speaks to how central civilians remain in these ongoing conflicts today.

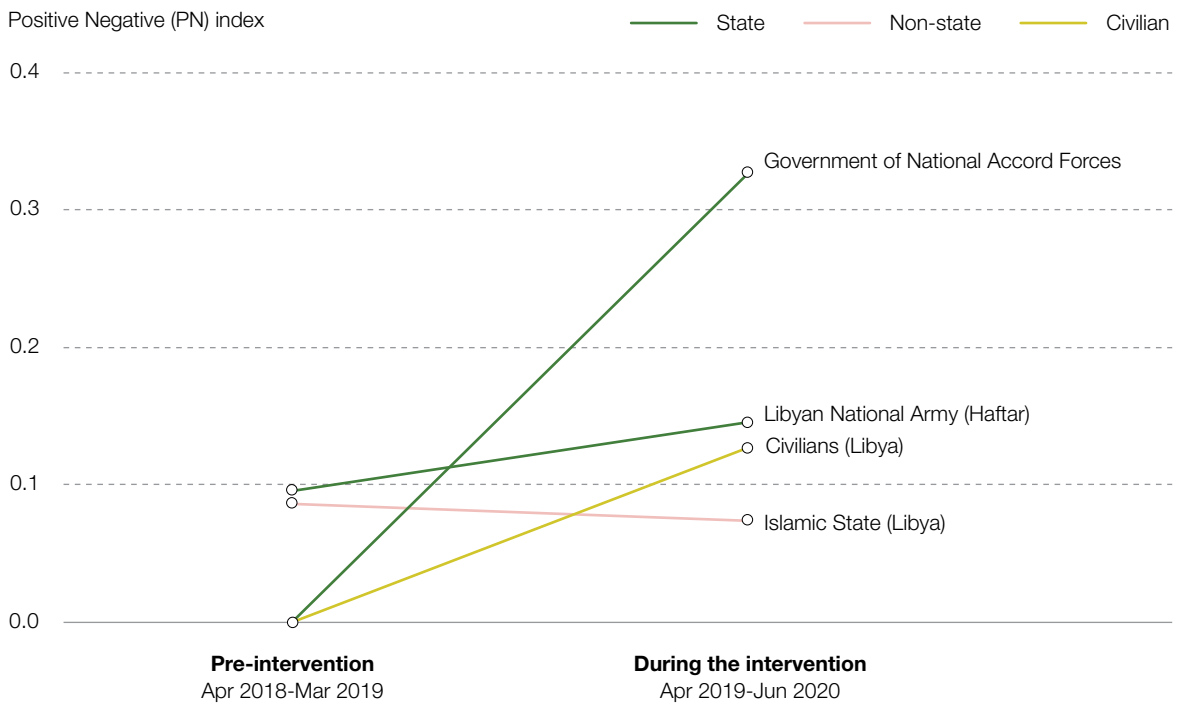
The Western Campaign and political power in Libya

The failed campaign by General Khalifa Haftar's LNA forces against the UN-backed GNA in 2019 represents a different form of intervention from the previous cases. First, while biased toward some of the parties, the flow of arms and other types of material support is an indirect rather than a direct intervention. This means that this support should be expected to impact the conflict networks even if the various foreign supporters are not directly involved in any specific violent event in the region. Second, because there are competing partisan interventions happening simultaneously, the current Libyan conflict may be more similar to other examples of internationalised civil wars where foreign powers back opposing sides during episodes of state collapse, such as the ongoing conflict in Syria (Walther and Pedersen, 2020[41]) or the Congo Wars between 1996 and 2003 (Radil, 2018[42]), rather than to Mali or the Lake Chad region.

PN index scores are presented for LNA's 2019–20 Western Campaign in Figure 5.14. The data used in this analysis extend through the

Figure 5.14

How Haftar's Western Campaign affected political power in Libya, 2018–20



Source: Authors, based on data from ACLED (2020[11]), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/.

withdrawal of LNA forces from western Libya in June 2020. The reversal in relative network position between the LNA and the GNA over the course of the campaign is striking. While the campaign had little effect on the status of other groups in Libya, like the Islamic State, the GNA emerged in a much stronger position relative to the LNA than before the start of the campaign. This is likely a reflection of the creation of a GNA-led coalition of previously non-allied armed groups in western Libya that co-operated to resist the LNA, as well as the indirect influence of increased foreign military support for the GNA. Because the LNA's own coalition of militias and other armed groups may not be sustainable without future military successes, it is likely that the LNA's status may be diminished in the future. However, continued foreign support by the LNA's backers may delay or even offset that effect. Whether the post-campaign effects follow those of others observed in the region relative to the status of civilians or other groups remains to be seen.

LEARNING FROM CONFLICT NETWORKS

The network analysis conducted in this chapter suggests that each partisan intervention altered the conflict networks through the creation of new triads – or groups of three actors – that are bound by two negative ties and one positive tie. These new triads form the heart of each conflict network and are typified by conditions under which the intervening power is allied with government forces against jihadist groups (Mali, Lake Chad), or allied with rebels against government forces (Libya). In each case, the intervener formed positive ties with at least one of the parties central to the conflict and negative ties to that party's opponent. For example, in Mali and Lake Chad, France and the MNJTF allied with states against their non-state rivals, while in Libya, NATO allied with the anti-Gaddafi rebels.

The more recent Western Campaign in Libya

presents an even more intricate case, where various foreign powers (some of them NATO members) back the LNA and others the GNA. Yet, the larger pattern remains as intervening forces form co-operative ties with a partner of their choice and adopt an oppositional stance to others. In network terms, this pattern of two organisations co-operating with each other and in opposition to the same third group is the logical outcome of any partisan intervention.

Each military intervention by a foreign power or a multinational coalition has led to the reinforcement of the political power of their allies and the reduction of the power of their opponents, particularly jihadist organisations in Mali and northern Nigeria, and the former Gaddafi regime in Libya. This is clearly confirmed by the study of the PN centrality index, which measures the structural position of each organisation based on the reconfigured architecture of the network in the wake of an intervention. In each case, the key organisations that were targeted by the intervention found themselves in a newly disadvantaged position within the types of triads formed by a partisan intervention. As a response, these organisations often had to form new partnerships beyond this core triad as a means to offset their new disadvantage relative to the other key actors. This, in turn, made them more reliant on others for success and reduced their power and ability to act independently. When measured by the PN index, this reduced independence results in a lower PN score; in each intervention, the targeted member of the core triad of actors found themselves in exactly that circumstance.

Unfortunately, the impact of military interventions on these conflict networks has been rather limited in duration. Serval, the MNJTF and Operation Unified Protector each temporarily weakened their opponent without achieving stability. Worse, each intervention has encouraged jihadist and rebel organisations to respond to the initial shock of the military intervention in ways that may have made them more resilient. Because each insurgency is driven by local grievances, peculiar agendas, unique individuals and specific networks of actors, the response to military interventions has varied across the region. Weakened jihadist groups have alternatively pledged allegiance to global organisations such as the Islamic State, split according to ethnic and geographical lines or merged with other groups. These groups have also responded to military interventions by moving to more remote or less monitored areas, participating in the regional diffusion of violence observed in North and West Africa since the late 2000s (OECD/SWAC, 2020[2]).

Notes

1 To simplify the interpretation of the results, the scores presented in the chapter are equivalent to 1-PN, so that high values indicate high political power, and low values indicate low political power.

References

ACLED (2020), *The Armed Conflict Location & Event Data Project*, https://acleddata.com/data-export-tool/. [11]

Al-Tamimi, A. (2018), *The Islamic State West Africa Province vs. Abu Bakr Shekau: Full text, translation and analysis*, www.aymennjawad.org/21467/the-islamic-state-west-africa-province-vs-abu. [33]

Baldaro, E. and L. Raineri (2020), "Azawad: A parastate between nomads and Mujahidins?", *Nationalities Papers*, Vol. 48/1, pp. 100–115. [25]

Bencherif, A. (2020), "From resilience to fragmentation: Al Qaeda in the Islamic Maghreb and Jihadist group modularity", *Terrorism and Political Violence*, Vol. 32/1, pp. 100–118. [14]

Bencherif, A. and A. Campana (2017), "Alliances of convenience: Assessing the dynamics of the Malian insurgency", *Mediterranean Politics*, Vol. 22/1, pp. 115–134. [32]

Bøås, M. (2014), "Guns, money, and prayers: AQIM's blueprint for securing control of Northern Mali", *CTC Sentinel*, Vol. 7/4, pp. 1–10. [15]

Chivvis, C. (2015), *The French War on Al-Qa'ida in Africa*, Cambridge University Press, Cambridge. [12]

Corbetta, R. and K. Grant (2012), "Intervention in conflicts from a network perspective", *Conflict Management and Peace Science*, Vol. 29/3, pp. 314–340. [8]

Desgrais, N., Y. Guichaoua and A. Lebovich (2018), "Unity is the exception. Alliance formation and de-formation among armed actors in Northern Mali", *Small Wars & Insurgencies*, Vol. 29/4, pp. 654–679. [30]

Doreian, P. and D. Krackhardt (2001), "Pre-transitive balance mechanisms for signed networks", *Journal of Mathematical Sociology*, Vol. 25, pp 43–67. [31]

Everett, M. and S. Borgatti (2014), "Networks containing negative ties", *Social Networks*, Vol. 38, pp. 111–120. [9]

Foucher, V. (2020), "The Islamic State franchises in Africa: Lessons from Lake Chad", *International Crisis Group Commentary*, 29 October. [34]

Gertler, J. (2011), "Operation Odyssey Dawn (Libya): Background and issues for Congress", *Congressional Research Service* 7-5700. [4]

International Crisis Group (2020), "Turkey wades into Libya's troubled waters", *ICG Report* 257. [37]

Lacher, W. (2020), *Libya's Fragmentation: Structure and Process in Violent Conflict*, Bloomsbury, London. [38]

Lacher, W. (2019), "Who is fighting whom in Tripoli? How the 2019 Civil War is transforming Libya's military landscape", *Small Arms Survey Briefing Paper*, August. [36]

Le Roux, P. (2019), *Exploiting borders in the Sahel: The Islamic State in the Greater Sahara*, Africa Center for Strategic Studies, Washington, DC, June. [19]

Lebovich, A. (2019), *Mapping armed groups in Mali and the Sahel*, European Council on Foreign Relations, London. [26]

Lebovich, A. (2018), *The death of a Jihadist: A chance to curb Mali's conflict*, European Council on Foreign Relations, London, 13 December. [22]

Lebovich, A. (2017), *Reconstructing local orders in Mali: Historical perspectives and future challenges*, Brookings Institution, Washington, DC. [27]

Maclean, R. (2019), "Kalashnikovs and no-go zones: East Burkina Faso falls to militants", *The Guardian*, 22 April. [29]

NATO (2012), *Providing peace and security. NATO delivers: Yesterday, today and tomorrow*, North Atlantic Treaty Organization, 18 May. [35]

Nsaibia, H. and C. Weiss (2020), "The end of the Sahelian anomaly: How the global conflict between the Islamic State and al-Qa'ida finally came to West Africa", *CTC Sentinel*, Vol. 13/7, pp. 1–14. [18]

OECD/SWAC (2020), *The Geography of Conflict in North and West Africa*, West African Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/02181039-en. [2]

Reynolds, N. (2019), *Putin's not-so-secret mercenaries: Patronage, geopolitics, and the Wagner Group*, Carnegie Endowment for International Peace, Washington, DC, July. [39]

Roetman, T., M. Migeon and V. Dudouet (2019), *Salafi jihadi armed groups and conflict (de-)escalation: The case of Ansar Dine in Mali*, Berghof Foundation, Berlin. [16]

Schmidt, E. (2018), *Foreign Intervention in Africa After the Cold War: Sovereignty, Responsibility and the War on Terror*, Ohio University Press, Athens. [1]

Sénat (2018), *Projet de loi de finances pour 2019*, www.senat.fr/rap/a18-149-6/a18-149-62.html. [6]

Sénat (2015), *Projet de loi des finances pour 2015*, www.senat.fr/commission/fin/pjlf2015/np/np08/np087.html. [5]

Shurkin, M. (2020), "France's war in the Sahel and the evolution of counter-insurgency doctrine", *Texas National Security Review*, Vol. 4/1, pp. 1–15. [10]

Thiam, A. (2017), *Centre du Mali: Enjeux et dangers d'une crise négligée*, Centre pour le dialogue humanitaire, Bamako, March. [21]

Thomas, C. and T. Falola (2020), *Secession and Separatist Conflicts in Postcolonial Africa*, University of Calgary Press, Calgary. [23]

Thurston, A. (2020), *Jihadists of North Africa and the Sahel: Political Islam and Rebel Groups*, Cambridge University Press, Cambridge. [13]

United Nations (2020), *As Foreign Interference in Libya Reaches Unprecedented Levels, Secretary-General Warns Security Council 'Time Is Not on Our Side', Urges End to Stalemate*, UN Security Council, New York. [40]

United Nations (2020), *Peacekeeping Fatalities Open Data*, UN Peacekeeping, New York. [3]

United Nations (2018), *Letter dated 8 August 2018 from the Panel of Experts established pursuant to resolution 2374 (2017) on Mali*, United Nations Security Council, New York. [28]

United Nations (2004), *United Nations Security Council Resolution 1528*, SC/8012, United Nations, New York, 27 February. [7]

Walther, O. and D. Christopoulos (2015), "Islamic terrorism and the Malian rebellion", *Terrorism and Political Violence*, Vol. 27/3, pp. 497–519. [24]

Walther, O. and W. Miles (eds.) (2018), *Jihads and borders: Social networks and spatial patterns in Africa, present, past and future*, Routledge, London. [20]

Walther, O. and W. Miles (eds.) (2018), *Spatializing the social networks of the First Congo War*, Routledge, London. [42]

Walther, O. and P. Pedersen (2020), "Rebel fragmentation in Syria's civil war", *Small Wars & Insurgencies*, Vol. 31/3, pp. 445–474. [41]

Warner, J. (2017), "Sub-Saharan Africa's three "new" Islamic State affiliates", *CTC Sentinel*, Vol. 10/1, pp. 28–32. [17]

West African Studies

Conflict Networks in North and West Africa

Conflicts in North and West Africa have become more violent and widespread than in the past. They have also become more difficult to resolve due to the complex relationships between a growing number of belligerents with diverging agendas. Building on a dataset of more than 36 000 violent events over a 23-year period and three case studies (Lake Chad, Central Sahel and Libya), this report maps conflict networks and the evolution of rivalries and alliances in 21 North and West African countries. It applies an innovative approach, *Dynamic Social Network Analysis,* to explain the types and evolution of relationships across actors in conflict. Finally, the report analyses the impact of military interventions on the re-composition of violent groups and the shifting nature of insecurity. This new analysis, based on temporal and spatial approaches contributes to the creation of strategies that will ensure long-term political stability and serves as a reminder that there is a need for co-ordinated regional approaches and place-based policies.

PRINT ISBN 978-92-64-67316-8
PDF ISBN 978-92-64-45590-0

9 789264 673168