The London School of Economics and Political Science

When and how does inequality cause conflict? Group dynamics, perceptions and natural resources

Elise Must

A thesis submitted to the Department of Government of the London School of Economics for the degree of Doctor of Philosophy, London, September 2016

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it). The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without my prior written consent. I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party.

I declare that my thesis consists of 63,161 words.

Statement of conjoint work

I confirm that Chapter 4 was jointly co-authored with Siri Aas Rustad at the Peace Research Institute of Oslo and I contributed 85% of this work. I planned and conducted the survey and the interviews, and wrote the article. Siri Aas Rustad programmed the survey questionnaire into the Open Data Kit (ODK) survey software, did the regression analyses and wrote parts of the result section.

Abstract

Recent advances in conflict studies have led to relatively robust conclusions that inequality fuels conflict when it overlaps with salient group identities. Central to quantitative studies supporting this relationship is a stipulated causal chain where objective group – or horizontal – inequalities are translated into grievances, which in turn form a mobilization resource. All these studies are however limited by their use of objective measures of inequality, which leaves them unable to directly test the assumed grievance mechanism. In four papers I argue that objective asymmetries are not enough to trigger conflict. For people to take action on horizontal inequalities, they will have to be aware of them and consider them unjust. In the first paper, *Perceptions, Horizontal Inequalities and Civil Conflict*, I use data from the World Values Survey to show that perceived rather than objective economic inequality between sub-national regional groups is associated with increased risk of civil war. In the second paper, *Injustice is in the eye of the beholder: Perceived Horizontal Inequalities and Communal Conflict in Africa*, I analyse 20 countries covered by the Afrobarometer Surveys. I conclude that combined objective and perceived economic ethnic inequality, political ethnic inequality, and particularly perceived political ethnic inequality, increase the risk of between-group conflict. In the third paper, *Expectations, Grievances and Civil Unrest in Emerging Petrostates*. *Empirical Evidence from Tanzania*, I present evidence suggesting that those who feel that their region has been treated unfairly by the government are most prone to support and participate in civil unrest. I base my conclusions primarily on survey data collected in 2015. In a final article, *From Silence to Storm. Investigating Mechanisms Linking Structural Inequality and Natural Resources to Mobilization in Southern Tanzania*, I rely on 35 semi-structured interviews to argue that natural gas mismanagement triggered group grievances, which in turn fuelled civil unrest.

Acknowledgements

First and foremost I wish to thank all the scholars, lecturers and practitioners that made my field work in Tanzania so rewarding – and at all possible. Successfully completing a survey in a logistically and politically challenging environment with limited time and budgets would never have been possible without the competence and energy of Peter Kanyingy N'dungu. I am forever grateful. I thank Daniel Ngugi for always staying calm and steady and for never losing track of important details in heated situations, and Justin Lusasi for his people skills and political flair. Bryson Mshana generously shared his wealth of knowledge on the political situation in Mtwara. His insights proved invaluable both in planning and conducting the field work and in writing my articles. Not least, finding ways of expressing my questions in ways understandable to the local men and women of Mtwara and Lindi – without losing my original intentions – would have been close to impossible without the rock solid support of my research assistant Imelda Mville. In general, I thank the administration at Stella Maris University College (STEMMUCO) for supporting my research, and in particular Rev. Dr. Aidan Msafiri for sharing his knowledge and introducing me to Imelda, Daniel and Peter.

Several people contributed with experience and knowledge on doing surveys and research in Tanzania. Special thanks go to Sally Ross and Zara Pita Merali of the Aga Khan Foundation, Angela Ambroz and Elvis Mushi at Twaweza, Robert Ahearne at the UCL, Sterling Roop at ILPI and Yulli Jeremiah at the University of Dar es Salaam. My 16 survey enumerators did a tremendous job – thank you all. Finally, 35 informants and 804 survey respondents generously shared their time and thoughts. I am indebted to all of them.

I have had the privilege to have two very competent supervisors. Paul Mitchell has provided insightful comments and valuable support at critical moments. Thank you for giving reassurance and helping me to move on. My warmest thanks also to Gudrun Østby, the most dedicated co-supervisor I could ever wish for. You always knew how to push me further, and I have the deepest respect for how you took on and solved the supervisor task.

Throughout my dissertation project I found much inspiration and support in the PRIO Research School on Peace and Conflict. Special thanks to Lynn Nygård for invaluable

dissertation writing advice. In general, being part of the PRIO research environment has been both professionally and socially rewarding. My thanks to PRIO Director Kristian Berg Harpviken for opening up for this opportunity.

For the first paper I thank discussants, panellists and participants at the annual MPSA conference in Chicago, April 2013 for comments on an early draft.

The second paper has benefited from numerous comments and suggestions from participants at the ILPI Africa Discussion Forum, academic staff and students at the LSE Comparative Politics Workshop in November 2014, PRIO researchers at a PRIO Brownbag in November 2014, participants at the Norwegian Political Science Conference in January 2015 and at the European Network of Conflict Researchers (ENCoRe) in April 2015. Håvard Strand generously shared his time to discuss methodological challenges – I am very grateful for the insights he provided.

For the third paper I thank my co-author Siri Aas Rustad for fruitful discussions and Henrik Urdal and Halvard Buhaug for thoughtful comments. I furthermore thank participants at the ENCoRe conference in January 2016, and panellists and participants at the ISA annual convention in March 2016. Special thanks go to our discussant Vally Koubi.

For the fourth and final paper I received particularly helpful suggestions from Trine Lunde, Sigrun Marie Moss and Tove Heggli Sagmo. I also thank participants at the PRIO Research School of Peace and Conflict Symposium in April 2016 and staff and students at LSE Comparative Politics Workshop in May 2016.

The PRIO Conflict Trends Project and the Norwegian Ministry of Foreign Affairs generously supported my field work in Tanzania.

Finally, the by far most rewarding discussions and useful comments to my dissertation were provided by my two excellent examinators at the London School of Economics Viva Voce – Livia Schubiger and Kristian Skrede Gleditsch. I came out from my examination with a renewed interest for my dissertation topic and a profound respect for the academic thinking and conduct they both represent. I am deeply grateful to both.

I have been very lucky to enjoy the company and receive support from friends too numerous to give full recognition to individually. Still, my warmest thanks go to Trine

Lunde for always understanding what I mean, and for providing absolutely invaluable guidance on how to do and not do a PhD. Thanks to Salima Nurmohammed for life saving evenings with wine, and to Anne Cecile Haug for coming up with ever innovative ways of getting fresh air and exercise.

My parents Margrethe and Helge deserve a lot of credit for always fully supporting me – no matter what I embarked on. And for cooking dinners and taking care of everything at times when I disappeared into dissertation issues.

Most importantly – Christian – thank you for thinking it was a great idea of mine to quit my job to become a PhD student. And for never stopping supporting me, even if it meant staying home alone with 3 children while I was on repeated trips to Tanzania. This brings me to our lovely daughters who have the power to make life wonderful even when regression models do not go up.

Table of contents

1 Introduction 13

1.1 Motivation and main aim 13

1.2 Literature review 16

1.3 Gaps in current literature and contribution 23

1.4 Theoretical framework 28

1.5 Methodology, data and measures 38

1.6 Background for choosing Tanzania as a case 46

1.7 Introducing the four articles 47

1.8 Limitations and scope of argument 50

2 Perceptions, Horizontal Inequalities and Civil Conflict 52

2.1 Introduction 53

2.2 Conflict vs. Inequality 55

2.3 Regional horizontal inequalities and civil war 57

2.4 Perceived horizontal inequalities 59

2.5 Data and Methodology 62

2.6 Results 65

2.7 Concluding remarks 75

2.8 Appendices Chapter 2 78

3 Injustice is in the eye of the beholder: Perceived Horizontal Inequalities and Communal Conflict in Africa 89

3.1 Introduction 90

3.2 Ethnic conflict - status of knowledge 92

3.3 Horizontal inequalities and communal conflict 94

3.4 Perceptions – the missing link in empirical analyses of conflict outbreak 96

3.5 Hypotheses on the association between horizontal ethnic inequalities and communal conflict outbreak 101

3.6 Data and Research Design 103
3.7 Empirical Results 108
3.8 Conclusion 117
3.9 Appendices Chapter 3 119
4 Expectations, Grievances and Civil Unrest in Emerging Petrostates. Empirical Evidence from Tanzania 130
4.1 Introduction 131
4.2 Inequality, natural resources and conflict 133
4.3 Southern Tanzania – a case in point 137
4.4 Theoretical framework and testable hypotheses 141
4.5 Research Design 146
4.6 Results 151
4.7 Conclusion 159
4.8 Appendices Chapter 4 163
5 From Silence to Storm. Investigating Mechanisms Linking Structural Inequality and Natural Resources to Mobilization in Southern Tanzania 172
5.1 Introduction 173
5.2 Background: A history of marginalization, and sudden natural riches 174
5.3 Horizontal inequalities, natural resources and conflict 178
5.4 Data and Methodology 180
5.5 Analysis 183
5.6 Conclusion 197
5.7 Appendices Chapter 5 200
6 Concluding remarks 204
6.1 Future research 209
6.2 Policy implications 210
7 Bibliography 213
8 Supplementary Appendices 223

List of Figures

FIGURE 1. DEVELOPMENT IN NUMBER OF STATE BASED (CIVIL WAR), NON-STATE (COMMUNAL) AND ONE-SIDED (CIVILIANS TARGETED) CONFLICT 24

FIGURE 2. PROTEST AND RIOT EVENTS IN AFRICA 1997-2014. 25

FIGURE 3: CAUSAL CHAIN AND EMPIRICAL LINK UNDERPINNING CURRENT QUANTITATIVE STUDIES OF HORIZONTAL INEQUALITES AND CONFLICT 36

FIGURE 4: OVERALL FRAMEWORK FOR ANALYSIS 37

FIGURE 5. GROUP GRIEVANCE MEASURES IN CHAPTER 2-4 45

FIGURE 6. CORRELATION BETWEEN PERCEIVED AND OBJECTIVE NEGATIVE HORIZONTAL INEQUALITY (HI) IN SAME REGION ... 67

FIGURE 7. AVERAGE MARGINAL EFFECTS, ALL VARIABLES, WITH 95% CONFIDENCE INTERVALS. BASED ON MODEL 3 70

FIGURE 8. DEVELOPMENT IN OBJECTIVE AND PERCEIVED ECONOMIC NEGATIVE HORIZONTAL INEQUALITIES IN TWO COUNTRIES BEFORE CIVIL WAR OUTBREAK 72

FIGURE 9. SCATTERPLOT CORRELATION BETWEEN MEAN PERCEIVED *INDIVIDUAL* ECONOMIC CONDITIONS PER REGION AND MEAN PERCEIVED *ETHNIC GROUP* ECONOMIC CONDITIONS PER REGION, 18 AFRICAN COUNTRIES, AFROBAROMETER SURVEYS ROUND 3 88

FIGURE 10. CORRELATION BETWEEN PERCEIVED AND OBJECTIVE ECONOMIC ETHNIC INEQUALITY IN SUBNATIONAL REGIONS, 19 SSA COUNTRIES, 2008/2009 98

FIGURE 11. PERCEPTION OF POLITICAL DEPRIVATION AMONG GROUP MEMBERS IN OBJECTIVELY NON-EXCLUDED AND EXCLUDED ETHNIC GROUPS, SUBNATIONAL REGIONS, 19 SSA COUNTRIES, 2008/2009 99

FIGURE 12. RISK OF COMMUNAL CONFLICT FOR LOW TO HIGH VALUES OF COMBINED OBJECTIVE AND PERCEIVED ECONOMIC ETHNIC DEPRIVATION IN SUBNATIONAL REGIONS IN AFRICA, 1999-2010 111

FIGURE 13. CEDERMAN, GLEDITSCH AND BUHAUG (2013) THEORETICAL FRAMEWORK 137

FIGURE 14. PERCENTAGE HOUSEHOLDS WITH ELECTRICITY MTWARA AND LINDI VS. DAR ES SALAAM AND TANZANIA TOTAL: 138

FIGURE 15. ASSET SCORE MTWARA/LINDI VS. DAR ES SALAAM AND TANZANIA TOTAL: 139

FIGURE 16. FRAMEWORK FOR TESTING GROUP GRIEVANCES AND CONFLICT 146

FIGURE 17: SURVEY POINTS AND SELECTED DISTRICTS IN MTWARA AND LINDI. 147

FIGURE 18: GAS OPERATIONS AND PIPELINE IN SOUTHERN TANZANIA 148

FIGURE 19: MEAN VALURES FOR VARIABLES 'REGION TREATED UNFAIRLY' AND 'PARTICIPATION IN PROTEST', BY DISTRICT . 150

FIGURE 20: SUBSTANTIVE EFFECTS OF 'PERCEIVED ECONOMIC HORIZONTAL INEQUALITY', 'REGION TREATED UNFAIRLY' AND 'FRUSTRATED EXPECTATIONS' ON SUPPORT FOR PROTEST (MODELS 1, 5 AND 9) 156

FIGURE 21: SUBSTANTIVE EFFECTS OF 'REGION TREATED UNFAIRLY' ON PARTICIPATION IN CIVIL UNREST (MODELS 7 AND 8) 157

FIGURE 22. SUBSTANTIVE EFFECTS OF 'REGION TREATED UNFAIRLY' ON HAVE OR MIGHT PARTICIPATE IN PROTEST 171

FIGURE 23: PER CENT OF POPULATION UNDER WORLD BANK POVERTY LINE (UTZ 2008) 176

FIGURE 24: ASSET SCORE MTWARA/LINDI VS. DAR ES SALAAM AND TANZANIA TOTAL 176

FIGURE 25: MAP OF PIPELINE, PLANNED LNG SITE AND GAS BLOCKS IN SOUTHERN TANZANIA (DISCOVERIES ARE DONE IN ALL) 178
FIGURE 26: CEDERMAN, GLEDITSCH AND BUHAUG (2013) CONFLICT FRAMEWORK 180
FIGURE 27. SELECTED DISTRICTS, SAMPLED SURVEY POINTS AND SELECTED INTERVIEW SITES. 182
FIGURE 28: RESPONSE DISTRIBUTION MTWARA AND LINDI ON QUESTION: 'THINK ABOUT THE CONDITION OF PEOPLE LIVING IN THIS REGION [STATE IF MTWARA OR LINDI REGION]. ARE THEIR ECONOMIC CONDITIONS WORSE, SAME AS OR BETTER THAN FOR PEOPLE IN OTHER REGIONS IN THIS COUNTRY?' 185
FIGURE 29: PERCENTAGE OF 'YES' RESPONSES TO WHICH ISSUES JUSTIFIES A DEMONSTRATION/PROTEST MARCH 189
FIGURE 30: GAS DISCOVERIES, POLITICAL DECISIONS AND MOBILIZATION TIMELINE 192
FIGURE 31: THE PROCESS FROM MARGINALIZATION TO MOBILIZATION IN MTWARA 196

List of Tables

TABLE 1. OVERVIEW OF HORIZONTAL INEQUALITES AND CONFLICT STUDIES ACROSS DIFFERENT CONFLICT TYPES, GROUP IDENTIFIER AND INEQUALITY DIMENSIONS 22

TABLE 2. OVERVIEW OF HORIZONTAL INEQUALITY STUDIES AND THE CONTRIBUTION OF THIS DISSERTATION 26

TABLE 3. DESCRIPTIVE STATISTICS 66

TABLE 4. THE ASSOCIATION BETWEEN OBJECTIVE AND PERCEIVED HORIZONTAL INEQUALITY AND CIVIL WAR ONSETS, 1989-2014. REPEATED CROSS SECTIONAL DATA. 69

TABLE 5. THE ASSOCIATION BETWEEN OBJECTIVE AND PERCEIVED HORIZONTAL INEQUALITIES AND TERRITORIAL CIVIL WAR ONSETS, 1989-2014. REPEATED CROSS SECTIONAL DATA. 71

TABLE 6. ALTERNATIVE SPECIFICATION. THE ASSOCIATION BETWEEN OBJECTIVE AND PERCEIVED INDIVIDUAL INEQUALITY AND CONFLICT ONSETS, 1989-2014. REPEATED CROSS SECTIONAL DATA. 75

TABLE 7: CENSORING REGIONS WITH LESS THAN 50 RESPONDENTS 79

TABLE 8: PEACEYEARS AND SPLINES 80

TABLE 9: MAX 2 YEARS OF EXTRAPOLATION OF SURVEY POINTS 81

TABLE 10: EXCLUDING INDIA FROM ANALYSIS 82

TABLE 11: EXCLUDING PAKISTAN FROM ANALYSIS (OUTLIER) 82

TABLE 12: EXCLUDING THAILAND FROM ANALYSIS (OUTLIER OBJECTIVE NEGATIVE HI) 83

TABLE 13: ONLY BASED ON QUESTIONS WITH COUNTRY LEVEL CATEGORIES FOR INCOME PRESENTED TO RESPONDENT 84

TABLE 14: CONTROLLING FOR VALUE OF OIL & GAS PRODUCTION PER CAPITA 84

TABLE 15: CONTROLLING FOR POWERSHARING 85

TABLE 16: CONTROLLING FOR WORLD REGIONS 85

TABLE 17: CONTROLLING FOR OIL/GAS VALUE 86

TABLE 18: CORRELATION MATRIX 87

TABLE 19. CORRELATION MATRIX MAIN INDEPENDENT VARIABLES 109

TABLE 20. THE ASSOCIATION BETWEEN OBJECTIVE AND PERCEIVED ETHNIC ECONOMIC INEQUALITY AND COMMUNAL CONFLICT OUTBREAK IN SUBNATIONAL REGIONS IN AFRICA, 1999-2010 110

TABLE 21. THE ASSOCIATION BETWEEN OBJECTIVE AND PERCEIVED POLITICAL ECONOMIC INEQUALITY AND COMMUNAL CONFLICT OUTBREAK IN SUBNATIONAL REGIONS IN AFRICA, 1999-2010 113

TABLE 22. OVERVIEW SURVEY COUNTRIES AND YEARS 119

TABLE 23: OVERVIEW BIGGEST ETHNIC GROUP PER REGION, CONFLICT IN REGION AND BIGGEST ETHNIC GROUP INVOLVEMENT. 120

TABLE 24. DESCRIPTIVE STATISTICS 121

TABLE 25. FULL CORRELATION MATRIX 121

TABLE 26. HIGH AND LOW MEASURES FOR OBJECTIVE ECONOMIC ETHNIC INEQUALITY AND COMMUNAL CONFLICT OUTBREAK 122

TABLE 27. CONTROLLING FOR REGIME TYPE BY USING POLITY2 DATA 123

TABLE 28. EXCLUDING COUNTRIES WHERE MORE THAN 50% STATE THAT THEIR NATIONAL IDENTITY IS MORE IMPORTANT THAN THEIR ETHNIC IDENTITY (MADAGASCAR, MALAWI, SOUTH AFRICA, AND TANZANIA) 123
TABLE 29. OBJECTIVE ECONOMIC HI COMPARED TO REGION RATHER THAN COUNTRY 124
TABLE 30. COUNTRY FIXED EFFECTS 125
TABLE 31. CENSORING GROUPS WITH LESS THAN 40 RESPONDENTS 125
TABLE 32. MAXIMUM EXTRAPOLATION OF SURVEY DATA TWO YEARS 126
TABLE 33. OBJECTIVE AND PERCEIVED POLITICAL ETHNIC INEQUALITY ONLY FOR BIGGEST ETHNIC GROUP IN REGION 126
TABLE 34. PERCEIVED ECONOMIC ETHNIC INEQUALITY IN WHOLE REGION RATHER THAN FOR ETHNIC GROUP 127
TABLE 35. EXCLUDING RELIGIOUS CONFLICTS IN NIGERIA 127
TABLE 36. CLUSTERING ON REGION RATHER THAN COUNTRY 128
TABLE 37. COUNTRY PEACEYEARS AND SPLINES 128
TABLE 38. DROPPING LESOTHO 129
TABLE 39. EXCLUDING CONFLICTS IN REGIONS WHERE IT IS UNCLEAR OR ESTABLISHED THAT THE LARGEST ETHNIC GROUP IS NOT INVOLVED IN THE CONFLICT INCIDENT. 129
TABLE 40: LOGISTIC REGRESSION PERCEIVED ECONOMIC HORIZONTAL INEQUALITY ON SUPPORT AND PARTICIPATION IN CIVIL UNREST 153
TABLE 41: LOGISTIC REGRESSION UNFAIR TREATMENT ON SUPPORT AND PARTICIPATION IN CIVIL UNREST 154
TABLE 42: LOGISTIC REGRESSION FRUSTRATED EXPECTATIONS ON SUPPORT AND PARTICIPATION IN CIVIL UNREST 155
TABLE 43: LOGISTIC REGRESSION PERCEIVED ECONOMIC HORIZONTAL INEQUALITY, UNFAIR TREATMENT AND FRUSTRATED EXPECTATIONS ON SUPPORT AND PARTICIPATION IN CIVIL UNREST 170
TABLE 44: MIGHT OR HAVE PARTICPATED IN PROTEST MARCHES 171
TABLE 45: LIST OF INTERVIEW CODES AND CODING EXAMPLE 201

1 Introduction

1.1 Motivation and main aim

> [T]o understand grievances, we must first examine where people stand in society and what goods and bads they experience from governments. It is not enough to point to big economic and social structures as the "explanation". We need to understand how people interpret the situations in which they find themselves (Gurr 1970/2011, xi).

The main aim of this dissertation is to contribute to the understanding of *when* and *how* inequality leads to conflict. This question is closely linked to the above quote. To understand when inequality leads to conflict we will have to understand how inequality is perceived and judged by those who experience it. Current quantitative studies collectively skip this step, and rather assume that objective structural inequalities and people's judgements about them – and their related grievances – fully overlap. As I will demonstrate, this assumption is not fully warranted. People often misperceive actual inequality levels and differ in how much inequality they tolerate.

The question about whether inequality leads to conflict has preoccupied scholars since ancient times. While case and qualitative examples of people rising up to rectify injustices are plentiful, cross-country quantitative studies have struggled to establish a clear link between individual level inequality and conflict (Blattman and Miguel 2010, Lichbach 1989, Linehan 1980). However, more recent studies of conflict and inequality between groups – so called horizontal inequalities – support that inequality lead to conflict when it overlaps with salient group identities (Cederman, Gleditsch, and Buhaug 2013, Stewart 2008, Østby 2008b).

The work on horizontal inequalities (HIs) has thus established that not all inequality leads to conflict – it is groups and not individuals that rebel, and hence it is inequality between relevant groups and not inequality between individuals that drive conflict. Promising as these studies are, they do to some extent fall short of countering the same argument that has been posed to scholars studying *individual* inequality and conflict outbreak: Inequality is more or less omnipresent in all societies, and hence cannot explain the outbreak of (the relatively rare event of) violence (Collier and Hoeffler

2004, Snyder and Tilly 1972, Tilly 1978). While studies of horizontal inequalities do find an association with conflict outbreak (see e.g. Østby 2008b, Cederman, Gleditsch, and Buhaug 2013), it remains a fact that such horizontal inequalities are also widespread, and that they do not necessarily induce conflict. Hence, the question of when inequality induces conflict has not been fully answered.

My motivation to explore when and how horizontal inequalities lead to conflict is rooted in a puzzle and in a corresponding gap in the current literature. Let me start with the puzzle.

Tanzania is one of the most politically stable countries on the African continent. Some conflict scholars have attributed this to the lack of horizontal inequalities – or inequalities between ethnic groups – in the country (Østby 2008b). However, while ethnic horizontal inequalities may be low, regional horizontal inequalities are severe. The southern regions of Mtwara and Lindi have been marginalized compared to the rest of the country at least since independence. Still, and despite the fact that empirical studies find regional inequalities to be a stronger source of conflict than ethnic inequality, the 'Wakusini' – or 'Southerners' remained peaceful for more than 50 years. Then, in 2012, and following large gas discoveries outside their coastlines, the locals rioted against the government.

Why did the locals not protest earlier? According to horizontal inequality theory, they should have done so in order to improve their relatively disadvantaged situation. When structural inequalities alone did not spark conflict, what did? The natural gas discoveries represent the main change in the region. But commonly assumed causal mechanisms linking non-renewable natural resources to conflict are all related to revenue flows[1], and at the time of the riots the discoveries were still undeveloped and no revenues had yet accrued. So what made people go from silently accepting their marginalization to violently opposing the government? In order to investigate this question I conducted two rounds of field work in Southern Tanzania, during which I carried out 35 semi-structured interviews and an 800 respondent survey.

[1] Such as providing opportunity to mobilize in terms of funding (Collier and Hoeffler 2004), weakening state capacity (Fearon and Laitin 2003) or intensifying horizontal inequalities (Østby, Nordås, and Rød 2009).

However, Tanzania is not the only country where horizontal inequalities have failed to produce conflict. Hence, a broader puzzle exists – why do horizontal inequalities lead to conflict in some instances, and not in others?

The clue to investigating this lies in the assumed causal mechanisms underpinning existing studies of horizontal inequalities and conflict. These studies all analyze the effect of objective asymmetries on conflict risk. Objective asymmetries are assumed to generate grievances, which in turn is the driving force for conflict. Yet, these grievances are never measured or tested, but rather taken to reflect actual horizontal inequalities. In other words, objective horizontal inequalities and grievances are assumed to amount to the same thing. It follows that any study of the conflict risk in Tanzania – where objective asymmetries have remained severe and stable since independence – would predict the conflict risk as high for a period of more than 50 years, while in essence it culminated towards the end of this period.

While objective horizontal inequalities – in general – have been demonstrated to be remarkably stable over time (Tilly 1999), grievance levels fluctuate (Wood 2003). Suspecting that this is exactly what lies at the heart of the conflict in Tanzania, and that felt grievances linked to perceptions and judgements of horizontal inequalities are central to when such asymmetries lead to conflict, I aim to more comprehensively test group grievances. I will do this in two quantitative cross-national studies, and one quantitative and one qualitative study of Southern Tanzania. Based on these studies, the main argument put forward in this dissertation is that for horizontal inequalities to cause conflict, people will have to be aware of them and consider them unfair.

Before I move on, a definition of what I mean by conflict is necessary. In the term conflict I include both political violence and non-violent uprisings. Political violence encompasses within country violence that has political objectives, ranging from civil war, via communal conflict between non-state groups, to riots. The term does not include crime or domestic violence. For non-violent uprisings I rely on Chenoweth and Ulfelder's (2015, 23) definition: 'Civil resistance is a form of active conflict in which unarmed civilians use a combination of tactics such as strikes, boycotts, protests, go-homes, stay-aways, and demonstrations to disrupt and apply pressure against a state opponent without physically harming or threatening to physically harm the opponent'.

The boundaries between these different types of conflict are often blurred. In the case of Tanzania, peaceful protests and strikes developed into violent riots. For this case, I therefore use the term civil unrest to include both non-violent uprisings and riots – distinguishing between the two where relevant.

I will continue this introduction with a literature review, in which I identify gaps that I aim to contribute to reducing. I then move on to the overall theoretical framework for the dissertation and the research questions. Next, I describe methods, data and measurements before providing the rationale for choosing Tanzania as a case. I then introduce the four articles that form the core of the dissertation, and finally draw up main limitations linked to my analyses and the scope of my argument.

1.2 Literature review

1.2.1 Inequality and conflict

Early theoretical approaches to inequality and conflict include the Marxist theory of class struggle and revolution (Marx 1887/1967), relative deprivation theory (Davies 1962, Gurr 1970) and theories of ethnic conflict and structural inequality (Gurr 1993b, 2000, Hechter 1975, Horowitz 1985). While not denying material motivations, all these approaches emphasize grievances among the relatively disadvantaged in society as a key underlying cause of conflict.

The relative deprivation theory soon came under heavy critique by what has been called the 'resource mobilization', or 'mobilization opportunity' approach spearheaded by Snyder and Tilly (Snyder and Tilly 1972, Tilly 1978). Their key objection is the fact that grievances are more or less omnipresent in all societies, and hence cannot explain the outbreak of violence. Rather, opportunity, economic or political, for mobilizing a rebel group, is the most important explanatory factor.

Around the turn of the century, the focus on the economic dimensions of civil wars increased substantially. The political economy aspect, often labelled the 'greed' account, emphasized the role of predatory actors, lootable resources, warlordism and structural forces in conflict (e.g. Collier and Hoeffler 2004, Duffield 2000, Fearon and Laitin 2003, Kaldor 1999, Keen 1998, 2008). This work, and especially the empirical studies of Collier and Hoeffler (2004) and Fearon and Laitin (2003), have had an enormous influence on policy makers (see e.g. World Development Report 2011), and

are widely cited. Much like Snyder and Tilly (1972), they argue that grievances have poor explanatory power due to their ubiquity. Also, groups facing grievances are prevented from mobilization through a collective action problem. By introducing economic incentives to participants in rebellion, these collective action problems can be overcome (Collier and Hoeffler 2000). Later, Collier and Hoeffler toned down the focus on 'greed', focusing rather on opportunity in terms of the feasibility of organizing mobilization (Collier, Hoeffler, and Rohner 2009).

The great impact of the 'greed' account led to numerous responses. In general, several more nuanced approaches opposing a simplistic greed/grievance dichotomy emerged. Arnson & Zartman (2005) and Ballentine & Sherman (2003) conclude that while grievances are a major driver of conflict outbreak, economic agendas are central to the duration of war. Studying the 20th century violence in Eastern Europe, Petersen (2002, 5) concludes that a lack of government constraint is essential for violence to erupt, however, it is only 'one part of the story'. Motivation, and particularly resentment linked to a sense of unjust treatment of the ethnic group, is equally important. On the other hand, Kalyvas (2003) argues that 'greed and grievance' tend to operate simultaneously but on different levels, with greed being more salient at the local. Overall, these studies conclude that conflicts are complex and that both motivations – either in terms of greed or grievance or both – and opportunity need to be in place for mobilization to materialize. This view has later been supported by rigorous cross-country quantitative studies (e.g Bara 2014).

More specifically targeting the Collier and Hoeffler analysis, several studies document how poor data and methodological choices skew the results, rendering their conclusions questionable (see e.g. Fearon (2005) for missing data and Keen (2008) for the use of proxies). While such limitations in data quality and accuracy are likely to remain an issue given the inherent problems of getting data from conflict ridden societies, conceptual issues are less challenging to rectify. In conceptual terms, a major limitation of the Collier and Hoeffler and Fearon and Laitin studies is their use of individual measures to capture inequality. It is mainly groups rather than individuals that rebel, thus as long as the analysis does not highlight the grievances of those groups, no firm conclusions on the link between grievances and conflict can be made (Sambanis 2005). The focus on individual level motives in studies of intrastate wars is contrasted by the

emphasis on the powerful role of group socialization and social identity in military sociology and history (Blattman and Miguel 2010, Kenny 2008).

1.2.2 Horizontal inequalities and conflict

Taking into account the importance of group dynamics, the most prominent theoretical development has been made by Frances Stewart and her colleagues at Oxford (Stewart 2002; 2008; 2010). Challenging the use of the individual as a unit of analysis, Stewart proposes the concept of horizontal inequalities, which she defines as 'inequalities in economic, social or political dimensions or cultural status between culturally defined groups' (Stewart 2008: 3). When inequalities coincide with cultural differences, culture can act as a powerful mobilizing agent (Stewart 2002). Combining elements from relative deprivation theory (Gurr 1970) and social identity theory (e.g. Abrams and Hogg 1988, Tajfel and Turner 1979), Stewart starts to dismantle the divide between collective action and relative deprivation theory. Motivation and mobilization is then facilitated by salient identities, and this, rather than economic incentives, becomes a driving force for conflict outbreak. This concurs with the earlier work of Gurr (1993a, 2000), Horowitz (1985) and Tilly (1999).

The concept of identity in Stewart's theory is social constructivist, where group identities may be shaped and mobilized by political entrepreneurs. On the other hand, it is argued 'that people themselves can be strongly convinced about the essential nature of their identities and that of others – which is why mobilization by identity can work' (Stewart 2008, 10). Group identities can develop based on different identifiers, with ethnic, religious, regional and cultural the most salient ones. In terms of dimensions, horizontal inequalities can be economic, social, political, or combined (Stewart 2002).

Stewart fully recognizes the importance of opportunity structures in order for conflict to materialize, at the same time as opportunity to some extent is embedded in the horizontal inequality concept. As opposed to groups delineated by class, which by definition constitute people with similar socio-economic status, identity groups may have resourceful members willing to fund mobilization (Esteban and Ray 2008). Membership of the group may also be used to identify, reward and sanction free-riders, thus lowering the barriers of collective action (Moore 1993, Ostrom 1990, Petersen 2001, Weinstein 2006).

As opposed to previous grievance based theories of conflict, horizontal inequality theory emphasizes the conflict potential of both advantaged and disadvantaged groups, and argues that the latter might instigate violence as a response to a perceived threat from more disadvantaged groups. The Basques in Spain and the Biafrans in Nigeria, for instance, represent examples of wealthy groups mobilizing to protect their wealth through secession (Østby 2008a).

Stewart's work soon became widely read and influential among policy makers. This is likely to be at least partly linked to the already voluminous empirical literature providing support to the theory. A range of case studies highlight the role of horizontal inequalities in inducing political violence (Cramer 2006, Holmqvist 2012, Stewart 2002, 2008, Tadjoeddin, Suharyo, and Mishra 2003). Even more importantly, Stewart's conceptualization of inequality between groups rather than individuals has paved the way for quantitative cross-country studies that provide robust support for a link between horizontal inequalities and conflict. Since this dissertation is closely linked to this quantitative body of work, I will summarize key findings and limitations from the main studies in more detail.

1.2.3 Quantitative studies of horizontal inequality and conflict

According to Stewart's definition, horizontal inequalities can emerge along different dimensions – social, economic, political and cultural – and for different identity groups – ethnic, regional, religious, or other salient identifiers. Apart from the cultural dimension, quantitative studies find support for a conflict inducing effect for all these dimensions and identifiers.

In a pioneering paper, Østby (2008b) uses data from the US Demographic and Health Surveys (DHS) to study 36 developing countries, with education as proxy for social inequalities and household assets as proxy for economic inequalities. While she finds that ethnic social inequalities are significantly associated with civil conflict outbreak, the result for ethnic economic inequalities is positive, but weak[2]. In a follow up study also using DHS data, Østby (2008a) tests various dimensions of horizontal inequalities across different group identifiers in 55 developing countries, and concludes that the model with the strongest explanatory power is the one that interacts levels of regional

[2] It should be noted that Barrows (1976) was the very first to quantitatively analyse – and find evidence of – a link between ethnic group inequality and political instability in Sub-Saharan Africa during the 1960s. However, he based the group inequality scores solely on his own personal judgements.

economic horizontal inequalities and the degree of political exclusion. While Østby's data offers relatively good coverage of developing countries, it cannot provide global generalizations. In addition, several developing countries are omitted due to lacking data on ethnicity and/or region. Cederman, Weidmann and Gleditsch (2011) note this, and in order to overcome the scarce data problem they combine geocoded data on ethnic group settlements with Nordhaus' (2006) G-Econ dataset on local economic activity. This way they are able to analyze the link between horizontal inequalities and ethno-nationalist civil wars on a global scale with group years as unit of analysis. They find that both relatively privileged and relatively deprived ethnic groups are more prone to violence, and that both political and economic horizontal inequalities increase the risk of civil war.

Despite the global coverage, the G-Econ data suffers from several weaknesses. It does not take into account the informal economy, which is particularly relevant for African and Asian countries. Even more seriously, closer analysis of the data reveals that the quality is very poor particularly in the developing world – where indeed most conflicts occur (Cederman, Weidmann, and Bormann 2015, Østby 2011). Hence, in an effort to further improve data quality, Cederman, Weidmann and Bormann (2015) conduct the most comprehensive test of ethnic economic inequality to date. They combine G-Econ, survey, and night lights emission data using data quality adjusted weights to ensure that the best data is used at all times, and find that the resulting composite measure yields the strongest results compared to using only one of the data sources or a combination of only two of them. Overall, they conclude that relatively poor and rich ethnic groups are more likely to mobilize for civil war than groups that are closer to the country average.

Other studies supporting a link between economic ethnic inequality and civil war includes Buhaug, Cederman and Gleditsh (2014), Cederman, Gleditsch and Buhaug (2013) and Gubler and Selway (2012). While most studies focus on ethnic inequalities, Buhaug et al. (2011), Deiwiks, Cederman and Gleditsch (2012), Murshed and Gates (2005) and Østby, Nordås and Rød (2009) find robust support that regional economic inequality have the same effect, and Østby (2008a) concludes that while both ethnic and religious economic inequality drive conflict in developing countries, regional economic inequality have the strongest effect.

In addition, Fjelde and Østby (2014) find that economic ethnic inequality increase the risk of communal – or non-state group – conflict in Sub-Saharan Africa, Mancini (2008) find the same in Indonesia, while Hegre, Østby and Raleigh (2009) conclude that ethno-communal and separatist conflict increases with a combination of high population pressure and religious socio-economic inequality also in Indonesia. Olzak (1994) and Dancygier (2010) find that economic horizontal inequalities are linked to increased incidents of race riots in the US and ethnic riots in the UK, respectively.

While the work on economic horizontal inequality use different data sources, most of the recent studies of political horizontal ethnic inequality rely on the Ethnic Power Relations (EPR) and later the EPR-ETH (Wimmer, Cederman, and Min 2009) dataset which identifies all politically relevant ethnic groups and their access to state power. In concert, Cederman, Wimmer and Min (2010), Cederman, Weidmann and Gleditsch (2011) and Cederman, Gleditsch and Buhaug (2013) conclude that the presence of politically excluded groups substantially increases the risk of civil war. Østby (2008a) uses the Minorities at Risk (MAR) dataset first presented by Gurr (1993a) and concludes that a combination of regional economic inequality and politically excluded ethnic groups (on a country level) is associated with civil war occurrence. Forecasting civil war risk with an out of sample model, Goldstone et al. (2010) find that a specification that includes discrimination of ethnic groups performs especially well.

Finally, pursuing the new research agenda on non-violent uprisings, Chenoweth and Ulfelder (2015) find that horizontal political inequality also has some explanatory power on non-violent political mobilization, though they conclude that political opportunity gives the strongest effect.

In summary, all these studies provide quite compelling support for the relationship between various kinds of horizontal inequality and conflict. Most studied is *economic ethnic* inequality and civil war, followed by *political ethnic* inequality and civil war – as can be seen from the overview in Table 1. Those studies comparing different dimensions and identifiers find political ethnic inequality to have a stronger effect than economic (Cederman, Gleditsch, and Buhaug 2013), and regional economic inequality to have a stronger effect than ethnic and religious (Østby 2008a).

Table 1. Overview of horizontal inequalites and conflict studies across different conflict types, group identifier and inequality dimensions

	Ethnic Groups		Regional Groups	
	Economic HIs	**Political HIs**	**Economic HIs**	**Political HIs**
Civil War	Buhaug, Cederman and Gleditsch (2013) Cederman, Gleditsch and Buhaug (2013) Cederman, Weidmann and Bormann (2015) Cederman, Weidmann and Gleditsch (2011) Gubler and Selway (2012) Østby 2008a Østby 2008b	Cederman, Gleditsch and Buhaug (2013) Cederman, Weidmann and Gleditsch (2011) Cederman, Wimmer, and Min (2010) Østby 2008a Goldstone et al. (2010)	Buhaug et al. (2011) Deiwiks, Cederman and Gleditsch (2012) Murshed and Gates (2005) Østby 2008a Østby, Nordås and Rød (2009)	
Communal Conflict	Fjelde and Østby (2014) Hegre, Raleigh and Østby (2009) Mancini (2008)			
Riots	Dancygier (2010) Olzak (1994)			
Non-violent mobilization		Chenoweth and Ulfelder (2015)		

1.2.4 Non-renewable natural resources, horizontal inequality and conflict

While the literature on the so called 'resource curse' more broadly study how countries endowed with large, non-renewable natural resources frequently struggle to achieve economic growth and avoid institutional failure and conflict (Basedau and Lay 2009, Lujala 2010, Ross 2001, 2004, Sachs and Warner 1995), this work also has many links and similarities to the inequality/conflict literature. The conflict related part of this literature has produced increasing empirical evidence that countries depending on non-renewable resources, particularly onshore oil and gas, face a higher risk of intrastate conflict (Koubi et al. 2014, Lujala 2010, Ross 2012)[3].

Similar to the inequality/conflict nexus, the natural resource/conflict nexus has largely been dominated by studies that lean towards the 'opportunity' civil war literature. For example, Collier and Hoeffler (2004) highlight that revenues from natural resources constitute financial support for rebels. Fearon and Laitin (2003) emphasize that resource wealth weakens state institutions by diminishing incentives to collect taxes, making it an easy target for rebel groups. Less studied is the role of grievances, which is surprising given that natural resource wealth rarely spreads evenly, and hence is likely to both exacerbate existing as well as create new horizontal inequalities. Only a few

[3] Here and throughout the dissertation, when I talk about natural resources or non-renewable natural resources I refer to petroleum – or oil and gas – resources.

quantitative studies analyze a link between natural resources, horizontal inequalities and civil war (Asal et al. 2015, Basedau and Pierskalla 2014, Wegenast and Basedau 2014, Østby, Nordås, and Rød 2009). Case studies also highlight how the prospect of resource revenues could create high expectations in resource-rich regions, which can again lead to frustration and conflict if they are not met (Ross, Lujala and Rustad 2011; Stewart, Brown and Langer 2008). This was apparent in Indonesia in the late 1990s, where separatist sentiments were strongly related to the distribution of natural resource rents, and a key driver was 'the rage of the potentially rich' and an 'aspiration to inequality' (Tadjoeddin 2007: 23).

In general, the competing and to a large extent untested causal mechanisms – both opportunity and grievance related – made a recent review article conclude that the causal mechanisms underpinning the resource-conflict relationship are 'underspecified and inadequately tested' (Koubi et al. 2014, 238). Much as we have already seen for the inequality and conflict literature, Koubi et al. (2014) also point out that existing literature focuses largely on civil war, while responses to grievances related to natural resources may also encompass other forms for political violence and civil unrest. These are important limitations also very much relevant for the horizontal inequality vs. conflict literature – as I will further elaborate in the next section.

1.3 Gaps in current literature and contribution

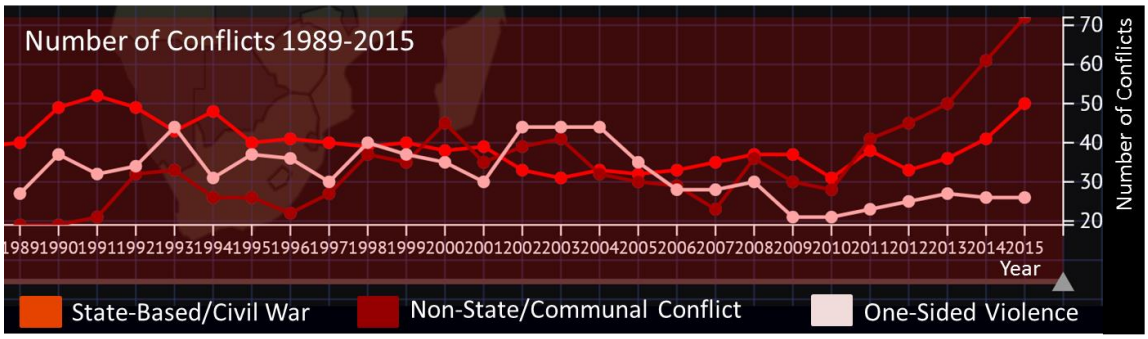
The main contribution of this dissertation is related to investigating when and how horizontal inequalities lead to conflict. However, I aim to make some contributions related to neglected types of conflict, inequality dimensions and group identifiers as well. I will briefly outline these first.

1.3.1 Broadening the scope to neglected conflict types, inequality dimensions and group identifiers

The emphasis on analyzing civil war in both the inequality and the natural resource literature so far is reasonable taking into account the increase in such conflict events after the end of the Cold War and the high number of fatalities. While the number of active civil war events showed a marked decrease from 1994 and onwards, in 2014 and 2015 there was another increase – all according to the Uppsala Program Conflict Data Program (UPDC) (Pettersson and Wallensteen 2015). Hence, the challenge of

understanding causes, ending and preventing civil war remains highly relevant. However, the global number of conflicts between non-state groups – or communal conflicts – now exceeds that of civil wars – as shown in Figure 1 (Sundberg and Melander 2013). And while civil war remains the overall most lethal conflict type, communal conflict and several other types of political violence pose an equal – or bigger – threat to peoples' lives in some regions – particularly in Africa. Countries such as Central African Republic, Ghana, Kenya, and Nigeria lost far more people in communal conflict than in civil war in the period from 1989 to 2014[4].

Figure 1. Development in number of state based (civil war), non-state (communal) and one-sided (civilians targeted) conflict.

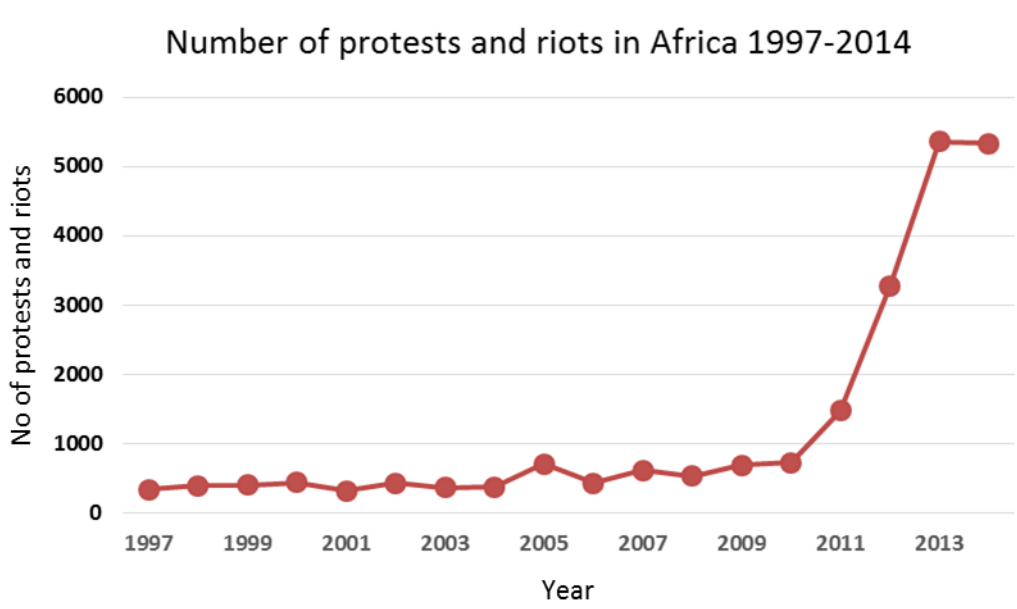


Source: Downloaded from UCDP GED http://ucdp.uu.se/#/encyclopedia

At the same time, Africa experiences a skyrocketing increase in the number of protests and riots (Figure 2). Africa is also home to the largest share of non-state/communal conflicts (Sundberg, Eck, and Kreutz 2012).

[4] All according to the Uppsala Georeferenced Event Dataset (GED) and authors calculations.

Figure 2. Protest and riot events in Africa 1997-2014.



Source: Armed Conflict Location and Event Data Project (Raleigh et al. 2010). Note: similar to all conflict data based on media reports, the ACLED data is subject to potential reporting biases (see e.g Weidmann 2013). It is however unlikely that the large spike from 2011 to 2013 is solely linked to such biases.

The sheer number of communal conflict and protests/riots events speaks against neglecting them when analyzing the effect of structural asymmetries. In addition, these forms of political violence may well develop into full scale civil wars – as was the case in Cote d'Ivoire and Sudan (Fjelde and Østby 2014).

Correspondingly, the one-dimensional focus on civil war has concerned scholars, most notably the founders of the 'contentious politics' school, who find that similar causal mechanisms appear across quite different types of contentious politics and collective violence (Tarrow, Tilly, and McAdam 2001, Tarrow 2007, Tilly 2003) Cunningham and Lemke (2011) reach the same conclusion and find that factors such as population, economic development and regime type have similar effects on civil war, communal conflict, one-sided violence and riots. These results are fully in line with the underlying theories of violent mobilization. Horizontal inequality theory, as well as the theories it is partly built on such as relative deprivation theory and social identity theory, are specifically developed to explain all types of political violence, not just civil war.

In summary, underlying conflict theories, existing empirical evidence as well as relevance all support that it is due time to expand the analysis of horizontal inequalities to a broader set of political violence. This is one of the contributions of this dissertation.

Moving on to different types of horizontal inequality *dimensions* and *identifiers*, ethnic economic inequality and civil war is by far most investigated. This is despite the fact that those few studies making comparisons across dimensions and identifiers find the *political* dimension and the *regional* group identifier to have the strongest explanatory power on conflict.

While I cannot hope to cover all the open boxes identified in Table 1, my dissertation will focus on the gaps highlighted in Table 2 and analyze ethnic economic and political inequality and communal conflict, regional economic inequality and riots and regional economic inequality and non-violent protests.

In addition I will perform the first country level, time-variant study of regional economic inequality and civil war covering both developed and developing countries, however this analysis is mostly linked to the contribution on perceptions and judgements further elaborated on in the next section.

Table 2. Overview of horizontal inequality studies and the contribution of this dissertation

	Ethnic Groups		**Regional Groups**	
	Economic HIs	**Political HIs**	**Economic HIs**	**Political HIs**
Civil War	Buhaug, Cederman and Gleditsch (2013) Cederman, Gleditsch and Buhaug (2013) Cederman, Weidmann and Bormann (2015) Cederman, Weidmann and Gleditsch (2011) Gubler and Selway (2012) Østby 2008a Østby 2008b	Cederman, Gleditsch and Buhaug (2013) Cederman, Weidmann and Gleditsch (2011) Cederman, Wimmer, and Min (2010) Østby 2008a	Buhaug et al. (2011) Deiwiks, Cederman and Gleditsch (2012) Murshed and Gates (2005) Østby 2008a Østby, Nordås and Rød (2009) **CONTRIBUTION**	
Communal Conflict	Fjelde and Østby (2014) Hegre, Raleigh and Østby (2009) Mancini (2008) **CONTRIBUTION**	**CONTRIBUTION**		
Riots	Dancygier (2010) Olzak (1994)		**CONTRIBUTION**	
Non-violent mobilization		Chenoweth and Ulfelder (2015)	**CONTRIBUTION**	

1.3.2 Bridging the gaps in the causal chain from structural patterns to group grievances

Moving on to the main contribution of this dissertation, this is addressing a more substantial, and different, gap in the literature. This gap relates more broadly to the central question of whether inequality causes conflict. While existing quantitative studies provide convincing evidence that inequality leads to conflict when it overlaps with salient identity groups, the relationship between horizontal inequalities and conflict is not an automatic one. Several countries with high structural inequalities avoid substantial political violence – such as for instance Ghana and Bolivia (Stewart 2010). So when and how do horizontal inequalities lead to conflict?

At the heart of both theories and quantitative studies of inequality and conflict is the notion that unequal distribution of resources – or power – fuels grievances, which in turn motivates people to mobilize. Still, none of the studies actually test the effect of grievances. Instead, they test the reduced-form empirical relationship between inequality and conflict. Individual inequality is commonly proxied by measures such as the Gini-coefficient, which is in turn based on official income statistics (see e.g. Collier and Hoeffler 2004). Horizontal inequality is proxied by group measures of asset ownership, local economic data, child mortality rates, education and actual political inclusion or exclusion. None of these measures take into account if people are actually aware of the documented inequalities, let alone how they judge them. As I will demonstrate in the next section, incorporating such perceptions is essential, since people very often misperceive existing inequalities, and also to a great extent differ in how much inequality they tolerate, and on whether they deem known inequalities to be just or unjust.

I am only aware of two studies that take into account perceived horizontal inequalities. Rustad (2016) finds that perceived economic ethnic inequality is correlated with higher *acceptance* of use of political violence in the Niger Delta. Miodownik and Nir (2015) analyse cross-sectional data on 18 countries covered by Afrobarometer Survey round 3, and also find that high perceived economic and political ethnic inequality is related to higher *acceptance* of political violence, and to *participation in protest marches*.

If group grievances lead to conflict, but these felt grievances differ from objective structural inequalities, the tests based on statistical measures of objective horizontal

inequalities cannot provide answers to *when* and *how* horizontal inequalities lead to conflict. In a similar vein, current studies cannot draw any firm conclusions on whether horizontal inequalities lead to conflict via grievances. In fact, such inequalities may induce material motivations of gain and instigate mobilization through this mechanism instead. As noted by Blattmann and Miguel (2010, 18) in a review paper 'Understanding these complex relationships is crucially important for preventing armed conflict. Innovative ways of modelling and measuring individual political grievances are required to make progress on this arena'.

I attempt to tackle this challenge. Hence, the main contribution of this dissertation is to more comprehensively test group grievances as a source of political mobilization, and to look at when such grievances are triggered. For this latter aspect I will particularly look at the effect of large non-renewable natural resource discoveries.

1.4 Theoretical framework

The starting point of my theoretical framework is the postulated causal chain underpinning horizontal inequality theory and the current quantitative studies testing it: structural inequalities between groups lead to grievances which in turn drive mobilization. More specifically, group members are assumed to make comparisons to other groups, and become frustrated if they find that their own group's economic, social, political or cultural position is inferior.

Among quantitative studies of the relationship between horizontal inequalities and conflict, Cederman, Gleditsch and Buhaug (2013) have done the most extensive theorizing on the assumed causal chain linking the two. Drawing once more on social identity theory, and introducing key insights from the social movements literature, they draw up a framework where four steps need to be in place for structural asymmetries to develop into grievances: 1) group identification, 2) group comparison, 3) evaluation of injustice, and 4) framing and blaming. In other words, for grievances to develop, group members will have to identify with the group identity, make comparisons based on this group identity to other groups, evaluate identified asymmetries as unjust, and target the blame for this on a specific actor. Cederman, Gleditsch and Buhaug (2013) underline that these steps that have to be in place for horizontal inequalities to develop into grievances. They furthermore both explicitly and implicitly state that they will not

always be in place – i.e. not all horizontal inequalities lead to grievances. Nonetheless, they return to objective data in their analyses and investigate the reduced-form empirical link between objective horizontal inequalities and conflict. This is also the case for all the other quantitative studies reviewed above. So while the main concept – groups react to inequalities – is intuitive and logical, it remains untested. The process in between – the development of group grievances – remains as an assumed relationship. Current quantitative studies thus hinge on two critical assumptions:

1) Perceptions of horizontal inequalities reflect reality – i.e. group members have accurate knowledge of overall inequality structures and their group's relative position
2) Perceived horizontal inequalities are also considered unfair – i.e. once group members are aware of inequality, the will not tolerate it

Or, as Cederman, Gleditsch and Buhaug (2013, 41) put it 'on average, grievances will be experienced roughly in proportion to the degree of violation'. These are bold assumptions that deserve investigation. In the following two sections I will provide evidence that they do not stand up to scrutiny. I will then look at variables moderating the relationship between objective and perceived horizontal inequalities, before outlining the overall framework for my analyses.

1.4.1 Perceptions do not reflect reality

In an early study of perceptions of class and racial inequality, the sociologist Robert V. Robinson (1983) surveyed 113 persons in the US and 101 in the UK and found suggestive evidence that many – including disadvantaged people – did not perceive their society to be particularly unequal even if it was. This mismatch between reality and perceptions has later been confirmed by more rigorous studies.

Based on responses from a nationally representative online survey of 5500 Americans, Norton and Ariely (2011) found a striking discrepancy between actual and perceived wealth inequality[5]. While the wealthiest quintile in the US is documented to hold close to 84% of the wealth, people believed this number to be 59% – hence greatly underestimating the actual level of inequality. Looking instead at pure income

[5] Defined as: 'Wealth, also known as net worth, is defined as the total value of everything someone owns minus any debt that he or she owes. A person's net worth includes his or her bank account savings plus the value of other things such as property, stocks, bonds, art, collections, etc., minus the value of things like loans and mortgages'. (Norton and Ariely 2011, 9)

inequality and using data from the International Social Survey Program (ISSP), Osberg and Smeeding (2006) reach the same conclusion. Subjective estimates of income inequality in the US differ substantially from actual data, with people believing that inequality is lower than it actually is. Comparing data from a later wave of ISSP to national income statistics, and expanding the scope to the US and 23 EU countries, Niehues (2014) confirms the tendency to underestimate actual inequality among US respondents. Most Europeans, on the contrary, perceive their societies to be far less equal than they actually are.

Apart from Robinson's race study, all the studies above look at the overall level of individual inequality in developed countries. However, it is unlikely that group members – both in developed and developing countries – should be better informed on the relative positon of their group. Not many studies investigate the overlap between actual and perceived group inequality, but those who do once more document large discrepancies. Langer and Mikami (2013) conducted surveys with altogether 2,600 respondents in Ghana, Nigeria, Kenya, Uganda and Zimbabwe, and complemented their data with results from Afrobarometer Surveys round 4. In all surveys the respondents were asked to assess the economic condition of their ethnic group compared to other groups in the same country. The responses to this subjective evaluation were then compared to objective wealth indexes for the same group[6]. It turns out most groups misperceive their relative economic position, with the discrepancies between objective and subjective ethnic inequalities being largest in Nigeria, Ghana and Zimbabwe. Using the same measures of perceived and objective ethnic horizontal inequality, Holmqvist (2012) expands the analysis to cover 112 ethnic groups in 19 African countries covered by Afrobarometer Surveys round 4. He finds that the correlation between perceived ethnic inequality and a basic needs/poverty index is 0.33, while the perceived vs. asset index correlation is 0.27. So while there seems to be a link between objective and perceived ethnic inequality, the overlap is by no means perfect, and once more large discrepancies between subjective views and objective status on the group level are revealed.

While Holmqvist uses simple correlations, Langer and Smedts (2013) aim to establish which are the main determinants of perceived ethnic inequality by using multilevel

[6] These wealth indexes were in turn calculated based on asset ownership and the fulfilment of basic needs (access to food, water, health care, etc.).

regression analysis. Also using Afrobarometer Surveys round 4, they actually find a negative association between objective and perceived ethnic inequality. Group members in a relatively advantaged group in terms of basic human needs fulfilment are nearly 5% less likely to perceive their group to be economically better off than other groups in the country. The difference in results in the Holmqvist vs. Langer and Smedts (2013) analysis is likely to be linked to the fact that the latter tests the explanatory power of actual ethnic economic inequality on perceived ethnic economic inequality and includes a battery of other independent and control variables in their analysis. Overall, they conclude that factors such as individual actual and perceived socio-economic position and access to media have a strong explanatory power on the level of perceived horizontal inequalities, while actual group situation has not.

Finally, Rustad (2016) finds large discrepancies between objective and perceived ethnic economic inequality in four Federal states in the Niger Delta based on survey data from 2009. She does however use individual level responses aggregated up to an ethnic group level. Miodownik and Nir analyse 13 countries based on Afrobarometer Surveys round 3, and find that 35% of the altogether 17,500 respondents misperceive their ethnic group's political status, while fully 48.3% of individuals' perceptions of their group's economic situation mismatch with their group's objective condition.

It seems highly counterintuitive that there is absolutely no – or a negative – link between objective and perceived horizontal inequality, and certainly more studies are needed in order to draw any firm conclusion on the size and determinants of this relationship. Regardless of this, and for the purpose of this dissertation, the review of existing evidence from a range of different sources strongly suggests that people have limited knowledge of the overall inequality level, and to a large extent misperceive their groups' relative position. In summary, the assumption that perceived and objective inequality more or less overlap does not stand up to scrutiny.

I have already noted how both underlying conflict theories and quantitative studies postulate that grievances will arise based on group comparisons and perceived inequalities. Above I have also demonstrated that perceived horizontal inequalities do not – or only to a limited extent – reflect objective horizontal inequalities. It follows that in order to perform a more comprehensive test of the effect of inequality on conflict, the analyses should take into account perceptions.

1.4.2 Judgements of inequality

Once group members perceive their group as disadvantaged compared to other groups, they may or may not consider this acceptable. In other words, people may be aware of inequalities without considering them unfair. A growing literature on attitudes towards inequality finds that people differ in their judgement of what constitutes a fair income distribution. Preferences for redistribution vary greatly both within and across countries (Alesina and Angeletos 2005, Alesina and Giuliano 2009, Benabou and Tirole 2006, Kelley and Evans 1993, Kluegel and Smith 1986). These studies of inequality tolerance and redistribution mostly focus on individual inequality in developed countries. However, Tay (2013) find a great variation in inequality tolerance in 87 developed and developing countries. Using data from the Standardized World Income Inequality Database (Solt 2009), as well as survey data, she furthermore finds no systematic relationship between objective inequality and inequality acceptance *within* countries.

This documented variation in inequality tolerance is to some extent attributed to personal characteristics such as age, gender, race and socioeconomic status. However, it is also linked to history, culture, religion, ideology and to whether the individual believes in a just world where efforts are turned into rewards, or, on the other hand believes that luck, connections or corruption determines outcomes. Those who believe in a just world tend to tolerate far more inequality than those who do not (Alesina and Giuliano 2009, Benabou and Tirole 2006). The most cited example of this is the relatively high inequality acceptance in the US – people have for a long time believed in the American Dream and the notion that if you work hard enough you will get what you deserve in the end. Implicitly, if your income is below average, this is your own fault and up to yourself to rectify. Thus, if grievances arise when inequalities are considered unfair, it is as Cederman, Gleditsch and Buhaug (2013, 40) notes, 'clear that grievances may vary as much with the normative framework as with the actual level of inequality'.

If people blame themselves for existing inequalities, this may discourage them from taking civic or political action to rectify any perceived asymmetries (Han et al. 2012, Rubin and Peplau 1975). On the other hand, for a group to rise up to confront the government – or another group – there has to be a clear attribution of blame for the perceived injustice. This is exemplified by the case of China, where decades of growth have generated enormous inequalities, particularly between the urban and rural population. Challenging the myth that China is sitting on a 'social volcano' of unrest due

to these extreme and unfair inequalities, Whyte (2010) draws on robust survey data collected in 2004. His conclusion is simple: Most Chinese accept the severe inequalities as being a result of individual efforts, rather than the outcome of an unfair economic structure. Most Chinese, and particularly the relatively disadvantaged farmers, are optimistic about their economic future. As long as these sentiments prevail, political unrest is unlikely.

No matter what level of inequality an individual sees as tolerable at the outset, group leaders may affect, manipulate and change this view. This is one of the main arguments put forward by the social movements literature. This branch of conflict studies puts particular emphasis on the vital role of group leaders and elites in portraying the current situation as unfair, and in assigning the blame for the injustices on specific actors – most often the government (Benford and Snow 2000, Gamson 1992). The underlying logic – that is also supported by empirical studies – is that without some sort of elite intervention, people are less likely to consider the status quo as unfair, less likely to blame one actor for it, and correspondingly less likely to rise up in unity to confront the wrongdoers (Benford and Snow 2000, Brass 1991).

To the best of my knowledge, no studies exist that compare objective horizontal inequalities to a feeling of being treated unfairly as a group. Lacking such empirical evidence, there is still no intuitive reason to believe that group members in either developed or developing countries should be substantially more homogenous in their attitude towards inequality than individuals. Indeed, as we will see below in Chapter 4 and 5, my survey data from Tanzania clearly supports this proposition.

In summary, the documented variation in inequality tolerance – and the fact that the tolerance level is as much linked to normative frameworks as to personal socioeconomic status – once more highlights the need to take into account peoples' judgements when analysing the relationship between inequality and conflict. The fact that group members' perceptions of what is unfair and who is to blame for it is often manipulated by leaders *precisely* to facilitate mobilization, makes it even harder to defend an analysis of grievance driven conflicts based on objective statistical data.

1.4.3 Variables affecting perceptions and judgements of horizontal inequalities

Given the demonstrated differences in objective vs. perceived horizontal inequalities, and the variation in peoples' judgments of the fairness of inequality, the question arises

of how such perceptions and judgements are formed. In other words, to be able to say something about *when* and *how* horizontal inequalities lead to conflict, one will have to pinpoint the origins of inequality awareness and attitudes.

The literature on attitude towards *inter-individual* inequality does, as already mentioned in the previous section, highlight personal factors such as age, gender, race and socioeconomic status, in addition to history, culture, religion, ideology, and social norms. Empirical studies of objective vs. perceived horizontal inequalities – that rather analyse the *awareness* of *group level* inequalities – find an effect of all of the same variables (Han et al. 2012, Langer and Smedts 2013). However, these studies particularly emphasize how elites are able to manipulate perceptions as a tool to mobilize their followers (Brown and Langer 2010, Langer and Mikami 2013) – very much in line with the social movements literature. Another highly relevant factor is the extent to which a given group enters into competition with another group for resources (Robinson 1983). Further factors include lack of or inaccurate information, media access, and the size of the group (Han et al. 2012, Langer and Mikami 2013, Langer and Smedts 2013). Finally, beyond the inequality literature, existing studies of perceptions conclude that people under- or overestimate statistical facts depending on their prior expectations (Nisbett and Ross 1980).

Expectations also have a prominent role in the large economic literature on happiness and satisfaction with income. One of the main conclusions from this work is that rather than making absolute judgements, people determine their satisfaction based on aspiration levels or reference points (Easterlin 1995, Frey 2008, Kahneman and Tversky 1979, Toews 2013). This reference point is determined by several factors, most importantly past income, relative current income, and expected future income (Hack and Lammers 2008, Kahneman and Krueger 2006). Following from this, people will gain utility and satisfaction if their income rises *as long as the rise does not fall short of their prior expectations.* If, on the other hand, the rise in income is lower than expected, people will be dissatisfied no matter how large the rise (Ross 2007). This is supported by a study of the effect of expectations on household's satisfaction with income in resource rich Kazakhstan. Using two waves of survey data, as well as exogenous changes in the oil price, Toews (2013) finds that a 10% increase in the oil price actually decreased satisfaction with income by 2%. He concludes that this dissatisfaction is due to a change in the reference point caused by inflated income expectations.

It is beyond the scope of this dissertation to investigate all the above mechanisms. However, I will argue that the discovery and development of large oil and natural gas resources represents a situation where many of them become particularly relevant. Natural resources are always local, and likely to spark competition between the region where they are found and the rest of the country, as well as between groups (Collier 2013, Koubi et al. 2014). Natural resources also represent an opportunity for elites to frame and manipulate perceptions of grievances. In Aceh, Indonesia, elites emphasized the unfair taxation of the region's resource wealth by the central government, urging people to mobilize (Aspinall 2007). They furthermore repeatedly highlighted the paradox of people in a resource rich region living in poverty, and distributed flyers with claims that if independent, Aceh would be as rich as Brunei (Ross 2003). Similar arguments were put forward in Riau and East Kalimantan, also in Indonesia (Tadjoeddin, Suharyo, and Mishra 2001).

Finally, natural resource discoveries are notorious in creating inflated expectations of future benefits – particularly in the regions in which they are found (Aryeetey and Asmah 2011, Stewart, Brown, and Langer 2008). Given the long lead time from discoveries to production of petroleum, these expectations will arise long before any revenues start flowing – increasing the probability of people becoming disappointed[7]. Common sources of such expectations are politicians campaigning for support, media outlets selling the story of a bright future, and expert reports such as IMF country reports (Weszkalnys 2008). If we return to Gurr, and the core of his definition of relative deprivation[8], unfulfilled expectations linked to oil and gas revenues could potentially be highly conflict inducing.

1.4.4 Overall framework for analyses and research questions

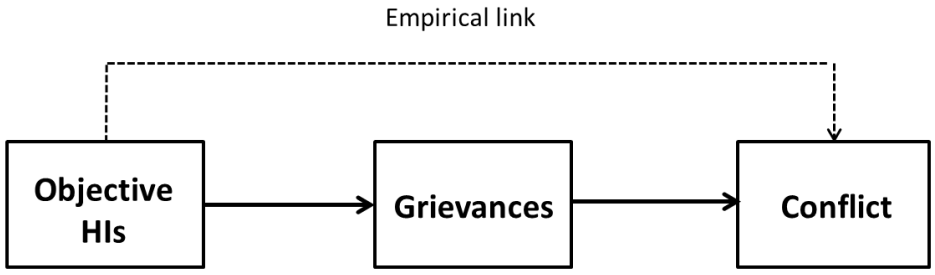
Based on the conclusions and arguments presented above, I am now ready to draw up the overall framework for my analyses. As stated in the introduction, the main contribution of this dissertation is to investigate when and how horizontal inequalities lead to conflict, and to more comprehensively test group grievances as a source of political mobilization. The starting point is the postulated causal chain underlying existing quantitative studies of horizontal inequalities and conflict – portrayed in Figure

[7] For an account of how expectations are formed long before production starts, see e.g. Weszkalnys (2008).

[8] His precise definition reads: '*Relative Deprivation* (RD) is defined as actors' perception of discrepancy between their value expectations and their value capabilities' (Gurr 2011/1970: 24).

3. Theoretically, grievances are assumed to increase conflict risk, whereas the empirical studies test the association between objective horizontal inequalities and conflict. While this is not always explicitly modelled, the studies generally recognize that opportunity structures also need to be in place for conflict to materialize.

Figure 3: Causal chain and empirical link underpinning current quantitative studies of horizontal inequalites and conflict

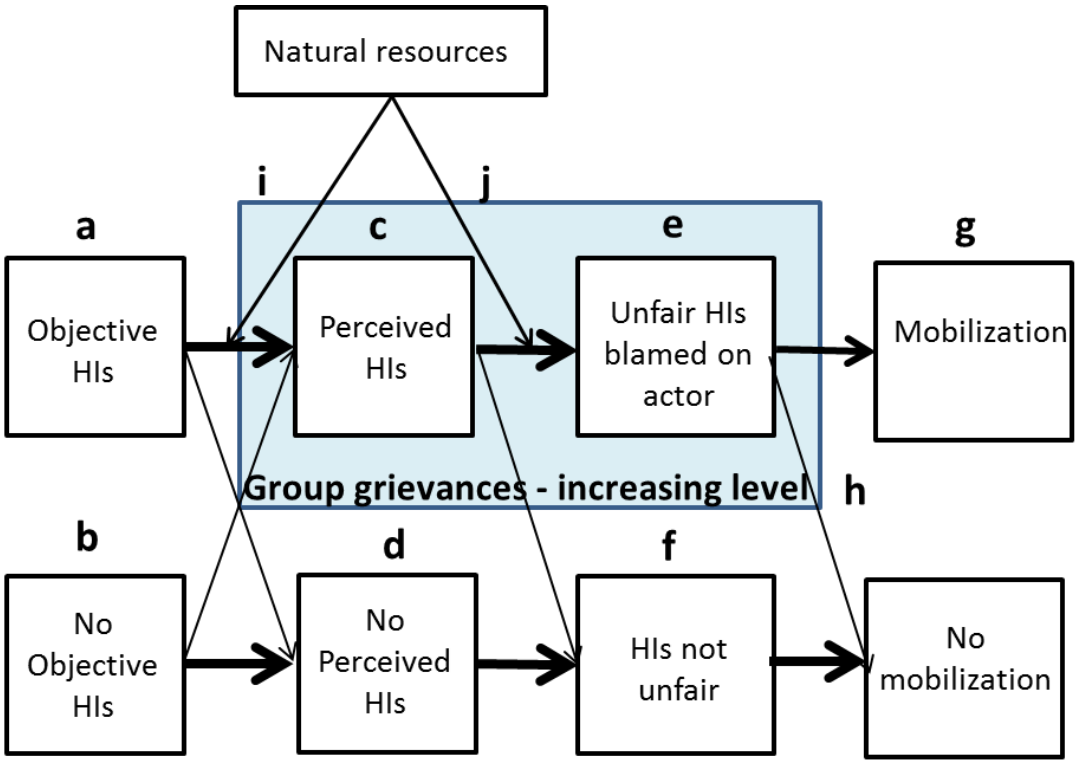


The following conclusions from the previous sections lay the foundation for my framework:

- Group grievances develop when people are aware of horizontal inequalities and consider them unjust
- Objective horizontal inequalities do not equal perceived horizontal inequalities or perceived unfair horizontal inequalities
- Natural resources can affect perceptions and judgements of horizontal inequalities

The framework is portrayed in Figure 4. If we start with a situation where objective horizontal inequalities exist (a), group members may (c) or may not (d) be aware of them. The arrows between the boxes represent probabilistic relationships, and the thicker the arrow the more probable I assume the relationship to be. Hence, even in areas where no objective asymmetries are present (b), group members may perceive that inequalities exist. Once group members perceive horizontal inequalities (c) they may (e) or may not (f) consider them unfair and to be blamed on an identified actor. And once horizontal inequalities are considered unfair, mobilization is likely as long as favourable opportunity structures are in place (g). No perceived horizontal inequalities (d), no perception of unfairness (f) and absent opportunity structures (h) are all diminishing the likelihood of mobilization. Finally, natural resources may act as an intervening variable and affect either perceptions of horizontal inequalities (i) or perceptions of unfairness (j), or both.

Figure 4: Overall framework for analysis



While Cederman, Gleditsch and Buhaug (2013) see evaluation of injustice and framing and blaming by elites as two separate steps on the road from structural asymmetries to grievances, I see them as inherently interlinked. No matter what sparks such a change (media, norm changes, leaders), changing from directing the blame on oneself, or fate, or other abstract circumstances, to blaming the government, might be exactly what triggers a feeling of unfairness. Correspondingly, a measure gauging a feeling of being unfairly treated by a certain actor will automatically capture the result of any framing or manipulation by elites. In terms of measuring grievances, it is this feeling we would like to pin down.

It should be noted that natural resources may play a more independent role, for instance if resource revenues are unequally distributed and create new, or reinforce existing, objective horizontal inequalities. This has happened for instance in the Niger Delta (Akpan 2010). While recognizing this, for the purposes of this dissertation I will limit my analysis to a case where natural resources are discovered in a historically marginalized region, and where petroleum revenues have not yet started to flow – as further elaborated in section 1.6. Hence, I will leave for other work to study other scenarios. Furthermore, and as noted in a previous section, natural resources are just one

of a range of different potential intervening variables between objective and perceived inequality.

I will not test all the relationships portrayed by the arrows in the framework. The main focus will be on testing the effect of various measures of group grievances on different types of mobilization. The grievances are then captured by measures of perceived horizontal inequalities, and by measures taking into account judgements (the blue box in Figure 4). The latter is the most comprehensive measure. Hence, I see both as measures of group grievances, that may at times be overlapping and at times not.

I will investigate various forms of political mobilization – including civil war, communal conflict between non-state groups and riots and non-violent protests.

Linked to the framework, the overall research question of when and how horizontal inequalities lead to conflict is split into somewhat more specific questions to guide my analyses:

1. Do group grievances increase the probability of civil war outbreak?
2. Do group grievances increase the probability of different types of political mobilization?
3. How do objective horizontal inequalities relate to perceived horizontal inequalities?
4. How are group grievances triggered, and how is this related to discoveries of non-renewable natural resources?

1.5 Methodology, data and measures

Since I aim to more comprehensively test group grievances as a source of political mobilization, and this aim is closely linked to a critique of current quantitative studies of horizontal inequalities and conflict, it follows that the main part of my analyses will be quantitative as well. The three first articles all use regression analysis of repeated cross-sectional (Chapter 2 and 3) and cross-sectional (Chapter 4) survey data.

While these quantitative studies can suggest evidence of the overall effect of group grievances on conflict, they cannot give detailed insights into the causal mechanisms forming and activating such grievances. So even if my quantitative analyses suggest that horizontal inequalities lead to mobilization when people are aware of them and consider

them unjust, these same analyses give little clues to when and why such perceptions and judgements arise. Hence, my initial question on *when* and *how* horizontal inequalities lead to political mobilization motivated me to introduce a case study and mixed methods in my dissertation. By integrating quantitative evidence with case and qualitative analysis I attempt to detail and nuance my answer to what makes structural inequalities politically salient. Clues about this have vital policy implications and are paramount in attempts to prevent and solve conflicts.

I will return to the rationale for choosing Tanzania as my case in section 1.6. Later in this section I will give some more details and comments about the measures used in the three quantitative articles (Chapter 2 - 4). But first I will elaborate more on the data used and the choice of methods.

1.5.1 Data and methodology

Obtaining good quality data on objective horizontal inequalities as well as measures that accurately capture them has posed a constant challenge to previous studies. This challenge is no less pressing for my analyses of perceived horizontal inequalities. In fact it is made even more acute by the fact that perceptions are volatile while objective horizontal inequalities have been demonstrated to be remarkably stable (see e.g. Tilly 1999)[9]. This has encouraged a range of studies to rely on time in-variant inequality data – such as the Nordhaus (2006) data – in time series analyses (e.g. Buhaug, Cederman, and Gleditsch 2014, Cederman, Weidmann, and Gleditsch 2011). Also existing survey-based studies to a large extent use data from one particular year and extrapolate this data point to years with missing data (e.g. Østby 2008a)

The overall framework for my analyses implies that perceptions and judgements can change. I will therefore not extrapolate data over long periods, and rather rely on truly time-variant data. Both this, and the fact that only surveys include questions linked to peoples' perceptions and judgements, has made surveys the only available option to investigate my research questions on a cross-country basis. My limited use of extrapolation reduces the time frame I can actually cover, and a side effect is that the only survey covering enough years and countries to allow analysis of civil war – which is a fairly rare event – is the World Values Survey. Fortunately this survey covers 85 countries and includes questions on both objective and perceived economic status. It is

[9] I do however challenge this in chapter 2.

therefore the main data source for my first article (Chapter 2). Similar to the bulk of horizontal inequality and civil war studies, I analyse civil war events as reported by the Uppsala/PRIO Armed Conflict Dataset (Gleditsch et al. 2002, Pettersson and Wallensteen 2015).

My second article is based on the Afrobarometer Surveys round 1-4, which contains specific questions on perceived ethnic political and economic inequality. I use these to analyze the effect on communal conflict outbreak, with data from the UCDP Georeferenced Event Dataset v.1.5-2011 (Sundberg and Melander 2013, Sundberg, Lindgren, and Padskocimaite 2010). For objective political ethnic inequality I rely on the Ethnic Power Relations dataset (Wimmer, Cederman, and Min 2009).

My third and fourth articles are based on fieldwork in the southern regions Mtwara and Lindi in Tanzania. I will briefly introduce this work here. However, in order to avoid too much repetition, I will keep it short, and rather refer to Chapter 4 and Appendix 4.8.2 for a more in-depth documentation of the survey, and to Chapter 5 and Appendix 5.7.1 for detailed description of the qualitative interviews. In addition, the survey questionnaire and the interview guide are included at the end of the dissertation in the Supplementary Appendices. Here, I will rather focus on why I chose to use mixed methods and the advantages I obtain from it.

I visited Tanzania four times in 2014 and 2015. I completed 15 semi-structured interviews in Mtwara in 2014, and visited key stakeholders[10] in Dar es Salaam in order to prepare for the main field work round. I returned to Dar es Salaam in February 2015 for further planning, before the main field work in Mtwara and Lindi in June 2015. This time I conducted 20 semi-structured interviews and organized and completed an 800 respondent survey covering 6 of the 13 districts in the two regions. I hired and trained a survey manager, three supervisors, and 24 enumerators that were evaluated and reduced to 16 for the survey work. The survey manager and the supervisors finalized a 96 respondent pilot test of the survey in May 2015 that served as basis for power calculations and final sampling strategy, and also served to improve questions and language and so forth. My fourth and final visit in September 2016 fully focused on dissemination of results to relevant stakeholders (see section 6.2 for more on this).

[10] NGOs, oil companies, research institutes

As already stated, the overall objective for including a case and mixed methods in my dissertation is to provide a more in-depth answer to the question of when and how horizontal inequalities lead to conflict by investigating causal mechanisms linking structural asymmetries, natural resources and group grievances in more detail. Personal accounts of the process leading up to mobilization – gathered by the semi-structured interviews – provide such information with a granularity that is beyond the reach of traditional survey instruments. At the same time, since several questions were replicated both for the interviews and the survey, I am also able to check how representative some individual responses are compared to the whole population in the sample. This is all done in my final article (Chapter 5).

The potential issue of endogeneity and reversed causality is a challenge to all existing quantitative studies of horizontal inequalities – including my own. A further advantage with mixing quantitative and qualitative data is the ability to test the link between group grievances and mobilization on a representative sample while at the same time reducing – although not eliminating – such endogeneity issues. My survey data is cross-sectional, and no claims on causality can be made based on it. More specifically, I cannot establish whether the grievances I measure came before the civil unrest and caused it, or rather were a product of the same civil unrest. However, the detailed accounts from the qualitative material support the suggested direction of causality, with group grievances stated as a main motivating factor for the uprisings, thus somewhat reducing the inherent endogeneity issue in the quantitative article in Chapter 4.

Finally, I was able to draw extensively on the first 15 interviews conducted in May 2014 when developing the survey questionnaire and the sampling strategy. For the sampling strategy, it was important to establish which districts are most affected by the gas developments, and from which the riot participants mostly came. For the questionnaire, the interviews greatly helped in designing questions relevant and adapted to the area and the sentiments around the marginalization and the gas developments. For example, during the first round of interviews I was able to establish that people to a large extent identified themselves as ‘Wakusini’ – the Swahili word for ‘Southerners’ – and that this regional identity was almost exclusively used when people made comparisons to other groups. I could therefore design my questions on horizontal inequalities around a regional identity. Also, people expressed anger and frustrations with the government, not the oil companies or other actors. This information allowed

me to build in specific targeting of the blame in relevant questions. These sentiments – both on group identity and blaming – where further strengthened during the second round of qualitative interviews in 2015 (see Chapter 5).

1.5.2 Measuring perceived horizontal inequalities

Measuring group grievances is a central part of my dissertation. Given this, I will spend some time describing the variables I use in each article, and outline what I believe they do and do not capture – linked to the overall framework presented in section 1.4.4.

In general, existing studies vary to a great extent in how they calculate measures of *objective* horizontal inequalities. My two first articles also include analyses of objective inequalities – both because I generally do not claim that objective structural asymmetries are irrelevant, and because I wish, to the extent that it is possible, to compare the effect of objective and perceived horizontal inequalities. My overall goal in deciding upon objective measures has in turn been to keep my analysis as comparable as possible to the most relevant study of objective horizontal inequalities. So when I look at objective and perceived regional economic inequality and civil war with country-years as unit of analysis, I adopt the measure used by the most related study – which is Buhaug, Cederman and Gleditsch's (2014) analysis of objective ethnic economic inequality. Hence, in my first article (Chapter 2) I derive country-level inequality indicators measuring the relative gap between the mean national income and the income level for the poorest regional group and the richest regional group respectively:

Objective negative HI = country-level mean income/mean income for poorest group

Objective positive HI = mean income for richest group/country-level mean income

after first having identified the richest and poorest regional group in each country.

I calculate *perceived* horizontal inequalities using the same formula, based on a survey question measuring subjective satisfaction with the financial situation of the household. ('The question reads: *How satisfied are you with the financial situation of your household?*' Deciles, 1 completely dissatisfied, 10 completely satisfied).

The first thing to note about the measure based on this question is that it does not only capture perceived economic inequality, but it also includes a judgement of the economic

situation. On the other hand, while the measure will indicate the regional mean level of satisfaction with the economic situation, it does not necessarily follow that in a region with low satisfaction people also find the situation unfair. However, I argue that compared to measures based on pure income statistics, and in line with my overall framework, this new measure is much closer to capturing grievance levels.

The second thing to note is that this is arguably not a perfect group measure. For each region, I aggregate the individual responses up to a mean for the whole region. Ideally, the question should have probed about the economic or financial situation on behalf of the region rather than the household in order to truly reflect the group aspect. Lacking such information, I nonetheless argue that this is a relatively good approximation of group sentiments. I back this claim with comparisons based on Afrobarometer Survey data showing that the correlation between perceived individual and perceived group inequality is very low for each individual, but very high if I rather compare mean individual and group inequality per sub-national region – which is what I do for the measure in this analysis as well. Thus aggregating individual responses up to a regional level substantially increases the correlation between the individual and group measures[11]. See Chapter 2 for more details on this analysis.

Moving on to my second paper, which analyses the effect of objective and perceived horizontal inequalities on the risk of communal conflict, the issue of aggregating individual level perceptions can be left behind. The Afrobarometer Surveys, which is my main data source, includes questions on the perceptions of the economic and political situation of the respondent's ethnic group. Since communal conflict is local by nature and rarely affects the whole country, at the same time as horizontal inequalities vary substantially within countries, (Fjelde and Østby 2014), the unit of analysis is region-years. Both in level of analysis and in measures for objective economic inequality, my setup corresponds to that of Fjelde and Østby (2014), which is the only other cross-country analysis of communal conflict. Please refer to Chapter 3 for details on the objective measures.

For the political dimension of horizontal inequalities, I rely on the Ethnic Power Relations (EPR) dataset (Cederman, Wimmer, and Min 2010). Fjelde and von Uexkull (2012) have coupled this data with geographical information about the regional base and

[11] In her Niger Delta analysis, Rustad (2016) also aggregate individual responses up to a group level.

settlement patterns for each ethnic group included the EPR dataset using the GeoEPR dataset (Wucherpfennig et al. 2011), and constructed a dummy variable for political exclusion per subnational region based on this. This data is used in the analyses.

The question '*Think about the condition of [respondent's ethnic group]. Are their economic conditions worse, the same as, or better than other groups in this country?*' is used to create measures of perceived economic ethnic inequality. The response categories are much better (0), better (1), same (2), worse (3) and much worse (4). The numbers in parenthesis are assigned, and since a group comparison is inherent in the question, the measure used is simply the mean figure for all the respondents in the biggest ethnic group in the region.

The measures for perceived political ethnic inequality are constructed the same way as the perceived economic measures, with the question this time being '*Think about the condition of [respondent's ethnic group]. Do they have less, the same, or more influence in politics than other groups in this country?*'

In summary, in Article 2 I apply specific measures of perceived inequality on a group level. This is a marked improvement compared to existing studies based on objective data. Yet, if I return to my overall framework from section 1.4.4, these perceptual measures do not take into account whether the respondents judge these inequalities as unfair or not. However, using perceptual data is first and foremost still an important improvement compared to existing studies based on only objective data. Furthermore, as noted previously, the tendency to judge inequalities as unfair is strongly linked to individual world views. Those who believe personal efforts bring rewards are less inclined to deem existing asymmetries as unfair. And those who believe rewards mostly follow from connections and corruption are more likely to perceive inequalities as unjust. Many countries in Sub-Saharan Africa have a long tradition of neopatrimonialism, corruption and favouring of own ethnic group by government officials. Given this, it is possible – though untested – that people in this part of the world are more likely to judge perceived horizontal inequalities as unfair.

To analyze cross-country effects of perceived horizontal inequalities in the two first articles I am dependent on using existing surveys and existing survey questions. When developing my own survey for the Tanzania case I was on the other hand able to design questions specifically targeting all the steps in my proposed framework.

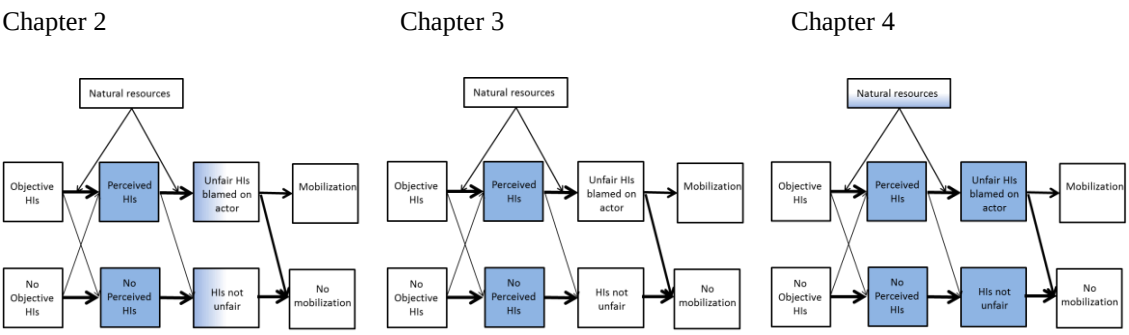
To measure perceived regional economic horizontal inequality I used the question: *Think about the condition of people living in this region. Are their economic conditions worse, same as or better than for those living in other regions in this country?* (much worse = 5, worse = 4, same = 3, better = 2, much better = 1). Since the unit of analysis in Article 3 (Chapter 4) is individual-level, I applied the coded responses directly with no further calculations.

Moving on to specifically measure the level of unfairness and blaming of perceived horizontal inequalities, I used the question: *How often, if ever, are people living in this region treated unfairly by the government* (Never = 1, Sometimes = 2, Often = 3 and Always is = 4). Once more the responses are used directly.

Finally, in an attempt to capture the grievance inducing mechanism famously introduced by Gurr (1970) – frustrated expectations – that I also argue is particularly relevant for regions with newly discovered natural resource wealth, I create a variable measuring how satisfied people are with the development of the living conditions for the people in their region compared to the expectations they had right after the discoveries were announced and the widespread political promises of local development were made[12].

Overall, my three quantitative articles cover measures ranging from perceived horizontal inequalities to perceived unfair treatment blamed on a specific actor – with article three based on my own survey in Tanzania including the most comprehensive measures – as portrayed in Figure 5. Note that these figures picture how group grievances are measured. In chapter 2 and chapter 3 I also analyse objective horizontal inequalities.

Figure 5. Group grievance measures in Chapter 2-4



[12] See Chapter 4 for details.

I should emphasize once more that I do not test all the relationships portrayed in the framework in the quantitative articles. For instance, I do not look at the link between perceived horizontal inequalities and perceived unfair horizontal inequalities – as the arrows may suggest. Rather, I regard those two variables as two different measures of group grievances, and I test the direct effect on mobilization of both of them. Similarly, I test the direct effect of objective horizontal inequalities on mobilization – comparable to what existing studies do. The two perceptual measures are not fully independent, and they are likely to capture some similar effects. I assume – based on my theoretical framework – that the measure taking into account unfairness and target of blame is most comprehensive and likely the best gauge of grievances – and hence mobilization. This assumption receives support from article 3 in Chapter 4.

It is my fourth article in Chapter 5 that attempts to look at the whole framework in more detail by using qualitative data to investigate the links between objective and perceived and perceived unfair horizontal inequalities, natural resources and the effect on motivation for mobilization.

1.6 Background for choosing Tanzania as a case

The rationale for choosing Tanzania as my case study is three-fold. First, the case provides a clear example of how horizontal inequalities do not always lead to conflict. The 'Wakusini' inhabiting the southern regions Mtwara and Lindi remained marginalized yet peaceful for five decades before rioting against the government (see Chapter 4 and 5). This combination of grave horizontal inequalities and peace, and then a change, offers a good opportunity to study my question 'when and how do horizontal inequalities lead to conflict', and to investigate when and how long-existing *objective* regional inequalities become politically salient.

Second, the riots followed discoveries of large natural gas resources. Importantly, however, the riots preceded the production phase – meaning that petroleum revenues had not yet started to flow. The non-renewable natural resource literature has mainly focused on conflict mechanisms related to large revenue flows. This also holds for studies of horizontal inequalities, natural resources and conflict, which generally claim that petroleum revenues rarely spreads evenly, and are likely to create new or reinforce existing horizontal inequalities (see e.g. Østby, Nordås, and Rød 2009). Looking at the

pre-production phase hence offers an excellent lens to study the effect of natural resources at a time when such revenues are not yet present, and where the effect – if any – on objective horizontal inequalities will be small. The effect on perceived horizontal inequalities, and judgements about such inequalities, may on the other hand be far more pronounced. The Southerners were first given extensive promises of local development by then President Kikwete. The newly created hopes of change were dashed when the Government decided to build a pipeline bringing the first gas from a small onshore discovery to Dar es Salaam – a decision that was perceived by the locals as a breach of promise and a clear sign that local industries fuelled by the gas would not be prioritised after all.

Third, while the above academic rationales were essential to my choice of case, I also put some emphasis on the policy relevance of studying Southern Tanzania. Oil and gas has been discovered in several African regions inhabited by marginalized groups[13]. This has made leading scholars warn that natural resources constitute a substantial security threat on the continent (Collier 2015). Policy recommendations on how to manage such natural resource developments and reduce conflict risk is therefore sought after and to a large extent lacking. Equally important, proper and representative data on the needs, priorities, expectations and attitudes of the people in such remote areas are scarce at best. For the case of Southern Tanzania, it just did not exist, making it a secondary objective of this dissertation project to provide such data to relevant stakeholders.

1.7 Introducing the four articles

Chapter 2 to 5 of this dissertation consists of four independent but related articles that are all under review at peer-reviewed journals. All of them contribute in different ways to analysing the effect of group grievances on conflict risk. They fit into the framework presented in section 1.4 in different and complementary ways, although they do not comprehensively cover all the stipulated relationships. While the three first articles apply quantitative methods and survey data, the fourth article relies primarily on qualitative data and analysis. And while the two first articles investigate the effect of group grievances on a cross-country basis – with a global and Sub-Sahara African scope

[13] Kenya, Uganda, Mozambique and Ghana are just some other examples.

respectively, the two last articles are both based on data gathered during fieldwork in Tanzania.

In essence, I start with a wide scope and country-years as the unit of analysis, and narrow down step by step ending up with an individual level quantitative analysis and finally detailed individual accounts of group level motivations for mobilization. Throughout the articles I find support for the inference that group grievances motivate and increase the risk of political mobilization ranging from non-violent protests all the way to civil war.

Article 1 – *Perceptions, Horizontal Inequalities and Civil Conflict* – analyses the effect of both objective and perceived regional inequality on the probability of civil war in 85 developed and developing countries in all world regions. Based on conflict data from the Uppsala/PRIO Armed Conflict Dataset (Gleditsch et al. 2002, Pettersson and Wallensteen 2015) and survey data from the World Values Survey for the period 1989-2014, I find that perceived regional economic inequality increases the probability of civil war, while objective regional economic inequalities do not. This article investigates research question 1 and 3.

Article 2 – *Injustice is in the Eye of the Beholder: Perceived Horizontal Inequalities and Communal Conflict in Africa* – analyses the effect of both objective and perceived, and both economic and political, ethnic inequality, and communal conflict. Communal conflict is defined as conflict between non-state groups, and the data stems from the UCDP Georeferenced Event Dataset v.1.5-2011 (Sundberg and Melander 2013, Sundberg, Lindgren, and Padskocimaite 2010). For my independent variables I use survey data from the Afrobarometer Surveys round 1-4 covering 20 Sub-Saharan African countries, as well as the Ethnic Power Relations dataset (Wimmer, Cederman, and Min 2009). My analysis suggests that both objective and perceived political ethnic inequality increase communal conflict risk, as do the combination of both high objective and high perceived economic ethnic inequality. This article investigates research question 2 and 3.

Article 3 – *Expectations, Grievances and Civil Unrest in Emerging Petrostates. Empirical Evidence from Tanzania* – is the first article based on data from my fieldwork in Tanzania. This paper has a quantitative orientation, and investigates attitudes as well as actual participation in civil unrest – comprising protests and use of political violence

– using survey data from two historically marginalized regions with newly discovered natural gas wealth. Using measures of group grievances in line with the framework presented above, I find that people who think that the region is treated unfairly are more likely to support and participate in civil unrest than people who do not hold this opinion. Frustrated collective expectations and perceived economic regional inequality are also significantly associated with support for civil unrest, but not with participation. A perception of individual inequality is insignificant in all models – suggesting that perceptions on behalf of the group are indeed essential in motivating for mobilization. This article mainly consider research question 2 and 3.

Finally, article 4 – *From Silence to Storm. Investigating Mechanisms Linking Structural Inequality and Natural Resources to Mobilization in Southern Tanzania* – attempts to take an in-depth and detailed look at the steps in the causal chain from objective regional marginalization to mobilization for protests and riots. Based primarily on data from 35 semi-structured interviews with political and religious leaders, riot participants and non-participants, and drawing to some extent on descriptive statistics from the survey data, I find that the discovery – and following mismanagement – of natural resources triggered a mobilization process, mainly through increased group competition, frustrated expectations, evaluation of injustice, and leadership framing. I find that a feeling of injustice is particularly salient in motivating riot participants, while personal material gain as an alternative mechanism has little explanatory power. This final article hence investigates research questions 2, 3 and 4.

The quantitative Tanzania article suggests that a feeling of unfair treatment of the region by the government motivates mobilization. However, this article can only provide very indicative evidence that this feeling of unfairness is somehow linked to the natural gas discoveries and management. The data from the qualitative article, on the other hand, strongly indicates that the natural gas mismanagement created a feeling of injustice and hence increased group grievances. Participants in the riots link these group grievances directly to their motivation to mobilize.

Since my dissertation is article based, and each article needs to be independent and include a literature review and a development of the argument, some repetition will unfortunately be necessary throughout Chapter 2 to 5.

1.8 Limitations and scope of argument

Before moving on to the articles it is timely to say something about which claims I aim to make, which claims I do not and cannot make, and the limitations linked to my conclusions.

First of all, I to some extent look at the role of opportunity structures in my fourth and final article, and to some extent include such factors as control variables in my statistical analyses in the three other articles. However, I do not comprehensively study the role of opportunity in governing when horizontal inequalities lead to conflict. This does not in any way mean that I disregard the importance of opportunity variables. However, my focus lies in how horizontal inequalities are perceived and judged, and what makes them politically relevant.

Second, my emphasis on the role perceptions and judgements do not imply that I find objective structural inequalities irrelevant. A rigorous body of work has found evidence of a link between such asymmetries and conflict, and I do not at all claim that these results are spurious. What I do claim is that analyses that take into account how these asymmetries are perceived and judged are likely to provide better answers to the question of when the risk of conflict is greatest.

Overall, I attempt to take a first step away from relying solely on objective data to take into account group members perceptions and judgements of horizontal inequalities when analysing conflict risk. In the two first articles I have strived to apply the best available data in the most rigorous way possible to tackle this challenge on a cross-country level. While I believe these first steps have value and do bring insights into when horizontal inequalities lead to conflict, it remains indisputable that there are limitations to my analyses.

Some of these limitations are similar to those of other quantitative studies of objective horizontal inequalities. I have already touched upon the issue of endogeneity. Repeated cross-sectional statistical analysis – even when controlling for time dependencies – cannot serve as the basis for any claims of causality. Particularly omitted variable bias linked to previous conflict incidents pose a challenge to the validity of the results. Throughout my quantitative articles I am therefore cautious to present my results as suggestive evidence of a relationship between group grievances and conflict. As I have

already touched upon, this issue is somewhat reduced in my third quantitative article that can also draw on case and qualitative data to support the suggested direction of causality, and where there has been no previous conflict.

Similar to current studies, I also encounter issues of data availability and quality, which among other things mean that I cannot look at all relevant identity groups within each country, but have to restrict the analysis to those groups for which there is sufficient data – or number of respondents. While this is an issue that affect most survey based cross-country studies of horizontal inequalities, the fact remains that I cannot firmly establish that the data I analyse capture the sentiments among the groups and individuals that actually mobilize (ecological fallacy). This is however only an issue in my cross-country analyses (Chapter 2 and 3).

Since my framework requires quite specific measures of group grievances, I do encounter some new challenges to how well I am able to reach my goal of testing them more comprehensively. I covered this part in section 1.5.2.

To overcome data quality and measurement challenges I gathered my own survey data that is fully representative for the population of interest and includes tailor-made measures. In my quantitative article based on this data (Chapter 4) I use individual as unit of analysis and hence avoid any ecological fallacy issues.

In summary, I have strived to make the most of existing – however limited – data sources, and supplied this with new data, in order to make a first contribution to understanding when and how horizontal inequalities lead to conflict.

2 Perceptions, Horizontal Inequalities and Civil Conflict

Abstract

Recent advances in conflict studies have led to relatively robust conclusions about the association between group – or horizontal - inequality and conflict. Central to quantitative studies supporting this relationship is a stipulated causal chain where objective horizontal inequalities are translated into grievances through group comparison and a perception of injustice. Such grievances in turn form a mobilization resource. These studies are however limited by their use of objective measures of inequality, which leaves them unable to directly test the assumed grievance mechanism. I argue that taking into account how inequalities are actually perceived by group members will allow for a more comprehensive test. Furthermore, the use of objective measures in existing studies is based on an assumption that objective and perceived horizontal inequalities largely overlap. This is however not the case, as empirical data shows that the correlation between the two is very low. I take into account perceptions in a first time-variant study of regional economic inequality and conflict in both developed and developing countries. With data from the World Values Survey covering 1989-2014 and 85 countries, I find support that perceived economic regional inequalities increase the probability of civil war. The results for objective economic regional inequalities do not reach conventional significance levels.

2.1 Introduction

Does economic inequality lead to conflict? This question has attracted the attention of prominent scholars at least since the time of Aristotle (Nagel 1974). The frequent assumption that unequal distribution somehow fuels rebellion has resulted in a vast amount of theoretical as well as empirical work. For long, results remained mixed. Despite countless qualitative studies asserting that inequality is a major reason for conflict outbreak, quantitative studies struggled to establish a firm relationship between the two (Blattman and Miguel 2010, Cramer 2005, Lichbach 1989).

These quantitative studies, including the most influential ones by Collier and Hoeffler (2004) and Fearon and Laitin (2003), rely on analysis of individual measures of inequality. However, as most prominently set forth by Frances Stewart, it is minority groups or collectives of individuals who rebel, not the whole population, nor individuals (Stewart 2002). Stewart's theoretical development has given rise to several quantitative studies which uniformly support the role of economic group inequality in inducing conflict (Buhaug, Cederman, and Gleditsch 2014, Cederman, Weidmann, and Bormann 2015, Cederman, Weidmann, and Gleditsch 2011, Deiwiks, Cederman, and Gleditsch 2012, Østby 2008a, b, Østby, Nordås, and Rød 2009). Hence, there is an emerging consensus in the literature that inequality causes civil conflict when it overlaps with relevant group identities.

Promising as these studies are, they nevertheless neglect a potential crucial part of the inequality-conflict causal chain. Seemingly all studies of inequality and conflict, including those measuring group inequalities, are based on *objective* inequalities. Yet, as Stewart (2010, 14) herself notes, 'People take action because of perceived injustices rather than because of measured statistical inequalities of which they might not be aware'. Economic inequality measured by the Gini coefficient, or by local GDP data, is most commonly used as proxies, leaving completely aside how economic inequality is actually interpreted and perceived by both groups and individuals (ref. Zimmermann 1983). It remains obvious, however, that in order for people to take action to address inequalities, the first step is to recognize them and to consider them unjust (Han et al. 2012). The use then, of objective measures in current empirical studies, is based on the assumption that both objective and perceived horizontal inequalities essentially amount to the same thing. Put another way it is assumed that all objective inequalities are

actually perceived as inequalities by relevant groups, and conversely all perceived inequalities have an objective basis. These are strong claims that are so far largely untested. Existing studies of the link between objective and perceived horizontal inequalities range from concluding that there is no such link (Langer and Smedts 2013) to documenting imperfect correlations – ranging from 0.27 to 0.30 depending on indicators and datasets (Holmqvist 2012).

While cross-country analyses of conflict have neglected perceptions of inequality, the case study literature does offer some examples demonstrating their importance. Interviewing Muslim immigrants in London and Madrid, Gest (2010, 178) finds that what distinguishes democratic activists from those who engage in anti-system behavior, is the nature of their individual expectations and perceptions about *shared* economic realities. Moving on to larger conflicts, a recent World Bank report concludes that the so called 'Arab Spring' was driven by a decrease in popular *subjective* satisfaction, while the *objective* economic situation actually improved in the years before the widespread mobilization (Ianchovichina, Mottaghi, and Shantayanan 2015). The report also points to the importance of inter-group inequality as opposed to individual inequality.

My main argument is that in order to better capture the role of inequality in inducing civil conflict, measures have to account for relevant groups as well as for the perception of inequality in these groups. In addition, my analyses fill two other gaps in the literature. While Stewart emphasizes how groups can mobilize around different identities, current studies have almost exclusively focused on ethnic groups. However, a regional identity might be just as relevant (ref. Posner 2004). I will therefor look at the effect of regional economic inequality on civil war. And finally, most of the studies, and all of those with a global scope, rely on time invariant measures of economic horizontal inequality. This is commonly defended by referring to the demonstrated 'stickiness' of horizontal inequalities (see e.g. Stewart and Langer 2008, Tilly 1999). Still, a recent study covering 1992 to 2013 demonstrates a global decline of ethnic inequality (Bormann et al. 2016), while Kanbur and Venables (2005) compare case studies of 26 developing countries and conclude that regional inequalities are rising. The data used in this analysis also show that horizontal inequalities change quite substantially over time. Using inequality data from one particular year to analyze decades of conflict incidents is therefore questionable. Hence, my study represents the first time-variant analyses of the

effect of both objective and perceived regional inequality on civil war covering developed and developing countries in all world regions[14].

Analysing data for the period 1989 to 2014 from the World Values Survey (WVS), I find that countries with a high level of perceived regional economic inequality have an elevated risk of civil war outbreak. On the other hand, mere objective regional economic inequalities do not have any significant effect. The group aspect remains essential, as neither objective nor perceived *individual* inequality is linked to increased civil conflict risk.

The paper proceeds as follows: First, I briefly review the literature on conflict and inequality and set out issues and limitations. Second, I present paths forward and corresponding testable hypotheses. Third, I lay out my research design including data and methodology, and then present results, limitations and a set of robustness checks. Finally, I conclude by highlighting the importance of perceived inequality between regional groups and indicating routes for further research.

2.2 Conflict vs. Inequality

Gurr's (1970) work on relative deprivation as a source of political violence remains a classic today. At the core of his theory is the notion that when people get less then they originally expected, frustration will arise and their willingness to participate in political violence to rectify the perceived injustice will increase. Despite initial praise, his work was very soon critiqued by scholars holding that frustrations/grievances are too ubiquitous to explain when conflict occurs, and that the economic or political opportunity to organize a rebel group is the most important explanatory variable (Snyder and Tilly 1972, Tilly 1978). This view received strong support from acknowledged statistical studies (Collier and Hoeffler 2004, Collier, Hoeffler, and Rohner 2009, Fearon and Laitin 2003).

Lately inequality has received renewed attention following Frances Stuart's (2002, 2008) theory of horizontal inequalities. Defining horizontal inequalities as 'inequalities in economic, social or political dimensions or cultural status between culturally defined groups' (Stewart 2008, 3), she argues that group inequality matters more than individual

[14] The analysis covers 85 countries – se Independent Variables Section and Appendix 2.8.1 for detailed information.

inequality, and that inequality becomes an important source of conflict when it overlaps with salient group identities. Thus, by combining social identity theory and relative deprivation theory, Stewart suggests causal mechanisms to bridge the gap between structural background patterns and collective action. A range of quantitative studies support Stewart's theory. Economic, social and political inequality between *ethnic* groups (Cederman, Weidmann, and Bormann 2015, Cederman, Gleditsch, and Buhaug 2013, Cederman, Weidmann, and Gleditsch 2011, Buhaug, Cederman, and Gleditsch 2014, Østby 2008b), between *regional* groups (Østby 2008a, Østby, Nordås, and Rød 2009, Deiwiks, Cederman, and Gleditsch 2012) and between *religious* groups (Østby 2008a) significantly increases the risk of civil war. While the studies of ethnic inequality have received most attention, Østby (2008a) actually find that regional inequality have the strongest explanatory power on civil war – when comparing with ethnic and religious inequality.

As opposed to relative deprivation theory, the concept of horizontal inequalities highlights the mobilization potential of both relatively deprived and relatively privileged groups (Brown and Langer 2010) – echoing earlier work of Horowitz (1985). The relatively richer groups are assumed to mobilize to protect their resources. Examples of relatively privileged groups turning to political violence include the Basques in Spain and the Biafrans in Nigeria (Østby 2011).

Ground breaking as the above studies are, they still have some weaknesses. First, and most importantly, the general assumption underpinning studies of horizontal inequalities and conflict is that structural inequalities between groups create collective grievances, which in turn form a mobilization resource (see e.g. Cederman, Gleditsch, and Buhaug 2013). However, all the above empirical studies rely on objective measures of horizontal inequalities as a proxy for collective grievances. This is problematic, since collective grievances are highly subjective phenomena that will not be reflected in the statistical figures currently used to measure their effect – as I will demonstrate in a later section.

Second, all the *global* studies of horizontal inequalities and conflict look at ethnic groups, while Østby's (2008a) analysis of 55 developing countries clearly indicates the importance of regional economic inequality as a conflict driver. Third, these same studies are based on time-invariant data, a choice that is justified by referring to studies

demonstrating the persistence of horizontal inequalities (e.g. Tilly 1999). The most commonly used source is Nordhaus' (2006) data of local economic activity which dates from 1990. However, a recent study based on time-varying satellite data of nightlights emissions covering the entire globe reveal substantial changes in ethnic inequality from 1990 to 2013. While on average ethnic groups have experienced a decline in inequality, this pattern is particularly strong in Asia. On the other hand, inequality between ethnic groups in Sub-Saharan Africa has increased substantially (Bormann et al. 2016).

The nightlights emissions can only document changes in inequality among ethnic groups that live in separate territories. Where ethnic groups coexist, the authors have no means of linking luminosity – and in essence economic development – to one particular group. This means that the data also to a large extent reflects regional inequality. Pure regional inequality is less frequently studied. However, in a large project comprising 50 developing countries, Kanbur and Venables (2005) find that in the 26 case countries for which time series data is gathered, inequality between advantaged and disadvantaged regions is high and rising. The general picture emerging from these studies is that rural and remote regions fall behind while urban and central regions experience larger growth. Examples include Mexico (García-Verdú 2005), Czech Republic, Hungary, Poland, Russia (Förster, Jesuit, and Smeeding 2005), China (Kanbur and Zhang 2005) and Indonesia (Friedman 2005).

Given these trends in inequality, rather than using data from 1990 to analyze conflict incidents up to 20 years later and 30 years before, one should aim to use data that capture the variability. So while my main contribution is to analyze perceptual data and civil war, which to the best of my knowledge has not been done in any previous study, I also contribute with an analysis of time-variant, regional inequality in developed and developing countries in all world regions.

2.3 Regional horizontal inequalities and civil war

Stewart (2002) is clear that group identities can be based on different identifiers, with ethnic, religious, regional and cultural the most salient ones. Group identification and mobilization has emerged based on all these (Østby 2011). All of the identifiers deserve attention, yet, regional inequalities might prove particularly interesting. Location often coincides with ethnic or linguistic cleavages, as seen in for instance in Uganda, Zambia

and Indonesia (Tadjoeddin, Suharyo, and Mishra 2003, Østby 2011). As Rokkan (1967) points out, when spatial cleavages are reinforced by additional divisions such as ethnicity and religion, the threat of conflict should increase substantially. A growing number of studies find strong associations between violence and local inequalities (Barron, Kaiser, and Pradhan 2004, Chen 2007, Murshed and Gates 2005). In addition, regional identity might be important in itself, as shown by Posner's (2004) study of the Chewa and Tumbuka groups in Zambia. He found regional cohesion to be apparently stronger than claims of ethnic affiliation. Similarly, in Tanzania, the government's management of natural gas resources led to widespread protests and riots with people mobilizing around a regional – or 'southern' identity (Mampilly 2013, see also chapter 4 and 5).

There are also an abundance of case examples indicating that regional inequality is a major source of conflict, such as the Ashanti region versus the north in Ghana, the Central Province versus remaining regions in Kenya, north-south asymmetries in Uganda, Nigeria and Cote de Ivoir, and oil producing versus other regions in Nigeria and Sudan (Bates 2008).

Despite this, most studies of horizontal inequalities look at inequalities between ethnic groups. Although clearly important, this could nonetheless lead to an omission of relevant group dynamics. There are some notable exceptions such as Tadjoeddin, Suharyo, and Mishra (2003) on the small-N level and Deiwiks, Cederman and Gleditsch (2012), Østby (2008a) and Østby, Nordås and Rød (2009) on larger samples. Deiwiks, Cederman and Gleditsch (2012) study 31 federal states, and demonstrate strong statistical evidence that regional inequality increases the risk of secessionist conflict. Østby (2008a) tests various dimensions of horizontal inequalities across different group identifiers in 55 developing countries, and concludes that the model with the strongest explanatory power is the one that interacts levels of regional horizontal inequalities and the degree of political exclusion. In general the regional group identifier performs better than the ethnic and religious for all tested horizontal inequality dimensions. To the best of my knowledge, the effect of regional inequality on civil conflict has not been tested on a time-variant dataset covering both developed and developing countries in all world regions. Hence, I propose the following hypothesis:

H1: The risk of civil war increases with high objective economic regional inequality

2.4 Perceived horizontal inequalities

People will only mobilize to change structural inequalities that they are actually aware of. This centrality of subjective judgements – or perceptions of inequality – for mobilization, is widely accepted by conflict theorists. In his definition of relative deprivation, Gurr (1970) explicitly stressed the importance of perceived inequality rather than merely objective inequalities[15]. Stewart (2010, 4) concurs stating that '(i)t is of course, perceptions which motivate people to action'.

The importance of perceptions is also reflected in the assumed causal chains underpinning empirical studies of horizontal inequalities and conflict. Cederman, Weidmann and Gleditsch (2011, 481-482), for instance, construct a causal path where objective political and economic asymmetries are translated into grievances 'through a process of group comparison driven by collective emotions'. A 'perception of injustice' generates grievances that in turn facilitate recruitment and mobilization. Still, while the full causal chain is *objective horizontal inequalities => grievances => violent collective action*, what Cederman Weidmann and Gleditsch (2011) actually test is the effect of objective horizontal inequalities on violent collective action, hence by-passing the grievances. This is the case for all the above-mentioned empirical studies of inequality and conflict, which are consistently analyzing the effect of objective inequality on conflict[16].

In constructing the postulated link between structural asymmetries and grievances, Cederman, Weidmann and Gleditsch (2011) draw extensively on social psychology literature, and particularly on social identity theory (Abrams and Hogg 1988, Tajfel and Turner 1979). While emphasizing social comparison and intergroup evaluation, this

[15] His original definition reads: 'Relative Deprivation (RD) is defined as actors' perception of discrepancy between their value expectations and their value capabilities. (..) The emphasis of the hypothesis is on the perception of deprivation; people may be subjectively deprived with reference to their expectations even though an objective observer might not judge them to be in want. Similarly, the existence of what the observer judges to be an abject poverty, or "absolute deprivation" is not necessarily thought to be unjust or irredeemable by those who experience it'. (Gurr 1970/2011: 24)

[16] In addition to the previously mentioned Nordhaus data, the other most used data source is the Demographic and Health Surveys – with measures of economic ethnic inequality based on differences in ownership of household assets such as radios and televisions (see e.g Østby 2008a, b, Østby, Nordås, and Rød 2009)

school of work underlines the importance of existing group identities rather than objective between-group inequalities. Competitive behavior may arise regardless of whether any objective issues of conflict are present (Tajfel and Turner 1979).

In summary, both relative deprivation theory and social identity theory – the two main building blocks for horizontal inequality theory – emphasize perceptions over objective facts. So why do objective studies rely on objective data? Besides the obvious point that perceptions are inherently hard to measure, this choice is commonly based on the assumption that 'perceptions broadly reflect the observed reality' (Stewart 2008, 18) and that 'on average, grievances will be experienced roughly in proportion to the degree of violation' (Cederman, Gleditsch, and Buhaug 2013, 41). This assumption stands in contrast to both case examples and larger sample empirical comparisons of perceived vs. objective horizontal inequality.

The Arab Spring, with protests, revolutions and violent conflict in a range of in Middle Eastern and North African (MENA) countries, has remained a puzzle for conflict scholars. While 'inequality' has been a recurring explanation for the mobilization by both press and academics (Verme et al. 2014), conventional measures of inequality gave no advance indication of an increasingly frustrated population. On the contrary, the MENA region experienced decreasing inequality and substantial poverty reduction in the decade preceding the conflicts (Ianchovichina, Mottaghi, and Shantayanan 2015). A recent World Bank report addresses this 'inequality puzzle', and concludes that rather than any change in objective indicators, a *subjective dissatisfaction* with income inequality seems to have been a main driver behind the unrest[17] (Ianchovichina, Mottaghi, and Shantayanan 2015). What they found was that while objective inequality decreased prior to the widespread conflict, perceived inequality increased. For instance in Egypt, the difference between objective and perception data expanded significantly between 2000 and 2008. While household survey data showed that Egyptians overall became more affluent in this period, perception data showed a reversed trend. In 2000, people regarded themselves as more affluent than they actually were, while in 2008 the viewed themselves a less affluent than they were (Ianchovichina, Mottaghi, and Shantayanan 2015, Verme et al. 2014).

[17] The report also highlights that inter-group inequality – and not individual inequality – was linked to the increased level of conflict in the region – concurring with the theoretical starting point of this paper.

Other empirical studies of the overlap between actual and perceived horizontal inequalities tell a similar story. Langer and Mikami (2013) conducted perceptions surveys in Ghana, Kenya, Nigeria, Uganda and Zimbabwe, and found large discrepancies between subjective and objective socio-economic horizontal inequalities among their respondents. Their results are supported by a more comprehensive empirical analysis of 19 African countries. Based on data from the Afrobarometer Surveys and multilevel regressions, Langer and Smedts (2013, 23) actually find a negative association between objective and perceived economic ethnic inequality. Individuals who belong to an objectively economically advantaged group are less likely to perceive their group to be economically better off compared to other groups in their country. So rather than lending support to the assumption that objective and perceived horizontal inequalities overlap, these studies seem to confirm the view of sociologists, who claim that there may be little or no link between perceived and actual inequality, because social experiences, group interests, values and societal myths affect perception (see e.g. Robinson 1983).

I am aware of only two studies that look at the conflict potential linked to perceived horizontal inequality. Both these are cross-sectional. In an analysis based on survey data from the Niger Delta, Rustad (2016) finds that the effect of perceived horizontal inequalities is far greater than the effect of objective, observed horizontal inequalities on *attitudes* towards violence. However, this study is limited to the Niger Delta and does not take into account participation in, or actual, conflict events. Miodownik and Nir (2015) use the Afrobarometer Round 3, and find high perceived economic and political ethnic inequality is correlated to higher *acceptance* of political violence and to *participation in protest marches* in 18 Sub-Saharan African countries.

While it is challenging to measure perceptions, their demonstrated theoretical and practical importance calls for an attempt to analyze their effect on civil conflict risk on a cross-country basis. My second hypothesis therefore reads:

> *H2: The risk of civil war increases with high perceived economic regional inequality*

2.5 Data and Methodology

While the data sources of existing studies of horizontal inequality and conflict to some extent overlap, the calculation of the inequality measures tend to vary. In order to keep my results comparable to the only other global, country level study of economic horizontal inequality – Buhaug, Cederman and Gleditsch (2014) – I adopt the measures from this paper[18]. Since most studies of individual – or vertical – inequality and civil conflict risk are done on a country level, keeping country-years as unit of analysis adds the opportunity to run alternative models and make comparisons to this strand of the literature as well.

2.5.1 Dependent variable: Civil Conflict onset

As dependent variable I use civil conflict onset, defined as any armed conflict between a state government and an opposition group causing at least 25 annual battle-related deaths. The definition and the data stems from the Uppsala/PRIO Armed Conflict Dataset (Gleditsch et al. 2002, Pettersson and Wallensteen 2015). If a conflict falls below the 25 casualty threshold for at least two consecutive years, any new observation above the threshold is coded as a separate onset. The variable is coded with the value 1 for years with a conflict onset, and 0 otherwise. Consecutive years of the same conflict are omitted and coded as 0 except where a new civil war breaks out[19]. The total number of conflict onsets in the dataset is 51[20].

2.5.2 Independent variables

I derive my measures of horizontal inequalities from the World Values Survey (WVS). The survey has been used in a wealth of scholarly publications and findings reported in leading media[21]. It is unique in that it offers data on region of the respondents on a global scale and on both objective and perceived regional economic inequality.

The WVS Longitudinal Aggregate file includes surveys conducted by the WVS from 1981 to 2014 in 94 societies, totaling more than 340.000 interviews. The aggregated file is based on 6 waves of surveys, allowing for repeated cross sectional analysis. However,

[18] A different version of this analysis is also included in Cederman, Gleditsch and Buhaug (2013).
[19] Here I also follow Buhaug, Cederman and Gleditsch (2014). A country may experience distinct armed conflicts at the same time or in consecutive years.
[20] This is the figure for which there are data points for all the variables included in the analysis.
[21] Further information on the surveys and the association is available on http://www.worldvaluessurvey.org

since there are very few data points in the first wave running from 1981 to 1984[22], and no surveys were conducted between 1985 and 1988, I exclude the first wave and include data from 1989 and onwards. Furthermore, the five remaining waves are somewhat unevenly scaled, running over between 4 and 6 years. To avoid skewing the results, and also to get more variation in the control variables, I split the data into annual figures rather than using aggregated averages for each wave.

While one may suspect that survey data is biased towards including relatively fewer conflict countries than non-conflict countries, this does not seem to be the case for the WVS. Of the UNs 193 member states, 73 – or 38 % – experienced civil war in the period 1989-2014 (Gleditsch et al. 2002, Pettersson and Wallensteen 2015). Of the 93 countries surveyed by the WVS, 42 – or 45 % – experienced civil war in the same period.

The regional group identifier is obtained from survey variable X048WVS ('Region where the interview was conducted'). 5 countries lacked data per region and where omitted[23], while 2 countries lacked data on the main independent variables[24] or on key control variables[25]. The total number of countries in the analyses is therefore 85 (see appendix 2.8.1). Regions are administrative units, and the average number of regions per country is 15.

The indicator for objective economic horizontal inequalities to test Hypothesis 1 is generated based on variable X047 from the survey, asking the respondents to indicate which income decile they belong to by summing up all household income and comparing it to presented scales based on country averages. For example, for Canada in 2000, the question reads: '*Here is a scale of incomes. We would like to know in what group your household is, counting all wages, salaries, pensions, and other incomes that come in. Just give the letter of the group your household falls into, before taxes and other deductions*', and the response categories are: C: Up to 12,000, D: 12,501 to 20,000 and so forth up to L: 100,000 or more[26]. This data is different to what is used in

[22] Only three countries covered the questions on objective and perceived financial situation in this first wave.
[23] Includes Bosnia, Croatia, Montenegro, Singapore and Tanzania
[24] Israel
[25] Andorra, Iraq and Serbia
[26] For some countries, no scales are presented, and the respondents are rather asked to place themselves into income deciles: '*Here is a scale of incomes on which 1 indicates the "lowest income decile" and 10 the "highest income decile" in your country. We would like to know in what group your household is.*

earlier studies, which use proxies based on household assets (Østby 2008a, b, Østby, Nordås, and Rød 2009) and local economic activity (Buhaug, Cederman, and Gleditsch 2014, Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013, Deiwiks, Cederman, and Gleditsch 2012). Since also relatively privileged groups are expected to mobilize according to horizontal inequality theory, and indeed have been associated with increased civil war risk by extant studies (e.g. Cederman, Weidmann, and Gleditsch 2011), I analyse both wealthy and poor groups. I adopt Buhaug, Cederman and Gleditsch's (2014) measures of economic horizontal inequality, with the only difference that I look at regional groups while they look at ethnic groups. I first identify the richest and poorest regional group in each country, from which I derive country-level inequality indicators measuring the relative gap between the mean national income and the income level for the *poorest* regional group[27]:

Objective negative HI = country-level mean income/mean income for poorest group

and then the *richest* regional group:

Objective positive HI = mean income for richest group/country-level mean income

Hypothesis 2 regarding perceived economic horizontal inequalities is tested by using variable C006 from WVS – measuring subjective satisfaction with the financial situation of the household. (The question reads: *'How satisfied are you with the financial situation of your household?'* Deciles, 1 completely dissatisfied, 10 completely satisfied). According to Liang and Fairchild (1979), financial satisfaction is directly linked to a feeling of relative deprivation. I calculate the relative gap between mean national satisfaction and least/most satisfied regional groups by using the same formulas as for objective inequalities. This is arguably not a perfect group measure. Ideally, the question should have probed for the opinion on behalf of the regional group, not the household. Lacking such data, I still hold that the measure used gives an approximation of the group sentiment. Data from the Afrobarometer Surveys support this assumption. Round 3 of the surveys covering 18 Sub-Saharan countries have data

Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in'. This introduces a subjective element to the respondents it applies to. I handle this in the robustness tests.

[27] Regions with less than 20 respondents are omitted and coded as missing. This means reducing the total number of respondents by 7922 (out of more than 340 000). Mean number of respondents per region is 244. Omitting regions with less than 50 respondents instead does not alter the results (see appendix 2.8.1 Table 7 for full results).

on perceptions of both individual and group economic inequality. The correlation between these two measures on an *individual* level for the whole dataset is very low at 0.18. However, if I rather calculate the *mean* perceived individual and group inequality *per sub-national region* – which is what I do for the measure in this analysis as well – the correlation increases to 0.74 (see Appendix 2.8.4 for a scatter plot). The country level correlation is even higher – at 0.8. Thus aggregating individual responses up to a regional level substantially increases the correlation between the individual and group measures[28].

2.5.3 Control variables and statistical model

I add the most common control variables that are regarded as conflict correlates: the log of population lagged one year, the log of per capita GDP lagged one year (Hegre and Sambanis 2006) and democracy (Gates et al. 2006). Since ethnic political exclusion is demonstrated to increase conflict risk (Cederman, Gleditsch, and Buhaug 2013), I add a variable measuring the size of the largest discriminated ethnic group relative to the combined size of the group in power and the discriminated group. I take this measure from Buhaug, Cederman and Gleditsch (2014). In addition, I include a civil war lag indicator to account for effects of previous and ongoing civil conflicts (Buhaug, Cederman, and Gleditsch 2014)[29]. Finally, I control for Ethnic and Linguistic Fractionalization (ELF) (Fearon and Laitin 2003). GDP data is obtained from World Development Indicators (2016) and population data from the United Nations Population Division (2010). I apply a logistic regression model on repeated cross sections, with clustered country codes to compensate for country-level dependencies.

2.6 Results

To test the hypotheses presented above I create three models. Model 1 tests the effect of objective regional economic inequalities on conflict outbreak, model 2 the corresponding effect of perceived regional economic inequalities and model 3 combines all measures. For both objective and perceived horizontal inequalities I interpolate values for intervening years and extrapolate the value from the nearest survey at the beginning and the end of the time period, in the case of lack of data for all waves. In

[28] In her Niger Delta analysis, Rustad (2016) also aggregate individual responses up to a group level.
[29] The results remain unchanged if I rather use number of peaceyears and cubic splines as suggested by Beck, Katz and Tucker (1998) (appendix 2.8.2, Table 8).

some instances these interpolations cover several years, but I limit extrapolations to two years as part of the robustness tests. For incidents where the survey is conducted in the same year as a new conflict, I systematically check all dates and ensure that no survey data collected after a conflict outbreak is used to analyze the same conflict. For a full list of countries and conflicts included in the various models please refer to appendix 2.8.1.

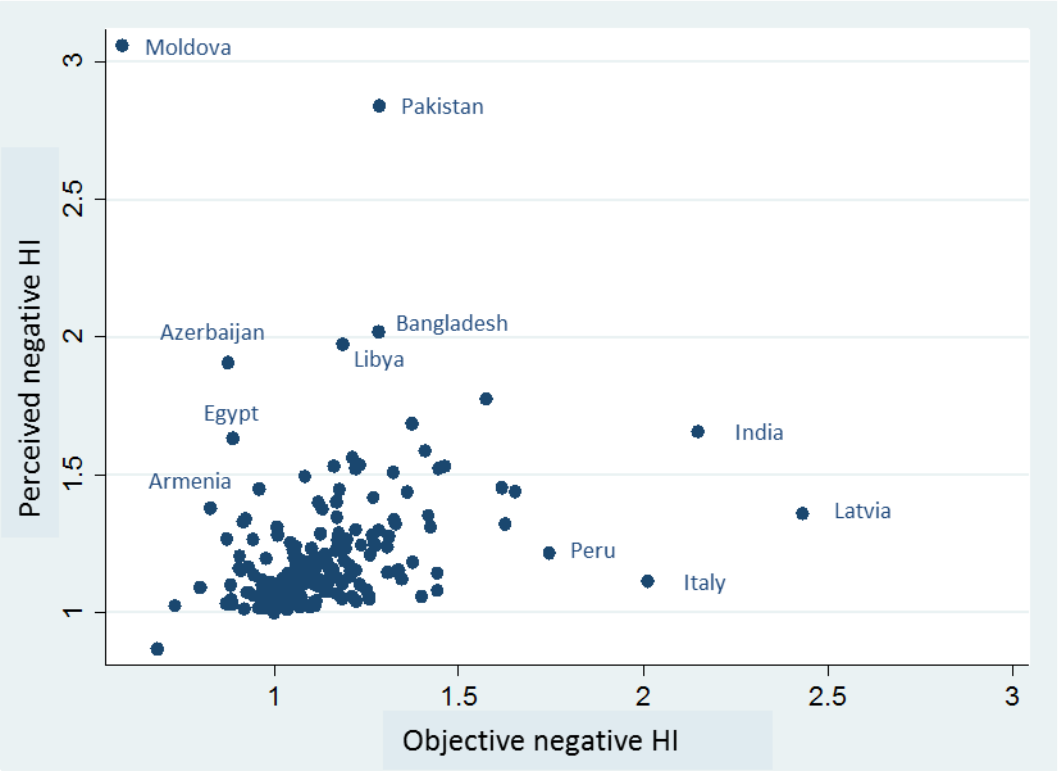
Table 3. Descriptive statistics

	Count	Mean	sd	Min	Max
onsetcivwar	2346	0.04	0.21	0	1
objective neg hi	2106	1.27	0.24	0.81	3.11
objective pos hi	2106	1.20	0.12	1.02	1.80
perceived neg hi	2094	1.19	0.22	0.87	3.06
perceived pos hi	2094	1.14	0.10	1.01	1.89
democracy	2205	0.65	0.33	0	0.98
largest discr group	2373	0.05	0.12	0	0.85
ongoing	2418	0.17	0.38	0	1
ethfrac	2224	0.36	0.26	0	0.90
gdppercapitalog	2304	3.63	0.66	2.06	4.84
poplog	2375	4.23	0.75	1.70	6.80

The correlation between the objective negative economic horizontal inequality measure and the perceived negative economic horizontal inequality measure is 0.42. (For a full correlation matrix, see appendix 2.8.3). However, since I identify the poorest region in objective terms for the objective low measure, and the region with lowest financial satisfaction for the perceived low measure, this implies analyzing two different regions for many countries. Hence, in order to properly compare objective and perceived regional inequality for each country, I have created a plot where I match the perceived negative measure with objective data from the same region. Figure 6 shows that there are large discrepancies between objective and perceived negative horizontal inequalities in many countries in the surveyed sample. Pakistan, Moldova and Latvia stand out with a particularly large gap between objective and perceived horizontal inequalities. For Pakistan, the outlier figure is a result of a very low satisfaction among 221 respondents in the Sindh Rural region in 2001. The low score may be linked to the fact that this

region has a history of economic marginalization and a very active separatist movement (Khan 2002). The very low *objective* regional inequality in Moldova is based on only 20 responses from the Causeni District, and high perceived regional inequality coupled with a very low objective regional inequality may be a result of measurement error. This also goes for Latvia, where the high objective economic regional inequality in the Liepāja region is based on 24 respondents. These data points are excluded from the analysis along with other regions with less than 50 respondents as part of the robustness tests[30]. The overall correlation between objective and perceived economic deprivation in the same region is 0.218. Together with Figure 6 this supports the main premise of this article: objective and perceived horizontal inequalities do not overlap.

Figure 6. Correlation between perceived and objective negative horizontal inequality (HI) in same region. World Values Survey Wave 2 to 6, 1989-2014



Note: one data point for each survey wave per country

As can be seen from Table 4, hypothesis 1 is not supported – neither negative nor positive objective regional economic inequality is significantly associated with civil war

[30] The highest value for objective negative HI in Table 3 (3.11) is based on 222 responses from Thailand's Northern region – once more a marginalized region. This data point do not show up in Figure 6, as it is in a region where only the objective deprivation is lowest in the country, not the perceived.

outbreak. The results for poor groups (objective neg HI) are however close to significance with a p-value of 0.184 in Model 1.

The results do however show a statistically significant association between perceived regional poor groups (perceived neg HI) and civil conflict outbreak. Hypothesis 2 is thus supported, but only for poor groups. Countries in which the richest region is much wealthier than the country average actually have a *decreased* civil war risk, but the results are not statistically significant. While this contrasts the results of Cederman, Weidmann and Gleditsch (2011) and Cederman, Weidmann and Bormann (2015), who find that relatively privileged ethnic groups are associated with higher risk of civil war, it is in line with Buhaug, Cederman and Gleditsch (2014)[31].

The contrasting results for objective and perceived horizontal inequalities reflect and support the overall argument of this article. Since objective facts and the subjective assessment of these facts do not overlap, and we can only theoretically expect people to mobilize based on inequalities they are actually aware of, it is not surprising that it is the perception measure that is most strongly linked to risk of civil war. On the other hand, previous studies of regional inequality limited to Africa (Østby 2008a) and to federal states (Deiwiks, Cederman, and Gleditsch 2012) have found objective regional inequalities to increase civil war risk. Based on this, one might have expected objective regional inequality to turn out significant also in my analysis – although less so than perceived regional inequality. A potential reason for this null result is my measure, which is different to all other studies in that it captures (time-varying) income rather than asset ownership and local economic data.

[31] The coefficient for the perceived positive HI is larger than the coefficient for the perceived negative HI, despite being insignificant. Since the correlation between those two variables is relatively high (see Appendix 2.8.3), I also run models where only the perceived negative HI, and then only the perceived positive HI, are included. The results for poor groups remain unchanged (the negative measure), but the coefficient for the positive measure is greatly reduced – and still insignificant. Results are available upon request.

Table 4. The association between objective and perceived horizontal inequality and civil war onsets, 1989-2014. Repeated cross sectional data.

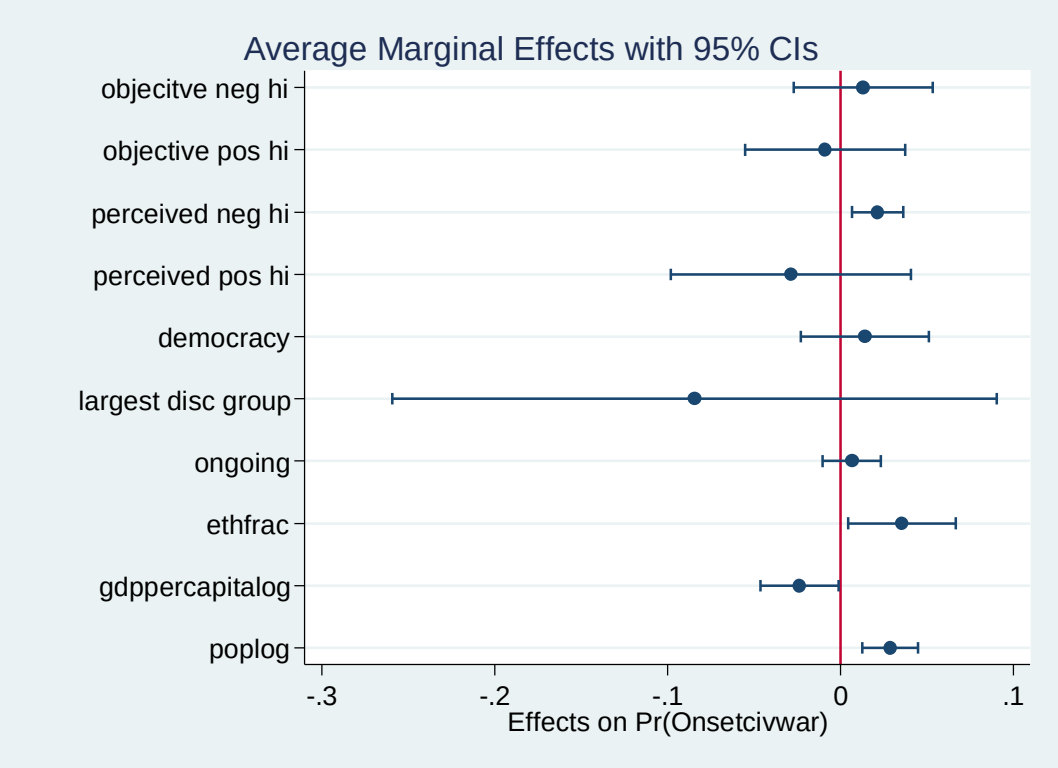
	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.880		0.570
	(0.663)		(0.836)
objective pos HI	-0.086		-0.371
	(1.088)		(0.989)
perceived neg HI		1.021***	0.928**
		(0.300)	(0.326)
perceived pos HI		-1.283	-1.222
		(1.346)	(1.527)
democracy	0.268	0.710	0.609
	(0.741)	(0.793)	(0.835)
largest discr group	0.405	-3.652	-3.624
	(2.930)	(3.388)	(3.463)
ongoing civil war	0.479	0.320	0.286
	(0.351)	(0.336)	(0.356)
ethnic fractionaliz.	1.227*	1.489*	1.534*
	(0.571)	(0.671)	(0.671)
gdp/capita (logged)	-0.750	-1.017*	-1.007*
	(0.406)	(0.416)	(0.432)
population (logged)	1.147**	1.216**	1.245**
	(0.380)	(0.382)	(0.380)
Constant	-8.132**	-6.594**	-6.963**
	(2.683)	(2.341)	(2.559)
pseudoR-squared	0.187	0.216	0.215
log-pseudolikelihood	-196.6381	-186.4593	-183.8879
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Country clustered standard errors in parenthesis.

The results for perceived negative horizontal inequalities are also substantive. Changing the level of perceived economic regional inequality from the 5th to the 95th percentile, while holding all other variables at their means, increases the risk of civil war outbreak by 53%. Figure 7 below show marginal effects for all the included variables.

Figure 7. Average marginal effects, all variables, with 95% confidence intervals. Based on Model 3



The control variables for GDP and population are significant and with the expected signs for most models[32]. A high level of ethnic fractionalization also significantly increases conflict risk, while a large ethnically discriminated group does not. This latter result contrasts Buhaug, Cederman and Gleditsch (2014), but is in line with Cederman, Gleditsch and Buhaug (2013)[33].

The Uppsala/PRIO Armed Conflict dataset includes civil conflicts where the disputes concern both government and territory. One might suspect that regional inequalities are more linked to territorial conflicts than fights over government power. I therefore create models 4 to 6 where I rather test the effect of objective and perceived regional inequalities on territorial conflict[34]. Table 5 below shows the results, which are overall the same, but strengthened. Objective negative regional inequality is closer to significance this time with a p-value of 0.122 in Model 4.

[32] For model 1, GDPpercapita is significant on a 10% level with a p value of 0.06
[33] Since this variable changes sign from model 1 to model 2, I also exclude it altogether as a robustness test. Results are unchanged, and available upon request.
[34] There are too few government conflicts (18) to test this type separately

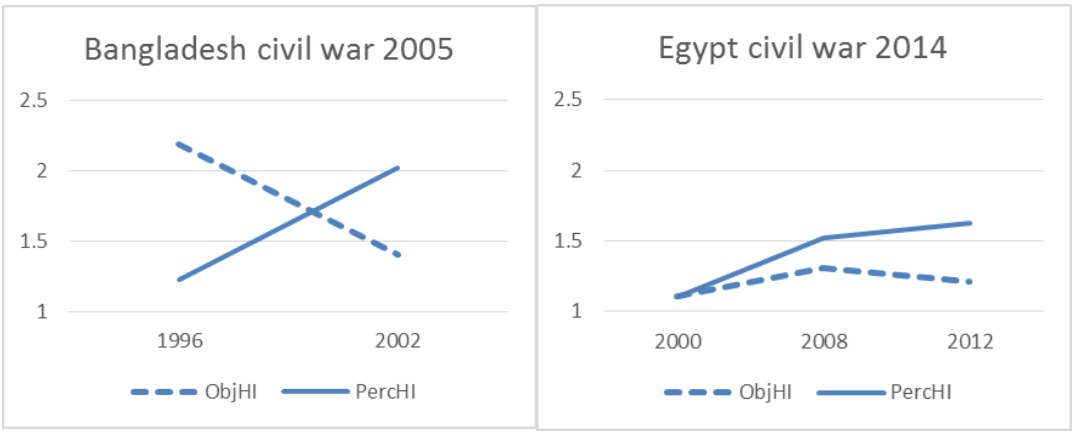
Table 5. The association between objective and perceived horizontal inequalities and territorial civil war onsets, 1989-2014. Repeated cross sectional data.

	(4)Obj HI	(5)Perc HI	(6)Full mod
onsetterritory			
objective neg HI	1.136		0.988
	(0.735)		(0.830)
objective pos HI	0.744		0.436
	(1.522)		(0.966)
perceived neg HI		1.580***	1.337**
		(0.410)	(0.414)
perceived pos HI		-2.027	-2.837*
		(1.426)	(1.195)
democracy	0.695	1.134	1.079
	(1.029)	(0.983)	(0.997)
largest discr group	-1.883	-21.060*	-19.142*
	(6.323)	(9.133)	(7.703)
ongoing civil war	0.362	0.030	-0.011
	(0.483)	(0.610)	(0.565)
ethnic fractionaliz.	1.814*	2.468*	2.457*
	(0.780)	(1.011)	(0.988)
gdp/capita (logged)	-0.787	-1.264**	-1.341**
	(0.565)	(0.489)	(0.506)
population (logged)	1.066*	1.378**	1.374**
	(0.453)	(0.485)	(0.461)
Constant	-9.957**	-7.410**	-7.677**
	(3.364)	(2.711)	(2.811)
pseudoR-squared	0.229	0.294	0.300
log-pseudolikelihood	-137.4158	-120.1432	-119.1208
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

In summary, the overall regressions support a link between perceptions of negative regional inequality and civil war. I now move on to test the robustness of this result, and start by looking at the descriptive statistics on a more granular level. In the previous section I gave examples of concrete conflicts seemingly rooted in a decrease in perceived economic satisfaction rather than an increase in objective inequality. Does the data used for this analysis offer indications of similar dynamics? Bangladesh and Egypt are two countries in the sample that experience a civil war outbreak after 14 and 16 years of peace respectively. Figure 8 show the development in objective negative horizontal inequality and perceived negative horizontal inequality prior to the civil war outbreak in each country:

Figure 8. Development in objective and perceived economic negative horizontal inequalities in two countries before civil war outbreak



Both countries experienced a decline in objective horizontal inequalities prior to the civil war outbreak, and marked increase in perceived negative economic horizontal inequalities in the years before the conflict. For Bangladesh, the plot is based on responses from the Rajshahi Division. This is one of two regions where the Purbo Banglar Communist Party-Janajuddha Faction (PBCP-Janajuddha), who pursued revolutionary class struggle against the Bangladeshi state, was most active. The Egypt plot is in line with the previously cited World Bank Reports which identify increasing subjective dissatisfaction and decreasing objective economic conditions prior to the Arab Spring (Ianchovichina, Mottaghi, and Shantayanan 2015). While these plots alone do not explain conflict outbreak, they do once more highlight the importance of capturing subjective views. They also show that time-invariant data is of limited use in evaluating conflict risk given that both objective and perceived horizontal inequalities are clearly changing with time.

While these examples show that perceptions of negative regional economic inequality increased before a civil conflict incident, they cannot by themselves rule out the issue of endogeneity. Several of the other countries in my sample experience two or more civil war incidents, and even if I control for ongoing conflict – alternatively time since last conflict and cubic splines – I cannot rule out that some of the perceptions measured are driven by a previous conflict. I will have to leave to other carefully designed before and after studies, or innovative methodological designs, to tackle this issue in a fully satisfactory manner.

Furthermore, data quality is an issue in my analysis as it has been in all other large-N studies of conflict. The WVS has an overall good global coverage, including in conflict prone areas such as Latin-America and South-East Asia. However, the coverage of Africa could admittedly be better, with the five wave aggregate accounting for 13 African countries. These are however evenly spread across the continent and do not seem to have a bias towards only non-conflict or only conflict countries. This goes for the sample of countries in general – as already noted in the Data and Methodology Section. Furthermore, the coverage in each wave is far from perfect, as only a handful of countries are covered in all consecutive waves. I solve this by relying on interpolation and extrapolation of data points – in some cases over several years. Given the demonstrated variability of inequality figures, this introduces another bias in my analysis. I therefor run models where I limit the years of extrapolation to 2. This nearly halves the number of observations, but the results remain unchanged (see Table 9 in appendix 2.8.2 for full results).

As can be seen from the list of included countries and civil war outbreaks in appendix 2.8.1, India is an outlier with as many as 15 civil conflict outbreaks. To ensure that my results are not driven by India alone, I run a test where I exclude this country. For this specification, results are actually strengthened (appendix 2.8.2, Table 10).

Figure 6 revealed that Pakistan, Moldova and Latvia are outliers with respect to the main independent variables. Taking Pakistan out of the analysis does not change the results, (appendix 2.8.2, Table 11). Moldova and Latvia had few respondents and are dropped in the analysis where all regions with less than 50 respondents are censored. The results are unchanged for this specification as well (appendix 2.8.2, Table 7). Thailand is an outlier with very high objective regional deprivation. Without Thailand results also remain unchanged (appendix 2.8.2, Table 12). In summary the main results do not seem to be driven by outliers.

As noted in the Data and Methodology section, in some countries and some years, the question on objective income is not accompanied by income scales for the given country. The respondent is rather asked to place his/her household in an income decile[35]. This introduces a subjective element to the measure, as people may over- or

[35] This applies for 7 countries in Wave 2, 9 countries in Wave 3, 1 country in Wave 4 and 31 countries in Wave 5. In Wave 6 it applies to all the countries.

underestimate their household's position. To investigate if and how this affects the results, I run an analysis where I only include the objective economic regional measures that are based on responses given after comparing with presented country scales for incomes. For this specification, the objective negative measure turns out significant on a 5% level – indicating that this inherent inconsistency in the question design of the World Value Survey does influence the results, and that once corrected for, objectively deprived regions are associated with a higher risk of civil war (appendix 2.8.2, Table 13).

Since oil and gas may increase the risk of civil war (Ross 2015), and particularly in economically deprived regions (Østby, Nordås, and Rød 2009), I add a control measuring the value of a country's oil and gas production per capita (Ross 2013). Results once more remain unchanged (appendix 2.8.2, Table 14).

Finally, controlling for power sharing between several ethnic groups, world regions, and oil and gas net value rather than value per capita does not alter the results (appendix 2.8.2 Table 15-Table 17). In summary, the results remain unchanged through a battery of sensitivity tests targeted at identified potential weak spots and conflict related variables.

2.6.1 Alternative specifications

Since my analyses differ from existing studies in that I measure perceived inequality, one might ask if *perceived individual* inequality also leads to civil war. Put differently, is the lack of an association between *vertical inequality* and civil war also partly due to the use of *objective* measures? Using the same questions from the WVS for objective and perceived inequality as above, I first construct a Gini coefficient based on objective data for each country. I furthermore calculate mean financial satisfaction per country as a measure of the general level of perceived individual inequality.

The results are given in Table 6, and generally offers yet another support for horizontal inequality theory – neither objective nor perceived individual inequality are associated with an increased risk of civil war outbreak. Perceived individual economic inequality is closest to significance with a p-value of 0.24[36].

[36] The measure for perceived individual inequality does not reflect any spread in the subjective satisfaction across each country – rather, the higher the measure, the higher the share of people reporting

Table 6. Alternative specification. The association between objective and perceived individual inequality and conflict onsets, 1989-2014. Repeated cross sectional data.

	Model7	Model8
onsetcivwar		
Gini	2.747	1.741
	(3.703)	(4.233)
Perc ec satisfaction		0.221
		(0.189)
ongoing civil war	0.483	0.169
	(0.430)	(0.355)
democracy	0.173	0.284
	(0.618)	(0.617)
ethnic fractionaliz.	1.155*	1.408*
	(0.584)	(0.594)
gdp/capita (logged)	-0.771*	-0.791
	(0.371)	(0.441)
population (logged)	1.151***	1.363***
	(0.333)	(0.320)
Constant	-7.624**	-9.688**
	(2.532)	(2.970)
pseudoR-squared	0.183	0.205
log-pseudolikelihood	-197.4893	-186.3695
N	1895	1881

* p<0.05, ** p<0.01, *** p<0.001

Country clustered standard errors in parenthesis.

2.7 Concluding remarks

While the role of inequality in inducing conflict has been questioned by a range of scholars, recent studies using group measures rather than individual measures indicate that the dismissal of inequality as a causal factor is not warranted. I agree with Buhaug, Cederman and Gleditsch (2014, 418), who argue that the 'the contradictory findings of the civil war literature to a large extent stem from the use of empirical measures of inequality and grievances that lack strong theoretical justification'. However, while group measures are clearly essential, we still have a way to go before our measures fully capture the underlying theoretical assumptions. The assumed causal chain underpinning empirical analysis of horizontal inequalities and conflict stipulate that objective structural inequalities are translated into grievances, which in turn fuel mobilization. Still, none of the studies actually measure the grievances, instead they bypass them and look at the link between objective inequality and conflict. The implicit premise is that

economic dissatisfaction. I also constructed a Gini based on the perception data for each country. The results (available upon request) remained unchanged for this measure.

structural objective facts and the perception and evaluation of these 'facts' neatly overlap.

As both the data from my study as well as other work demonstrate, this is not the case. I therefore argue that to bring the measures even closer to the theoretical assumptions, one should aim to capture perceived horizontal inequalities. The hypotheses that the risk of civil war increases with high perceived economic regional inequality receives support from my analyses. Countries where there are large differences in economic satisfaction between the least satisfied region and the country average, score higher on civil conflict risk than countries where the differences are smaller. These results are robust to a range of changes in specifications. In contrast, I find no link between objective regional horizontal inequality and civil conflict risk. There is however a weak association between high objective regional relative deprivation and civil war risk if I adjust for the inconsistency in measures of objective income in the survey data. An alternative specification testing individual inequality – both objective and perceived – indicate that neither of these are significantly increasing civil war risk either. In summary, my results strongly suggest that *group* identifications and the *perceptions* of inequality are important to the generation of grievances that may lead to conflict.

In the analysis presented here I believe I have taken one important step closer to fully capturing the role of grievances in fomenting conflict. I do not argue that perceived horizontal inequality perfectly reflects grievances, but I do suggest that it is closer to doing so than mere objective statistical facts. In order to fully investigate the role of grievances in inducing conflict, measures taking into account whether the horizontal inequality is perceived as unfair, or similar measures capturing people's judgements about the inequality, are needed. Such measures should also ideally reflect the perception of the situation of the whole group, not an aggregation of individual views within the group.

Finally, the data from the World Values Surveys indicates that both objective and perceived horizontal inequalities change over time. Future studies should therefore strive to use data sources that capture such variation.

Accepting the importance of perceptions naturally raises the question of what shapes them. Langer and Mikami (2013) point to the impact of one's objective personal situation, manipulation of perceptions by elites/leaders, inaccurate media reporting, lack

of objective data, insufficient access to information, misleading comparisons, misjudgment of group size, and cross-dimensional contamination, as factors influencing perceptions. Along similar lines, Brown and Langer (2010, 41) highlight the importance of the extent to which elites are able to 'generate, manipulate and utilize' perceptions of horizontal inequalities as an instrument to mobilize their followers, with Kenya and Indonesia as key examples of such incidents. Han et al. (2012) highlight social and political factors. These include social norms, myths and ideologies, meritocracy, social circumstances, and; referring to Robinson (1983); meso-level factors such as the size of ethnic or class groups, population density, the effect of the education system, and whether the group one belongs to is 'at threat' from other groups, or in competition with those groups for resources. While highlighting the importance of perceptions, this study does not give any answers to how such perceptions are formed. This constitutes an interesting route for further research.

Overall, my analysis constitutes a first cross-national test of perceived group inequality in inducing conflict. The results indicate a needed change in focus from only structural issues to a broader understanding of how identities and claims are formed.

2.8 Appendices Chapter 2

Appendix 2.8.1 – Countries and civil war outbreaks included in analyses

	Onsetcivwar		
Country	**0**	**1**	**Total**
albania	26	0	26
algeria	1	0	1
argentina	26	0	26
armenia	14	0	14
australia	26	0	26
azerbaijan	13	5	18
Bahrain	26	0	26
bangladesh	14	1	15
belarus	23	0	23
brazil	26	0	26
bulgaria	26	0	26
burkina faso	26	0	26
canada	26	0	26
chile	26	0	26
china	25	1	26
colombia	26	0	26
cyprus	26	0	26
czech republic	21	0	21
dominican republic	26	0	26
Ecuador	26	0	26
egypt	15	1	16
el salvador	23	0	23
estonia	23	0	23
ethiopia	8	0	8
finland	26	0	26
france	26	0	26
georgia	19	2	21
germany	25	0	25
ghana	25	0	25
great britain	25	1	26
guatemala	26	0	26
hungary	25	0	25
india	10	15	25
indonesia	14	0	14
iran	14	1	15
italy	26	0	26
japan	26	0	26
jordan	26	0	26
Kazakhstan	23	0	23
Kuwait	25	0	25
kyrgyzstan	23	0	23
latvia	23	0	23
Lebanon	23	1	24

	Onsetcivwar		
Country	**0**	**1**	**Total**
Libya	2	1	3
lithuania	23	0	23
macedonia	21	1	22
malaysia	25	1	26
mali	16	4	20
mexico	24	2	26
moldova	22	0	22
morocco	26	0	26
netherlands	26	0	26
new zealand	26	0	26
nigeria	23	2	25
norway	26	0	26
pakistan	15	3	18
peru	24	1	25
philippines	17	0	17
poland	26	0	26
romania	24	0	24
russian federation	18	2	20
rwanda	11	1	12
saudi arabia	26	0	26
slovakia	21	0	21
slovenia	23	0	23
south africa	24	0	24
south korea	26	0	26
spain	25	1	26
sweden	26	0	26
switzerland	26	0	26
taiwan	26	0	26
thailand	11	0	11
Trinidad and Tobago	24	0	24
Tunisia	26	0	26
turkey	24	2	26
uganda	19	1	20
ukraine	22	1	23
united states	26	0	26
uruguay	26	0	26
Uzbekistan	10	0	10
venezuela	22	0	22
viet nam	26	0	26
Yemen	2	0	2
zambia	26	0	26
zimbabwe	26	0	26
Total		**51**	

Note: only the civil war outbreaks with data points for all independent and control variables are given in this table. Several more countries experienced civil conflict in the time period 1989-2014, but in years with missing data points.

Appendix 2.8.2 Additional results

Table 7: Censoring regions with less than 50 respondents

	(1) Obj HI	(2) Perc HI	(3) Full mod
onsetcivwar			
obj neg HI sens	1.333		0.927
	(0.875)		(0.864)
obj pos HI sens	-0.487		-0.325
	(1.863)		(2.050)
perc neg HI sens		0.972**	0.897**
		(0.329)	(0.330)
perc pos HI sens		-0.575	-0.821
		(1.521)	(1.600)
democracy	0.229	0.530	0.416
	(0.722)	(0.724)	(0.751)
largest discr group	0.733	-3.783	-3.467
	(2.694)	(3.524)	(3.472)
ongoing civil war	0.463	0.357	0.309
	(0.347)	(0.334)	(0.353)
ethnic fractionaliz.	1.234*	1.379*	1.406*
	(0.545)	(0.644)	(0.629)
gdp/capita (logged)	-0.749	-0.938*	-0.937*
	(0.410)	(0.436)	(0.467)
population (logged)	1.113**	1.183**	1.180**
	(0.357)	(0.383)	(0.403)
Constant	-8.007*	-7.290**	-7.628*
	(3.613)	(2.484)	(3.608)
pseudoR-squared	0.193	0.215	0.217
log-pseudolikelihood	-195.2148	-186.8014	-183.5465
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Table 8: Peaceyears and splines

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.571		0.357
	(0.616)		(0.759)
objective pos HI	-0.249		-0.395
	(1.018)		(1.081)
perceived neg HI		0.797**	0.743*
		(0.291)	(0.322)
perceived pos HI		-1.549	-1.390
		(1.285)	(1.564)
democracy	0.251	0.631	0.552
	(0.694)	(0.765)	(0.800)
largest discr group	0.234	-4.130	-4.131
	(3.036)	(3.489)	(3.649)
peaceyears	0.134	0.186	0.190
	(0.161)	(0.161)	(0.166)
ethnic fractionaliz.	0.940	1.212	1.231
	(0.539)	(0.639)	(0.649)
gdp/capita (logged)	-0.429	-0.738	-0.726
	(0.384)	(0.401)	(0.418)
population (logged)	1.167**	1.245**	1.274**
	(0.390)	(0.402)	(0.399)
spline_1	0.007	0.009	0.009
	(0.006)	(0.006)	(0.006)
spline_2	-0.002	-0.002	-0.002
	(0.002)	(0.002)	(0.002)
spline_3	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Constant	-7.854**	-6.335**	-6.593**
	(2.624)	(2.326)	(2.527)
pseudoR-squared	0.223	0.249	0.247
log-pseudolikelihood	-187.8738	-178.6901	-176.3509
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Table 9: Max 2 years of extrapolation of survey points

	(1) Obj HI	(2) Perc HI	(3) Full mod
onsetcivwar			
objective neg HI	0.381		0.099
	(0.656)		(0.749)
objective pos HI	-0.518		-0.011
	(1.035)		(0.867)
perceived neg HI		0.860**	0.835**
		(0.293)	(0.310)
perceived pos HI		-1.597	-1.520
		(1.201)	(1.312)
democracy	-0.328	0.223	0.178
	(0.720)	(0.823)	(0.847)
largest discr group	-5.115	-6.022	-5.905
	(4.338)	(4.823)	(4.921)
ongoing civil war	0.209	0.182	0.150
	(0.396)	(0.372)	(0.401)
ethnic fractionaliz.	2.174*	2.208*	2.200*
	(0.850)	(0.862)	(0.871)
gdp/capita (logged)	-0.894	-1.010*	-0.992
	(0.472)	(0.500)	(0.515)
population (logged)	0.996**	1.014**	1.018**
	(0.364)	(0.351)	(0.365)
Constant	-5.356	-4.770	-4.993
	(2.753)	(2.709)	(2.934)
pseudoR-squared	0.209	0.221	0.217
log-pseudolikelihood	-147.7407	-148.4831	-146.135
N	1074	1087	1071

* p<0.05, ** p<0.01, *** p<0.001

Table 10: Excluding India from analysis

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	1.153		1.030
	(0.762)		(1.141)
objective pos HI	-1.366		-3.780
	(2.000)		(2.311)
perceived neg HI		1.338***	1.367***
		(0.362)	(0.379)
perceived pos HI		-2.396	-1.082
		(2.322)	(2.294)
democracy	-0.647	-0.149	-0.387
	(0.800)	(0.850)	(0.849)
largest discr group	1.116	-1.115	-0.982
	(2.056)	(2.238)	(2.393)
ongoing civil war	0.273	0.023	-0.081
	(0.424)	(0.373)	(0.419)
ethnic fractionaliz.	0.622	0.750	0.705
	(0.599)	(0.703)	(0.689)
gdp/capita (logged)	-0.499	-0.710	-0.718
	(0.428)	(0.454)	(0.452)
population (logged)	0.705*	0.667	0.697*
	(0.334)	(0.356)	(0.311)
Constant	-5.011	-3.469	-1.757
	(3.773)	(3.711)	(4.291)
pseudoR-squared	0.067	0.093	0.100
log-pseudolikelihood	-173.287	-164.701	-159.9009
N	1870	1858	1856

* p<0.05, ** p<0.01, *** p<0.001

Table 11: Excluding Pakistan from analysis (outlier)

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.780		0.409
	(0.696)		(0.925)
objective pos HI	-0.106		-0.476
	(1.069)		(1.004)
perceived neg HI		1.751**	1.654**
		(0.562)	(0.595)
perceived pos HI		-1.752	-1.514
		(1.300)	(1.516)
democracy	0.476	0.937	0.845
	(0.832)	(0.901)	(0.955)
largest discr group	0.452	-2.929	-2.945
	(3.001)	(3.074)	(3.246)
ongoing civil war	0.425	0.222	0.194
	(0.386)	(0.374)	(0.406)
ethnic fractionaliz.	1.177*	1.614*	1.646*
	(0.564)	(0.645)	(0.655)
gdp/capita (logged)	-0.798	-1.062*	-1.048*
	(0.415)	(0.428)	(0.440)
population (logged)	1.143**	1.272***	1.300***
	(0.387)	(0.367)	(0.365)
Constant	-7.906**	-7.242**	-7.487**
	(2.682)	(2.419)	(2.615)
pseudoR-squared	0.182	0.216	0.214
log-pseudolikelihood	-188.5374	-177.7942	-175.3644
N	1877	1865	1863

* p<0.05, ** p<0.01, *** p<0.001

Table 12: Excluding Thailand from analysis (outlier objective negative HI)

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	1.711		1.397
	(0.919)		(1.314)
objective pos HI	-0.910		-0.920
	(1.106)		(1.112)
perceived neg HI		1.019***	0.815*
		(0.297)	(0.338)
perceived pos HI		-1.323	-1.454
		(1.341)	(1.515)
democracy	0.195	0.703	0.525
	(0.700)	(0.781)	(0.816)
largest discr group	-0.446	-3.873	-4.329
	(3.226)	(3.387)	(3.600)
ongoing civil war	0.668	0.384	0.443
	(0.351)	(0.336)	(0.374)
ethnic fractionaliz.	1.383*	1.506*	1.651*
	(0.586)	(0.667)	(0.676)
gdp/capita (logged)	-0.692	-0.992*	-0.974*
	(0.396)	(0.406)	(0.423)
population (logged)	1.157**	1.201**	1.251***
	(0.356)	(0.373)	(0.357)
Constant	-8.471**	-6.559**	-7.088**
	(2.760)	(2.320)	(2.639)
pseudoR-squared	0.194	0.218	0.220
log-pseudolikelihood	-194.5972	-185.7147	-182.4718
N	1884	1872	1870

* p<0.05, ** p<0.01, *** p<0.001

Table 13: Only based on questions with country level categories for income presented to respondent

	(1)Obj HI
onsetcivwar	
objective neg HI	2.468*
	(1.090)
objective pos HI	-2.310
	(1.997)
democracy	-0.072
	(0.760)
largest discr group	0.708
	(3.507)
ongoing	1.073**
	(0.371)
ethfrac	1.493*
	(0.619)
gdppercapitalog	-0.505
	(0.430)
poplog	1.388**
	(0.436)
Constant	-9.681**
	(3.174)
pseudoR-squared	0.220
log-pseudolikelihood	-133.932
N	1428

* p<0.05, ** p<0.01, *** p<0.001

Table 14: Controlling for value of oil & gas production per capita

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.895		0.609
	(0.675)		(0.854)
objective pos HI	-0.083		-0.321
	(1.107)		(0.981)
perceived neg HI		1.053***	0.956**
		(0.292)	(0.307)
perceived pos HI		-1.376	-1.376
		(1.266)	(1.457)
democracy	0.383	0.865	0.766
	(0.700)	(0.751)	(0.784)
largest discr group	0.215	-4.179	-4.193
	(3.278)	(3.803)	(3.911)
ongoing civil war	0.456	0.278	0.242
	(0.360)	(0.342)	(0.364)
ethnic fractionaliz.	1.205*	1.464*	1.517*
	(0.568)	(0.662)	(0.661)
gdp/capita (logged)	-0.865	-1.202**	-1.198**
	(0.447)	(0.441)	(0.465)
population (logged)	1.152**	1.235***	1.263***
	(0.369)	(0.359)	(0.357)
oil_gas_valuepo~2009	0.000	0.000*	0.000*
	(0.000)	(0.000)	(0.000)
Constant	-7.892**	-6.140*	-6.526*
	(2.776)	(2.424)	(2.616)
pseudoR-squared	0.189	0.222	0.221
log-pseudolikelihood	-196.0196	-185.1579	-182.551
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Table 15: Controlling for powersharing

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.992		0.677
	(0.663)		(0.832)
objective pos HI	-0.471		-0.572
	(1.080)		(0.896)
perceived neg HI		0.911**	0.777*
		(0.301)	(0.320)
perceived pos HI		-1.280	-1.142
		(1.362)	(1.489)
democracy	0.262	0.614	0.481
	(0.702)	(0.748)	(0.781)
largest discr group	0.157	-3.935	-3.994
	(3.113)	(3.540)	(3.660)
ongoing civil war	0.503	0.371	0.349
	(0.348)	(0.333)	(0.353)
ethnic fractionaliz.	0.406	0.992	0.929
	(0.662)	(0.667)	(0.686)
gdp/capita (logged)	-0.770*	-1.004**	-0.993*
	(0.365)	(0.387)	(0.398)
population (logged)	1.187**	1.210**	1.249**
	(0.401)	(0.383)	(0.388)
powershare	0.878	0.488	0.609
	(0.466)	(0.430)	(0.462)
Constant	-7.933**	-6.389**	-6.730**
	(2.676)	(2.294)	(2.483)
pseudoR-squared	0.199	0.220	0.220
log-pseudolikelihood	-193.7675	-185.6786	-182.7162
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Table 16: Controlling for world regions

	(1)Obj HI	(2)Perc HI	(3)Full mod
onsetcivwar			
objective neg HI	0.878		0.574
	(0.662)		(0.833)
objective pos HI	-0.076		-0.354
	(1.087)		(0.982)
perceived neg HI		1.025***	0.930**
		(0.293)	(0.320)
perceived pos HI		-1.305	-1.256
		(1.347)	(1.533)
democracy	0.272	0.714	0.614
	(0.746)	(0.805)	(0.846)
largest discr group	0.316	-3.776	-3.750
	(2.974)	(3.391)	(3.459)
ongoing civil war	0.506	0.351	0.318
	(0.347)	(0.332)	(0.352)
ethnic fractionaliz.	1.197*	1.470*	1.511*
	(0.567)	(0.671)	(0.672)
gdp/capita (logged)	-0.734	-0.996*	-0.987*
	(0.396)	(0.404)	(0.421)
population (logged)	1.172**	1.252**	1.282**
	(0.387)	(0.399)	(0.393)
world_region	-0.086	-0.111	-0.119
	(0.162)	(0.181)	(0.184)
Constant	-8.079**	-6.523**	-6.884**
	(2.657)	(2.312)	(2.525)
pseudoR-squared	0.187	0.217	0.216
log-pseudolikelihood	-196.5062	-186.2553	-183.6588
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

Table 17: Controlling for oil/gas value

	(1) Obj HI	(2) Perc HI	(3) Full mod
onsetcivwar			
objective neg HI	0.891		0.604
	(0.660)		(0.833)
objective pos HI	-0.078		-0.371
	(1.091)		(0.995)
perceived neg HI		1.046***	0.953**
		(0.301)	(0.324)
perceived pos HI		-1.286	-1.245
		(1.330)	(1.519)
democracy	0.300	0.767	0.673
	(0.736)	(0.785)	(0.822)
largest discr group	0.395	-3.751	-3.756
	(2.971)	(3.495)	(3.588)
ongoing civil war	0.468	0.290	0.254
	(0.365)	(0.349)	(0.371)
ethnic fractionaliz.	1.223*	1.493*	1.542*
	(0.569)	(0.675)	(0.675)
gdp/capita (logged)	-0.790	-1.104**	-1.107*
	(0.434)	(0.428)	(0.444)
population (logged)	1.126**	1.178**	1.201**
	(0.404)	(0.399)	(0.399)
oil_gas_value_2009	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Constant	-7.963**	-6.236**	-6.569*
	(2.824)	(2.379)	(2.581)
pseudoR-squared	0.187	0.217	0.216
N	1895	1883	1881

* p<0.05, ** p<0.01, *** p<0.001

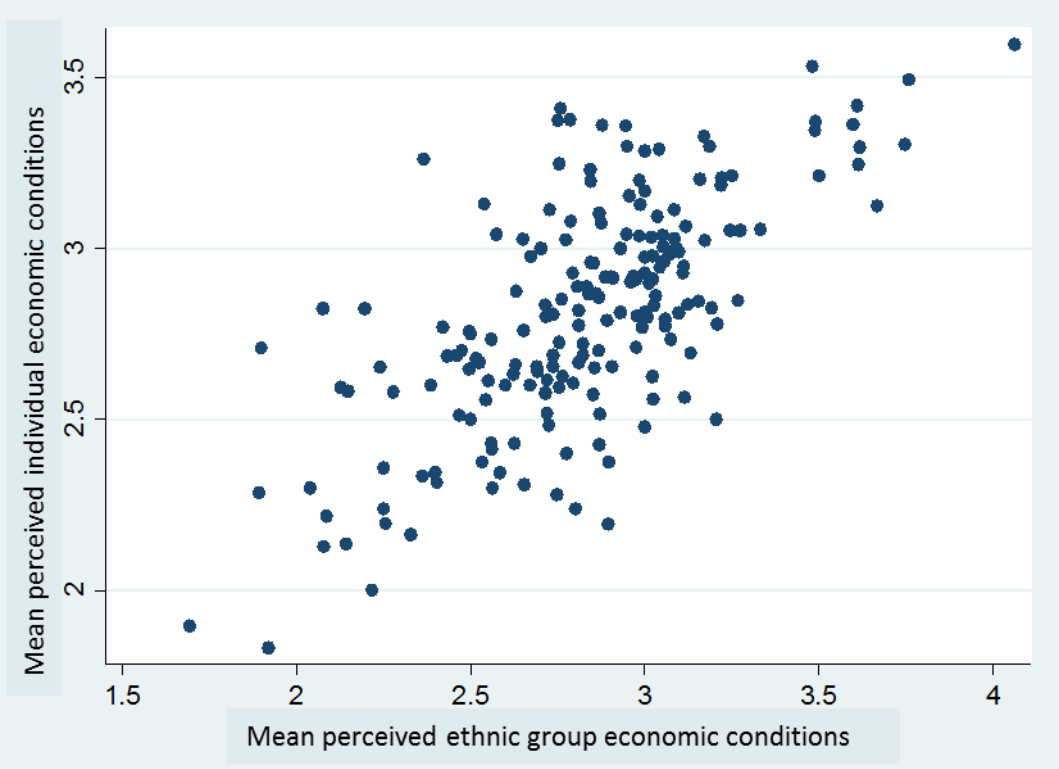
Appendix 2.8.3

Table 18: Correlation Matrix

	onsetc~r	objnhi	objphi	percnhi	percphi	democr~y	ldg	ongoing	ethfrac	gdpper~g	poplog
onsetcivwar	1.0000										
objnhi	0.0439	1.0000									
objphi	0.1203	0.4934	1.0000								
percnhi	0.1149	0.4099	0.3591	1.0000							
percphi	0.1111	0.4553	0.5527	0.5283	1.0000						
democracy	-0.0279	-0.0462	-0.1292	-0.3028	-0.1738	1.0000					
ldg	-0.0188	0.1541	0.0983	0.1035	0.0992	-0.2378	1.0000				
ongoing	0.1564	0.0474	0.2206	0.0575	0.0938	-0.0089	0.0744	1.0000			
ethfrac	0.1436	0.0541	0.2103	0.1272	0.1965	-0.1313	-0.0191	0.2669	1.0000		
gdppercapi~g	-0.1399	-0.1301	-0.3035	-0.3194	-0.3830	0.5110	-0.0948	-0.2603	-0.4509	1.0000	
poplog	0.1875	0.0567	0.2814	0.0657	0.0849	-0.0165	-0.1507	0.3270	0.0780	-0.1433	1.0000

Appendix 2.8.4

Figure 9. Scatterplot correlation between mean perceived *individual* economic conditions per region and mean perceived *ethnic group* economic conditions per region, 18 African countries, Afrobarometer Surveys round 3



3 Injustice is in the eye of the beholder: Perceived Horizontal Inequalities and Communal Conflict in Africa

Abstract

Ethnic conflict between non-state groups – or communal conflict – now claims far more lives than civil war in several Sub-Saharan African countries. Still, cross-country analyses of the causes of such clashes are mostly absent. Further, while conflict scholars widely accept that perceptions of inequality drive mobilization, existing studies generally base their analyses on objective data. In this study I contribute to filling these gaps, and find evidence that objective political ethnic inequality, and more so perceived political ethnic inequality, is a strong driver of communal conflict. My analysis further suggests that the presence of ethnic groups that are both objectively and subjectively economically deprived is also highly conflict inducing. I use cross-sectional data from Afrobarometer Surveys covering 20 Sub-Saharan African countries and 200 subnational regions. However, my results have implications for conflict studies in general, suggesting a needed change from analysing structural background patterns alone, to taking into account how these are perceived by group members.

3.1 Introduction

The global number of conflict between ethnic groups where none of the parties are the state – often referred to as communal conflict – now exceeds that of civil wars (Sundberg and Melander 2013). The rise of such conflicts is particularly strong in Sub-Saharan Africa, where, for many people, the largest threat of political violence comes from clashes between local communities (Fjelde and Østby 2014). Despite this, quantitative studies have largely neglected this type of conflict. As a consequence, we have only limited knowledge on why most ethnic groups live peacefully side by side (see Fearon and Laitin 1996), while some clash.

In this paper I address this gap, and investigate under which conditions ethnic groups resort to violence. Based on a disaggregated analysis of 200 subnational regions I argue that regions with high levels of perceived ethnic inequality have a higher risk of experiencing a communal conflict outbreak than regions where a perception of ethnic equality prevails. As point of departure I take recent theoretical developments on group – or horizontal inequalities and conflict. Spearheaded by Frances Stewart (2002, 2008, 2010), the core argument in this work is that ethnicity – or other salient identity markers – becomes a mobilization resource when it overlaps with economic, social or political inequalities. This theoretical perspective has given rise to several quantitative studies supporting the role of horizontal inequalities in inducing conflict (e.g. Buhaug, Cederman, and Gleditsch 2014, Cederman, Gleditsch, and Buhaug 2013, Cederman, Weidmann, and Bormann 2015, Cederman, Weidmann, and Gleditsch 2011, Østby 2008b).

While all these studies look at civil war, the theory as such was developed to account for a wide array of political violence – including communal conflict (Stewart 2002, 2008). Case examples of communal conflict rooted in grievances linked to horizontal inequalities are also rife, and include electoral conflicts in Kenya, conflicts on access to land in Kenya, Nigeria and Uganda, and conflicts on access to petroleum revenues in Nigeria. Regardless of this, cross-country quantitative analyses of the communal conflict/horizontal inequalities link are mostly absent. One exception is Fjelde and Østby (2014), who find that ethnic economic inequality significantly increases the risk of communal conflict in Sub-Saharan Africa. But ethnic groups do not fight over economic resources alone. As most prominently set forth by Horowitz (1985, 186),

reducing the threat of being dominated by another group, and securing the group's 'worth and place' – might constitute an even stronger motive for violent collective action. This relationship between political ethnic inequality and communal conflict has to the best of my knowledge not yet been quantitatively investigated, and doing so is the first main contribution of this paper.

Next, central to the analyses in all existing quantitative studies is a stipulated casual chain where *objective* horizontal inequalities – economic, social or political – are translated into grievances, which in turn form a mobilization resource. Cederman, Weidmann and Gleditsch (2011, 481), for instance, recognize that 'grievances are intersubjectively perceived phenomena' – as opposed to objective horizontal inequalities. However, instead of operationalizing perceptions, they measure objective horizontal inequalities and construct theoretical mechanisms linking these via grievances to mobilization for violence. To do this they draw on the broad literature within social psychology on social and intergroup comparison (e.g. Abrams and Hogg 1988, Tajfel and Turner 1979). The suggested mechanisms in the causal chain are well founded and plausible. This paper nonetheless argues that a measure capturing the perception of horizontal inequalities constitutes a much better test of the grievance mechanism. Such a direct test is the second contribution of this paper. The fact that there are large discrepancies between objective and perceived horizontal inequalities makes this all the more important (see e.g. Holmqvist 2012, Langer and Smedts 2013).

I base my analyses on repeated cross-sectional data from the Afrobarometer Surveys covering 20 Sub-Saharan African countries and 200 subnational regions for the period 1999-2009. The results first and foremost support that horizontal inequalities between ethnic groups increase the risk of communal conflict. The effect is by far strongest for perceived political inequalities. Regions with a high share of people perceiving their ethnic group to be politically disadvantaged have a substantial and significantly increased risk of communal conflict. This resonates with findings from the civil war studies, which generally find political inequalities to be the most conflict inducing (see e.g. Cederman, Gleditsch, and Buhaug 2013). O*bjective and perceived economic* ethnic inequality does not seem to have a similar overall effect. However, when *perceived economic* ethnic inequality overlaps with objective economic ethnic inequality, there is a significant and substantial increased risk of communal conflict outbreak.

While my argument is tested on 20 African countries, there are reasons to believe that horizontal inequalities matter for communal conflict elsewhere as well. Horizontal inequality theory is not limited to certain countries, and has proven to have strong explanatory power on civil war on a global scale. As demonstrated in Chapter 2, discrepancies between objective and perceived horizontal inequalities also exist in other parts of the world. This has implications for the study of inequality and social outcomes in general, as people act on perceptions rather than objective facts, and still it is the latter that have received most attention.

I begin with a brief review of the literature on ethnic conflict. I then proceed by presenting my theoretical framework by first linking horizontal inequalities and communal conflict, and then discussing why perceived inequality is important. Following this I develop testable hypotheses and outline the research design. In the result section I test the hypotheses and conduct a range of robustness checks. I then conclude, and argue, first, that horizontal inequalities drive communal conflict, and second, that in order to better understand when this happens, the group members' subjective view on the group's relative economic and political situation will have to be taken into account.

3.2 Ethnic conflict - status of knowledge

Theoretical explanations of the persistence of ethnic conflict can broadly be divided into primordialist, instrumentalist and constructivist perspectives (Young 1993, Wolff 2006). Primordialist accounts see ethnicity as a fixed, inherited characteristic, and conflict as a result of nature given ethnic differences (see e.g. Geertz 1963, Connor 1993). Most critiques of this work emphasize the static view of ethnicity and the lack of ability to explain why some ethnic groups live peacefully side by side whereas others do not (see e.g. McKay 1982). Instrumentalists, on the other hand, see ethnicity as fully socially and politically constructed by elites as a means to mobilize their followers (e.g. Rothschild 1981). Combining these views, constructivists regard ethnicity as partly inherited and partly constructed and chosen (e.g. Anderson 1991). While ethnic boundaries are fluid rather than permanent, the reshaping of identities carries a substantial cost, making ethnic groups fairly stable (Bates 2008). Furthermore, people

can become convinced about the essential nature of their identity, making mobilization by identity viable (Stewart 2008, 10).

The theory of horizontal inequalities and conflict is rooted in the constructivist tradition. Building on the work of conflict scholars emphasizing grievances among the relatively disadvantaged in society as a key underlying cause of conflict (e.g. Davies 1962, Gurr 1970, 1993a, 2000, Horowitz 1985), as well as social identity theory (Tajfel and Turner 1979), Stewart emphasizes the group aspect of conflict. She defines horizontal inequalities as 'inequalities in economic, social or political dimensions or cultural status between culturally defined groups' (Stewart 2008, 3). When inequalities and cultural differences overlap, they become a powerful mobilizing resource (Stewart 2002).

Several quantitative studies now give strong support to Stewart's theory by finding an association between economic and/or political horizontal inequalities and conflict outbreak. The economic studies can broadly be divided into two camps. One strand proxies economic inequality by inter-group variation in the possession of certain household assets, such as a TV, refrigerator, electricity etc. (e.g. Fjelde and Østby 2014, Østby 2008a, b, Østby, Nordås, and Rød 2009). Another strand relies on Nordhaus' (2006) G-econ dataset on local economic activity giving a regional equivalent of gross domestic product (e.g. Buhaug, Cederman, and Gleditsch 2014, Cederman, Gleditsch, and Buhaug 2013, Cederman, Weidmann, and Gleditsch 2011, Deiwiks, Cederman, and Gleditsch 2012). Along the political dimension, studies analyze the effect of the presence of ethnic groups that are excluded from political power on the risk of conflict (e.g. Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013, Deiwiks, Cederman, and Gleditsch 2012, Østby 2008a). Common to all these studies is that they analyze objective statistical data, but not the way these facts are actually perceived by those who mobilize. Also, with the exception of Fjelde and Østby (2014), who look at communal conflict outbreak, all the above mentioned quantitative studies analyze civil war.

Case studies of communal conflict, on the other hand, are not lacking, and tend to emphasize competition over scarce resources (e.g. Fjelde and von Uexkull 2012), and, with much evidence drawn from India and Indonesia, the role of elites in manipulating existing ethnic tensions to manifest their own power (e.g. Brass 1997, Wilkinson 2004). Particularly this last strand of the literature adds importance to using measures of

perceived inequality rather than objective, since perceptions are much more likely to capture the effects of deliberate political mobilization and use of ethnic inequality, than objective figures.

3.3 Horizontal inequalities and communal conflict

Despite the fact that violent clashes between groups now constitute the most prevalent and lethal type of political violence in many countries in Sub-Saharan Africa[37] (Sundberg and Melander 2013), communal conflicts remain understudied by quantitative scholars. This is surprising, especially since the underlying theories of mobilization accounts for the full spectrum of political violence (see e.g. Gurr 1970, Stewart 2008), and empirical studies find that similar causal mechanisms and explanatory variables appear across quite different forms of collective violence (Cunningham and Lemke 2011, Tarrow, Tilly, and McAdam 2001, Tarrow 2007, Tilly 2003).

The focus on civil war is rooted in an intuitive logic: the state controls access to resources, thus the state will be the target of groups seeking to rectify unequal distribution. This logic does however neglect the fact that groups that perceive themselves to be treated unfairly might choose to attack the groups that hold the relevant resources directly (Fjelde and Østby 2014). This is particularly relevant for Sub-Saharan Africa, where political power often follows ethnic lines, and political elites have incentives to favor co-ethnics when distributing resources in order to secure their support (Wimmer 1997, Wimmer, Cederman, and Min 2009). In addition, targeting a territorially proximate group might be seen as less costly and be judged to have a higher likelihood of success than targeting the government directly (Fjelde and Østby 2014).

Examples of such dynamics are plentiful. In Kenya, communal conflict between various ethnic groups erupted amid claims of electoral fraud in 2007. During the electoral campaign, many candidates had promised access to land to their constituency. The perception of a stolen election made people see their access to land as taken from them. However, rather than attacking the government directly, the aggrieved groups directed their anger towards the group perceived to have supported the president – the Kikuyu (UCDP). In Nigeria's Niger Delta, conflict between ethnic groups who dispute access to

[37] Examples include Ghana, Kenya and Nigeria.

petroleum revenues has been rising steadily since 1999. While the federal government has clear criteria of sharing revenue to oil producing states, these states in turn lack criteria for sharing to the various communities within the region. This has resulted in numerous violent clashes between ethnic groups who claim they do not receive their fair share of the windfalls (Akpan 2010). In line with these examples, recent quantitative studies do find a link between horizontal inequalities and communal violence. Fjelde and Østby (2014) find a robust association between communal conflict and economic ethnic inequality in Sub-Saharan Africa. Similarly, Mancini (2008) finds a significant association between socioeconomic ethnic inequality, measured by child mortality rates, and ethno-communal conflict in Indonesia. On the other hand, Østby et al. (2011) find that higher levels of inequality between religious groups in Indonesia only increases the risk of ethno-communal and secessionist conflict in provinces with high population growth.

All these studies are limited to the economic dimension of inequality. This focus on economic considerations ignores how the qualitative literature identifies factors such as humiliation, pride and desire for affiliation as motives for action (Stewart 2010). Several studies highlight how collective action is facilitated by a leader's charisma, group ideology, outrage over governmental repression or simply satisfaction in pursuing justice (Roemer 1985, Wood 2003). Furthermore, behavioral and experimental economic research presents growing lab evidence that individuals have a willingness to punish unfair behavior at quite high cost (Blattman and Miguel 2010). The importance of political over economic motivations is perhaps most forcefully advanced by Horowitz (1985) in his classic work on ethnic groups in conflict. Emphasizing the psychological determinants of conflict, he argues that the threat of domination by a rival group – a fear of subordination and in the most extreme cases survival – create a powerful motive to mobilize. In line with this, quantitative studies find stronger effects of political exclusion of ethnic groups on risks of civil war than of ethnic economic inequality. (Cederman, Gleditsch, and Buhaug 2013, Østby 2008a). Yet, the effect of political ethnic inequality on communal conflict remains untested.

3.4 Perceptions – the missing link in empirical analyses of conflict outbreak

> *Relative Deprivation* (RD) is defined as actors' perception of discrepancy between their value expectations and their value capabilities. (..) The emphasis of the hypothesis is on the perception of deprivation; people may be subjectively deprived with reference to their expectations even though an objective observer might not judge them to be in want. Similarly, the existence of (..) "absolute deprivation" is not necessarily thought to be unjust or irredeemable by those who experience it. (Gurr 1970/2011, 24)

In line with this clear emphasis by one of the most influential theorists on inequality and conflict, conflict scholars widely accept the importance of perceptions of inequality for mobilization. For instance, Han et al. (2012) argue that experiences and perceptions of inequalities potentially constitute one of the crucial mechanisms linking actual inequality to a range of social outcomes such as civic and political participation. Stewart (2010, 4) concurs stating that '(i)t is of course, perceptions which motivate people to action'.

Turning to quantitative studies of horizontal inequalities and conflict, Cederman, Weidmann and Gleditsch (2011) and Cederman, Gleditsch and Buhaug (2013) construct a causal chain where perceptions are instrumental in transforming structural – or objective – horizontal inequalities into grievances, which again form the mobilization resource. As they concede, their causal mechanisms are theoretical interpolations, and they are not able to provide direct evidence of their operations, since they by-pass the grievances and test the effect of objective horizontal inequalities on violent collective action. A similar causal chain and logic underpin the remaining quantitative studies. But clearly, we can have more confidence in the suggested underlying causal mechanism if we are able to analyse the 'missing link' by incorporating directly measures of perceived inequalities.

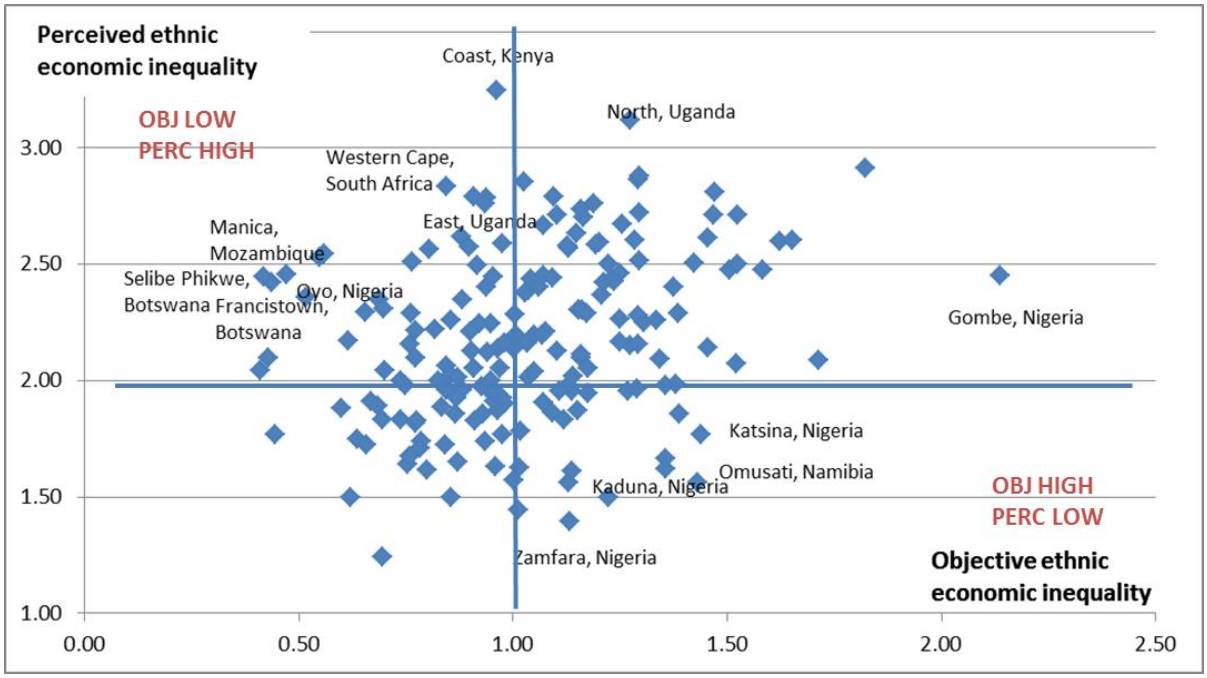
The use of objective horizontal inequalities in current studies is commonly based on the assumption that 'perceptions broadly reflect the observed reality' (Stewart 2008, 18). This assumption is however not supported by empirical studies. Langer and Mikami (2013) find large discrepancies between subjective and objective socio-economic horizontal inequalities in five African countries. In a more comprehensive empirical

analysis of 19 African countries, Langer and Smedts (2013) actually find a negative association between objective and perceived economic ethnic inequality. On the other hand, Holmquist (2012, 25), covering the same African countries, demonstrates that actual group 'disadvantages' do tend to translate into perceptions, with all correlations having the expected sign. Still, the correlations are by no means perfect – ranging from 0.27 to 0.33 for different indicators, and several striking exceptions are revealed.

Comparing measures for objective and perceived horizontal inequalities based on the Afrobarometer Surveys round 4 gives results similar to those of Holmquist. Figure 10 below shows the relationship between perceived and objective economic ethnic inequality. Perceived economic ethnic inequality measures the share of the respondents in the biggest ethnic group in each subnational region who find that their group is much better off (0), better off (1), equal to (2) worse (3) or much worse off (4) economically than other groups in the country. The figure shown is the mean for each group, so a mean of 2 reflects a perception of equality, less than 2 a perception of privilege, and more than 2 a perception of deprivation. The objective measure is the average basic needs variable for the biggest ethnic group in the region divided by the basic needs variable for the rest of the country[38]. Here, 0 means that the group is on the country average, whereas higher measures means it is worse off, and lower measures means it is better off. From the figure we can clearly see that there is a substantial difference between perceived and objective economic horizontal inequalities. For instance, the Mijikenda People in the Coast region of Kenya have a high feeling of economic deprivation, while according to the basic needs variable, they are slightly better off than the country average. Similarly, the Hausa in Katsina, Nigeria, perceive themselves to be privileged, while the basic needs variable places them among the most deprived groups in the country.

[38] The basic needs variable is calculated based on how often the respondents have gone without food, clean water, health care, fuel and an income. See the Research Design Section for more details.

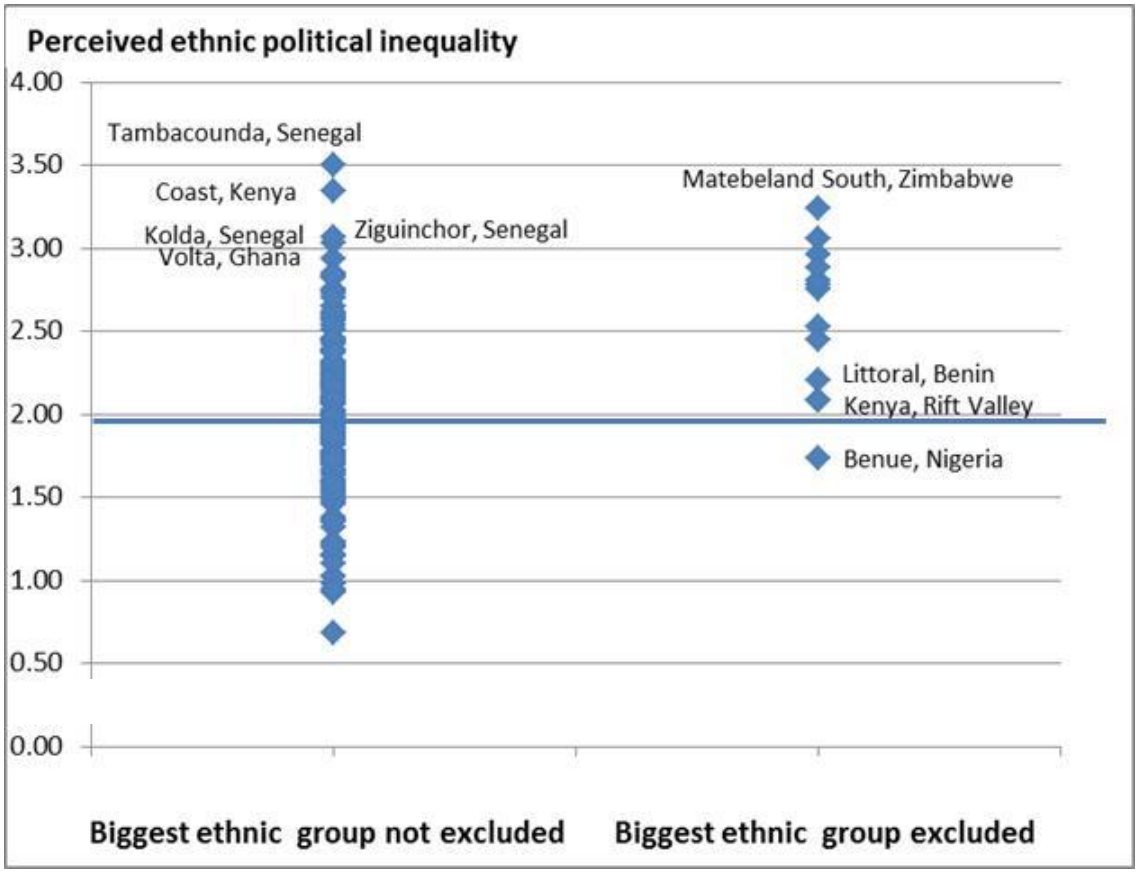
Figure 10. Correlation between perceived and objective economic ethnic inequality in subnational regions, 19 SSA countries, 2008/2009



Source: Afrobarometer round 4. Regions with less than 20 respondents for the biggest ethnic group are excluded

Turning to the political dimension, Figure 11 shows perceived political ethnic inequality for the biggest ethnic group in each region, calculated similarly to the economic measure, and whether this group is politically excluded or not – according to the Ethnic Power Relations (EPR) dataset (Wimmer, Cederman, and Min 2009). Once more substantial discrepancies are revealed. For instance, the Mandingue in Tambacounda, Senegal, have a very high perception of being deprived of political influence, while according to the EPR there is no objective exclusion. On the other hand, the Tiv in Benue, Nigeria, perceive their group to be politically influential despite an objective exclusion from power.

Figure 11. Perception of political deprivation among group members in objectively non-excluded and excluded ethnic groups, subnational regions, 19 SSA countries, 2008/2009



Source: Afrobarometer Round 4, EPR. Regions with less than 20 respondents for the biggest ethnic group are excluded

Some argue that political horizontal inequalities are more visible than economic (e.g. Langer and Smedts 2013). It is indeed likely that group members are more aware of an objective exclusion from power, as opposed to the correct relative economic position of the group – particularly given the poor data on the latter. In light of this, it is perhaps surprising that the discrepancy between objective and perceived political ethnic inequality is of such a magnitude as portrayed in Figure 11. These discrepancies are however fully in line with the conclusions of Miodownik and Nir (2015, 24). Cross-tabulating exclusion from power with subjective perceptions of exclusion based on Afrobarometer Round 3, they find that 'fully 35 percent of the respondents misperceive their group's political status'.

Turning to the roots of such disparities, existing work on why objective and perceived inequality may differ particularly highlight how leaders and elites are able to manipulate perceptions as a tool to mobilize their followers (Brown and Langer 2010, Langer and

Mikami 2013). Further factors include lack of or inaccurate information, social norms and ideologies and size of the group (Han et al. 2012, Langer and Mikami 2013, Langer and Smedts 2013), prior expectations (Nisbett and Ross 1980) and the introduction of competition with other groups for resources (Robinson 1983).

These studies mostly look at the difference between objective and perceived *economic* horizontal inequalities. However, some of the identified factors are likely to affect political inequalities as well. In addition, emerging work on the relationship between governance and conflict highlight that rather than the formal level of democracy, the quality of the political work also determines how people judge 'good governance'. In other words, the rules regulating elections, and how citizens participate in this selection, may in some instances matter less than how the elected candidates perform their tasks. The quality of their work, the extent of corruption, and the policies chosen in the end determine how citizens judge governance, and in turn the governments' ability to avoid political violence (Hegre and Nygård 2015, 985).

While there is no obvious pattern in the discrepancies between perceived and objective inequality, the empirical data clearly suggests that the two measures are too far apart to be used as proxies for each other. Despite this, quantitative research on perceptions of inequality and conflict is close to non-existent. I'm only aware of two exceptions: Rustad (2016), who find that perceived economic inequalities matters more than observed in explaining *attitudes* towards violence, and Miodownik and Nir (2015), who find that high perceived economic and political ethnic inequality is related to higher *acceptance* of political violence and *participation in protest marches*. While Rustad's analysis is restricted to the Niger Delta, Miodownik and Nir analyse 13 countries covered by Afrobarometer Survey round 3. Fully in line with the empirical evidence presented in this section, they too find large discrepancies between objective and perceived horizontal inequalities.

In summary, there is a mismatch between the theories of conflict, which highlight that people and groups will only act to address *perceived* inequalities, and empirical studies analysing objective inequalities. Furthermore, since objective and perceived horizontal inequalities differ, measures taking into account perceptions will allow for a better and more precise test of whether grievances induce conflict.

3.5 Hypotheses on the association between horizontal ethnic inequalities and communal conflict outbreak

I now proceed to develop testable hypotheses on the effect of objective and perceived horizontal inequalities on the risk of communal conflict outbreak. I do this first for the economic dimension, and then for the political dimension.

3.5.1 *Economic ethnic inequality and communal conflict*

Quantitative studies confirm a positive relationship between ethnic economic inequalities and civil conflict outbreak, although the results are somewhat mixed (Cederman, Weidmann, and Gleditsch 2011, Deiwiks, Cederman, and Gleditsch 2012, but see Østby 2008b). As demonstrated by Fjelde and Østby (2014), this relationship is valid also for the outbreak of communal violence. Central to the analyses in this paper is the logic that although a given ethnic group might dispute the way the national government are distributing resources, they might chose to attack a neighboring ethnic group – perceived to be linked to the government – directly, rather than the government itself.

While the main focus is the role of perceived horizontal inequalities, the intention is not to claim that objective horizontal inequalities have no relevance. Hence, the first hypothesis will test the effect of objective ethnic economic inequality on conflict outbreak.

While ideally I should have a measure taking into account the overall objective ethnic inequality in each region, only the biggest ethnic group has sufficient respondents in the Afrobarometer Surveys to be analyzed[39]. Looking at only the biggest ethnic group can to some extent be defended by the fact that size affects the ability to mobilize, making the smaller groups less relevant (Cederman, Gleditsch, and Buhaug 2013, Posner 2004). Fjelde and Østby (2014) do the same in their analysis. Hence:

> *H1: The more economically deprived the largest ethnic group in a region, the higher the risk of regional communal conflict outbreak*

The second hypothesis follows from the previous section on perceptions:

[39] See Research Design Section, under Independent Variable, for further information on number of respondents.

H2: The more the largest ethnic group in a region is perceived by its members to be economically deprived, the higher the risk of regional communal conflict outbreak

Finally, as noted above, the literature on why objective and perceived horizontal inequalities may differ particularly highlight the effect of elite manipulation. The emphasis on elite influence resonates with the social movements and framing literature, which generally argue that people are less likely to react on existing asymmetries, and to rise up collectively to rectify them, without some degree of elite intervention (Benford and Snow 2000, Brass 1991). By establishing so-called collective action frames, which constitute a shared understanding of a problem, who's to blame for it, and a call for collective action to rectify it (Benford and Snow 2000, 614), elites are able to garner widespread support for mobilization. However, empirical evidence also show that the effectiveness of collective action frames in creating mobilization varies, and that one important success-factor is to which extent the frame resonates with the population. This resonance in turn increases with the credibility of the frame and its relative salience. The closer to reality the frame is, and the more important it is to the population in question, the higher the success rate (Benford and Snow 2000). It follows from these empirical findings that one should expect the conflict potential of horizontal inequalities to be highest where objective and perceived inequalities run in the same direction:

H3: Regions in which both objective and perceived ethnic economic inequalities run in the same direction have an increased risk of communal conflict outbreak

3.5.2 Political ethnic inequality and communal conflict

According to Horowitz' (1985), political inequality between groups should create a stronger motivation for mobilization than economic inequality, since political inequality in the most extreme sense threatens a group's existence. Results from studies of civil war and political exclusion back such an argument (see e.g. Cederman, Gleditsch, and Buhaug 2013, Østby 2008a). Horowitz' argument is not limited to civil war, however. It is perfectly plausible that a group feels subordinated and threatened by a neighboring group and acts to improve their relative position. Also, as argued above, groups subject to inequality might mobilize against a neighboring ethnic group perceived to have links with the government. I therefore propose a third hypothesis:

H4: Regions with politically excluded ethnic groups have an increased risk of communal conflict outbreak

Furthermore, following this papers contribution highlighting the role of perceptions:

H5: The higher the level of respondents in a region perceiving their ethnic group to have less political influence than other groups, the higher the risk of regional communal conflict outbreak

And finally given the noted success of leadership intervention when the suggested framing overlaps with reality:

H6: Regions in which both objective and perceived ethnic political inequalities run in the same direction have an increased risk of communal conflict outbreak

3.6 Data and Research Design

Lack of data is likely to have impeded cross-country analyses of both perceptions of inequality as well as communal conflict. However, the Afrobarometer Surveys include questions on both objective and perceived inequalities, and also specifically on perceived group inequalities. This data hence constitutes the best available source to test the link between perceptions and conflict. The surveys have been conducted in four rounds: Round 1 in 1999-2001 (12 countries), round 2 in 2002-2003 (16 countries), round 3 in 2005-2006 (18 countries) and round 4 in 2008-2009 (20 countries)[40]. A full list of surveys and countries is given in appendix 3.9.1. As can be seen from this list, it does not constitute a random sample of countries. Several of the most conflict ridden countries in Sub-Saharan Africa, such as The Democratic Republic of Congo, are not covered. The data is thus not representative for the entire Sub-Saharan Africa. However, the countries included experienced 70% of all communal conflict incidents in Sub-Saharan Africa in the period 1989-2010 (Sundberg and Melander 2013). Furthermore, Africa was home to around 60% of the world's communal conflict incidents from 1989 to 2014 (Sundberg, Eck, and Kreutz 2012). Hence, with quantitative studies of horizontal inequalities and communal conflict largely missing in general, and totally lacking for perceived horizontal inequalities, this study provide a better basis for generalizations than extant literature. Another thing to keep in mind is that, if poor and

[40] Round 5 of the Afrobarometer Surveys unfortunately do not include the questions used in my analyses.

missing data is non-randomly linked to conflict ridden societies, which is likely to be the case, analyses of the link between inequality and conflict will have a bias towards inferring the link as weaker than it actually is (Gates 2004).

The Afrobarometer Surveys were initiated by Michigan State University, but the administration has now been passed on to Ghana's Center for Democratic Development. They adhere to rigorous sampling procedures, with stratification on subnational regions and random sampling within these regions[41]. Some regions do however have very few respondents. I censor those with less than 20, and run additional robustness tests where I only include regions with more than 40 respondents. While the results are robust to these tests, even 40 respondents may pose a threat to regional representativity. Once more, generalizations should be done with caution.

To test the hypotheses presented above, I apply a logistic regression model on repeated cross sections from the Afrobarometer Surveys as well as on the UCDP Georeferenced Event Dataset v.1.5-2011 (UCDP GED) (Sundberg and Melander 2013, Sundberg, Lindgren, and Padskocimaite 2010). Wealth, income distribution and political influence tend to vary considerably within countries (Fjelde and Østby 2014), and many conflicts have been demonstrated to have local roots (Kalyvas 2006). Furthermore, communal conflicts rarely affect the whole country. Hence the unit of analysis is region-years, with region being the first-level administrative units in the countries[42]. I combine the Afrobarometer and the UCDP GED datasets by matching region names ('region' in Afrobarometer, 'adm1' in GED). Some of the conflict incidents in GED did not have an 'adm1' variable. For these, I used the variable 'where_location'. Finally, 18 communal conflict incidents did not have neither 'adm1' nor 'where_location' identified. These conflict incidents are not included in the analyses.

3.6.1 Dependent variable

The dependent variable is communal conflict, using non-state conflict outbreak data as collected by the UCDP GED, and defined as 'violence between actors of which neither party is the government of a state' (Sundberg and Melander 2013, 525). UCDP GED

[41] See http://www.afrobarometer.org/survey-and-methods/sampling-principles for more information.
[42] The Afrobarometer Surveys also include information on the District of each respondent. Wig and Tollefsen (2016), for instance, use a district level analysis of Afrobarometer data to study the effect of local institutions on conflict. I keep to the regional level, however, in order to not further reduce the number of respondents per unit of analysis.

tracks events, and such events are only included if they – at some point in time for the given conflict – reach a threshold of 25 battle related deaths in one year.

For the 20 countries and 200 subnational regions covered by the study, there are altogether 572 regional non-state conflict events in the period 1999-2010. A close look at each event reveals that every single one has an 'ethnic' aspect. While 431 are clashes between named ethnic groups, 116 denote conflict between supporters of different political parties. Of these, for every case at least one of the political parties represents an ethnic group. Finally, 25 of the events are termed as religious conflict by the UCDP GED. All these conflicts are between Christians and Muslims in Nigeria. As UCDP notes, they are a part of a broader context of ethnic and religious tensions, and a majority of the 200 ethno-linguistic groups in Nigeria adhere to either Christianity or Islam. Religious identity should hence be 'seen as one of many and possibly overlapping identities' (UCDP Conflict Data Program). As ethnicity is stated as the main identity for the majority of the respondents in the most affected Nigerian regions (Afrobarometer round 2, author's calculations), no changes have been made to the original dataset. However, only 6 of the 25 are separate annual events. The analyses are rerun for a dataset without these 6 incidents as part of the robustness checks.

The dependent variable is coded with the value 1 for years with a communal conflict outbreak, and 0 otherwise. Since many of the regions experience several events – either of the same conflict or of different conflicts – within a year, and consecutive years of the same conflict is coded as missing, and finally, not all region-years have data on perceived ethnic inequality, the total number of regionyear conflict events is 61.

3.6.2 Independent variables

The measures for objective and perceived economic and perceived political ethnic inequality are based on Afrobarometer Survey data. The indicator for objective economic horizontal inequalities to test Hypothesis 1 is a basic needs variable generated based on the question 'Over the past year, how often, if ever, have you or anyone in your family gone without food/clean water/fuel/medicine/an income'[43]:

[43] Ideally, this measure should have been based on a more objective variable, such as asset ownership. However, the Afrobarometer Surveys only include questions on asset ownership in Round 3 and 4. I therefore use the basic needs variable instead, recognizing that it does hinge on subjective recollections. Importantly, Langer and Mikami (2013) compare *asset* based and *basic needs* based measures of economic ethnic inequality with data from Afrobarometer Round 3, and show that they largely overlap,

$$Obj\_ec\_HI = g/G$$

where g is the average basic needs variable for the biggest ethnic group in the region, and G is the basic needs variable for the rest of the country. Groups that have a score equal to the country average have a value of 1, and groups twice as poor as the country average have a value of 2. The choice of looking only at the biggest ethnic group in each region is taken to minimize issues of representativity, since many of the smaller groups have far too few respondents. This approach is in line with that of Fjelde and Østby (2014). As already noted, a few of the regions have very few respondents even for the biggest ethnic groups. Regions with less than 20 respondents for the relevant group have been coded as missing[44].

The question 'Think about the condition of [respondent's ethnic group]. Are their economic conditions worse, the same as, or better than other groups in this country?' is used to create measures of perceived economic ethnic inequality (Hypotheses 2). The response categories are much better (0), better (1), same (2), worse (3) and much worse (4). The numbers in parenthesis are assigned, and the measure is the mean figure for all the respondents in the biggest ethnic group in the region.

I interpolate and extrapolate data between and after survey points. Extrapolations are not done back in time, and are limited to four years after the survey year. This is conservative compared to extant studies, who generally argue that objective horizontal inequalities is characterized by a high level of inertia (see e.g. Stewart and Langer 2008, Tilly 1999), and consequently rely on extensive extrapolations. However, perceptions of inequality are far more prone to change than objective inequalities (see e.g. Langer and Mikami 2013), and this logically limit the time frame in which extrapolation is appropriate. To be even more prudent, the models are re-run with a dataset where the data from each survey is taken to be valid for a maximum of two years as part of the robustness checks. To avoid serious endogeneity issues I ensure that all data is gathered before any communal conflict outbreak in the region. Survey data

and that both measures are very much in line with other available data on the socio-economic situation of the given ethnic groups.

[44] The average number of respondents per ethnic group is 80. See appendix 3.9.2 for an overview of the biggest ethnic group per region.

gathered in a conflict year *after* the conflict outbreak is never used to analyze this conflict, but rather moved to the year after[45].

To test Hypothesis 4, objective political ethnic inequality is set to 1 if there are politically excluded ethnic groups in the region, and 0 if not – based on the Ethnic Power Relations (EPR) dataset. EPR identifies all politically relevant ethnic groups and their access to state power (Cederman, Wimmer, and Min 2010). Fjelde and von Uexkull (2012) have coupled this data with geographical information about the regional base and settlement patterns for each ethnic group included the EPR dataset using the GeoEPR dataset (Wucherpfennig et al. 2011), and constructed a dummy variable for political exclusion per region based on this. This data is used in the analyses.

The measures for perceived political ethnic inequality are constructed the same way as the perceived economic measures, with the question this time being 'Think about the condition of [respondent's ethnic group]. Do they have less, the same, or more influence in politics than other groups in this country?' (Hypotheses 5).

Finally, I create an interaction term between objective and perceived economic ethnic inequality and between objective and perceived political inequality to test Hypotheses 3 and 6, respectively.

3.6.3 Control variables and statistical model

The most robust findings in the conflict literature indicate an association between high population, poverty and previous conflict and conflict outbreak (Hegre and Sambanis 2006). Controls for all these factors are included, in terms of the log of regional population lagged one year, the log of regional per capita GDP lagged one year, and a variable counting the number of peaceyears since the last conflict – including civil, communal and one-sided conflict. Regional population data stems from the Gridded Population of the World database from Columbia University (CIESIN, FAO, and CIAT 2005), while regional GDP per capita is taken from Nordhaus (2006). I control for time dependencies by using three cubic splines based on a peaceyears variable (Beck, Katz, and Tucker 1998) which in turn is based on the UCDP GED dataset. To control for spatial dependencies, a dummy variable is set to 1 if there was communal conflict within 150 km of the region the year before, and 0 if not, the data taken from Fjelde and

[45] This is done by comparing the conflict start date in the UCDP GED to the survey interview time period reported for each country.

von Uexkull (2012). Natural resources combined with horizontal inequalities have a demonstrated effect on the risk of civil conflict outbreak, but the effect on communal violence remains untested. There are however clear examples of horizontal inequalities and natural resources leading to communal violence, such as in the Niger Delta. To cater for the effect of natural resources, a dummy variable is set to 1 if there are commercial oil or diamond resources in the region, and 0 if not. The data has been compiled by combining information from The Petroleum Dataset (Thieme, Lujala, and Rød 2007), The Diamond Dataset Codebook (Gilmore et al. 2005) as well as multiple sources such as the US Energy Information Administration, OECD, Reuters and other online media outlets. Finally, since ethnic mobilization is particularly relevant around elections (Eifert, Miguel, and Posner 2010, Wilkinson 2004), a dummy variable is set to 1 for regionyears with presidential or national assembly elections, and 0 if not. The source for this data is the African Elections Database (2015).

I apply a logistic regression model, with clustered country codes to compensate for country-level dependencies. I have chosen this model over count models, which take into account several conflict incidents in one year, since the latter cannot properly account for time dependencies. A country fixed effects model is run as part of the robustness checks, but is not chosen as a main model since it restricts the number of countries to six (those that experience communal conflict). Descriptive statistics of all variables are given in appendix 3.9.3.

3.7 Empirical Results

I start this result section with a simple correlation matrix portraying the relationships between the main independent variables[46]. In line with the empirical evidence presented earlier in this paper, Table 19 shows that the correlations between objective and perceived ethnic inequality have the expected signs, but are far from perfect. Objective and perceived economic ethnic inequality have a correlation coefficient of 0.303, while perceptions of political ethnic inequality is even further away from objective figures,

[46] A full correlation matrix is given in appendix 3.9.3.

with a correlation coefficient of 0.175[47]. Perceived economic and political ethnic inequality have the highest correlation.

Table 19. Correlation matrix main independent variables

	Obj Ec HI	Perc Ec HI	Obj Pol HI	Perc Pol HI
Obj Ec HI	1.000			
Perc Ec HI	0.303	1.000		
Obj Pol HI	0.004	0.177	1.000	
Perc Pol HI	0.169	0.604	0.175	1.000

Moving on to the empirical tests of the various hypotheses above, Table 20 includes the results for model 1 thorough 3. Model 1 tests the effect of objective economic ethnic inequality on communal conflict outbreak. As can be seen, regions where the biggest ethnic group is objectively economically deprived do not have a significantly increased risk of communal conflict outbreak. Moving on to perceptions, model 2 indicates that a high level of perceived economic ethnic deprivation is negatively, though not significantly associated with a higher risk of communal conflict outbreak. Moving on to model 3, I find suggestive evidence that regions in which both objective and perceived ethnic economic inequality for the biggest ethnic group are high, have an elevated risk of communal conflict.

[47] Note that the measures for objective and perceived political horizontal inequality are not fully comparable. While the measure for objective political inequality is binary (either there is or there is not one or more excluded group in the region) the measure for perceived political inequality is continuous (the higher the measure, the higher the number of respondents perceiving their ethnic group to have less political influence).

Table 20. The association between objective and perceived ethnic economic inequality and communal conflict outbreak in subnational regions in Africa, 1999-2010

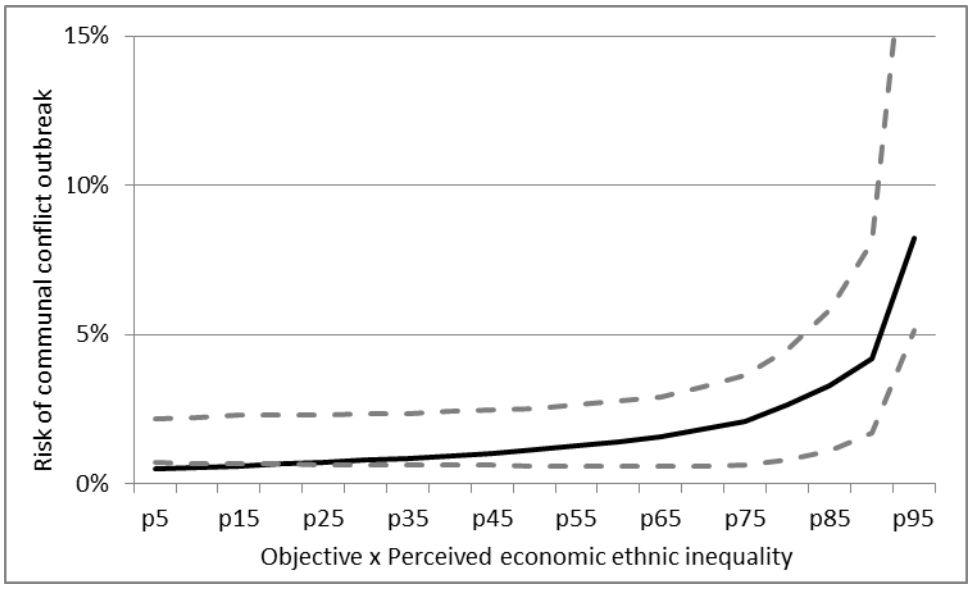
	Model 1	Model 2	Model 3
onsetnonstate_p			
objective ec HI	0.559	0.657	-2.087
	(0.497)	(0.345)	(1.634)
perceived ec HI		-0.162	-1.498***
		(0.697)	(0.413)
obj x perc ec HI			1.259*
			(0.588)
peaceyears	-0.137	-0.152	-0.149
	(0.263)	(0.205)	(0.201)
gdp/capita (logged)	0.158	0.143	0.166
	(0.220)	(0.205)	(0.218)
population (logged)	1.256***	1.262***	1.279***
	(0.218)	(0.207)	(0.218)
com. confl. 150 km	0.587*	0.568*	0.542*
	(0.257)	(0.274)	(0.250)
reg_spline_1	0.002	0.002	0.002
	(0.008)	(0.007)	(0.007)
reg_spline_2	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001	0.001
	(0.000)	(0.000)	(0.000)
natural resources	-0.591	-0.591	-0.581
	(0.441)	(0.462)	(0.527)
electionyear	0.584*	0.581*	0.562
	(0.297)	(0.293)	(0.302)
Constant	-22.773***	-22.481***	-20.046***
	(3.756)	(4.100)	(3.833)
pseudoR-squared	0.261	0.262	0.267
log-pseudolikelihood	-174.0912	-173.9598	-172.7684
N	1209	1209	1209

* p<0.05, ** p<0.01, *** p<0.001

Country clustered standard errors in parenthesis.

Figure 12 shows that the results from model 3 are substantive. In regions where the largest ethnic group scores low on both objective and perceived deprivation, the risk of communal conflict outbreak in any given year is less than 0.5%. On the other hand, in regions where the largest ethnic group is both objectively and subjectively deprived, the corresponding conflict risk is up to 8%.

Figure 12. Risk of communal conflict for low to high values of combined objective and perceived economic ethnic deprivation in subnational regions in Africa, 1999-2010



Note: dotted lines represent 90% confidence interval. The graph pictures the development in conflict risk with changes from the 5th percentile to the 95th percentile level of objective x perceived economic HI. Calculated by using CLARIFY (Tomz, Wittenberg, and King 2003).

The results from model 3 are fully in line with my theoretical expectations, which in short project that people act on perceived horizontal inequality, and that elites seeking to manipulate and use such perceptions are likely to garner more support if their framing is close to the objective reality. This altogether lends support to Hypotheses 3. However, I would have expected the results for both objective and perceived economic inequality to be significant as well. My results for objective economic ethnic inequality contrast that of Fjelde and Østby (2014), who find high economic ethnic deprivation to increase communal conflict risk in 34 Sub-Saharan African countries. One reason for the diverging results may be the fact that they use asset ownership while I use a basic needs variable to proxy for objective ethnic economic inequality. A plausible reason for both these null results is the fact that I only look at the biggest ethnic group in each region and therefore omit the status and attitudes of other groups in the region. Unfortunately a more comprehensive test is not possible with the current data, and I will have to leave such a test for future studies based on more extensive surveys.

On the other hand, the overall results are broadly in line with existing empirical studies of civil war, which have found the effects of political horizontal inequalities to be consistently strong, while the effects of economic horizontal inequalities are more mixed, with results having been found to be both insignificant and significant (Østby 2008b, Østby, Nordås, and Rød 2009).

I therefore proceed to look at the effects of political ethnic inequalities. The results are given in Table 21.

Model 4 strongly supports that the presence of objectively excluded ethnic groups increases the probability of conflict outbreak (Hypotheses 3). Using CLARIFY (Tomz, Wittenberg, and King 2003) to interpret the results, it is revealed that if one changes from *not* having to having politically excluded groups in the region, while holding all other variables at their means, the risk of communal conflict outbreak increases by 116% - from 0.49% to 1.06%.

Model 5 tests the effect of perceived political ethnic inequality on conflict outbreak (Hypotheses 4). Regions with a high level of respondents perceiving their ethnic group to be less influential have a strongly increased risk of conflict outbreak, giving robust support to Hypothesis 4. The results are also substantively strong. Changing the level of perceived political ethnic inequality from the 5^{th} to the 95^{th} percentile, while holding all other variables at their means, increases the risk of conflict outbreak by 200%. The significance level of the objective measure is reduced to 10% once perceptions are accounted for.

For the political dimension I find no interaction effects of combined political exclusion and perceived lack of political influence (Model 6). Apart from this, the results for political ethnic inequality are as expected. In isolation, the presence of one or more politically excluded groups in a region seems to increase the risk of communal conflict. However, this effect is reduced once peoples' judgements of their ethnic groups political influence is taken into account. This may still be an indication that objective political exclusion matter *through* perceived inequalities.

Table 21. The association between objective and perceived political economic inequality and communal conflict outbreak in subnational regions in Africa, 1999-2010

	Model 4	Model 5	Model 6
onsetnonstate_p			
objective pol HI	0.827**	0.654	-0.718
	(0.285)	(0.364)	(2.047)
perceived pol HI		0.764***	0.493
		(0.227)	(0.357)
obj x perc pol HI			0.656
			(0.818)
peaceyears	0.033	0.032	0.047
	(0.222)	(0.229)	(0.245)
gdp/capita (logged)	0.140	0.210	0.238
	(0.169)	(0.187)	(0.212)
population (logged)	1.031***	1.102***	1.068***
	(0.278)	(0.303)	(0.322)
com. confl. 150 km	0.735***	0.603**	0.557*
	(0.218)	(0.216)	(0.216)
reg_spline_1	0.000	-0.001	0.000
	(0.006)	(0.006)	(0.006)
reg_spline_2	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)
reg_spline_3	-0.001*	-0.001*	-0.001*
	(0.000)	(0.000)	(0.000)
natural resources	-2.720***	-2.753***	-2.801***
	(0.496)	(0.447)	(0.398)
electionyear	-0.210	-0.242	-0.254
	(0.492)	(0.488)	(0.484)
Constant	-19.259***	-22.254***	-21.399***
	(4.385)	(5.063)	(5.547)
pseudoR-squared	0.299	0.308	0.310
log-pseudolikelihood	-121.0952	-119.5336	-119.2336
N	1128	1128	1128

* p<0.05, ** p<0.01, *** p<0.001

The relatively stronger results for perceived political ethnic inequality resonates with my theoretical starting point – people act on perceptions, and these may diverge substantially from objective facts. The correlation between objective and perceived political ethnic inequality is only 0.175 – once more noting that the measures are not fully comparable. The results are also in line with the most recent literature on good governance and conflict. As Hegre and Nygård (2015) point out, representative institutions do not automatically translate into 'good governance'. Non-elected or non-representative governments may promote policies that benefit the whole population, and elected, representative governments may fail to implement their chosen policies if for instance the quality of the bureaucracy is poor. Hence, if institutions can prevent conflict through a grievance reducing mechanism, they should do so not only based on the formal rules guiding them, but on how well they function (Wig and Tollefsen 2016, 31). My analysis supports such a conjecture. The fact that there is seemingly no conflict

inducing effect of combined ethnic exclusion and perceived lack of influence may be linked to this. Possibly, political entrepreneurs focus on quality of governance rather than objective exclusion when creating collective action frames. This is however pure speculation, as the data cannot provide information on this aspect.

When comparing the results from the economic and political analyses, an important difference between the two should be underlined. The political dimension analysis takes into account all politically excluded groups in a region, and also accounts for the average perception of political ethnic inequality for the whole region, not only the largest ethnic group. Hence, a broader specter of group dynamics is captured, and this is likely to strengthen the results. On the other hand, the relative stronger results for political ethnic inequality resonates with Horowitz (1985) argument that political inequality should constitute a more potent source of motivation.

While economic and political ethnic inequalities are distinct concepts, and ideally I should have kept the economic measures as controls in the political models, the high correlation between perceived economic and political inequality (o.6) introduces multicollinearity issues and prevents me from doing so. This issue also prevents an analysis of the combined (interaction effect) of perceived economic and political horizontal inequalities, which would also have been theoretically interesting.

The control variables behave more or less as expected across all models, with high regional population as well as a neighboring communal conflict significantly and consistently increasing the risk of communal conflict. A high regional GDP per capita does however not decrease the risk of communal conflict as one would expect based on country level empirical analyses. This is however in line with the results of Fjelde and Østby (2014), and might be explained by subnational studies finding pockets of wealth to experience more violence than poorer areas (Buhaug et al. 2011). The presence of natural resources has a significant and negative effect on the risk of conflict in most models. This contradicts findings in most of the empirical work on resource rich countries and conflict (see e.g. Ross 2015). However, some studies do find a similar negative relationship, such as Murshed and Gates (2005). The peaceyears variable is also insignificant. It is possible that the variable for neighboring communal conflict takes most of the explanatory power from the peaceyears measure. Finally, the variable for elections is significant in all models apart from the perceived political ethnic

inequality models. It is likely and in line with the theoretical framework that the effect of elections is instead accounted for by the perception variable in these models.

The analyses are robust to changes in specifications[48]. A first alternative specification splits the measures for ethnic economic inequalities in separate high (privileged) and low (deprived) measures[49]. This is to check whether some effects of privileged vs. deprived groups are masked by my continuous measures. However, the outcome is fully in line with the analysis above and the results remain insignificant. Second, since some studies indicate that conflict is more likely to happen in transitional regimes, a control for regime type is included by using the POLITY2 dataset (Marshall and Jaggers 2002). The results are largely unchanged, however with the interaction between objective and perceived economic inequality now significant at a 10% level with a p-value of 0.073. Third, since the salience of ethnicity as an identity marker varies between countries, the analyses are rerun on a subset where all countries in which 50% or more of the respondents state that their national identity is more important than their ethnic identity, are censored. According to Afrobarometer round 4, this applies to Madagascar, Malawi, South Africa and Tanzania. Without these countries, the objective economic ethnic inequality becomes weakly significant when controlling for perceptions. Excluding Lesotho, which has a very homogenous ethnic mix, leaves the results unchanged. Next, since one may argue that the most relevant basis for economic comparison is the rest of the region in which the ethnic group lives rather than the rest of the country, I run model 1 to 3 using a measure that compares the largest group in a region to the rest of the region rather than the country average. For this specification, objective economic ethnic inequality becomes negative, and perceived positive, but both remain insignificant. I refrain from using this metric in the main analysis, since several regions have few respondents outside the largest ethnic group, and these regions are coded with a value of 1 in the analysis. Also, the question on perceived inequality inherently includes a comparison to other groups in the *country*, and I wish to keep the objective and perceived metrics as comparable as possible. Then, since Cederman, Gleditsch and Buhaug (2013) find that the risk of conflict increases with the size of the politically excluded group, the analysis of political ethnic inequality is run with data only for the

[48] All robustness test results are reported in appendix 3.9.4.
[49] These are the measures used by for instance Cederman, Gleditsch and Buhaug (2013). High (privilege) is set to g/G if g>G, 1 otherwise. Low (deprivation) is set to G/g if G>g, 1 otherwise. G is country, g is group.

largest ethnic group in each region. While the measure for perceived political ethnic inequality is strengthened, the objective measure turns out insignificant for this specification. Similarly, since the data allows for taking into account perceived economic inequality regardless of group size, this variable is tested, and the results are the same as for the biggest ethnic group variable. To account for country specific factors, all models are run with country fixed effects included. The results are largely unchanged, but the sample is reduced to cover only six countries (those in the dataset who experience conflict). The results are also largely unchanged when omitting regions with less than 40 respondents rather than 20, censoring the religious conflicts in Nigeria, limiting extrapolation of survey data to two years rather than four, clustering errors on region rather than country, and when using country peaceyears rather than regional peaceyears.

Despite the robustness to changes in specifications, some important limitations in the analyses should be highlighted. Arguably, since my unit of analysis is regionyears and not ethnic groupyears, it is not possible to know whether my measures indeed capture the inequality of the group that is actually rebelling. This is particularly the case for the economic models where I only look at the biggest ethnic group in each region. For the 37 subnational regions in the dataset that experience communal conflict, I'm able to firmly establish that the largest ethnic group is involved in the conflict in 60% of them (see appendix 3.9.2 for an overview). For the remaining regions it is either unclear or not so. Censoring all the conflicts not specifically linked to the largest ethnic groups and rerunning the economic models give results that are largely unchanged, but the significance level of the economic/perceived ethnic inequality interaction is reduced to 10%. Better data on perception of inequality for all ethnic groups, as well as non-state conflict data with agency, is needed to more comprehensively model this.

As always in this type of analyses, despite controlling for previous conflict, endogeneity is an issue. While case examples do support that the direction of causality goes from grievances to conflict, I cannot rule out that those grievances are a result of previous conflict. As more data becomes available, it might be possible to investigate this further with data intensive methods such as matching.

3.8 Conclusion

In this study I find supportive evidence that objective and perceived horizontal inequalities significantly and substantially increase the risk of communal conflict outbreak. This concurs with similar work on civil war and horizontal inequalities, and shows that preventing inequality and exclusion is important also to combat a type of conflict that is claiming far more lives than civil war in several Sub-Saharan African countries. I further find support that perceptions of ethnic inequality matter more than objective facts. This is fully in line with theories of conflict and mobilization, which claim that people mobilize based on perceived injustices rather than on potentially unknown objective statistical figures (Gurr 1970, Stewart 2010). By analysing perceived in addition to objective horizontal inequalities, I provide a more direct test – and support for – of the grievance mechanism. I furthermore show that perceived horizontal inequalities can capture effects beyond the reach of objective figures. The findings have important implications for development policy, and indicate a needed change in focus from only structural issues to a more broad understanding of how identities and rival claims are formed.

First, the study finds that politically excluded ethnic groups are associated with an increased risk of communal conflict. This is in line with previous research on horizontal inequalities, but broadens the scope beyond civil war. The result is valid for both objective and perceived political inequality, with the latter having the strongest effect.

Second, my analysis suggests that when *objective* and *perceived* economic ethnic inequality run in the same direction – that is, both objective and perceived economic deprivation is high – the communal conflict risk is also higher than in subnational regions where both are low or one of them is low.

Particularly the result for perceived political ethnic inequality is robust across a range of alternative specifications. The more consistently robust results for the political dimension compared to the economic mirror conclusions from the horizontal inequality and civil war literature. Apart from methodological issues potentially affecting the economic results, the relatively more robust results for the political dimension might be explained by leaning on Horowitz (1985), who argue political inequality has the power to threaten a groups whole existence, paving way for a much stronger motivation to defend own interests.

Lack of data has been a major obstacle to large-N analyses of communal conflict and inequality, as well as for studies of perceived rather than objective inequality. Data imposes limitations to my study as well, such as no firm link between group and agency. The study is further limited to – to some extent – less conflict ridden countries in Sub-Saharan Africa. Still, I believe my results constitute a first step towards establishing the importance of horizontal inequalities in causing other types of conflict than civil war, and in pinpointing how the reasons for conflict might evade us if we restrict our analyses to objective facts rather than how these facts are perceived. In general, more attention should be directed at subjective views on inequality between identity groups – what they are, how they are formed and how they affect the willingness to mobilize for conflict.

3.9 Appendices Chapter 3

Appendix 3.9.1

Table 22. Overview survey countries and years

Country	Round	Survey year
Benin	3	2005
Benin	4	2008
Botswana	1	1999
Botswana	2	2003
Botswana	3	2005
Botswana	4	2008
Burkina Faso	4	2008
Cape Verde	2	2002
Cape Verde	3	2005
Cape Verde	4	2008
Ghana	1	1999
Ghana	2	2002
Ghana	3	2005
Ghana	4	2008
Kenya	2	2003
Kenya	3	2005
Kenya	4	2008
Lesotho	1	2000
Lesotho	2	2003
Lesotho	3	2005
Lesotho	4	2008
Liberia	4	2008
Madagaskar	3	2005
Madagaskar	4	2008
Malawi	1	1999
Malawi	2	2003
Malawi	3	2005
Malawi	4	2008
Mali	1	2001
Mali	2	2003
Mali	3	2005
Mali	4	2008
Mozambique	2	2002
Mozambique	3	2005
Mozambique	4	2008
Namibia	1	1999
Namibia	2	2003
Namibia	3	2006
Namibia	4	2008
Nigeria	1	1999
Nigeria	2	2003
Nigeria	3	2005
Nigeria	4	2008
Senegal	2	2002
Senegal	3	2005
Senegal	4	2008
South Africa	1	2000
South Africa	2	2002
South Africa	3	2006
South Africa	4	2008
Tanzania	1	2001
Tanzania	2	2003
Tanzania	3	2005
Tanzania	4	2008
Uganda	1	2000
Uganda	2	2002
Uganda	3	2005
Uganda	4	2008
Zambia	1	1999
Zambia	2	2003
Zambia	3	2005
Zambia	4	2009
Zimbabwe	1	1999
Zimbabwe	2	2004
Zimbabwe	3	2005
Zimbabwe	4	2009

Appendix 3.9.2

Table 23: Overview biggest ethnic group per region, conflict in region and biggest ethnic group involvement.

Country	Region	Biggest ethnic group	Conflict in region	Biggest group involved in conflict
Benin	Alibori	Bariba		
Benin	Atacora	Ditamari		
Benin	Atlantique	Fon		
Benin	Borgou	Bariba		
Benin	Collines	Yoruba		
Benin	Couffo	Adja		
Benin	Donga	Yoa		
Benin	Littoral	Fon		
Benin	Mono	Adja		
Benin	Plateau	Yoruba		
Benin	Queme	Fon		
Benin	Zou	Fon		
Botswana	Central	Setswana		
Botswana	Francistown	Setswana		
Botswana	Gaborone	Setswana		
Botswana	Kgatleng	Setswana		
Botswana	Kweneng	Setswana		
Botswana	Lobatse	Setswana		
Botswana	Ngamiland	Setswana		
Botswana	North East	Sekalanga		
Botswana	North West	Setswana		
Botswana	Selibe Phikwe	Setswana		
Botswana	South	Setswana		
Botswana	South East	Setswana		
Botswana	Southern	Setswana		
Burkina Faso	Boucle du Mouhoun	Bobo		
Burkina Faso	Centre	Mossi		
Burkina Faso	Centre-East	Mossi		
Burkina Faso	East	Gourmatche		
Burkina Faso	Hauts-Bassins	Mossi		
Burkina Faso	North	Mossi		
Burkina Faso	Plateau Central	Mossi		
Burkina Faso	Sahel	Peul		
Burkina Faso	South West	Dagari		
Ghana	Ashanti	Akan		
Ghana	Brong Ahafo	Akan		
Ghana	Central	Akan		
Ghana	Eastern	Akan		
Ghana	Greater Accra	Akan		
Ghana	Northern	Dagaati		
Ghana	Upper West	Dagaati		
Ghana	Volta	Ewe		
Ghana	Western	Akan		
Kenya	Central	Kikuyu		
Kenya	Coast	MijiKenda		yes
Kenya	Eastern	Kamba		yes
Kenya	Nairobi	Kikuyu	yes	yes
Kenya	North Eastern	Somali		yes
Kenya	Nyanza	Luo	yes	yes
Kenya	Rift Valley	Kalenjin	yes	yes
Kenya	Western	Luhya		yes
Lesotho	Berea	Sesotho		
Lesotho	Butha-Buthe	Sesotho		
Lesotho	Leribe	Sesotho		
Lesotho	Lesotho	Sesotho		
Lesotho	Mafeteng	Sesotho		
Lesotho	Maseru	Sesotho		
Lesotho	Mohales's Hoek	Sesotho		
Lesotho	Mokhotlong	Sesotho		
Lesotho	Qacha's Nek	Sesotho		
Lesotho	Quithing	Sesotho		
Lesotho	Thaba-Tseka	Sesotho		
Liberia	Bong	Kpelle		
Liberia	Grand Bassa	Bassa		
Liberia	Grand Gedeh	Krahn		
Liberia	Lofa	Lorma		
Liberia	Margibi	Kpelle		
Liberia	Maryland	Grebo		
Liberia	Montserrado	Kpelle		
Liberia	Nimba	Mano		
Liberia	River Gee	Grebo		
Liberia	Rivercess	Bassa		
Madagascar	Antananarivo	Merina	yes	yes
Madagascar	Antsiranana	Tsimihety		
Madagascar	Fianarantsoa	Betsileo		
Madagascar	Mahajanga	Betsileo		
Madagascar	Toamasina	Betsimisaraka	yes	yes
Madagascar	Toliary	Antandroy	yes	yes
Malawi	Central	Chewa		
Malawi	North	Tumbuka		
Malawi	Northern	Tumbuka		
Malawi	South	Lomwe		
Malawi	Southern	Chewa		
Mali	Bamako	Bambara		
Mali	Gao	Sonhrai		
Mali	Kayes	Sonink		
Mali	Kidal	Tamasheq		
Mali	Koulikoro	Bambara		
Mali	Mopti	Dogon		
Mali	Segou	Bambara		
Mali	Sikasso	Bambara		
Mali	Tombouctou	Sonhrai		
Mozambique	Cabo Delgado	Makua		
Mozambique	Gaza	Changana		
Mozambique	Inhambane	Bitonga		
Mozambique	Manica	Ndau		
Mozambique	Maputo City	Changana		
Mozambique	Maputo province	Changana		
Mozambique	Nampula	Makua		
Mozambique	Niassa	Makua		
Mozambique	Sofala	Sena		
Mozambique	Tete	Cinyungwe		
Mozambique	Zambezia	Lomue		
Namibia	Caprivi	Subia		
Namibia	Erongo	OShiwambo		
Namibia	Hardap	Afrikaaner		
Namibia	Karas	Nama		
Namibia	kavango	Kavango languages		
Namibia	Khomas	Oshiwambo		
Namibia	Kunene	Oshiwambo		
Namibia	Ohangwena	Oshiwambo		
Namibia	Omusati	Oshiwambo		
Namibia	Oshana	Oshiwambo		
Namibia	Oshikoto	Oshiwambo		
Namibia	Otjozunddjupa	Oshiwambo		
Nigeria	Abia	Igbo	yes	yes
Nigeria	Adamawa	Hausa/Fulani	yes	yes
Nigeria	Akwa-Ibom	Ibibio	yes	yes
Nigeria	Anambra	Igbo		yes
Nigeria	Bauchi	Hausa	yes	yes
Nigeria	Bayelsa	Ijaw	yes	yes
Nigeria	Benue	Tiv		
Nigeria	Borno	Kanuri		yes
Nigeria	Delta	Irobo/Urhobo	yes	yes
Nigeria	Ebonyi	Igbo		
Nigeria	Edo	Edo		yes
Nigeria	Ekiti	Yoruba		yes
Nigeria	Enugu	Igbo		yes
Nigeria	Gombe	Fulani		
Nigeria	Imo	Igbo		
Nigeria	Jigawa	Hausa		
Nigeria	Kaduna	Hausa		yes
Nigeria	Kano	Hausa		yes
Nigeria	Kebbi	Hausa	yes	yes
Nigeria	Kogi	Igala		
Nigeria	Kwara	Yoruba		yes
Nigeria	Lagos	Yoruba	yes	yes
Nigeria	Ogun	Yoruba	yes	yes
Nigeria	Ondo	Yoruba		yes
Nigeria	Osun	Yoruba		
Nigeria	Oyo	Yoruba	yes	yes
Nigeria	Plateau	Hausa	yes	yes
Nigeria	Rivers	Ikwere		yes
Nigeria	Sokoto	Hausa	yes	yes
Nigeria	Zamfara	Hausa	yes	yes
Senegal	Dakar	Wolof		
Senegal	Diourbel	Wolof		
Senegal	Fatick	Serer		
Senegal	Kaolack	Wolof		
Senegal	Kolda	Pulaar		
Senegal	Louga	Wolof		
Senegal	Matam	Pular		
Senegal	Saint Louis	Pulaar		
Senegal	Tambacounda	Mandinka/Bambara		
Senegal	Thies	Serer		
Senegal	Ziguinchor	Diola	yes	yes
South Africa	Eastern Cape	Xhosa		
South Africa	Free State	Sesotho/Sotho/South Sotho		
South Africa	Gauteng	Zulu		
South Africa	KwaZulu-Natal	Zulu	yes	yes
South Africa	Limpopo	Pedi/Spedi/North Sotho		
South Africa	Mpumalanga	Swazi		
South Africa	North West	Setswana		
South Africa	Western Cape	Coloured		
Tanzania	Dodoma	Mgogo		
Tanzania	Kigoma	Muha		
Tanzania	Kilimanjaro	Mchaga		
Tanzania	Mbeya	Mnyakyusa		
Tanzania	Morogoro	Mluguru		
Tanzania	Mtwara	Mmakonde		
Tanzania	Mwanza	Msukuma		
Tanzania	Rukwa	Mfipa		
Tanzania	Shinyanga	Msukuma		
Tanzania	Singida	Mnyaturu		
Tanzania	Tabora	Mnyamwezi		
Uganda	Central	Muganda		
Uganda	East	Musoga		yes
Uganda	Kampala	Muganda		
Uganda	North	Luo	yes	yes
Uganda	West	Munyankole		
Zambia	Central	Bemba		
Zambia	Copper Belt	Bemba		
Zambia	Eastern	Chewa		
Zambia	Luapula	Bemba		
Zambia	Lusaka	Bemba		
Zambia	Northern	Bemba		
Zambia	North-western	Kaonde		
Zambia	Southern	Tonga		
Zambia	Western	Lozi		
Zimbabwe	Bulawayo	Ndebele		
Zimbabwe	Harare	Shona		
Zimbabwe	Manicaland	Shona		
Zimbabwe	Mashonaland Central	Shona		
Zimbabwe	Mashonaland East	Shona		
Zimbabwe	Mashonaland West	Shona		
Zimbabwe	Masvingo	Shona		
Zimbabwe	matabeteland north	Ndebele		
Zimbabwe	matabeteland South	Ndebele		
Zimbabwe	Midlands	Shona		

Note: Only includes conflicts for which there is survey data available.

Appendix 3.9.3

Table 24. Descriptive statistics

Varable	Obs (N)	Mean	Std.dev	Min	Max
Communal conflict onset	1280	0.05	0.21	0	1
Objective economic ethnic inequality	1286	1.02	0.27	0.3	2.14
Perceived economic ethnic inequality	1286	2.11	0.43	0.89	3.52
Objective political ethnic inequality	1170	0.3	0.46	0	1
Perceived political ethnic inequality	1182	1.91	0.44	0.23	3.47
Peaceyears	1286	23.45	19.17	0	53
Regional GDP per capita, logged, t-1	1215	6.69	1.21	0.89	9.61
Regional population, logged, t-1	1245	14.12	1.32	9.3	16.18
Communal conflict 150 km, t-1	1245	0.14	0.35	0	1
Natural resources	1286	0.16	0.37	0	1
Elections	1286	0.22	0.41	0	1

Table 25. Full correlation matrix

	Obj ec	Perc ec	Obj Pol	Perc Pol	Peaceyears	Reg GDP	Reg pop	Com confl	Nat res	Elections
Objective economic ethnic inequality	1	0	0	0	0	0	0	0	0	0
Perceived economic ethnic inequality	0.33	1	0	0	0	0	0	0	0	0
Objective political ethnic inequality	0.02	0.18	1	0	0	0	0	0	0	0
Perceived political ethnic inequality	0.17	0.61	0.18	1	0	0	0	0	0	0
Peaceyears	-0.01	0.05	-0.18	-0.07	1	0	0	0	0	0
Regional GDP per capita, logged, t-1	0.07	-0.1	0.06	-0.16	0	1	0	0	0	0
Regional population, logged, t-1	-0.04	0.12	0	0.01	-0.25	-0.21	1	0	0	0
Communal conflict 150 km, t-1	0.07	0.1	0.11	0.15	-0.27	-0.01	0.31	1	0	0
Natural resources	0	-0.02	0.22	-0.01	-0.1	0.41	-0.06	-0.08	1	0
Elections	0	0.03	-0.01	-0.01	0.1	0.01	0.02	0.04	-0.02	1

Appendix 3.9.4 – Robustness tests

Table 26. High and Low measures for Objective Economic Ethnic Inequality and Communal Conflict Outbreak

	Model 1	Model 2	Model 3
onsetnonstate_p			
objective ec priv	-0.289	0.268	-0.378
	(0.515)	(0.884)	(0.753)
objective ec dis	1.053	1.083	1.014
	(0.834)	(0.853)	(0.687)
perceived ec priv		1.353	
		(1.789)	
perceived ec dis			0.232
			(1.287)
peaceyears	-0.119	-0.170	-0.111
	(0.258)	(0.196)	(0.212)
gdp/capita (logged)	0.155	0.127	0.164
	(0.213)	(0.194)	(0.211)
population (logged)	1.243***	1.252***	1.236***
	(0.222)	(0.216)	(0.220)
com. confl. 150 km	0.580*	0.473	0.584*
	(0.248)	(0.312)	(0.246)
reg_spline_1	0.003	0.001	0.003
	(0.008)	(0.006)	(0.007)
reg_spline_2	-0.001	-0.001	-0.002
	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.000	0.001
	(0.000)	(0.000)	(0.000)
natural resources	-0.617	-0.617	-0.624
	(0.468)	(0.527)	(0.494)
electionyear	0.588*	0.562*	0.590*
	(0.296)	(0.286)	(0.290)
Constant	-22.927***	-23.631***	-22.855***
	(3.895)	(3.728)	(3.908)
pseudoR-squared	0.263	0.267	0.263
log-pseudolikelihood	-173.7678	-172.7216	-173.7138
N	1209	1209	1209

* p<0.05, ** p<0.01, *** p<0.001

Table 27. Controlling for regime type by using polity2 data

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.581	0.632	-2.004			
	(0.500)	(0.344)	(1.823)			
perceived ec HI		-0.087	-1.365***			
		(0.645)	(0.339)			
obj x perc ec HI			1.209			
			(0.674)			
objective pol HI				0.826**	0.654	-0.718
				(0.292)	(0.376)	(2.041)
perceived pol HI					0.764***	0.493
					(0.227)	(0.350)
obj x perc pol HI						0.656
						(0.809)
peaceyears	-0.159	-0.166	-0.164	0.032	0.032	0.047
	(0.251)	(0.201)	(0.200)	(0.198)	(0.197)	(0.210)
gdp/capita (logged)	0.284	0.271	0.288	0.142	0.211	0.237
	(0.278)	(0.232)	(0.223)	(0.139)	(0.149)	(0.181)
population (logged)	1.248***	1.251***	1.266***	1.030***	1.101***	1.068**
	(0.225)	(0.220)	(0.234)	(0.276)	(0.303)	(0.328)
com. confl. 150 km	0.441	0.435	0.421	0.734***	0.602***	0.558**
	(0.253)	(0.277)	(0.248)	(0.194)	(0.180)	(0.180)
reg_spline_1	0.001	0.001	0.001	0.000	-0.001	0.000
	(0.007)	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)
reg_spline_2	-0.001	-0.001	-0.001	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
reg_spline_3	0.000	0.000	0.000	-0.001*	-0.001*	-0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
natural resources	-0.681	-0.677	-0.669	-2.721***	-2.753***	-2.801***
	(0.444)	(0.485)	(0.547)	(0.481)	(0.430)	(0.381)
electionyear	0.587	0.585	0.569	-0.210	-0.242	-0.254
	(0.306)	(0.301)	(0.311)	(0.493)	(0.495)	(0.488)
politysquared	-0.010	-0.010	-0.009	-0.000	-0.000	0.000
	(0.016)	(0.015)	(0.014)	(0.011)	(0.011)	(0.011)
Constant	-23.148***	-22.967***	-20.590***	-19.250***	-22.247***	-21.404***
	(3.636)	(3.703)	(3.550)	(4.392)	(5.102)	(5.642)
pseudoR-squared	0.266	0.266	0.270	0.299	0.308	0.310
log-pseudolikelihood	-173.1178	-173.0813	-171.9887	-121.095	-119.5336	-119.2336
N	1209	1209	1209	1128	1128	1128

* p<0.05, ** p<0.01, *** p<0.001

Table 28. Excluding countries where more than 50% state that their national identity is more important than their ethnic identity (Madagascar, Malawi, South Africa, and Tanzania)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.738	0.702*	-1.541			
	(0.556)	(0.317)	(1.502)			
perceived ec HI		0.067	-1.043***			
		(0.634)	(0.232)			
obj x perc ec HI			1.053			
			(0.628)			
objective pol HI				0.782**	0.626	-0.808
				(0.264)	(0.369)	(1.952)
perceived pol HI					0.898**	0.616
					(0.273)	(0.327)
obj x perc pol HI						0.676
						(0.750)
peaceyears	-0.174	-0.168	-0.174	0.006	-0.010	0.008
	(0.278)	(0.220)	(0.219)	(0.242)	(0.251)	(0.266)
gdp/capita (logged)	0.588***	0.600***	0.644***	0.310**	0.459***	0.527**
	(0.122)	(0.135)	(0.170)	(0.112)	(0.123)	(0.171)
population (logged)	1.613***	1.620***	1.634***	1.065***	1.155***	1.131**
	(0.214)	(0.223)	(0.233)	(0.299)	(0.339)	(0.347)
com. confl. 150 km	0.141	0.145	0.133*	0.609**	0.460**	0.402*
	(0.073)	(0.078)	(0.067)	(0.188)	(0.176)	(0.158)
reg_spline_1	-0.000	-0.000	-0.001	-0.001	-0.002	-0.002
	(0.008)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
reg_spline_2	-0.001	-0.001	-0.001	0.001	0.002	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001*	0.001*	-0.001*	-0.001**	-0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
natural resources	-0.490	-0.490	-0.502	-2.618***	-2.642***	-2.700***
	(0.449)	(0.439)	(0.496)	(0.462)	(0.411)	(0.355)
electionyear	0.731**	0.734***	0.715**	0.039	-0.010	-0.010
	(0.225)	(0.213)	(0.221)	(0.528)	(0.532)	(0.531)
Constant	-30.983***	-31.295***	-29.488***	-20.757***	-24.876***	-24.386***
	(3.691)	(4.353)	(3.778)	(4.727)	(5.966)	(6.190)
pseudoR-squared	0.307	0.307	0.311	0.314	0.326	0.328
log-pseudolikelihood	-148.8009	-148.7812	-147.9293	-106.0216	-104.0569	-103.7744
N	1033	1033	1033	903	903	903

* p<0.05, ** p<0.01, *** p<0.001

Table 29. Objective economic HI compared to region rather than country

	Model 1	Model 2	Model 3
onsetnonstate_p			
objective ec HI	-0.094	-0.096	-5.699*
	(0.074)	(0.086)	(2.700)
perceived ec HI		0.017	-2.328**
		(0.721)	(0.734)
obj ec HI x perc e~I			2.215*
			(1.029)
peaceyears	-0.130	-0.129	-0.092
	(0.267)	(0.210)	(0.229)
gdp/capita (logged)	0.229	0.231	0.284
	(0.223)	(0.229)	(0.212)
population (logged)	1.239***	1.240***	1.254***
	(0.217)	(0.219)	(0.217)
com. confl. 150 km	0.571*	0.571*	0.493*
	(0.238)	(0.239)	(0.199)
reg_spline_1	0.002	0.002	0.004
	(0.008)	(0.007)	(0.008)
reg_spline_2	-0.001	-0.001	-0.002
	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001	0.001
	(0.000)	(0.000)	(0.000)
natural resources	-0.675	-0.676	-0.775
	(0.515)	(0.541)	(0.619)
electionyear	0.582*	0.583*	0.559*
	(0.294)	(0.280)	(0.276)
Constant	-22.279***	-22.335***	-17.014***
	(3.856)	(4.207)	(3.680)
pseudoR-squared	0.260	0.260	0.275
log-pseudolikelihood	-174.5092	-174.5077	-170.9622
N	1209	1209	1209

* p<0.05, ** p<0.01, *** p<0.001

Table 30. Country fixed effects

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.762	0.839	-0.175			
	(0.495)	(0.564)	(1.733)			
perceived ec HI		-0.105	-0.606			
		(0.370)	(0.891)			
obj x perc ec HI			0.477			
			(0.771)			
objective pol HI				0.987*	0.963*	-0.238
				(0.468)	(0.474)	(2.029)
perceived pol HI					1.013*	0.782
					(0.483)	(0.617)
obj x perc pol HI						0.561
						(0.923)
peaceyears	-0.120	-0.122	-0.120	0.050	0.004	0.034
	(0.181)	(0.181)	(0.182)	(0.219)	(0.218)	(0.225)
gdp/capita (logged)	0.505	0.505	0.543	0.138	0.322	0.418
	(0.349)	(0.348)	(0.355)	(0.397)	(0.411)	(0.446)
population (logged)	0.737	0.714	0.766	0.556	0.873	0.893
	(0.401)	(0.408)	(0.416)	(0.419)	(0.463)	(0.465)
com. confl. 150 km	-0.059	-0.062	-0.062	0.286	0.167	0.130
	(0.333)	(0.334)	(0.334)	(0.406)	(0.418)	(0.425)
reg_spline_1	-0.003	-0.003	-0.003	-0.003	-0.008	-0.006
	(0.007)	(0.007)	(0.007)	(0.009)	(0.010)	(0.010)
reg_spline_2	0.001	0.001	0.001	0.002	0.003	0.003
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
reg_spline_3	-0.000	-0.000	-0.000	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
natural resources	-0.450	-0.459	-0.445	-2.607*	-2.768*	-2.811*
	(0.520)	(0.522)	(0.520)	(1.078)	(1.100)	(1.111)
electionyear	0.736*	0.734*	0.722*	-0.121	-0.161	-0.165
	(0.360)	(0.360)	(0.361)	(0.493)	(0.495)	(0.496)
pseudoR-squared	0.049	0.049	0.050	0.076	0.097	0.099
log-pseudolikelihood	-138.7868	-138.7462	-138.5573	-98.51564	-96.27306	-96.08674
N	459	459	459	404	404	404

* p<0.05, ** p<0.01, *** p<0.001

Table 31. Censoring groups with less than 40 respondents

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	1.133*	1.003**	-3.168			
	(0.499)	(0.308)	(1.763)			
perceived ec HI		0.170	-1.756*			
		(0.597)	(0.711)			
obj x perc ec HI			1.823**			
			(0.645)			
objective pol HI				0.904*	0.684	-0.838
				(0.386)	(0.457)	(2.009)
perceived pol HI					0.745**	0.367
					(0.276)	(0.494)
obj x perc pol HI						0.753
						(0.773)
peaceyears	-0.300	-0.281	-0.279	0.014	0.017	0.038
	(0.307)	(0.261)	(0.260)	(0.251)	(0.264)	(0.281)
gdp/capita (logged)	0.124	0.144	0.196	0.182	0.268	0.304
	(0.229)	(0.222)	(0.245)	(0.222)	(0.266)	(0.283)
population (logged)	1.423***	1.412***	1.469***	1.191***	1.236***	1.189**
	(0.230)	(0.222)	(0.247)	(0.322)	(0.357)	(0.377)
com. confl. 150 km	0.908*	0.920**	0.855*	1.205***	1.069***	1.032***
	(0.357)	(0.353)	(0.344)	(0.245)	(0.269)	(0.290)
reg_spline_1	-0.003	-0.002	-0.002	-0.002	-0.003	-0.002
	(0.008)	(0.007)	(0.007)	(0.006)	(0.006)	(0.007)
reg_spline_2	-0.000	-0.000	-0.000	0.002	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
reg_spline_3	0.000	0.000	0.000	-0.001*	-0.001**	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
natural resources	-1.067*	-1.061*	-1.122*	-2.471***	-2.500***	-2.542***
	(0.473)	(0.438)	(0.558)	(0.508)	(0.474)	(0.438)
electionyear	0.408	0.408	0.367	-0.170	-0.232	-0.242
	(0.432)	(0.429)	(0.442)	(0.583)	(0.587)	(0.585)
Constant	-25.780***	-26.040***	-22.956***	-22.428***	-25.045***	-23.883***
	(3.388)	(3.604)	(3.303)	(5.191)	(6.189)	(6.830)
pseudoR-squared	0.304	0.305	0.313	0.341	0.349	0.351
log-pseudolikelihood	-118.9176	-118.8287	-117.4834	-94.42996	-93.32522	-93.02272
N	925	925	925	952	952	952

* p<0.05, ** p<0.01, *** p<0.001

Note: As can be seen from this table, objective economic ethnic inequality is significantly increasing the risk of communal conflict for this specification with a cut off at 40 respondents. However, since this result is not robust to robustness checks, and the N is substantially reduced, I keep it as a robustness test rather than a base case.

Table 32. Maximum extrapolation of survey data two years

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.810	0.515	-0.344			
	(0.453)	(0.417)	(2.546)			
perceived ec HI		0.478	0.080			
		(0.540)	(0.564)			
obj x perc ec HI			0.370			
			(0.998)			
objective pol HI				0.903***	0.724*	-0.449
				(0.258)	(0.342)	(1.999)
perceived pol HI					0.771**	0.526
					(0.249)	(0.420)
obj x perc pol HI						0.562
						(0.815)
peaceyears	-0.246	-0.213	-0.212	-0.025	-0.024	-0.012
	(0.265)	(0.228)	(0.227)	(0.217)	(0.225)	(0.240)
gdp/capita (logged)	-0.029	0.007	0.018	0.128	0.197	0.222
	(0.166)	(0.182)	(0.198)	(0.169)	(0.186)	(0.205)
population (logged)	1.486***	1.480***	1.482***	1.050***	1.123***	1.093**
	(0.264)	(0.289)	(0.295)	(0.309)	(0.338)	(0.356)
com. confl. 150 km	0.767*	0.798*	0.789*	0.818**	0.685*	0.645*
	(0.343)	(0.373)	(0.397)	(0.267)	(0.280)	(0.283)
reg_spline_1	-0.005	-0.004	-0.004	-0.002	-0.003	-0.002
	(0.008)	(0.007)	(0.007)	(0.005)	(0.006)	(0.006)
reg_spline_2	0.001	0.001	0.001	0.002	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
reg_spline_3	-0.000	-0.000	-0.000	-0.001**	-0.001**	-0.001**
	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
natural resources	-0.969	-0.991	-0.999	-2.652***	-2.677***	-2.716***
	(0.632)	(0.585)	(0.621)	(0.527)	(0.483)	(0.447)
electionyear	0.020	0.024	0.016	-0.136	-0.175	-0.184
	(0.332)	(0.328)	(0.323)	(0.482)	(0.482)	(0.478)
Constant	-25.328***	-26.315***	-25.506***	-19.582***	-22.613***	-21.842***
	(4.129)	(4.611)	(4.435)	(4.775)	(5.628)	(6.129)
pseudoR-squared	0.315	0.320	0.320	0.306	0.315	0.316
log-pseudolikelihood	-139.5479	-138.6472	-138.5851	-115.3065	-113.8032	-113.5911
N	1180	1180	1180	1124	1124	1124

* p<0.05, ** p<0.01, *** p<0.001

Table 33. Objective and perceived political ethnic inequality only for biggest ethnic group in region

	Model 4	Model 5	Model 6
onsetnonstate_p			
objective pol HI	0.981	0.612	-5.780**
	(0.770)	(0.696)	(2.042)
perceived pol HI		0.734***	0.439
		(0.216)	(0.331)
obj x perc pol HI			2.249**
			(0.802)
peaceyears	-0.211	-0.216	-0.137
	(0.189)	(0.211)	(0.234)
gdp/capita (logged)	0.039	0.078	0.146
	(0.217)	(0.233)	(0.278)
population (logged)	1.280***	1.419***	1.475***
	(0.309)	(0.397)	(0.430)
com. confl. 150 km	0.683**	0.559	0.607
	(0.241)	(0.314)	(0.342)
reg_spline_1	-0.008	-0.010	-0.007
	(0.005)	(0.006)	(0.006)
reg_spline_2	0.004*	0.004*	0.004*
	(0.002)	(0.002)	(0.002)
reg_spline_3	-0.001**	-0.002**	-0.001**
	(0.001)	(0.001)	(0.001)
natural resources	0.000	0.000	0.000
	(.)	(.)	(.)
electionyear	-0.160	-0.204	-0.276
	(0.428)	(0.426)	(0.421)
Constant	-21.904***	-25.792***	-26.609***
	(4.501)	(5.997)	(6.768)
pseudoR-squared	0.305	0.318	0.331
log-pseudolikelihood	-96.94705	-95.11525	-93.22956
N	772	772	772

* p<0.05, ** p<0.01, *** p<0.001

Table 34. Perceived economic ethnic inequality in whole region rather than for ethnic group

	Model 1	Model 2	Model 3
onsetnonstate_p			
objective ec HI	0.574	0.601	-0.950
	(0.477)	(0.362)	(0.539)
perceived ec HI		-0.070	-0.858
		(0.764)	(0.789)
obj ec X perc ec			0.747*
			(0.320)
peaceyears	-0.108	-0.115	-0.119
	(0.252)	(0.190)	(0.191)
gdp/capita (logged)	0.079	0.073	0.079
	(0.200)	(0.196)	(0.204)
population (logged)	1.226***	1.230***	1.237***
	(0.212)	(0.198)	(0.201)
com. confl. 150 km	0.644*	0.638*	0.623*
	(0.270)	(0.275)	(0.271)
reg_spline_1	0.002	0.002	0.002
	(0.008)	(0.007)	(0.007)
reg_spline_2	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)
reg_spline_3	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
natural resources	-0.827	-0.824	-0.827
	(0.581)	(0.618)	(0.644)
electionyear	0.663*	0.661*	0.648*
	(0.284)	(0.277)	(0.276)
Constant	-21.870***	-21.760***	-20.281***
	(3.587)	(4.027)	(3.998)
pseudoR-squared	0.257	0.257	0.259
log-pseudolikelihood	-180.7083	-180.6875	-180.3777
N	1303	1303	1303

* p<0.05, ** p<0.01, *** p<0.001

Table 35. Excluding religious conflicts in Nigeria

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
nonstate_ex_rel						
objective ec HI	0.608	0.688	-2.169			
	(0.501)	(0.366)	(1.630)			
perceived ec HI		-0.135	-1.528**			
		(0.757)	(0.470)			
obj x perc ec HI			1.308*			
			(0.555)			
objective pol HI				0.944**	0.798*	-0.581
				(0.301)	(0.365)	(2.300)
perceived pol HI					0.640**	0.341
					(0.206)	(0.423)
obj x perc pol HI						0.662
						(0.947)
peaceyears	-0.079	-0.092	-0.086	0.025	0.024	0.037
	(0.325)	(0.258)	(0.255)	(0.268)	(0.274)	(0.291)
gdp/capita (logged)	0.172	0.160	0.188	0.105	0.155	0.182
	(0.222)	(0.201)	(0.211)	(0.172)	(0.175)	(0.187)
population (logged)	1.213***	1.217***	1.233***	0.911***	0.969***	0.935**
	(0.223)	(0.212)	(0.222)	(0.263)	(0.277)	(0.308)
com. confl. 150 km	0.584*	0.568*	0.542*	0.630**	0.500*	0.452*
	(0.247)	(0.263)	(0.238)	(0.212)	(0.198)	(0.189)
reg_spline_1	0.006	0.005	0.006	-0.000	-0.001	-0.000
	(0.012)	(0.010)	(0.009)	(0.008)	(0.008)	(0.009)
reg_spline_2	-0.002	-0.002	-0.002	0.002	0.002	0.002
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001	0.001	-0.002**	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
natural resources	-0.492	-0.492	-0.483	-2.551***	-2.572***	-2.615***
	(0.489)	(0.505)	(0.572)	(0.612)	(0.582)	(0.546)
electionyear	0.558	0.555	0.533	-0.195	-0.222	-0.237
	(0.310)	(0.304)	(0.313)	(0.582)	(0.570)	(0.565)
Constant	-22.379***	-22.120***	-19.590***	-17.336***	-19.753***	-18.819***
	(3.651)	(4.128)	(3.778)	(4.019)	(4.244)	(5.088)
pseudoR-squared	0.255	0.255	0.261	0.310	0.316	0.318
log-pseudolikelihood	-166.6943	-166.6066	-165.3613	-105.2937	-104.3108	-104.0359
N	1209	1209	1209	1128	1128	1128

* p<0.05, ** p<0.01, *** p<0.001

Table 36. Clustering on region rather than country

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.559	0.657	-2.087			
	(0.547)	(0.540)	(1.854)			
perceived ec HI		-0.162	-1.498			
		(0.465)	(0.771)			
obj x perc ec HI			1.259			
			(0.715)			
objective pol HI				0.827*	0.654	-0.718
				(0.340)	(0.351)	(1.657)
perceived pol HI					0.764*	0.493
					(0.361)	(0.429)
obj x perc pol HI						0.656
						(0.727)
peaceyears	-0.137	-0.152	-0.149	0.033	0.032	0.047
	(0.199)	(0.190)	(0.191)	(0.208)	(0.210)	(0.212)
gdp/capita (logged)	0.158	0.143	0.166	0.140	0.210	0.238
	(0.189)	(0.180)	(0.188)	(0.198)	(0.221)	(0.239)
population (logged)	1.256***	1.262***	1.279***	1.031***	1.102***	1.068***
	(0.244)	(0.243)	(0.245)	(0.286)	(0.299)	(0.291)
com. confl. 150 km	0.587	0.568	0.542	0.735	0.603	0.557
	(0.327)	(0.340)	(0.335)	(0.380)	(0.385)	(0.409)
reg_spline_1	0.002	0.002	0.002	0.000	-0.001	0.000
	(0.007)	(0.007)	(0.007)	(0.008)	(0.008)	(0.008)
reg_spline_2	-0.001	-0.001	-0.001	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001	0.001	-0.001	-0.001	-0.001
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
natural resources	-0.591	-0.591	-0.581	-2.720**	-2.753**	-2.801**
	(0.401)	(0.400)	(0.433)	(1.042)	(1.059)	(1.080)
electionyear	0.584	0.581	0.562	-0.210	-0.242	-0.254
	(0.332)	(0.330)	(0.336)	(0.499)	(0.506)	(0.509)
Constant	-22.773***	-22.481***	-20.046***	-19.259***	-22.254***	-21.399***
	(3.880)	(4.100)	(4.414)	(4.591)	(5.154)	(5.125)
pseudoR-squared	0.261	0.262	0.267	0.299	0.308	0.310
log-pseudolikelihood	-174.0912	-173.9598	-172.7684	-121.0952	-119.5336	-119.2336
N	1209	1209	1209	1128	1128	1128

* p<0.05, ** p<0.01, *** p<0.001

Table 37. Country peaceyears and splines

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.816	0.398	-1.650			
	(0.520)	(0.233)	(1.420)			
perceived ec HI		0.752	-0.264			
		(0.482)	(0.393)			
obj x perc ec HI			0.975			
			(0.634)			
objective pol HI				0.862*	0.657	-0.888
				(0.370)	(0.430)	(1.487)
perceived pol HI					0.859***	0.590***
					(0.176)	(0.126)
obj x perc pol HI						0.732
						(0.559)
Peaceyears	-0.186	-0.093	-0.082	0.110	0.167	0.191
	(0.123)	(0.114)	(0.125)	(0.089)	(0.125)	(0.139)
gdp/capita (logged)	0.284	0.460*	0.493*	0.376**	0.482***	0.554***
	(0.181)	(0.199)	(0.216)	(0.129)	(0.111)	(0.131)
population (logged)	1.492***	1.491***	1.536***	0.966***	1.070***	1.063***
	(0.340)	(0.313)	(0.339)	(0.187)	(0.234)	(0.247)
com. confl. 150 km	0.219	0.183	0.162	0.603*	0.438*	0.382*
	(0.328)	(0.291)	(0.258)	(0.277)	(0.203)	(0.163)
spline_1	0.011*	0.017***	0.017***	0.025***	0.027***	0.028***
	(0.005)	(0.005)	(0.005)	(0.007)	(0.007)	(0.008)
spline_2	-0.006***	-0.008***	-0.008***	-0.010***	-0.010***	-0.011***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
spline_3	0.002***	0.003***	0.003***	0.003***	0.003***	0.003***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
natural resources	-0.709	-0.734	-0.707	-2.564***	-2.588***	-2.654***
	(0.527)	(0.423)	(0.457)	(0.462)	(0.390)	(0.365)
electionyear	0.455	0.492	0.462	-0.207	-0.245	-0.270
	(0.413)	(0.383)	(0.402)	(0.498)	(0.501)	(0.488)
Constant	-27.638***	-30.109***	-28.930***	-19.834***	-23.795***	-23.656***
	(5.403)	(5.845)	(5.240)	(3.342)	(4.021)	(4.126)
pseudoR-squared	0.312	0.323	0.327	0.335	0.346	0.348
log-pseudolikelihood	-162.264	-159.5554	-158.7201	-114.9455	-112.9975	-112.6364
N	1209	1209	1209	1128	1128	1128

* p<0.05, ** p<0.01, *** p<0.001

Table 38. Dropping Lesotho

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
onsetnonstate_p						
objective ec HI	0.555	0.651	-2.079			
	(0.495)	(0.344)	(1.642)			
perceived ec HI		-0.160	-1.490***			
		(0.696)	(0.414)			
obj x perc ec HI			1.253*			
			(0.592)			
objective pol HI				0.826**	0.654	-0.729
				(0.285)	(0.364)	(2.059)
perceived pol HI					0.763***	0.489
					(0.227)	(0.359)
obj x perc pol HI						0.661
						(0.823)
peaceyears	-0.137	-0.152	-0.148	0.033	0.032	0.046
	(0.263)	(0.205)	(0.201)	(0.222)	(0.229)	(0.246)
gdp/capita (logged)	0.161	0.146	0.169	0.143	0.212	0.241
	(0.218)	(0.204)	(0.217)	(0.170)	(0.188)	(0.213)
population (logged)	1.239***	1.246***	1.263***	1.022***	1.094***	1.059**
	(0.223)	(0.211)	(0.223)	(0.281)	(0.306)	(0.327)
com. confl. 150 km	0.587*	0.568*	0.542*	0.735***	0.603**	0.557**
	(0.258)	(0.275)	(0.250)	(0.218)	(0.216)	(0.216)
reg_spline_1	0.002	0.002	0.002	0.000	-0.001	0.000
	(0.008)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)
reg_spline_2	-0.001	-0.001	-0.001	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
reg_spline_3	0.001	0.001	0.001	-0.001*	-0.001*	-0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
natural resources	-0.595	-0.595	-0.584	-2.721***	-2.754***	-2.804***
	(0.440)	(0.462)	(0.526)	(0.497)	(0.448)	(0.399)
electionyear	0.581*	0.578*	0.559	-0.209	-0.242	-0.254
	(0.296)	(0.293)	(0.302)	(0.492)	(0.489)	(0.484)
Constant	-22.527***	-22.242***	-19.837***	-19.146***	-22.147***	-21.272***
	(3.828)	(4.179)	(3.895)	(4.422)	(5.101)	(5.608)
pseudoR-squared	0.249	0.250	0.255	0.291	0.300	0.301
log-pseudolikelihood	-173.9999	-173.8708	-172.6878	-121.0561	-119.4984	-119.1934
N	1131	1131	1131	1068	1068	1068

* p<0.05, ** p<0.01, *** p<0.001

Table 39. Excluding conflicts in regions where it is unclear or established that the largest ethnic group is not involved in the conflict incident.

	Model 1	Model 2	Model 3
nonstate_ex_larges~v			
objective ec HI	0.625	0.844	-2.059
	(0.824)	(0.514)	(2.055)
perceived ec HI		-0.387	-1.832***
		(0.768)	(0.386)
obj x perc ec HI			1.333
			(0.860)
peaceyears	-0.181	-0.216	-0.213
	(0.337)	(0.300)	(0.293)
gdp/capita (logged)	0.252	0.218	0.252
	(0.283)	(0.272)	(0.307)
population (logged)	1.290***	1.305***	1.319***
	(0.315)	(0.315)	(0.337)
com. confl. 150 km	0.493*	0.445	0.423
	(0.227)	(0.297)	(0.261)
reg_spline_1	-0.001	-0.002	-0.002
	(0.009)	(0.008)	(0.008)
reg_spline_2	-0.000	-0.000	-0.000
	(0.002)	(0.002)	(0.002)
reg_spline_3	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
natural resources	-0.431	-0.447	-0.444
	(0.506)	(0.528)	(0.603)
electionyear	-0.029	-0.023	-0.052
	(0.326)	(0.328)	(0.340)
Constant	-24.472***	-23.792***	-21.174***
	(5.516)	(5.505)	(5.809)
pseudoR-squared	0.229	0.232	0.238
log-pseudolikelihood	-122.1701	-121.6918	-120.8079
N	1211	1211	1211

* p<0.05, ** p<0.01, *** p<0.001

4 Expectations, Grievances and Civil Unrest in Emerging Petrostates. Empirical Evidence from Tanzania

Abstract

When does inequality lead to conflict? Despite recent studies highlighting the effects of group exclusion, this question has not been fully answered. In this paper we argue that objective group inequality is not sufficient to fuel unrest. Structural inequalities need to be perceived as unfair, and become grievances, in order to become a resource for mobilization. While most conflict scholars recognize this on a theoretical level, statistical tests of the effect of inequality on conflict almost exclusively rely on objective data. We argue that this limits their ability to distinguish when inequality is politically relevant and when it is not. Southern Tanzania is a case in point. Despite decades of marginalization, the population remained peaceful until natural gas was discovered, and the government broke their promises of local development. Demonstrating that objective regional inequalities have remained relatively constant, while group grievances seems to have increased, we argue that direct measures of grievances are needed to pinpoint when inequality becomes politically salient. Using novel survey data, we find that people who think that the region is treated unfairly are more likely to support and participate in civil unrest than people who do not hold this opinion. While our data is cross sectional and limited to Southern Tanzania, our results have implications for conflict studies in general, highlighting the importance of gauging perceptions and judgements, and how these are formed.

4.1 Introduction

The age-old debate about whether inequality leads to conflict has been brought a substantial step forward by recent research on group inequality. Spearheaded by Frances Stewart and her theory of Horizontal Inequalities (2002, 2008), the core argument in this work is that inequality becomes a mobilization resource when it overlaps with salient group identities. This theoretical development has given rise to several quantitative studies supporting that horizontal inequalities induce conflict (e.g. Cederman, Weidmann, and Bormann 2015, Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013, Østby 2008b). Similarly, there is an emerging consensus that the presence of oil and gas increases the risk of civil war (Koubi et al. 2014, Ross 2015), and potentially particularly so in combination with horizontal inequalities (Asal et al. 2015). In this article we address two gaps in these literatures. First, while structural asymmetries and natural resources can drive political violence *in general*, empirical studies commonly test – and find – an effect on civil war occurrence. The effect on the risk of civil unrest, as well as individual motivation for collective action, is far less investigated. Second, and most importantly, while all current studies of horizontal inequality and conflict postulate that group grievances drive conflict behaviour, none of them measure or test these grievances directly.

We argue that in order for horizontal inequalities to become a mobilization resource, people have to be aware of them, react to them with frustration and/or consider them unjust. In short, they have to be politically relevant. Such a line of argument concurs fully with the postulated causal pathways underpinning existing studies, which generally assume that horizontal inequalities lead to group grievances through group comparison and an evaluation of injustice (see e.g.Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013). However, contrary to these same studies we do not assume that structural inequalities and group grievances overlap. Rather than being constant, grievances are changing over time (Wood 2003), making them a better measure of conflict risk than objective horizontal inequalities, which are remarkably 'sticky' (Tilly 1999). Similarly, the mere presence of natural resources does not automatically create grievances – whether they do is closely linked to the government's policies and the response by local elites. Our approach thus differs from

existing studies in that we isolate and analyse direct measures of group grievances rather than mere objective structural data, which may or may not be politically relevant.

While our methods are mainly quantitative, we also conducted 35 semi-structured interviews to qualitatively probe the validity of some of our claims. To analyze the link between group grievances and conflict we use novel data from an 800 respondent survey conducted in the Mtwara and Lindi regions in Southern Tanzania in June 2015. These regions have been economically, politically and socially marginalized compared to the rest of Tanzania at least since independence (see e.g. Seppälä and Koda 1998). Despite grave, long lasting, objective horizontal inequalities, the population remained peaceful until very recently. From 2010 onwards a range of huge natural gas discoveries outside the regions' coastlines, as well as some smaller onshore developments, created hopes of change among the locals – further fuelled by ambitious politicians. 'Mtwara will be the new Dubai' President Kikwete declared when visiting this region as part of his 2010 electoral campaign. In 2012 and 2013 riots erupted amid claims of broken promises. The construction of a 532-kilometre pipeline bringing onshore natural gas from Mnazi Bay in the Mtwara region to Dar es Salaam infuriated the local population, who had expected the gas to be used for local industries.

Clearly, the mere existence of objective horizontal inequalities was not enough to trigger conflict in the region. So what did? And how was this related to the natural resources? At the time of the riots, production had not started and the large revenue streams commonly linked to resource conflicts were absent. In short, the case offers a good opportunity to investigate how perceptions and judgements – rather than objective structural asymmetries – affect mobilization.

We are interested in whether group grievances increase the risk of individual civil unrest behavior, taken to include *participation in demonstrations or protest marches*, and *actual use or willingness to use force or violence* for a political cause. However, since recent work demonstrate that attitudes towards the use of political violence – more precisely the acceptance of the use of physical violence – is positively linked to subsequent actual conflict events (Linke, Schutte, and Buhaug 2015), we also test whether group grievances affect *support* for civil unrest. By using individuals as the level of analysis, we are able to establish a direct link between personal motivation and

conflict behaviour and attitudes – again in contrast to existing studies, which generally analyse the link between structural background patterns and events.

We develop our measures of group grievances by taking as point of departure several proposed grievance-inducing mechanisms in the literature. In line with Gurr's relative deprivation theory (1970), we postulate that frustrated expectations are a driver of grievances; however, we connect this to the horizontal inequality literature by looking at frustrated expectations on behalf of the group, not the individual. Furthermore, since it is uncontroversial that people act on perceived, and not objective, inequality (see e.g. Gurr 1970, Stewart 2008), we use a measure capturing perceived horizontal inequality. Finally, people may be aware of horizontal inequalities without considering them unjust (Cederman, Gleditsch, and Buhaug 2013, Almas et al. 2010). We therefore apply a measure of perceived unfair group treatment.

We find that group grievances are indeed associated with participation in and support for civil unrest. People who think that their region is treated unfairly by the government are significantly more likely to both support and participate in civil unrest than people who do not hold this opinion. Frustrated collective expectations and perceived economic regional inequality are also significantly associated with support for civil unrest, but not with participation. Interestingly, a perception of individual inequality is insignificant in all models – suggesting that perceptions on behalf of the group are indeed essential in motivating for mobilization.

While our data is limited to southern Tanzania, our argument has a broader scope. We highlight the importance of measuring the grievances that actually drive mobilization rather than structural background patterns. The fact that structural asymmetries and the perceptions and judgements of them do not overlap, and that this is not a country specific issue, makes our results relevant to studies of the relationship between horizontal inequalities, natural resources and conflict in general.

4.2 Inequality, natural resources and conflict

In this section, we consult the literature on inequality, natural resources and conflict, and first establish that while existing quantitative studies mainly analyze civil war, civil unrest is just as relevant to look at. We then argue that in order to truly capture the effect of grievances on conflict, we have to unpack the causal chain and develop

relevant variables that actually measure how people perceive and judge horizontal inequalities and the management of natural resources.

4.2.1 Civil war vs civil unrest

After decades of debate, there is an emerging consensus in the literature that 1) Horizontal inequalities – or inequality between salient identity groups – increase the risk of civil war (e.g. Cederman, Weidmann, and Bormann 2015, Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013, Østby 2008b) and 2) The presence of oil and gas, particularly onshore, increases the risk of civil war (Collier and Hoeffler 2004, Collier, Hoeffler, and Rohner 2009, Fearon and Laitin 2003, Koubi et al. 2014, Lujala 2010, Ross 2015).

Furthermore, while most studies of natural resources has neglected grievances (Koubi et al. 2014), some recent papers argue that natural resource wealth rarely spreads evenly, and is likely to both exacerbate existing as well as create new horizontal inequalities. Correspondingly, they find a link between the combined presence of horizontal inequalities and natural resources, and civil war (Asal et al. 2015, Basedau and Pierskalla 2014, Wegenast and Basedau 2014).

Common to all these quantitative studies is that they analyze the risk of civil war events. Hence, they do not take into account that inequalities and resources may lead to other types of conflict than civil war, and they also miss individual level motivations for supporting and participating in conflict. The only study we are aware of that look at the combination of horizontal inequalities, natural resources and political violence is Rustad (2016), who find that individual perceptions of ethnic horizontal inequalities increase support for violence in the Niger Delta. This study is however limited to *attitudes* and does not take into account *participation*. Furthermore, its measures of perceived horizontal inequalities are based on each individual's perceptions of own situation, which are then aggregated to a (ethnic) group level. Finally, the study is conducted in regions where revenues from oil production have been flowing for decades.

The overwhelming focus on civil war is surprising, given that groups that are dissatisfied with their access to power, resources or their security can pursue different strategies to improve their situation (Cunningham and Lemke 2011). In fact, while civil war events are declining in Africa, protests and riots have surged, from 339 separate events in 1997 to 5339 in 2014, according to the ACLED dataset (Raleigh et al. 2010).

It is indeed only the empirical studies that have neglected civil unrest. The underlying theories of conflict have a much broader scope in terms of the types of conflict they aim to explain. Gurr (1970) developed his relative deprivation theory to account for the outbreak of a broad array of political violence, and his focus in the original work was race riots in the US. Similarly, Stewart (2008) developed her horizontal inequalities theory to explain political violence. As for oil and gas, in a review article Koubi et al. (2014, 238) note that civil war 'may not even be the predominant' type of violence associated with natural resources, and call for a broadening of the empirical scope to include for example demonstrations and riots.

If we look to the literature on riots, it generally highlights the importance of state response – riots are less likely where participants anticipate coercive or violent responses and more likely if not (Horowitz 2001, Wilkinson 2004, Wilkinson 2009). However, there are some examples of horizontal inequalities leading to mobilization, with evidence mostly from large-N studies of U.S race riots (e.g. Olzak 1994), but also more recently from interethnic violence in Britain (Dancygier 2010). The importance of state actions is also emphasized by the emerging research agenda on nonviolent uprisings. Analyzing when and where such uprisings are most likely to take place, Chenoweth and Ulfelder (2015, 21) find that while political opportunity structures have the strongest explanatory power, grievances are also relevant.

Recognizing, and by no means disregarding, the importance of political opportunity structures, we nonetheless focus on 'push' or motivation factors in this paper. The riots in Mtwara were met with brutal force and human rights violations (Domasa 2013, Interviews 2014/2015), and a fear of similar reactions is regarded by the locals to be the main reason for no further riots after 2013. The first round of mobilization was presumably less affected by such fears, since, by most local accounts, the conduct by the police and the army was surprising in its brutality.

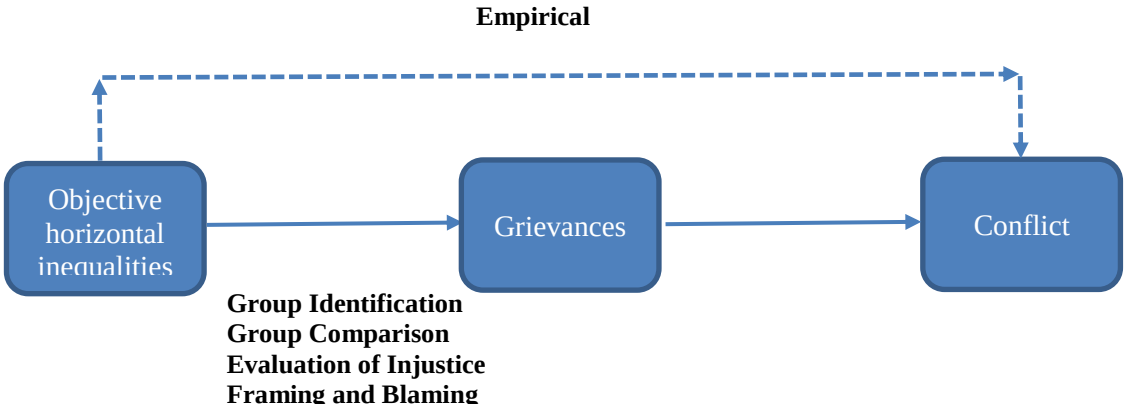
In summary, while the underlying theories of conflict suggest that horizontal inequalities and natural resources may induce a range of different responses, the effect on civil unrest is largely neglected, and the focus of this paper. We define civil unrest as demonstrations, protests and the use of political violence. By studying actual participation in civil unrest, we are able to establish a direct link between individual motivation and collective behaviour. However, the risk of civil unrest is also likely to be

affected by the amount of local support for mobilization (Kalyvas 2006). In fact, in a recent paper Linke, Schutte and Buhaug (2015) demonstrate that positive attitudes towards the use of political violence is linked to subsequent actual conflict events. We therefore expand our scope to include support for civil unrest. While we analyze individual level motivation for collective action, we look at how individuals are motivated by the situation of his/her group, and not the personal situation.

4.2.2 Unpacking the causal chain

While all current studies of horizontal inequality and conflict postulate that group grievances drive conflict behaviour, none of them measure or test these grievances directly. They also vary to the degree that they theorize around the relationship between structural inequality and grievances. Drawing on the broad literature within social psychology on social and intergroup comparison (e.g. Abrams and Hogg 1988, Tajfel and Turner 1979), Cederman, Weidmann and Gleditsch (2011, 481-482) construct a causal pathway where objective political and economic asymmetries are translated into grievances 'through a process of group comparison driven by collective emotions'. The 'perception of injustice' generates grievances that in turn facilitate recruitment and mobilization. Developing this further, Cederman, Gleditsch and Buhaug (2013, 35-44) base their analyses on a theoretical framework where objective horizontal inequalities are transformed into grievances through **1) group identification, 2) group comparison, 3) evaluation of injustice, 4) framing and blaming –** as portrayed in Figure 13 below taken from their study. All these steps will have to be in place for latent objective inequalities to develop into politically salient grievances. Implicit – not all horizontal inequalities lead to conflict (ibid). Still, as the graph also shows, their empirical link bypasses the intermediate steps in the causal chain altogether. This is the case for all empirical studies of horizontal inequalities and conflict.

Figure 13. Cederman, Gleditsch and Buhaug (2013) theoretical framework



Similarly, the studies of horizontal inequalities, natural resources and conflict generally assume that resource revenues spread unevenly and generate grievances. For these and other studies of natural resources and conflict, natural resources are commonly included in the empirical analyses with a dummy variable or a revenue proxy. Which natural conflict induced mechanisms that in fact drive mobilization, and whether these are grievance related, once more remains untested.

In order to establish that it is indeed group grievances that fuel conflict, empirical analyses should test them directly. We will develop a rationale for why and how in the theoretical framework section. But first we will elaborate on the rationale for choosing Tanzania as a case, and use our qualitative material to establish that while objective horizontal inequalities have remained close to constant in the southern regions, group grievances increased following the government's natural gas management.

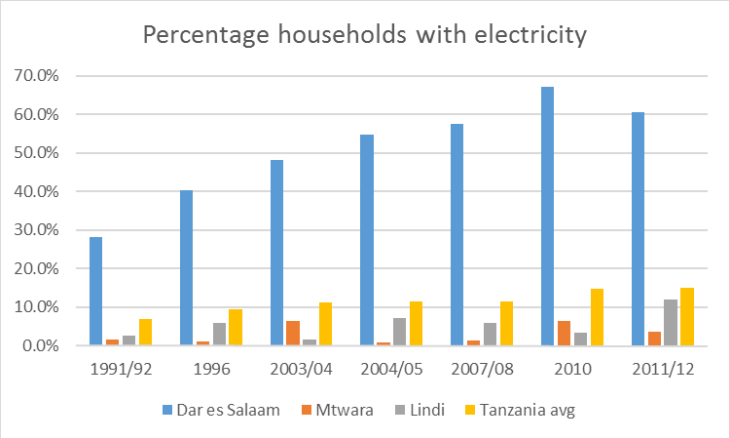
4.3 Southern Tanzania – a case in point

Our rationale for choosing Tanzania as a case is twofold. First, it offers a clear example that objective structural inequalities are not enough to fuel conflict. Second, the protests and riots in Tanzania occurred before production of the natural gas had started, and hence the large revenue flows most often linked to conflict in natural resource rich areas were absent. In summary, the case offers a unique opportunity to study *when* and *how* horizontal inequalities and natural resources lead to conflict.

Lasting objective horizontal inequalities, yet peaceful

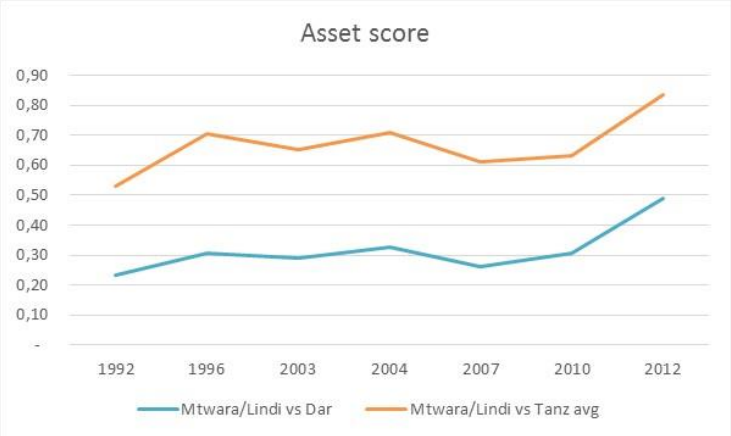
Tanzania stands out as a remarkably politically stable country on a continent plagued by political violence. A strong national identity resulting from Nyerere's extensive policies to fight tribalism and ethnic affiliation is a frequently mentioned reason for this. Concurringly, horizontal inequality scholars highlight Tanzania as a case example of how the absence of ethnic asymmetries fosters stability (Østby 2008b). However, the horizontal inequality literature also find that regional inequality is a strong driver of conflict – when compared across Africa actually a stronger driver than ethnic inequality (Østby 2008a). And when it comes to regional inequality, the southern regions of Mtwara and Lindi have been relatively deprived and marginalized compared to the rest of the country for decades (Seppälä and Koda 1998). Data on household electricity access (Figure 14) and asset ownership (Figure 15)[50] from the Demographic and Health Surveys from 1991 to 2012 clearly demonstrates that Mtwara and Lindi have persistently lagged both Dar es Salaam and the general country average. The asset score actually shows a *decrease* in regional horizontal inequality in 2012.

Figure 14. Percentage households with electricity Mtwara and Lindi vs. Dar es Salaam and Tanzania total:



[50]The asset scores are the share of respondents owning a radio, a television, a refrigerator, and for the newest surveys, a mobile and a telephone, in Mtwara and Lindi divided by the same share in Dar es Salaam/the whole of Tanzania. The lower the score, the larger the inequality.

Figure 15. Asset score Mtwara/Lindi vs. Dar es Salaam and Tanzania total:



Source: Demographic and Health Surveys, accessed at http://beta.statcompiler.com/

This combination of historic objective horizontal inequalities and a peaceful population triggered our interest, as it is a clear indication that structural inequalities in themselves are not enough to spark conflict.

Natural gas discoveries – increased expectations

In 2010, the first of a range of large natural gas discoveries were made offshore the coast of Mtwara and Lindi. Today, the recoverable resources amounts to at least 57 trillion cubic feet, and the natural gas developments have the potential to fundamentally change the politics and the economy of the country (Ng'wanakilala 2016). IMF (2014) simulations assuming development of only half of these resources indicate annual revenues of US$6 billion. By comparison, total government revenues in 2011-2012 were US$ 4.4 billion (TEITI 2014). Such prospects naturally create expectations of increased benefits, particularly among the population in the southern regions. Extensive political promises of local industries and development fuelled expectations further: '*[T]he leaders themselves promised that Mtwara will change, Mtwara will be like Europe*'[51].

The pipeline: dashed expectations

While the large offshore fields remain in the planning phase, a smaller onshore gas field in Mnazi Bay, Mtwara, has now started production. After first debating using this gas to

[51] Interview 2015, male 20.

fuel a 300 megawatt power plant with the potential of truly boosting local economic development, and then a fertilizer plant, with little pre-warning the government decided to pipe the gas to Dar es Salaam (Africa Confidential 2013). The pipeline project was commissioned in November 2012. To the people of Mtwara, this policy decision was a clear sign of broken promises and no local development – as reflected in the quote below:

'*[T]he president promised, he spoke here on Mashujaa Day in Mtwara that there has been discovered gas in plenty and I promise that I will build industries in Mtwara. Later he changed what he said that the gas will now be transported to Dar es Salaam.*' (..) *'If the president wants it what will we get? He will get everything. He and his region will be the only ones benefiting'*[52].

Mobilization

In a region never previously marked by any kind of political uprisings, on 27 December 2012 up to 4000 people attended a protest march in Mtwara Town (Africa Confidential 2013). The protest followed a large public meeting orchestrated by opposition party, Christian and Muslim leaders with one unified message – the gas should not leave Mtwara. Further public meetings increased tensions before two days of riots on 26 and 27 January. Several government offices and houses were torched, and nine civilians were allegedly shot by the police. In May 2013, after the Energy and Mineral Budget Announcement, a general strike to protest what was described as 'unfair distribution of gas revenues' was followed by yet another two days of riots, more loss of civilian lives and property violations (Mgamba 2013)[53]. The police and army's brutal force and severe human rights violations in the end put a stop to the uprisings, although sentiments remain unchanged (Domasa 2013, Interviews 2014/15).

In summary, we see that while objective regional inequalities have been large and stable, and actually decreased following the natural gas discoveries, the government's mismanagement of these new resources increased regional group grievances. We base this claim on individual testimonies which were quite remarkably repeated by all of our 35 informants: the combination of years of neglect, newly raised hopes followed by

[52] Interview 2015, male 58.
[53] The total number of fatalities is disputed – most locals claim that government figure is far too low.

broken promises, motivated and infuriated people and this led to the riots in 2012 and 2013.

4.4 Theoretical framework and testable hypotheses

Our overall hypothesis is that group grievances are associated with civil unrest. In this section we develop three theoretically informed variables that we consider overlapping, although different, measures of these group grievances, and corresponding hypotheses.

4.4.1 Perceived rather than objective horizontal inequality

The notion that people act on perceived rather than objective inequality is uncontroversial. Gurr (1970) explicitly emphasizes that it is the perception of deprivation that matters, not the judgement of an objective observer. As we have already discussed, quantitative studies of horizontal inequalities and conflict generally assume that grievances arise when group members compare their situation to that of other groups and perceive their own position to be inferior. However, most likely due to lack of data, extant studies rely on objective figures and an assumption that objective and perceived horizontal inequalities more or less overlap (see e.g. Stewart 2008). Yet, if we turn to empirical evidence, it soon becomes evident that this is not the case. After conducting perception surveys in Ghana, Kenya, Nigeria, Uganda, and Zimbabwe, Langer and Mikami (2013) conclude that there are large discrepancies between objective and subjective horizontal inequalities in all case countries. Analyzing 19 countries covered by the Afrobarometer Surveys Round 4, Langer and Smedts (2013) in fact find evidence of a *negative* association between objective and perceived economic inequality between ethnic groups. Similarly, Rustad (2016) find large discrepancies between objective and perceived ethnic inequality in the Niger Data, and Miodownik and Nir (2015) analyse 13 countries based on Afrobarometer Surveys round 3 and conclude that fully 48.3% of the respondents misperceive their ethnic groups' economic situation. As we will show in the result section, our own survey data provide further evidence that perceptions do not fully reflect the objective reality.

This discrepancy between objective and perceived horizontal inequalities underscores the importance of using a measure that takes into account people's subjective views when analyzing the relationship between horizontal inequalities and conflict. We know from the interviews that the regional identity is salient in southern Tanzania. People

mostly identify themselves as 'Wakusini' (southerners) or people from Mtwara/Lindi – likely a result of the decades of marginalization and relative isolation. Our informants also make frequent comparisons of the relative disadvantaged socioeconomic position of their region compared to other regions in the country. We thus propose a first set of hypotheses:

*H1a: The higher the perception of regional economic inequality, the higher the **support** for civil unrest*

*H1b: The higher the perception of regional economic inequality, the higher the **participation** in civil unrest*

4.4.2 Judging Inequalities as Unfair and directing the blame

While measuring perceptions helps us distinguish the cases where people are actually aware of horizontal inequalities from those where they are not, this awareness in itself does not necessarily generate grievances. For frustrations to arise, people will have to evaluate the inequalities and consider them unfair. This is not an automatic process. Tay (2013), for instance, finds substantial variation in inequality tolerance in 87 developed and developing countries. She furthermore finds no systematic relationship between objective inequality and inequality acceptance *within* countries. In general, a large body of work document how judgements of what constitutes a fair income distribution vary greatly among both individuals and groups, and depends, among other things, on existing norms and ideologies (see e.g. Alesina and Angeletos 2005, Alesina and Giuliano 2009, Almas et al. 2010, Williams 2003).

Even more importantly, the process of determining what is unfair is often driven by political entrepreneurs (Wilkinson 2004). Within the social movements literature, such 'framing processes' are regarded as instrumental in driving mobilization (see e.g. Benford and Snow 2000, Gamson 1992). These processes create collective action frames, which constitute a shared understanding of a problem, who's to blame for it, and a call for collective action to rectify it (Benford and Snow 2000, 614). In addition to portraying the status quo as unfair, targeting the blame on a specific actor that it is possible to confront, constitutes an essential part of the mobilization process.

Natural resources may provide a particularly useful tool for political entrepreneurs and thus become instrumental in framing processes. Their inherent local nature makes it

plausible for leaders to forward claims that the resources belong to the group living in the area where they are found, and not, for instance to the central government. In an influential study of the separatist conflict in Aceh, Aspinall (2007) demonstrates how natural resources are used by elites to *create* grievances and become a mobilization tool. However, he emphasizes the need for a pre-existing collective identity for such a framing strategy to work: 'resource extraction will trigger conflict only if an appropriate collective action frame exists in the cultural toolkit of the group in question' (Aspinall 2007, 951). His argument resonates with findings in empirical studies of realistic group conflict theory. The original version of this theory posits that conflict between groups arise when there is intergroup competition over resources (Campbell 1965). However, empirical studies testing this relationship indicate that an emerging threat from competition over resources only generates in-group solidarity when this in-group solidarity is above a certain threshold before the threat arises, when the threat is affecting the whole group and when leaders seeks to mobilize solidarity (Brewer and Campbell 1976, Sherif et al. 1961).

Such an explanation for natural resource driven conflict resonates with the situation in Mtwara before the riots in 2012 and 2013. First, as noted earlier, the historic marginalization and isolation from the rest of Tanzania have resulted in people developing a distinct regional identity. Second, the hopes created by the natural gas discoveries, and the following disappointment once it was decided to pipe the onshore gas to Dar es Salaam, were used deliberately by political entrepreneurs. Opposition party leaders from several different parties, and Christian and Muslim leaders, orchestrated large community meetings with a clear message: the gas should not leave Mtwara. People were encouraged to take to the streets and protest – and did – very much to the surprise of media observes highlighting the peaceful conduct characterizing the region for such a long time (Mgamba 2013).

To summarize, framing and leadership intervention seem to be instrumental in creating a common perception of unfair inequality among group members, and consequently in turning horizontal inequalities into a mobilization resource. It is also evident that objective statistical figures on horizontal inequality will not capture the effect of such framing processes. Hence, we suggest a second set of hypotheses:

*H2a: The higher the perception of unfair treatment of the region by the government, the higher the **support** for civil unrest*

*H2b: The higher the perception of unfair treatment of the region by the government, the higher the **participation** in civil unrest*

4.4.3 Grievances arising from Frustrated Expectations

Gurr's (1970) classic work on relative deprivation is one of the main building blocks for Stewart's horizontal inequality theory. Central in Gurr's argument is the notion that people will get frustrated – and grievances will develop – when people get less than they originally expected. Thus, he follows in the footsteps of Davies (1962), who's J-Curve theory predicted that that revolutions will occur when a period of good times – and rising expectations of wealth – is followed by recession. Disappointment thus stands out as a key grievance inducing mechanism in the classic works that horizontal inequality theory are partly founded on. Even so, none of the empirical studies we are aware of theorize nor measure frustrated expectations. Frustrated expectations are also absent in Cederman, Gleditsch and Buhaug's (2013) framework.

Frustrated expectations might be particularly relevant for resource rich regions. Oil and gas discoveries are notorious in creating inflated expectations, which might turn into disappointment if and when they are not fulfilled (Ross, Lujala, and Rustad 2012).

The powerful effect of frustrated expectations is illustrated by our case Tanzania. The large natural gas discoveries and the political promises of benefits created enormous expectations of local development. All our informants highlight that the government broke their promises of local development when deciding to pipe the gas to Dar es Salaam, and that this, on top of the years of neglect and underdevelopment, was what infuriated people.

In summary, both the underlying theories of grievances and conflict as well as the potential prominence of frustrated expectations in natural resource rich areas call for a direct test of this mechanism. We hence propose a third set of hypotheses:

*H3a: The higher the collective frustrated expectations linked to the natural gas developments, the higher the **support** for civil unrest*

*H3b: The higher the collective frustrated expectations linked to the natural gas developments, the higher the **participation** in civil unrest*

We specifically test the effect of frustrated expectations on behalf of the people in the region rather than on behalf of the respondent as an individual – in line with horizontal inequality theory, and in line with Gurr's (1970/2011) own criticism of his original work.

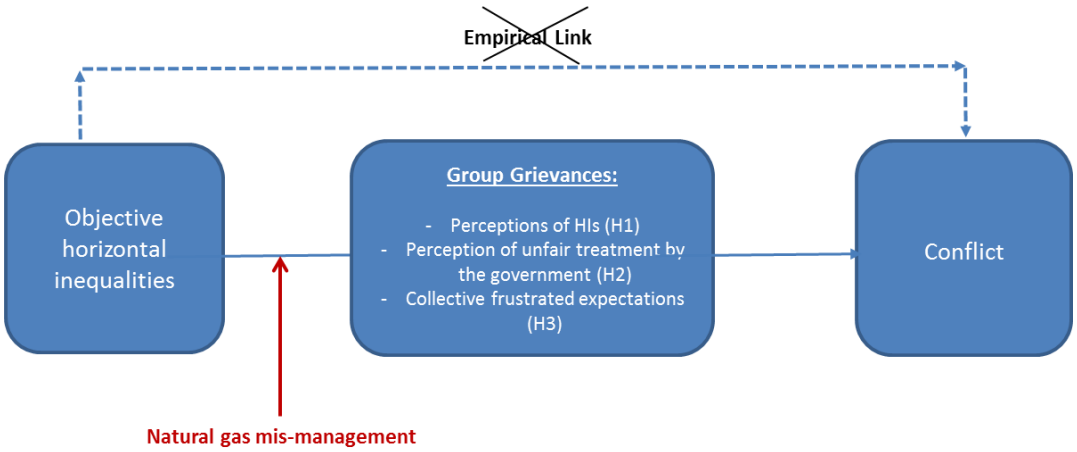
4.4.4 Summary

In this section, we have developed hypotheses to specifically test the association between group grievances and mobilization based on three different measures – as demonstrated in Figure 16 below. While we expect all of them to capture some effects of group grievances, we also expect 'unfair treatment by the government' to be the most comprehensive measure since – as opposed to the perceived horizontal inequality measure – it also captures judgements and who is to blame. This also to some extent applies to the expectations measure, which captures frustrations, but not a targeting of the blame.

With these three measures it also follows that we do not test all the relationships in Figure 16 in our quantitative analysis. However, we assume that *natural resource mismanagement* comes in as an intervening variable and foments grievances through increased perceived regional inequalities, evaluation of injustice, framing and blaming as well as frustrated expectations. Natural resource mismanagement – and not the mere presence of natural resources – thus acts as an important catalyst for group grievances[54]. We furthermore rely on our qualitative data to claim that objective horizontal inequalities in themselves did not cause conflict – as elaborated in the Tanzania section. We will have to leave for future studies to look more specifically at the link between objective asymmetries and group grievances.

[54] This is obviously not the only way this process could be triggered, but we leave for other studies to investigate other intervening events.

Figure 16. Framework for testing group grievances and conflict



4.5 Research Design

4.5.1 The survey

To gather data to test our hypotheses we conducted an 804 respondent survey in Mtwara and Lindi covering 6 of the 13 districts in the regions. While Mtwara has been the hub for the offshore exploration activity as well as the site for the onshore gas development in Mnazi Bay, the Liquefied Natural Gas (LNG) plant to process the gas from the offshore fields is planned to be constructed in Lindi. Mtwara Municipality, Mtwara Rural, Lindi Rural and Lindi Municipality are thus the districts most affected by the current and planned gas developments, and were chosen due to this. Tandahimba and Newala are the main cashew nut producing districts. At the time of the riots, several people from these districts were allegedly bussed to Mtwara to take part in the protests. In order to cover these groups as well the two districts are included. The exclusion of the remaining seven districts is due both to their limited relevance and financial constraints. Importantly, the survey covered areas far enough from the gas discoveries to capture the sentiments of people totally unaffected by the new resources. The infrastructure in the area is very poor, and people outside the biggest towns in Tandahimba and Newala, and in some parts of Mtwara and Lindi Rural, live very isolated. In fact, 9% of the respondents had not heard about the gas discoveries at all. In the remaining sample with only people who had heard of the gas, 13% had not heard of the pipeline.

The survey was stratified according to district, urban, rural and mixed areas, and gender – but further to that the selection of wards, villages, and respondents was fully randomized. 67 wards were drawn, and subsequently two villages within each ward. We conducted six interviews in each village, selected households using random walking patterns and drew respondents within each household. The enumerators recorded the GPS location of each interview. Figure 17 shows the selected districts and sampled villages (see appendix 4.8.2, as well as Supplementary Appendices, for more information on the survey). In addition to the survey data we draw on information from 35 semi-structured interviews conducted in 2014 and 2015 (see Chapter 5 and Supplementary Appendices for more information).

Figure 18 shows the gas blocks and the pipeline to Dar es Salaam. The offshore gas will be processed onshore in Lindi.

Figure 17: Survey points and selected districts in Mtwara and Lindi.

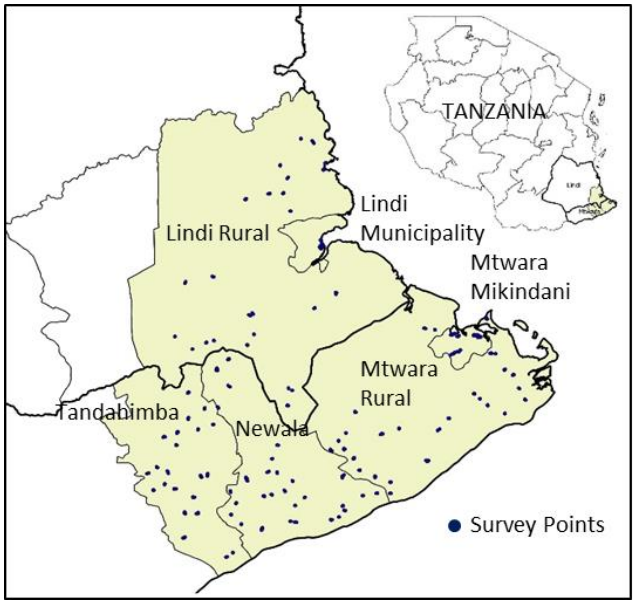
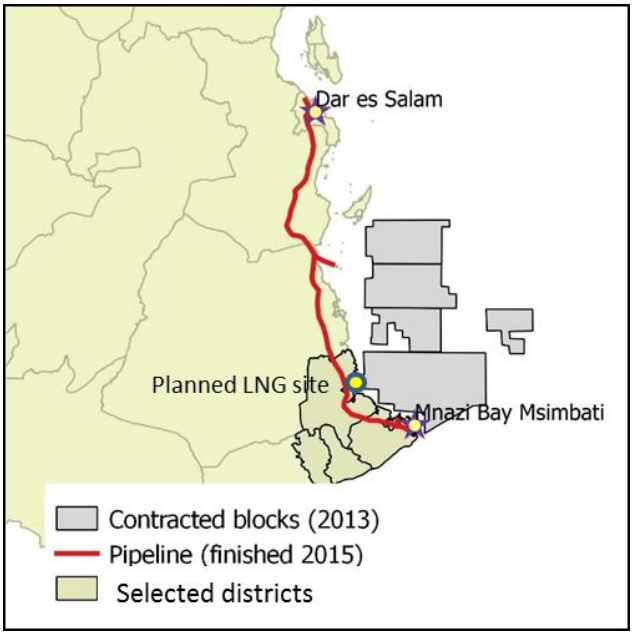


Figure 18: Gas operations and pipeline in southern Tanzania



4.5.2 Dependent variables

We use the survey data to test hypotheses H1-H3. We define civil unrest as protests, demonstrations and the use of political violence. As noted earlier, attitudes towards the use of political violence are positively linked to conflict events (Linke, Schutte, and Buhaug 2015), and high levels of perceived horizontal inequalities increase the likelihood of supporting violence (Rustad 2016). Therefore, we also test whether group grievances affect attitudes towards civil unrest in addition to actual participation. We use four different dependent variables as measures of civil unrest[55]. Our first dependent variable – *support for protest*, is based on a question on whether the government's natural resource management is a reason to protest. The respondent was given the alternative to agree with two different statements, and then asked to state how strongly he/she agreed with the statement:

Statement 1: Taking to the streets to protest against the government's management of the natural gas resources is not acceptable.

Statement 2: Sometimes, it might be necessary to take to the streets to protest against the government's management of the natural gas resources.

All those supporting statement 2, i.e. supporting protest, are coded 1 (43%), all those supporting statement 1 are coded 0 (41%), the rest are coded missing.

[55] See appendix 4.8.1 for descriptive statistics.

Our second dependent variable – *support for violence* - is based on a similar question replicated from Afrobarometer Surveys round 5. Once more those agreeing with statement 2 are coded 1 (40%) and those agreeing with statement 1 coded 0 (48%):

Statement 1: The use of violence is never justified in Tanzanian politics today.

Statement 2: In this country, it is sometimes necessary to use violence in support of a just cause.

The distribution of the support for protest and violence variables is fairly similar, however the correlation between the two is only 0.365.

Our third and fourth dependent variables – *participation in protest and demonstrations*, and *actual/willingness to use political violence* – are based on the question:

I'm going to read out some forms of political action that people can take, and I'd like you to tell me, for each one, whether you have done any of these things, whether you might do it or would never under any circumstances do it

E. Participated in a demonstration or protest march (1 have done, 2 might do, 3 would never do)

F. Used force or violence for a political cause (1 have done, 2 might do, 3 would never do)

The variables are coded into two dummy variables: *participated in protest* and *might or have used violence.* For the variable *participated in protest* all those who answered have done are coded 1 (47 respondents) and those who answered *might do* or *would never* are coded 0. Only 6 respondents reply that they have participated in violence, impeding a proper test of participation in violence. However, rather than skipping this variable altogether, we include those who say they *might* use violence as well (in total 56 respondents), emphasizing that this is a different test than for the protest variable.

4.5.3 Independent variables

To test our three sets of hypotheses we use three different independent variables. To test H1 – *The higher the perception of regional economic inequality, the higher the support for (H1a)/ participation in (H1b) civil unrest,* our independent variable is 'perceived regional economic inequality', based on the question:

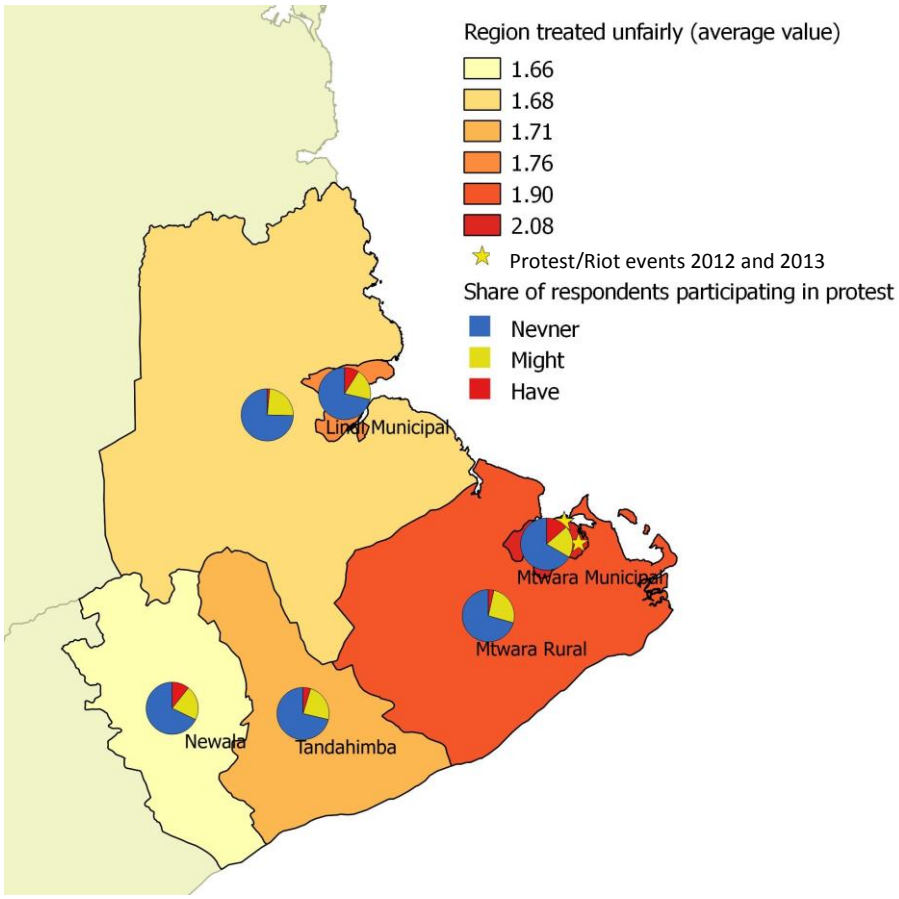
Think about the condition of people living in this region. Are their economic conditions worse, same as or better than for those living in other regions in this country? (much worse is coded 5 and much better is coded 1).

To test H2: *The higher the perception of unfair treatment by the government of the region, the higher the support for (H2a)/participation in (H2b) civil unrest,* the independent variable is 'region treated unfairly', based on the question:

How often, if ever, are people living in this region treated unfairly by the government (Never is coded 1 and Always is coded 4).

Figure 19 portrays the average for the *treated unfairly* variable (H2) for the 6 covered districts, as well as actual participation in protests. As expected, Mtwara Municipality, home to the riots, has the highest number of respondents perceiving their region to be treated unfairly, followed by Mtwara Rural (home to the onshore developments). The share of respondents having participated in protests is mostly higher where perception of unfairness is also high.

Figure 19: Mean values for variables 'region treated unfairly' and 'participation in protest', by District



Finally, for H3: *The higher the collective frustrated expectations linked to the natural gas developments, the higher the support for (H3a)/participation in (H3b) civil unrest,* we use the variable 'frustrated regional expectations' which measures how satisfied people are with the development of the living conditions for the people in their region compared to the expectations they had before they had heard of the pipeline[56]:

How satisfied are you with the development in the living conditions for the people in your region – compared to what you expected? (very dissatisfied is coded 5 and very satisfied is coded 1). More than 60% were dissatisfied or very dissatisfied and less than 10% satisfied or very satisfied.

4.5.4 Controls

To control for other factors identified by the literature to affect conflict behaviour, we include variables for age, gender (man coded 1), and education. We also add a variable measuring how often the respondent has 'gone without food', as a poverty indicator. Furthermore, since the previous rounds of riots were all in Mtwara and not in Lindi, we add a dummy variable capturing whether the respondent lives in Mtwara or not. We also include a dummy for whether the respondent lives in a rural area or not. We add two variables measuring the respondent's perception. One measures the respondent's perception of one's own economic situation compared to other Tanzanians, as this is likely to influence the respondent's perception of his/her region's situation (1= very satisfied and 5=very unsatisfied). Second, we ask whether the respondent feels unsafe when walking in the neighborhood (0=never and 4=always). The descriptive statistics for all the variables are given in appendix 4.8.1.

4.6 Results

Since a difference between objective and perceived horizontal inequality is such a central part of our argument, we start this result section by looking at some descriptive statistics. We have already noted that it is the regional identity that is most salient in Mtwara and Lindi, with people identifying themselves largely as 'Southerners'. We also demonstrated in the Tanzania section that objective regional inequality – both compared

[56] The respondents were first asked when they heard of the pipeline, and then on their expectations to improved living conditions before and after they had heard of the pipeline, before they were asked to assess their satisfaction with the development so far. Only those that had heard of the pipeline got these questions, hence the number of respondents is 634, not 804.

to Dar es Salaam and the rest of Tanzania – has been high for decades. All the respondents in the survey belong to the same regional group, and are by definition equally objectively deprived. Still, the perceptions of regional deprivation vary to a great extent in the sample. 53% of the respondents think their region is worse or much worse off than other regions in the country, 19% think their economic situation is the same, and 14% think it is better or much better. The rest of the respondents replied that they do not know. Once more we see that the objective situation and the perceptions of it do not overlap. On the other hand, 42% hold that the region is *never* treated unfairly, while 43% hold that this happens sometimes, often or always.

We then move on to test our three sets of hypotheses. All our dependent variables are coded so that the highest value indicates high level of frustrated expectations, perception of inequality, or unfairness. Since the dependent variables are dichotomous, we use logit regressions.

In Table 40 we test H1a and H1b. The coefficient for perceived economic horizontal inequality is significant in models 1 and 2 testing support for civil unrest, giving some support to hypothesis 1a. Models 3 and 4 test whether perceived economic horizontal inequalities affect the likelihood of participation in civil unrest. The variable is not significant in either of the models.

Table 40: Logistic regression perceived economic horizontal inequality on support and participation in civil unrest

	Model 1	Model 2	Model 3	Model 4
	Support Protest Nat Res	Support Violence	Participated Protest	Might/have used violence
Perc. ec. HI	0.239*	0.259*	0.254	-0.157
	(0.106)	(0.104)	(0.203)	(0.173)
Male	0.454*	-0.159	-0.016	0.504
	(0.183)	(0.178)	(0.350)	(0.323)
Age	-0.316***	-0.248***	0.034	-0.421***
	(0.065)	(0.063)	(0.117)	(0.121)
Education	-0.154*	-0.003	-0.023	-0.063
	(0.064)	(0.062)	(0.122)	(0.114)
Mtwara	-0.404*	0.150	0.995*	0.409
	(0.206)	(0.201)	(0.465)	(0.391)
Gone without food	0.042	0.130	0.111	0.015
	(0.084)	(0.082)	(0.155)	(0.141)
Perc. indiv. ineq.	0.012	-0.051	-0.038	0.122
	(0.106)	(0.105)	(0.203)	(0.181)
rural	0.011	0.026	-1.185**	-0.186
	(0.254)	(0.251)	(0.405)	(0.423)
Unsafe	0.270*	0.496***	0.197	0.365*
	(0.126)	(0.127)	(0.189)	(0.172)
Constant	0.454	-0.474	-3.594**	-1.621
	(0.588)	(0.570)	(1.158)	(1.020)
pseudoR-squared	0.060	0.059	0.052	0.067
log-pseudolikelihood	-374.9529	-389.364	-138.4581	-160.3008
N	576	599	626	626

* p<0.05, ** p<0.01, *** p<0.001

In Table 41 we test H2a and H2b. We see that the treated unfairly variable is significant and positive in all four models. This suggests that the perception of being treated unfairly is highly correlated with both support of civil unrest (models 5 and 6), participation in protests and demonstrations (model 7), and willingness to use/actual use of violence for a just cause (model 8).

Table 41: Logistic regression unfair treatment on support and participation in civil unrest

	Model 5	Model 6	Model 7	Model 8
	Support Protest Nat Res	Support Violence	Participated Protest	Might/have used violence
Region treat unfai~y	0.488***	0.314**	0.386*	0.374*
	(0.106)	(0.101)	(0.177)	(0.160)
Male	0.361	-0.223	0.061	0.411
	(0.186)	(0.179)	(0.348)	(0.325)
Age	-0.342***	-0.229***	0.064	-0.428***
	(0.065)	(0.062)	(0.116)	(0.125)
Education	-0.128*	0.023	0.023	-0.011
	(0.064)	(0.062)	(0.121)	(0.114)
Mtwara	-0.632**	0.032	0.779	0.518
	(0.208)	(0.199)	(0.453)	(0.399)
Gone without food	0.019	0.103	0.085	0.028
	(0.084)	(0.081)	(0.151)	(0.140)
Perc. indiv. ineq.	0.094	0.056	0.087	0.043
	(0.097)	(0.095)	(0.181)	(0.166)
rural	-0.155	-0.051	-1.132**	-0.344
	(0.265)	(0.259)	(0.400)	(0.409)
Unsafe	0.041	0.298*	-0.005	0.195
	(0.126)	(0.122)	(0.201)	(0.180)
Constant	0.683	-0.321	-3.846***	-2.616**
	(0.568)	(0.557)	(1.072)	(0.983)
pseudoR-squared	0.087	0.057	0.058	0.088
log-pseudolikelihood	-367.1746	-387.0545	-139.8383	-156.4297
N	582	594	621	621

* p<0.05, ** p<0.01, *** p<0.001

In Table 42 we test H3a and H3b, that frustrated expectations will lead to increased support and participation in civil unrest. The model testing support for protest, (Model 9), is positive and significant, suggesting that the more frustrated someone is with the development for the people in their region, the more likely they are to support the use of protest. We do not see the same for support of violence, hence H3a is partly supported. For participation on civil unrest, we do not get any significant results. H3b is not supported.

Table 42: Logistic regression frustrated expectations on support and participation in civil unrest[57]

	Model 9	Model 10	Model 11	Model 12
	Support Protest Nat Res	Support Violence	Participated Protest	Might/have used violence
Frustrated exp	0.408***	0.168	0.081	-0.157
	(0.119)	(0.113)	(0.229)	(0.220)
Male	0.264	-0.234	0.158	0.595
	(0.210)	(0.200)	(0.417)	(0.419)
Age	-0.376***	-0.288***	0.030	-0.303*
	(0.073)	(0.069)	(0.132)	(0.138)
Education	-0.116	-0.012	-0.110	0.147
	(0.074)	(0.071)	(0.150)	(0.150)
Mtwara	-0.740**	-0.012	0.697	0.653
	(0.238)	(0.222)	(0.499)	(0.486)
Gone without food	0.107	0.222*	0.184	0.145
	(0.094)	(0.091)	(0.173)	(0.167)
Perc. indiv. ineq.	0.011	-0.154	-0.087	0.163
	(0.114)	(0.111)	(0.218)	(0.211)
rural	0.457	0.092	-1.189**	-0.058
	(0.272)	(0.264)	(0.438)	(0.478)
Unsafe	0.285	0.379**	0.350	0.289
	(0.146)	(0.137)	(0.201)	(0.210)
Constant	-0.114	0.402	-2.699*	-3.370*
	(0.694)	(0.672)	(1.319)	(1.339)
pseudoR-squared	0.091	0.060	0.065	0.063
log-pseudolikelihood	-297.219	-317.7552	-106.3187	-114.1643
N	474	489	503	503

* p<0.05, ** p<0.01, *** p<0.001

Figure 20 indicates the likelihood of supporting protest against the government's natural resource management for each value of the independent variables, based on Model 1 (Perceived economic regional inequality), 5 (Region treated unfairly) and 9 (Frustrated expectations). All other variables are set at their means. The highest likelihood of supporting civil unrest - 77% - is among those who score highest on the *Region treated unfairly* variable. The likelihood is increasing with more than 30 percentage points from someone answering *never* to someone answering *always.*[58] The frustrated expectation variable has the highest overall increase going from 29% for those who answered 'very satisfied' to 66% for those who answered 'very dissatisfied'. Perceived economic HI has a similar trend, but the slope is less steep.

[57] The 'frustrated expectations' question was only asked to the subset of respondents who had already heard of the pipeline. The number of observations is therefore much lower.

[58] Note that Region treated unfairly only had 4 answer categories, while the other two have 5.

Figure 20: Substantive effects of 'perceived economic horizontal inequality', 'region treated unfairly' and 'frustrated expectations' on support for protest (models 1, 5 and 9)

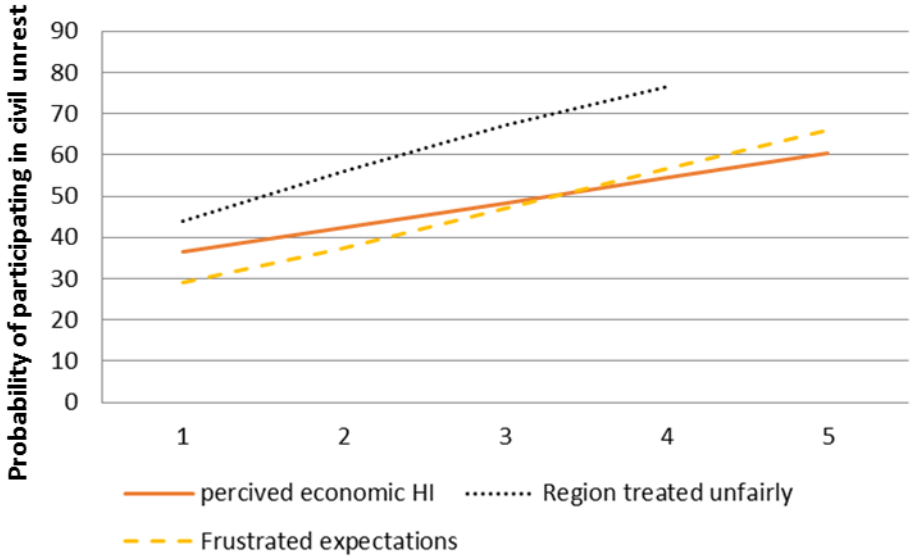
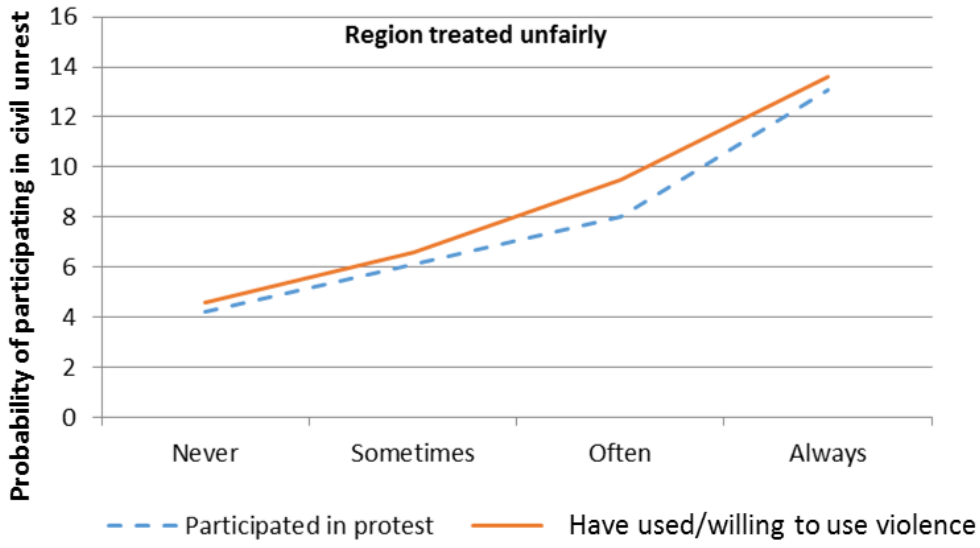


Figure 21 shows the substantive effects for 'region treated unfairly' on participation in civil unrest, as this is the only one of the dependent variables that significantly affect this independent variable (models 7 and 8). The figure indicates that the likelihood of participating in protest is approximately the same as for expressing willingness and using violence. For both variables, the risk increases threefold from respondents feeling that the region is never treated unfairly to respondents holding the region is always treated unfairly.

Figure 21: Substantive effects of 'region treated unfairly' on participation in civil unrest (models 7 and 8)



Most of our control variables behave as expected. *Age* is significant and negative in all models, suggesting that younger people are more likely to support and participate in civil unrest. Poverty seems to have little effect on both support and participation, since the variable *Gone without food* is insignificant in most of the models. *Unsafe*, the variable measuring whether the participant feels safe or not in their neighbourhood, is consistently significant and positive for the models testing support for violence – which seems plausible. For the remaining control variables, we find little effect. Most notable is the variable *Perception of own situation*, which measures perceived vertical/individual inequality. The lack of any effect of individual inequality resonates well with the findings of Rustad (2016), and in general lends support to the premise of horizontal inequality theory – inequality matters when it overlaps with salient group identities.

Since we postulate that our three independent variables are different measures of group grievances, as an alternative specification we include all three of them in one model to test which of them have the strongest effect (see appendix 4.8.4). For this combination, the effects of *frustrated expectations* and *Region treated unfairly* are largely unchanged, but the effect of *perceived economic horizontal inequality* disappears. This can partly be explained by the fact that we miss many respondents when including *Frustrated*

expectations[59]. When running an analysis with only *Perceived horizontal inequality* and *Region treated unfairly*, both of the variables are significant. This suggests that the three variables to some degree measure the same, but not completely. The correlation between them ranges from 0.2 to 0.3.

That *Region treated unfairly* is most strongly associated with both use of political violence and participation in civil unrest is in line with our theoretical expectations. This measure captures both a feeling of being treated unfairly and a direction of the blame for this treatment – factors identified by the social movements literature to be vital in facilitating mobilization (Benford and Snow 2000). In that sense the *Perceived horizontal inequality* measure is weaker, and hence it may not be surprising that it is only correlated with support for protests, and not the other independent variables. It is likely to be easier – and potentially require less frustration – to offer support for an act, than to follow up on it. The most surprising results are those linked to *Frustrated expectations*. We would have expected this variable also to affect participation in civil unrest and support for the use of political violence. The correlation to support for protests is however strong also when *Region treated unfairly* is included in the same model. One reason for these results may be that the support for protest independent variable is the only one which is explicitly linked to natural resources, which is also the case for the *Frustrated expectations* measure.

Our data is cross-sectional, and hence we cannot make any causal claims based on it. An inherent limitation to our quantitative analysis is that we cannot establish whether the grievances we attempt to measure came *before* the civil unrest and helped fuel it, or were rather created *by* the civil unrest – and the human rights violations committed by the army and the police. We do however believe that the accounts from our semi-structured interviews, with all informants emphasizing that group grievances motivated people to mobilize, strengthens our findings and limits the endogeneity issues.

Since relatively few respondents report that they have actually participated in protests and demonstrations, we run a separate model where we, equally to the use/might use violence model, also include those who state that they might participate in protests and demonstrations. The results remain the same (see appendix 4.8.4 for the *Treated unfairly variable*). The survey also included a question on support for protest against the

[59] Only those who had heard of the pipeline previously got this question.

government in general, and not specifically linked to the natural gas management. The results are largely unchanged when using this question instead of the natural gas protest question. For the use of violence variable, the results for perceived unfair treatment of the region actually stays significant if we only code those 6 that responded that they had used violence as 1, and code those who answered that they might as 0. However, 6 incidents are far too few base any conclusions on.

Since our measure for poverty – gone without food – implies a subjective evaluation, we also tested other, more objective, measures for poverty (asset ownership, access to water/latrine, connection to electricity grid). Similarly to the *gone without food* measure they are all insignificant. Furthermore, Tanzania sees increasing tensions between Christians and Muslims. In our sampled districts the majority are Muslim, while in Tanzania total the opposite is the case. We therefore included a dummy controlling for Muslim versus other religions (mainly Christian) as a robustness test. The dummy proved insignificant and results unchanged. Dummies for unemployment, and whether the respondent live in areas directly affected by the gas developments, are also insignificant. Finally, as it has often been a challenge to interview survey respondents, particularly women, without other people being present, we also tested whether the fact that village ward and/or spouse were present during the interview affected the results (this was the case for 7% of the respondents). The dummy for this is also insignificant, and results unchanged.

4.7 Conclusion

Current studies of horizontal inequalities, natural resources and conflict have largely neglected civil unrest. Furthermore, despite postulating that group grievances drive conflict behaviour, they never measure or test these grievances directly. This is problematic, since group grievances are highly subjective phenomena that will not be reflected in the statistical figures currently used to measure their effect. In essence, structural inequalities may or may not be politically relevant, and natural resources may or may not cause frustration. Moreover, while structural inequalities are relatively constant, group grievances vary depending on how people interpret their group's situation. Hence, empirical studies using objective data as a proxy for group grievances have limited power to evaluate where the conflict risk is greatest.

In line with this, our analysis lends clear support to the notion that structural horizontal inequalities lead to participation in, and support for, civil unrest when they are perceived as unfair. Objective horizontal inequalities have been persistent in for decades in Mtwara and Lindi without causing conflict. On the other hand, group grievances increased and fuelled riots following the government's mismanagement of the natural gas resources – as confirmed by overlapping accounts from all our informants.

In general, we find that group grievances are associated with support for civil unrest. All of our three measures – perceived horizontal inequality, frustrated collective expectations and perceived unfair treatment of the region by the government – are significantly linked to support for protests, while perceived horizontal inequality and perceived unfair treatment is significantly linked to support for violence for a just cause.

When we turn to actual civil unrest participation, on the other hand, it is only those who find that the region has been treated unfairly by the government that are more likely to have both participated in demonstrations and protest marches, and that are willing to use or have used violence for a just cause. The effect of frustrated collective expectations and perceived horizontal inequalities is in fact negative, but not significant. From this we can draw two conclusions. First, in line with what one would expect, judging inequalities as unfair seems to be a stronger indicator of grievances than being aware of, or perceiving, horizontal inequalities, and also than frustrated expectations. Second, since our results are inconsistent for attitudes and participation in civil unrest, using attitudes as a proxy for behaviour has some limitations. However, it cannot be ruled out that a general high acceptance of civil unrest actually increases the risk of such incidents by providing support for the participants – as Linke, Schutte and Buhaug (2015) indeed find.

Our results speak to two different literatures. First, our findings have implications for the study of horizontal inequalities and conflict in general. While our data is from Southern Tanzania, the discrepancy between objective and perceived horizontal inequalities is demonstrated to apply for a whole range of Sub-Saharan African countries by other empirical works. It is unlikely – though remains untested – that this is different in other parts of the world. Hence, conflict studies should start to gauge perceptions and judgements, and how these are formed, in order to better determine when and how horizontal inequalities lead to mobilization. That said, our results support

the postulated causal chains underpinning current studies of horizontal inequalities and conflict (e.g. Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013). Our results also lend support to Gurr's (1970) relative deprivation theory when applied on a group level – frustrated collective expectations linked to natural gas developments are associated with civil unrest support.

Second, several conflict researchers highlight the risk of natural resources being a catalyst for political entrepreneurs to exacerbate – or create – grievances when they are found in areas inhabited by marginalized groups (e.g. Aspinall 2007, Collier 2015). This corresponds to empirical studies of realistic group conflict theory, emphasizing how competition over resources increases in-group solidarity and out-group hostility when an existing group identity precedes the resource discovery. Our qualitative data indicate that the Mtwara riots are a good example of such dynamics, and hence serve as a warning signal for a range of other Sub-Saharan African countries facing very similar situations. A critical feature of new resource discoveries is that they are frequently made in remote areas inhabited by marginalized groups – just as in our Tanzanian case. Kenya has made discoveries in the land of the impoverished Turkana people (Johannes, Zulu, and Kalipeni 2015), Uganda's oil discoveries overlap with the territory of the marginalized Kingdom of Bunyoro (Vokes 2012), Ghana's large Jubilee discovery is outside the coast of the underdeveloped Western Region, just to mention some other examples. In fact, leading scholars warn that a combination of strong sub-national identities and new oil and gas discoveries constitute a substantial future security threat on the continent (Collier 2015).

While we believe our results have implications for the broader study of horizontal inequalities, natural resources and conflict, our data remains limited to Southern Tanzania. Also, our data is cross sectional, making our results subject to potential endogeneity. The accounts of what actually happened in Tanzania helps mitigate this, as they emphasize that group grievances led to mobilization. However, we cannot rule out that the same mobilization – and the harsh government response – also created some of the grievances we measure. Further analyses based on a larger set of countries as well as time-series data are needed to fully establish the scope and validity of our argument.

In summary, objective horizontal inequalities may or may not lead to conflict depending on their political relevance and how they are perceived and judged by group members.

Similarly, the mere presence of natural resources does not automatically create grievances and conflict – whether they do is closely linked to the government's policies and the response by local communities. However, when people judge their group's position and benefits as unfair, this constitutes a very strong mobilization resource.

4.8 Appendices Chapter 4

Appendix 4.8.1 – Descriptive statistics and correlation matrix all variables

Variable	Obs	Mean	Std. dev	Min	Max
Support protest nat res	669	0.513	0.5	0	1
Support violence	701	0.454	0.498	0	1
Participated protests	760	0.062	0.241	0	1
Might/have used violence	763	0.073	0.261	0	1
Frustrated expectations	549	3.792	0.89	1	5
Perceived HIs	685	3.59	0.96	1	5
Treated unfairly	673	1.776	0.907	1	4
Male	804	0.504	0.5	0	1
Age	789	3.188	1.576	1	7
Education	802	2.483	1.581	0	8
Mtwara	804	0.746	0.435	0	1
Gone without food	803	1.132	1.16	0	4
Perception of own situation	770	3.543	0.956	1	5
Rural	804	0.84	0.367	0	1
Unsafe	783	0.338	0.75	0	4

	Support pr	Support vic	Participate	Might/hav	Frustrated	Perceived I	Treated un	Male	Age	Education	Mtwara	Gone with	Perception	Rural	Unsafe
Support protest nat res	1														
Support violence	0.39	1													
Participated protests	-0.003	0	1												
Might/have used violence	0.117	0.099	0.179	1											
Frustrated expectations	0.201	0.071	0.025	0.036	1										
Perceived HIs	0.164	0.105	0.019	0.008	0.259	1									
Treated unfairly	0.224	0.15	0.128	0.16	0.181	0.223	1								
Male	0.086	-0.058	0.012	0.074	0.107	0.1	0.137	1							
Age	-0.217	-0.183	0.043	-0.069	-0.025	-0.061	-0.11	0.133	1						
Education	-0.051	0.027	-0.031	0.043	0.046	0.041	0.034	0.068	-0.278	1					
Mtwara	-0.168	-0.05	0.049	0.049	-0.088	-0.24	0.022	-0.034	0.028	-0.087	1				
Gone without food	0.098	0.146	0.078	0.07	0.182	0.236	0.058	0.078	0.116	-0.129	-0.118	1			
Perception of own situation	0.036	0.014	0.026	0.057	0.262	0.391	-0.008	-0.055	0.1	-0.16	0.012	0.339	1		
Rural	-0.034	-0.029	-0.136	-0.057	-0.046	-0.081	-0.037	0.023	0.128	-0.236	0.245	-0.033	-0.03	1	
Unsafe	0.108	0.175	0.116	0.103	0.051	0.018	0.225	0.065	-0.04	0.048	0.024	0.168	0.045	-0.136	1

Appendix 4.8.2 Survey Documentation

Questionnaire

The questionnaire comprised 3 parts. The first introductory part included guidance and geographical information to be filled in by the enumerator (GPS coordinates, location, etc.). The second and main part contained 55 questions to be answered by the respondent. The third and final part contained 5 questions on the conditions during the interview to be completed by the enumerator (attitude of respondent, presence of others, etc.). A trained enumerator spent 35-40 minutes finalizing the whole survey.

Altogether 8 people with extensive survey and/or local experience provided thorough feedback on early drafts of the questionnaire and helped improve the overall quality. The questionnaire was developed in English and translated into Swahili by Yulli Jeremia at the University of Dar es Salaam. The translation was proofread and improved in several rounds – first following the pilot, then by lecturers at the Stella Maris Mtwara University College (STEMMUCO), and finally and most comprehensively during the enumerator training (see below).

Some of the questions are replicated or adapted from the Afrobarometer Surveys for Tanzania.

The full questionnaire is included in the Supplementary Appendix at the end of the dissertation

Pilot

To test the questionnaire and to get data for power calculations we conducted a pilot survey in the Mtwara region in May 2015. The pilot covered 96 respondents in both rural and urban areas. It was conducted by 4 lecturers from STEMMUCO on the same Android devices that were later used for the actual survey.

Several changes were made to the questionnaire after the pilot – ranging from improving questions the respondents found hard to understand to changing the sequence of questions to improve the flow and place the most sensitive questions at the end.

Sampling and Power calculations.

As described in the main text, we first chose 6 of the 13 districts in the Mtwara and Lindi Regions by taking into account relevance and exposure to natural gas activities,

involvement in the 2012 and 2013 riots, as well as financial constraints. In addition to district, the survey was stratified according to urban, rural and mixed areas, and gender. Based on the main dependent/independent relationships from the pilot data, power calculations were conducted to establish the necessary number of respondents. The power calculations and sampling was done by Keith Weghorst, Post-doctoral Research Fellow, Department of Political Science, Vanderbilt University, US, who has extensive experience with both sampling and conducting surveys in Tanzania. An initial target of 600 respondents (based on advice from organizations doing surveys in the area) was adjusted to 800 following the results of the power calculations.

In Tanzania, the districts are divided into wards, which in turn have an average of around five villages. We chose to cover two villages in each ward, with 6 interviews in each village. Apart from the stratification on urban/rural/mixed and gender, the selection of wards, villages, and respondents was fully randomized. The first round of the sampling was based on 2012 Census Data for Tanzania, giving population down to ward level split on urban/rural/mixed. Number of urban/rural/mixed wards per district was calculated based on population weights. Next, the given number of wards per district were drawn using computer software – altogether 67 to reach 800 respondents (or 804 – since we did 12 interviews per ward and six per village).

The second round of sampling was done by the principal investigator and the survey manager in Mtwara during the survey preparations. The 2012 Census do not include data on village level, so in essence we had to call around to all the ward leaders to get the full list of villages per ward. With all the villages established we drew two for each ward by using a randomizer at random.org.

A full list of drawn wards and villages per district is given in the table below.

Region	District	Ward	Village 1	Village 2
Lindi	Lindi	Mchinga	Mchinga 1	Mchinga 2
Lindi	Lindi	Kilolambwani	Mnang'ole	Dimba
Lindi	Lindi	Kilangala	Mtumbikili	Kilangala B
Lindi	Lindi	Mnolela	Lukokwe	Simana
Lindi	Lindi	Mtama	Nangaka	Mihogoni
Lindi	Lindi	Nyangao	Nyangao	Namupa
Lindi	Lindi	Mandwanga	Chiuta	Lindwandwani
Lindi	Lindi	Chiponda	Chiponda	Mtakuja
Lindi	Lindi	Longa	Tulieni	Mtua
Lindi	Lindi	Mtumbya	Mtumbia	Kilimanjaro
Lindi	Lindi	Matimba	Kikomolela	Komolo
Lindi	Lindi	Nangaru	Mkumbamosi	Nangaru
Lindi	Lindi Municipality	Mikumbi	Mikumbi Uganda	Mikumbi Shuleni
Lindi	Lindi Municipality	Rahaleo	Rahaleo	Kariakoo
Lindi	Lindi Municipality	Matopeni	Matopeni	Risti
Lindi	Lindi Municipality	Wailes	Angola	Majani Mapana
Lindi	Lindi Municipality	Chikonji	Nanyanje	Moka
Mtwara	Mtwara Mikindani	MikindaMajengo	Gezaulole	Guine
Mtwara	Mtwara Mikindani	MikindaChikongola	Mwera	Sabasaba
Mtwara	Mtwara Mikindani	MikindaLikombe	Mtepwezi	Mlimani
Mtwara	Mtwara Mikindani	MikindaMitengo	Mnaida	Mnazimmoja
Mtwara	Mtwara Mikindani	MikindaMtonya	Haikata	Singino
Mtwara	Mtwara Mikindani	MikindaMagengeni	Bomani	Magengeni
Mtwara	Mtwara Mikindani	MikindaNailendele	Mkangala	Namlongo
Mtwara	Mtwara Rural	Madimba	Namidondi	Mitambo
Mtwara	Mtwara Rural	Ziwani	Msakala	Majengo
Mtwara	Mtwara Rural	Mahurunga	Kilombelo	Mahurunga
Mtwara	Mtwara Rural	Kiromba	Mjimwema	Kiromba
Mtwara	Mtwara Rural	Njengwa	Majengo	Hinju
Mtwara	Mtwara Rural	Nitekela	Maendeleo	Migombani
Mtwara	Mtwara Rural	Nanyamba	Mibobo	Kilimanjaro
Mtwara	Mtwara Rural	Mtiniko	Mtiniko	mbambakoji
Mtwara	Mtwara Rural	Mayanga	Msijute	Hiyari
Mtwara	Mtwara Rural	Chawi	Mkomo	Chawi Sokoni
Mtwara	Mtwara Rural	Namtumbuka	Namtumbuka	Kilimahewa
Mtwara	Mtwara Rural	Mbawala	Makome a	Mkobe b
Mtwara	Mtwara Rural	Msanga Mkuu	Majengo	Msanga Mkuu B
Mtwara	Mtwara Rural	Tangazo	Kirambo	Mnaida
Mtwara	Mtwara Rural	Milangominne	Milangominne	Nyahi barabarani
Mtwara	Newala	Luchingu	Mzalendo	Mahakama
Mtwara	Newala	Mcholi I	Mpilipili	Rihungira
Mtwara	Newala	Namiyonga	Msimamo	Manduma
Mtwara	Newala	Chitekete	Namkonda	Mchangani
Mtwara	Newala	Malatu	Mpanda	Malatu
Mtwara	Newala	Mchemo	Mkupete	Mchebegua
Mtwara	Newala	Chiwonga	Kihwinda	Mmulunga
Mtwara	Newala	Maputi	Mtongwele chini	Likwaya
Mtwara	Newala	Makonga	Kilidu Mashariki	Ofisini
Mtwara	Newala	Nakahako	Mpalu	Mnauki
Mtwara	Newala	Chihangu	Idamnole	Chihangu A
Mtwara	Newala	Nambali	Nambali A	Mlachi
Mtwara	Tandahimba	Tandahimba	Malamba	Malopokeno
Mtwara	Tandahimba	Michenjele	Mpunda	Michenjele
Mtwara	Tandahimba	Mihambwe	Mkaha	Kisagani
Mtwara	Tandahimba	Mkoreha	Dinyeche	Chikongo
Mtwara	Tandahimba	Maundo	Namahonga	Maundo
Mtwara	Tandahimba	Namikupa	Chihang	Pemba
Mtwara	Tandahimba	Mnyawa	Jangwani	Umoja
Mtwara	Tandahimba	Nanhyanga	Nanhyanga A	Mnaida
Mtwara	Tandahimba	Chingungwe	Mkupete	Chingungwe
Mtwara	Tandahimba	Mdimbamnyoma	Mdimbanyoma	Tukuru
Mtwara	Tandahimba	Milingodi	Milingodi	Namkomolela
Mtwara	Tandahimba	Lyenje	Mwembe 1	Mahona
Mtwara	Tandahimba	Ngunja	Ngunja	Mkuti
Mtwara	Tandahimba	Mkwiti	Likolombe	Mkwiti
Mtwara	Tandahimba	Mihuta	Mihuta	Ngongolo
Mtwara	Tandahimba	Chikongola	Horofea	Kilidu

To stratify on gender, the enumerators were instructed to always alternate between male and female respondents. Due to lack of household data, we used random walking patterns to draw households within each village. The enumerators were given a starting point in each village by the supervisors, and instructed to pick the third household on the right and then the third after that and so on for rural areas, and correspondingly but every fifth household in urban areas. Finally, the person opening the door was asked to make a list of all household members over 18, and draw a respondent from the list. Empty households and households where the drawn respondent was not at home were revisited two times. If still not at home, a new household was chosen. All no_calls were logged and reasons noted. Altogether 1042 households were visited to get the 804 respondents. Consent was given before starting all interviews. 'Did not fit gender quota' is the most frequent reason for no_calls, followed by 'empty premises' and 'respondent never at home'. Only 18 persons refused to be interviewed.

Organization and Training

The Principal Investigator led all planning and execution of the survey. A survey manager and two supervisors were recruited – all of them lecturers at STEMMUCO. All three of them participated in the pilot and were already familiar with the research design, the questionnaire, the Android devices and the survey software.

We recruited a pool of 24 potential enumerators that were first trained for two days by the principal investigator. The training included background and rationale for the study, random sampling, how to ask questions, sampling procedure, and a range of exercises on the actual questionnaire. In addition to making the enumerators familiar with the questions and the procedures, this process also lead to a final quality check of the English versus the Swahili version of the questionnaire. We conducted both paper based and device based test-interviews, and the results were used to evaluate the accuracy of each enumerator. At the end of day two, we evaluated the results, and chose 16 enumerators based on test results as well as observed skills during training. Of these, 11 were alumni from STEMMUCO, 1 alumni from the University of Dar es Salaam, and 4 where experienced enumerators previously employed by the Aga Khan Foundation. Of the alumni, most of them where secondary schoolteachers in the area. The 16 where trained for one more day, first in class (mostly by acting out the within household selection procedure in groups), and then in the field in an area not covered by the survey

sample to get real household sampling and interview training before the actual survey started.

The survey was conducted on Samsung Tablets with Open Data Kit Software (ODK). Each enumerator had the same tablet during the whole fieldwork period.

Logistics and field procedures

Each enumerator was assigned one village and 6 interviews per day. Including 1 rest day, we spent altogether 10 days in the field. The survey manager and the supervisors led the fieldwork. The principal investigator stayed in Mtwara Town, keeping in touch with the survey manager every morning and evening. Each evening the survey manager and the supervisors uploaded the finalized surveys to the ODK app. That way, data was always secure, and the principal investigator could download data directly into excel each day and monitor data quality.

The enumerators were divided into three teams, with one car per team. Different people were put together each day.

Permits

The study was covered by research permit No. 2015-18-NA-2014-238 provided by COSTECH, Tanzania. In addition, permissions from the Regional and District authorities covering all survey areas were obtained. In each village, the project was introduced by the supervisors to the village ward who then granted access.

Data Processing

The data was directly uploaded to the ODK internet application, and downloaded to excel from the same application. Only minor data cleaning was necessary.

Appendix 4.8.3. Detailed responses on questions used for dependent and independent variables

Question 51: Support protest natural res management	Freq.	Percent
Agree strongly with Statement 1	203	25.70
Agree with Statement 1	123	15.57
Agree with Statement 2	154	19.49
Agree strongly with Statement 2	189	23.92
Agree with neither	40	5.06
Refused to answer	13	1.65

Don’t know	68	8.61
Total	790	100.00

Question 43: Support for use of violence for a just cause	Freq.	Percent
Agree strongly with Statement 1	252	31.82
Agree with Statement 1	131	16.54
Agree with Statement 2	125	15.78
Agree strongly with Statement 2	193	24.37
Agree with neither	28	3.54
Refused to answer	7	0.88
Don’t know	56	7.07
Total	792	100.00

Q40 e and f	Participate in protest	Use violence
Have done	47	6
Might do	176	50
Would never	537	707
Total	760	763

Q31c Satisfaction development region	Frequency	Percent
Very dissatisfied	109	17.19
Dissatisfied	274	43.22
Neither	115	18.14
Satisfied	45	7.10
Very satisfied	6	0.95
Dont’t know	85	13.41
Total	634	100.00

Q15 Perc regional ec ineq	Frequency	Percent
Much Worse	103	12.81
Worse	319	39.68
Same	150	18.66
Better	105	13.06
Much Better	8	1.00
Don’t know	119	14.80

Total	804	100.00

Q50 Region treated unfairly	Frequency	Percent
Never	335	42.41
Sometimes	188	23.80
Often	116	14.68
Always	34	4.30
Don't know	113	0.51
Refused to answer	4	14.30
Total	790	100.00

Appendix 4.8.4 Robustness tests

Table 43: Logistic regression perceived economic horizontal inequality, unfair treatment and frustrated expectations on support and participation in civil unrest

ALL INDEPENDENT VARIABLES INCLUDED IN ALL MODELS

	Model 13	Model 14	Model 15	Model 16
	Support Protest Nat Res	Support Violence	Participated Protest	Might/have used violence
Perc. ec. HI	0.099	0.129	0.047	−0.307
	(0.144)	(0.137)	(0.249)	(0.236)
Region treat unfai~y	0.410**	0.210	0.471*	0.556**
	(0.134)	(0.125)	(0.218)	(0.206)
Frustrated exp	0.404**	0.065	−0.009	−0.236
	(0.137)	(0.127)	(0.232)	(0.226)
Male	0.337	−0.358	−0.017	0.410
	(0.238)	(0.229)	(0.430)	(0.429)
Age	−0.388***	−0.258***	0.103	−0.242
	(0.083)	(0.077)	(0.137)	(0.143)
Education	−0.241**	−0.025	−0.168	0.110
	(0.088)	(0.079)	(0.154)	(0.158)
Mtwara	−0.873**	−0.139	0.830	0.469
	(0.274)	(0.252)	(0.526)	(0.509)
Gone without food	0.097	0.227*	0.153	0.110
	(0.106)	(0.102)	(0.179)	(0.174)
Perc. indiv. ineq.	−0.085	−0.110	−0.047	0.359
	(0.139)	(0.133)	(0.238)	(0.234)
rural	0.271	0.130	−1.541**	−0.294
	(0.324)	(0.303)	(0.473)	(0.501)
Unsafe	0.167	0.433**	0.209	0.150
	(0.162)	(0.156)	(0.216)	(0.226)
Constant	−0.148	−0.128	−3.082*	−3.123*
	(0.835)	(0.799)	(1.479)	(1.469)
pseudoR-squared	0.131	0.074	0.102	0.087
log-pseudolikelihood	−238.5391	−258.975	−96.51499	−102.6656
N	400	404	412	411

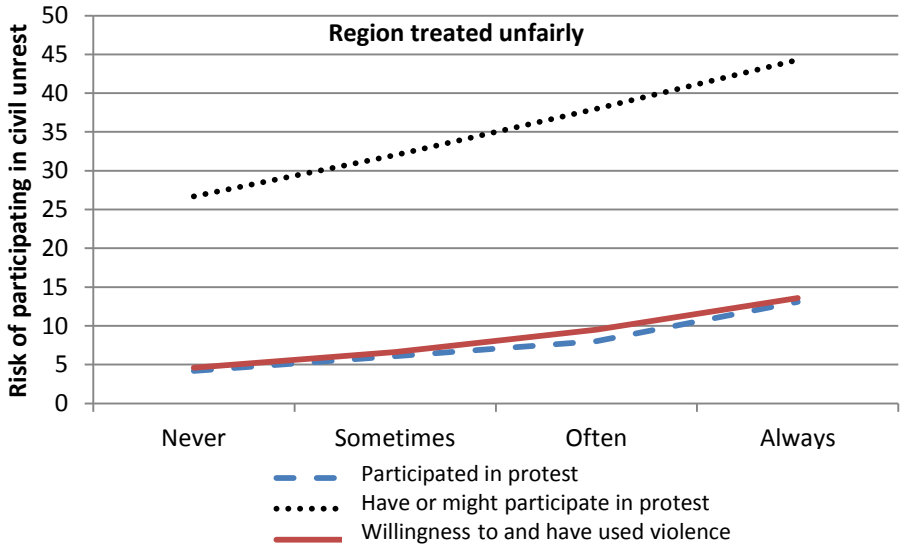
* p<0.05, ** p<0.01, *** p<0.001

Table 44: Might or have particpated in protest marches

	Might/have particip. in protests
Region treat unfai~y	0.257*
	(0.100)
Male	0.270
	(0.185)
Age	-0.157*
	(0.063)
Education	-0.006
	(0.063)
Mtwara	0.218
	(0.212)
Gone without food	-0.145
	(0.083)
Perc. indiv. ineq.	0.162
	(0.096)
rural	-0.071
	(0.261)
Unsafe	0.007
	(0.120)
Constant	-1.426*
	(0.564)
pseudoR-squared	0.030
log-pseudolikelihood	-374.8496
N	621

* p<0.05, ** p<0.01, *** p<0.001

Figure 22. Substantive effects of 'region treated unfairly' on have or might participate in protest



5 From Silence to Storm. Investigating Mechanisms Linking Structural Inequality and Natural Resources to Mobilization in Southern Tanzania

Abstract

Following large offshore discoveries, Tanzania is set to become a major natural gas producer. Widespread political pledges first fuelled popular expectations of local development in the southern regions close to the discoveries. In 2012 and 2013, riots erupted amid claims of broken promises. In this paper I argue that structural inequalities are not enough to trigger conflict. For such inequalities to become a mobilization resource, they have to be translated into politically relevant grievances. Southern Tanzania remained peaceful for five decades despite grave economic and political marginalization. The discovery of natural resources triggered a mobilization process, mainly through increased group competition, frustrated expectations, evaluation of injustice, and leadership framing. Using accounts from semi-structured interviews supplied with new survey data, I find support that a feeling of injustice is particularly salient in motivating riot participants, while greed as an alternative mechanism has little explanatory power. Finally, both group grievances and favourable opportunity structures need to be in place for mobilization to materialize. My study points to important gaps in existing literature on inequality, natural resources and conflict, which generally measures how structural background patterns increase conflict risk without properly identifying the intermediate mechanisms in the causal chain.

5.1 Introduction

> ’Long before the frenzy of the natural gas boom in Tanzania’s southern region(s) of Mtwara and Lindi, which has been marginalized in terms of development during the past five decades, no one imagined that the natives in these regions, once considered the dullest and non-violen(t) would one day riot against the government’. (Mgamba 2013)

Following a range of large natural gas discoveries Tanzania is set to become a major petroleum producer within the coming decades. Recoverable resources of at least 57 trillion cubic feet pave way for the largest investments in the country’s history, and even modest forecasts indicate annual revenues far exceeding total current government inflows (IMF 2014, TEITI 2014). While this has created hopes of a brighter future for most of the population in a country currently among the world’s poorest, expectations of development are particularly high in the two regions home to the discoveries – Mtwara and Lindi. With a history of lagging economic development and general marginalization, political promises of change fuelled hopes among the locals. ‘Mtwara will be like Europe’ President Kikwete declared in 2010. ‘You have broken your promises’, was the general claim during several protests and riots in 2012 and 2013. The riots followed a government decision to pipe the gas from a smaller onshore discovery in Mtwara to Dar es Salaam. The locals found this hard to reconcile with the story of local development based on industries fuelled by the same gas.

Conflict scholars now largely agree that inequalities between salient identity groups – so called horizontal inequalities – increase the risk of political violence (Cederman, Weidmann, and Gleditsch 2011, Østby 2008b, Stewart 2008). Similarly, the presence of non-renewable resources, particularly petroleum, is considered to increase conflict risk (Ross 2015). Common to the studies establishing these associations is a lack of focus on the intermediate steps in the causal process from structural background patterns to mobilization. Horizontal inequality studies generally assume that group inequalities create grievances, which in turn drive mobilization, but never measure these grievances. Rather, their analyses focus on the association between objectively measured horizontal inequalities and conflict outbreak, thus circumnavigating the point that objective economic facts and ‘on the ground’ subjective perceptions of these facts, are often very different (Langer and Smedts 2013). In the natural resource literature, grievances

stemming from unequal distribution of resource revenues is just one among many debated causal mechanisms. Again, empirical analyses are limited to studying the association between the mere presence of resources and conflict, while the process in between remains assumed. In this paper, I address these gaps, and take an in-depth look at the causal process leading up to the protests and riots in Mtwara in 2012 and 2013.

Horizontal inequality theory posits that marginalized identity groups are likely to rebel to improve the group's position. The 'Wakusini' ('Southerners') inhabiting the marginalized Mtwara and Lindi regions in Tanzania remained peaceful for at least 50 years before riots erupted. Clearly, structural inequality was not enough to spark conflict. This combination of long lasting horizontal inequalities and peace, followed by riots after the natural gas discoveries, is the main motivating factor for this study. So rather than *whether*, I ask *when* and *why* horizontal inequalities and natural resources lead to conflict.

I investigate this question using data gathered in Mtwara and Lindi during two field work periods. Based on 35 semi-structured interviews from 2014 and 2015, and an 800 respondent survey from 2015, my analysis supports that 1) Group grievances fuelled mobilization, 2) Both group grievances and opportunity structures need to be in place for mobilization to happen, 3) While elite framing and blaming is a central mechanism on the pathway from structural background patterns to group grievances, the most salient mechanism is evaluation of injustice, 4) Greed as an alternative mechanism to grievance has little explanatory power in the case of the Mtwara riots and 5) Natural resources, and especially natural resource mismanagement, are particularly likely to trigger the mechanisms leading to group grievances, and seemingly acted as an intervening variable between objective horizontal inequalities and group grievances.

5.2 Background: A history of marginalization, and sudden natural riches

Southern Tanzania, comprising the Mtwara and Lindi regions, has been marginalized and underdeveloped compared to the rest of the country at least since independence (Seppälä and Koda 1998). While neglect by, and isolation from, the more prosperous north has been the norm since the late-70s, the regions still bear scares from two post-colonial incidents in which the southerners had to bear a particularly heavy burden. President Nyerere's support of the Front for the Liberation of Mozambique (FRELIMO)

during the Mozambique civil war in the late 60s and early 70s proved costly to the population close to the border, who, in addition to loss of civilian lives, saw what existed of infrastructure destroyed by Portuguese counterinsurgency (Mampilly 2013). During the same period Nyerere pushed forward his socialist 'Ujamaa' or 'villagisation' project, in which he aimed to move the country's huge rural population into government constructed villages. Partly to protect the locals from the ongoing war, the resettlement was far more grand scale in the south than in the rest of the country[60]. The project is infamous for destroying social structures and moving people far away from existing infrastructure.

The lack of infrastructure has persisted. It was not until 2015 that the road to Dar es Salaam was completed and the final parts paved. Before the inauguration of the Mkapa Bridge in 2003, the regions were effectively cut off from the rest of Tanzania during rainy season.

The economic marginalization of the southern regions is evident in data from different sources. A World Bank Report from 2008 concludes that while Tanzania as a whole experienced growth in the period from the mid-1990s to 2005, close to stagnant transfers from central to local governments (in percent of GDP) led to an increase in inequality between regions and a substantially greater poverty reduction in Dar es Salaam than in the rest of the country. Figure 23 shows the share of the population in the Southern Tanzania, Dar es Salaam and Tanzania total living under the poverty line defined by the World Bank.

The Demographic and Health Surveys (DHS) have data for a longer time period, and confirms the relative economic deprivation of the southern regions. Data on asset ownership (Figure 24) from 1991-2012, shows how Mtwara and Lindi have persistently lagged both Dar es Salaam and the country average – although with a slight relative improvement from 2010-2012[61].

[60] By 1971, more than 44% of the population in Mtwara lived in an 'Ujamaa' village, while the national average was 10-12% (Jennings 2008)

[61]The asset scores are the share of respondents owning a radio, a television, a refrigerator, and for the newest surveys, a mobile and a telephone, in Mtwara and Lindi divided by the same share in Dar es Salaam/the whole of Tanzania. The lower the score, the larger the inequality.

Figure 23: Per cent of population under World Bank poverty line (Utz 2008)

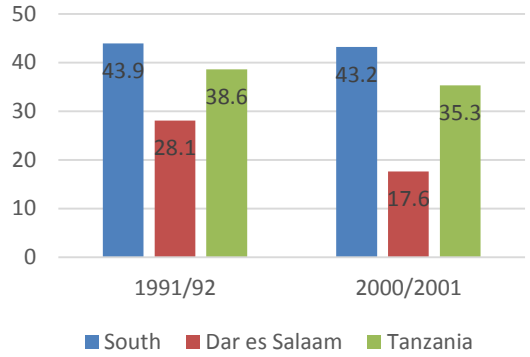
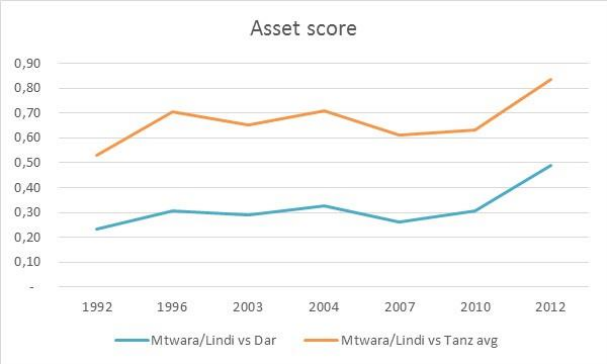


Figure 24: Asset score Mtwara/Lindi vs. Dar es Salaam and Tanzania total



Source: Demographic and Health Surveys, accessed at http://beta.statcompiler.com/

From 2010 and onwards, huge natural gas discoveries have brought the impoverished regions to the center of the whole petroleum world's attention. Most of the estimated 57 trillion cubic feet of recoverable natural gas reserves are located in deep-sea offshore blocks outside Mtwara and Lindi, and are planned to be processed in a Liquefied Natural Gas (LNG) plant onshore in Lindi (Ng'wanakilala 2016).

While the large offshore fields remain in the planning phase, a smaller onshore gas field in Mnazi Bay, Mtwara[62], has now started production. A decision to pipe this gas to Dar es Salaam was first made official in July 2012, before a full commission of the pipeline project in November 2012 (2013).

In a region never previously marked by any kind of political uprisings, on 27 December 2012 up to 4000 people attended a protest march in Mtwara Town (ibid). Riots

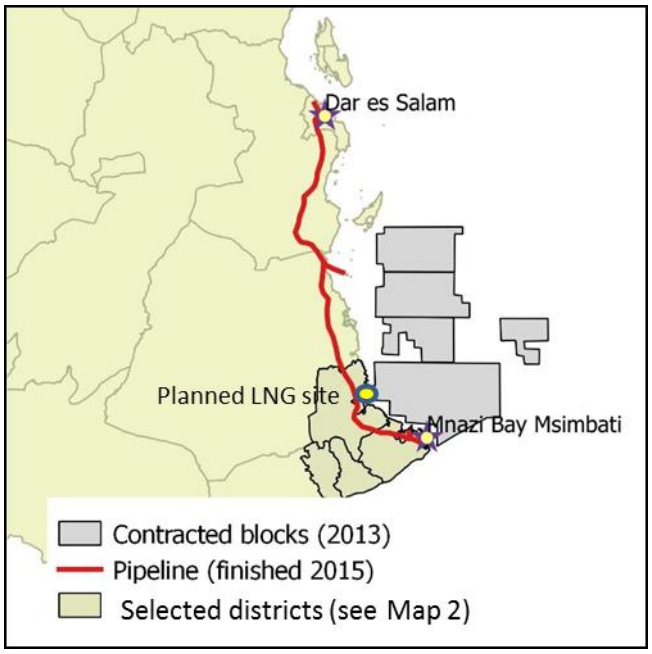
[62] Discovered in 1982

continued on 26 and 27 January. Several government offices and houses were set on fire, and nine civilians allegedly shot by the police. In May 2013, after the Energy and Mineral Budget Announcement, a general strike was followed by yet another two days of riots, more loss of civilian lives and property violations (Mgamba 2013)[63]. The police and army's brutal force and severe human rights violations in the end put a stop to the uprisings (Domasa 2013, Interviews 2014/2015).

According to the conflict literature, such grave horizontal inequalities as demonstrated above are strongly associated with mobilization. However, in southern Tanzania there were no signs of conflict until the natural resources were discovered – or, more precisely – after the government decision to build the pipeline. Tanzania thus offers a good opportunity to look into the causal mechanisms linking structural background patterns and conflict, and to address the question *when* and *why* horizontal inequalities and natural resources lead to conflict. To do so I will take as a starting point current conclusions and limitations in the literature on inequality, natural resources and conflict – as set out in the next section.

[63] The total number of fatalities is disputed – most locals claim that the government figure is far too low.

Figure 25: Map of pipeline, planned LNG site and gas blocks in southern Tanzania (discoveries are done in all)



5.3 Horizontal inequalities, natural resources and conflict

After decades of debate, there is an emerging consensus in the literature that horizontal inequalities – or inequality between salient identity groups – increase the risk of conflict. Frances Stewart's ground-breaking work based on the notion that it is groups that rebel, not individuals (Stewart 2002, 2008), has paved way for a range of empirical studies confirming that such inequality leads to conflict. Economic, social or political inequality between ethnic groups (Cederman, Weidmann, and Bormann 2015, Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013, Østby 2008b), between regional groups (Østby 2008a, Østby, Nordås, and Rød 2009), and between religious groups (Østby 2008a) significantly increases the risk of civil war, communal conflict (Fjelde and Østby 2014), riots (Dancygier 2010, Wilkinson 2009) as well as non-violent campaigns (Chenoweth and Ulfelder 2015).

At the same time, the natural resource/conflict literature has provided relatively robust evidence that the presence of oil and gas, particularly onshore, increases conflict risk (Collier and Hoeffler 2004, Fearon and Laitin 2003, Koubi et al. 2014, Lujala 2010, Ross 2015). Furthermore, while most studies of natural resources have neglected grievances as a motive for mobilization (Koubi et al. 2014), some recent papers argue that natural resource wealth rarely spreads evenly, and is likely to exacerbate existing as

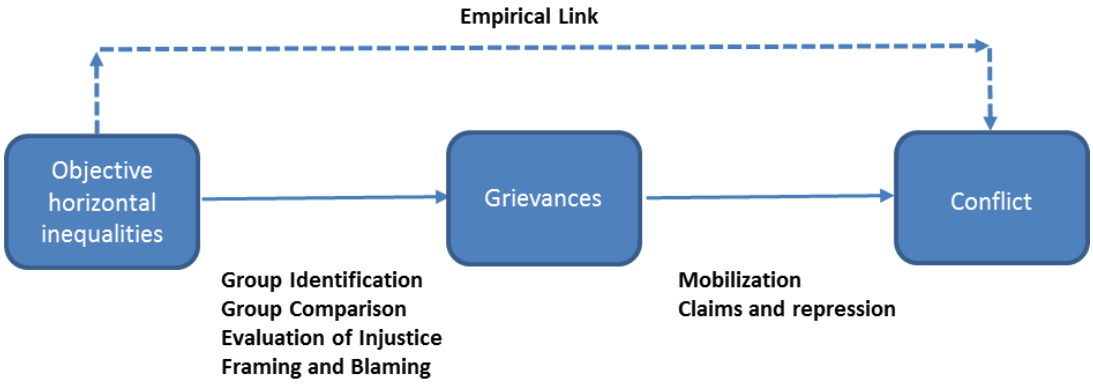
well as create new horizontal inequalities. Correspondingly, they find a link between the combined presence of horizontal inequalities and natural resources, and civil war (Asal et al. 2015, Basedau and Pierskalla 2014, Østby, Nordås, and Rød 2009).

Common to both the natural resource/conflict and horizontal inequality/conflict empirical studies is a lack of focus on the intermediate steps in the causal process from the presence of natural resources and/or horizontal inequalities to mobilization. Natural resources are largely included in analyses as a dummy variable. As a result, the studies can infer whether a presence of non-renewable resources increases conflict risk, but have little to say on *why* this is happening. Greed (participants' incentives to enrich themselves), feasibility (financing to organize a rebel group), limited state capacity to fight rebels, and popular grievances are all suggested – but largely untested – mechanisms (Koubi et al. 2014). Similarly, the horizontal inequality studies analyse structural economic data such as the Demographic and Health Survey data presented in the previous section. The implied underlying assumption is then that objective horizontal inequalities automatically create grievances, and then mobilization. More precisely, they take for granted that the objective reality and the subjective perceptions and judgements of this reality fully overlap. This is not the case. Studies of the correlation between objective horizontal inequalities and subjective perceptions of the same asymmetries conclude that the relationship is weak (Langer and Mikami 2013, Holmqvist 2012), or even negative (Langer and Smedts 2013). People may not even be aware that their group is marginalized, let alone consider the marginalization unjust, and to be blamed on a certain actor (Gamson 1992). Hence, a closer investigation of the process leading from structural background patterns to conflict seems necessary.

Empirical studies vary in the degree to which they theorize this process. Cederman, Gleditsch and Buhaug (2013) have developed the most thorough framework, in which they argue that objective horizontal inequalities are transformed into grievances through **1) group identification, 2) group comparison, 3) evaluation of injustice, 4) framing and blaming –** as portrayed in Figure 26. All these steps will have to be in place for latent objective inequalities to develop into politically salient grievances. Once grievances have developed, there has to be some sort of mobilization, coupled with favourable opportunity structures (ranging from available financing to limited state repression depending on the scale of mobilization) for conflict to materialize. Still, as Figure 26 also shows, their empirical link bypasses the intermediate steps in the causal

chain altogether – as is the case for all empirical studies of horizontal inequalities and conflict. This opens up for questions on whether it is in fact grievances that drive mobilization.

Figure 26: Cederman, Gleditsch and Buhaug (2013) conflict framework



Cederman, Gleditsch and Buhaug developed this framework to account for the outbreak of civil war. Still, all the underlying conflict theories they build on aim to explain a broad range of conflict. For instance, they draw on key concepts from social identity theory, which encompasses all types of group incompatibilities (e.g. Abrams and Hogg 1988, Tajfel and Turner 1979), and from the contentious politics and social movements literature, which focus on collective political struggles ranging from protests and riots to civil war (Tarrow, Tilly, and McAdam 2001, Benford and Snow 2000). Finally, as noted above, several studies also find an association between horizontal inequalities and civil unrest. Hence, the framework should be relevant for conflict in general, and will serve as a basis for my analyses. In the following I will take an as in-depth look as possible at each proposed step in the chain, in order to investigate 1) whether grievances – and the proposed mechanisms – are actually relevant in driving mobilization, 2) which of the mechanisms are most salient and 3) what the role of natural resources is.

5.4 Data and Methodology

To gather data on the process leading up to mobilization I conducted two rounds of field work in Southern Tanzania. The work comprised 35 semi-structured interviews (15 in May 2014 and 20 in June 2015), and an 800 respondent survey (June 2015). The

interviews serve as a tool to get insights into personal attitudes, emotions and motivations linked to the gas issues and the civil unrest, as well as recounts of the process leading up to the mobilization, and are the primary source of granular information on causal chain mechanisms. The survey has the advantage of providing representative data on the covered sample.

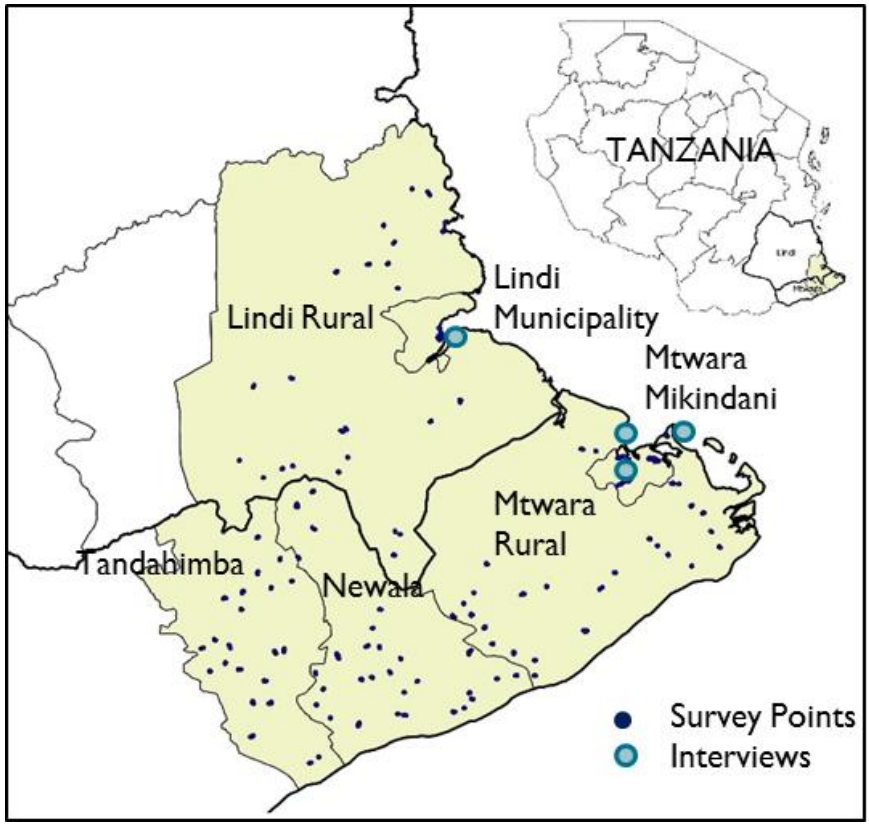
Interviews were conducted in Mtwara Town and Mikindani (Mtwara Mikindani District), Msanga Mkuu (Mtwara Rural District) and Lindi Town (Lindi Municipality District), with 10 women and 25 men aged 18 to 58. The interviewees include a Christian Religious Leader, a highly ranked government party official, a journalist, 6 participants in the riots, students and both unemployed and employed people. I applied maximum variation sampling, where interviewees were selected to represent variation in factors identified by the literature to affect conflict. These include age (Urdal 2006), gender (Elbadawi and Sambanis 2000), urban/rural location (Horowitz 2001), education and employment/unemployment (Collier and Hoeffler 2004). Finally, I was especially interested in the views of those who participated in the riots. This skewed the whole sample to include more men than female, since the majority of the participants were men. While 35 interviews were needed to reach diversity on all the mentioned factors, saturation was reached well before the 35 were finalized – with people regardless of background and demography giving very similar accounts[64]. The interviews from 2014 provided several insights that helped in the design of the survey, both linked to which districts to cover and to particular views and expectations that I wished to test on a representative sample.

The survey covered 804 respondents from 6 of the 13 districts in the regions. Mtwara Mikindani, Mtwara Rural, Lindi Rural and Lindi Municipality are the districts most affected by the current and planned gas developments, and were chosen due to this. Tandahimba and Newala are less affected, although several people from these districts were bussed to Mtwara to take part in the protests and riots. In order to cover these groups as well, while at the same time capturing sentiments of people very little affected by the new resources, the two districts are included[65]. The exclusion of the remaining seven districts is due both to their limited relevance and the project's financial

[64] For more information on the interviews see appendix 5.7.1
[65] 9% of the respondents had not heard about the gas discoveries at all. In the remaining sample with only people who had heard of the gas, 13% had not heard of the pipeline.

constraints. The survey was stratified according to district, urban, rural and mixed areas, and gender – but further to that the selection of wards, villages, and respondents was fully randomized. 134 villages were drawn. We conducted six surveys in each village, selected households using random walking patterns and drew respondents within each household – who were then surveyed upon consent[66]. Figure 27 shows the selected districts, sampled villages as well as interview sites.

Figure 27. Selected districts, sampled survey points and selected interview sites.



I designed both the survey and the interviews to let people speak as freely as possible and express their priorities and attitudes in their own terms. Several of the survey questions were open ended (with no reading of response categories), and the interviews, in addition to containing only open ended questions also let the respondent freely talk at the end by asking 'is there anything you want to add to what we have already talked about'. Most of the interviewees took this opportunity, and used it to both emphasize what he/she saw as most important of the issues already covered, and to add new insights.

[66] For more information on the survey see Chapter 4, appendix 4.8.2.

While the interview sample might be biased, particularly due to the fact that all interviewees lived relatively close to the natural gas developments, but also due to the fact that it is not representative on other important variables, the survey data can to some extent be used to test whether individual responses are in line with the view of the larger population. Several questions were replicated in the survey and the interviews, and responses are compared in the analyses.

Both in the interviews and in the survey people were encouraged to talk about highly sensitive political issues, which may have biased the responses. That said, most interviewees proved very eager to share their views and to make their voice heard. Finally, both the survey and the interviews to some extent encourage people to talk about the past, introducing a recall bias in the parts of the material.

5.5 Analysis

5.5.1 Group Identification and Comparison

The first mechanisms that have to be in place for group grievances to arise is that people identify themselves as a member of the relevant group, and compare their group's situation to that of other groups. So which group identities and comparisons prevail in Mtwara and Lindi? And have the natural gas discoveries led to marked changes in these parameters?

Let me start with available group categories – of which there are several. First, despite Nyerere's extensive policies to fight tribalism and ethnic affiliation, resulting in a strong national identity (see e.g. Green 2011), ethnic identity is not totally absent. The largest group in Mtwara and Lindi – the Makonde – are claimed to be ethnically self-conscious and to fiercely defend their culture (Seppälä and Koda 1998). Second, the historic marginalization has paved way for a distinct regional identity, with both people from the region and people from other parts of the country identifying Mtwarans and Lindians as 'Wakusini' – the Swahili word for 'Southerners' (Seppälä and Koda 1998). Finally, religious tensions between the slight Christian over Muslim majority is becoming increasingly frequent in Tanzania (Mampilly 2013). In coastal Mtwara and Lindi, the majority are Muslim[67].

[67] See appendix 5.7.3 for an overview of Muslim/Christian and ethnic affiliation in the surveyed sample.

This mix of identities is evident in the interview responses. When asked how they prefer to be identified by other people, while some stated 'Wakusini' only, most interviewees mention two or more identities. The most frequently mentioned identities are Tanzanian and 'Wakusini' – alone, together or in combination with the other identity groups (Muslim, the respondent's tribe).

The relative importance – and political relevance – of the **regional** identity become more evident when people are asked to assess the economic and political situation. Even when given an open question on whether the Tanzanian government treat all the people the same, several interviewees highlight the relative disadvantage of the **southern regions compared to other regions** – and particularly to the north. None mention their ethnic or religious group. On direct question on the economic situation of people in Mtwara and Lindi compared to other regions, all interviewees emphasize their marginalization.

'*Mtwara region has no rights and is not treated the same as other regions*'[68].

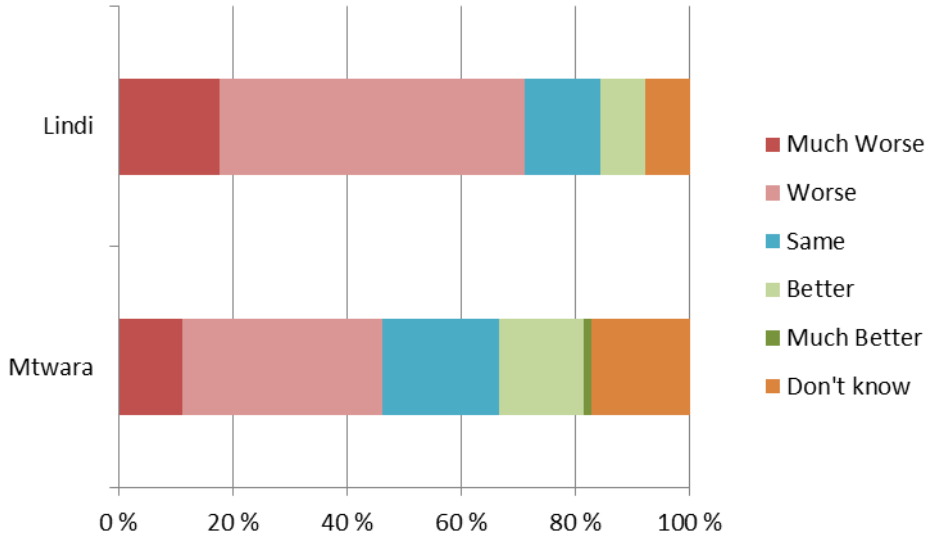
'When you compare, the leaders continue to despise the south. Regions like Lindi and Mtwara mostly they continue to neglect these regions in comparison to other regions. That's the reason why we're not developing'[69].

The interviews were in areas close to the natural gas discoveries, and all responses reflect a high awareness of the marginalization of the South. In contrast, the survey includes less affected areas and offers two important nuances to the interview responses. First, people geographically farther away from the gas discoveries are more positive about the relative economic situation of the region. When asked to assess the economic condition of people in their region (Mtwara or Lindi) – if it is worse, same as or better than for people in other regions in the country – 20 % in Newala and 21% in Tandahimba answer 'better' or 'much better'. Only 9% hold this in the remaining, costal districts. Furthermore, discontent is higher among those who had prior knowledge of the gas discoveries. For this group, 54% hold that the economic situation is 'worse' or 'much worse' in Mtwara/Lindi. For those with no prior knowledge, the figure is 38%. These are all indications – though not conclusive evidence – that the natural gas discoveries has affected the way people view regional horizontal inequalities.

[68] Food seller, Female, 35
[69] Boda boda driver, male, 20

Second, the survey also reveals a difference **in perceptions** between Mtwara and Lindi. A larger share of people in Lindi than Mtwara regard the regional economic condition as worse or much worse compared to other regions (see Figure 28).

Figure 28: Response distribution Mtwara and Lindi on question: 'Think about the condition of people living in this region [State if Mtwara or Lindi Region]. Are their economic conditions worse, same as or better than for people in other regions in this country?'



On the other hand, the survey data reveals that Mtwara and Lindi are on par in terms of **objective** economic conditions – with Lindi actually better off on some parameters[70]. This once more highlights how subjective views can differ from objective facts[71].

In summary, the political relevance of a regional identity is evident through the frequent comparisons made between Mtwara and Lindi and other regions. The perception of regional inequality is also stronger among those who live closer to the gas discoveries, and among those who had already heard of the gas at the point of the study. Still, perceptions of regional inequality cannot fully explain the conflict outbreak. People rioted in Mtwara, not in Lindi, and, more importantly, the regional group identification and perception of marginalization compared to other regions existed before the natural gas discoveries. The 'Wakusini' has historically been regarded as backward (see e.g. Seppälä and Koda 1998), something that is also highlighted by the interviewees. On the

[70] See appendix 5.7.2 for detailed statistics.
[71] These subjective views also show up in the interviews. The informants from Lindi make comparisons to Mtwara, and how the latter has already benefited from the gas with the establishment of a university college and improved infrastructure. Lindi on the other hand, has not gotten anything yet.

other hand, while the group identification and comparison was not triggered by the natural gas discoveries or management, their pre-existence may have been important to support the next two mechanisms in the chain – as I will elaborate in a later section.

5.5.2 Evaluation of injustice

A perception – and awareness – of horizontal inequalities do not necessarily generate grievances. For frustrations to arise, people will have to evaluate the inequalities and consider them unfair. It is well documented that inequality acceptance varies greatly among both individuals and groups, and depends, among other things, on existing norms and ideologies (Almas et al. 2010, Williams 2003). The next suggested step on the causal pathway from objective conditions to group grievances is thus 'evaluation of injustice'. In essence – what made people go from accepting relative deprivation compared to the rest of the country, to becoming frustrated enough to stand up against the government?

A first insight is linked to Gurr's (1970) theory of relative deprivation, and, before him, Davies (1962) J-Curve theory: when people get less than they expect, frustrations will arise and grievances develop. In the initial euphoria following the first discoveries, government promises of local development were plentiful. A particular emphasis was put on the development of local industries, which would bring benefits to the whole southern population. The government officially debated a 300 megawatt power plant, and then a fertilizer plant – both meant to be situated in the southern regions (2013). However, with little pre-warning the decision to pipe the gas to Dar es Salaam was made official.

Nearly all of my 35 interviewees strongly emphasize how frustrated expectations – or more directly – broken promises of local development – was what infuriated them. The frustration was particularly linked to speeches made by then President Kikwete when he visited the region as part of the 2010 election campaign: '*The reason was the lies that the president told, because the president promised, he spoke here on Mashujaa Day (..) If he had built the industries just like he had promised then these problems would have been avoided. There would have been no one who died*'[72].

[72] Fisherman, male, 58

The survey responses reflect this feeling of dashed expectations. When asked how satisfied they are with the living conditions for the people in the region – compared to what they expected BEFORE they had heard of the pipeline, 57 % in Mtwara and 70% in Lindi report that they are dissatisfied or very dissatisfied.

Moving on to a more direct measure of unfair treatment, the survey included the question: 'How often, if ever, are people living in this region treated unfairly by the government'. 42% hold that this never happens, while 43% think it happens sometimes, often or always[73]. As expected, once more the share of people answering sometimes, often or always is higher in the coastal districts closer to the gas developments than in the districts further inland, and among those who have heard about the gas for a long time. However, opposed to what I found in the previous section, the share holding that the region is sometimes/often/always treated unfairly is higher in Mtwara than in Lindi.

While frustrated expectations are likely to be linked to a perception of unfair treatment, the interviews provide further insights into what fuels a feeling of unfairness and injustice. Generally, it seems that a notion of injustice is strongly linked to a perception of being robbed of something that belongs to them. Two contrasting interviews highlight this. First, a participant in the riots with high political awareness and strong views on the marginalization of Mtwara – both in general, and after the natural resource discoveries – answered the following to a question of how many times injustice has been done to the people of the South: '*I see this as the first time because there has never been discovered anything before here in Mtwara that has been stolen, that was robbed from us'*[74]. Implicitly, the years of marginalization and lack of development, while resented, is not considered an *injustice*. On the other hand, another informant – extremely poor even compared to southern standards – displayed an equally high awareness of the marginalization of the south: '*In short the living conditions here in Mtwara, life is hard. We're not all right*. [..] *It's different from other regions*'. [..]'*To be honest I don't think we have any political influence whatsoever*[75]. Still, on the direct question on how often injustice has been made towards the people of Mtwara, she answers '*That has never happened*'. Once more, the marginalization is not seen as an

[73] In comparison, only 20% think that their religious group is sometimes/often/always treated unfairly. Data from an external source shows that 23% of the respondents hold the same for their *ethnic* group (Afrobarometer round 6 2015. Number of respondents is only 127)
[74] Fisherman, male, 58. Participant in riots
[75] Farmer, female, 49

injustice. And she has seemingly no basis to judge the natural gas management as unfair, as she is clear that she knows nothing about the gas issues – she's not even sure if there have been any discoveries.

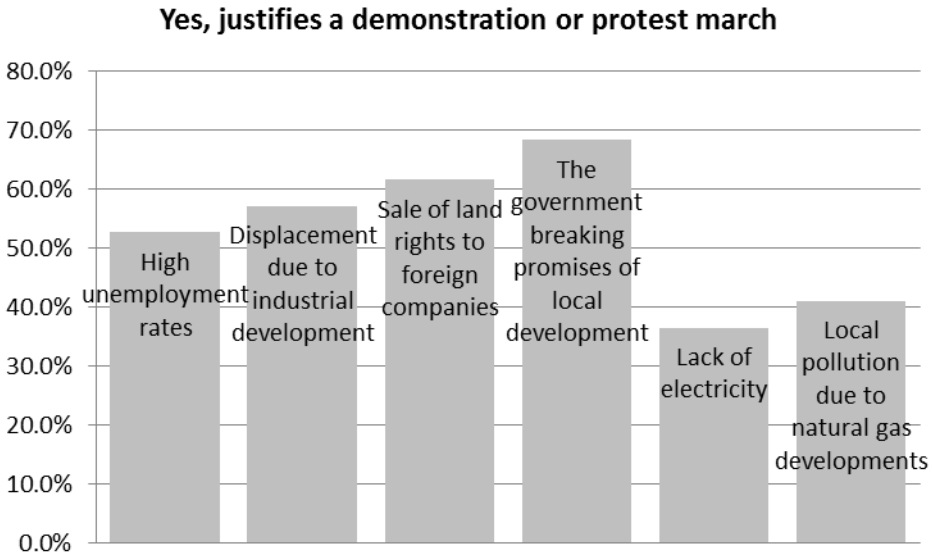
In general, each time respondents state that an injustice exists, it is linked to a feeling of other – often richer – people taking what is not rightfully theirs. None of the informants highlight the lack of development as an injustice, while several highlight the management of the gas discoveries as one. This feeling of injustice is also strongly linked to land rights, with several emphasizing how injustice was made when the government 'grabbed' land and did not pay a proper price for it: '*they have taken Mtwara corridor which is a big area. The government has grabbed and our elders have not been paid*'[76].

Those who participated in the riots furthermore link this feeling of injustice directly to their motivation to participate: '[I participated] *To defend the interest of Mtwara*'[77]. Most of them hold that their rights have been violated, and that they had to stand up for them. '*I participated because I'm someone from Mtwara and the resources being grabbed belong to the people of Mtwara I cannot accept to be robbed of my property*'[78]

This link between frustrated expectations as well as injustice linked to land rights, and demonstrations and protest, is also evident in the survey data, where almost 70% of the respondents hold that broken promises of local development justifies such civil unrest, followed by sale of land rights and displacement. Lack of electricity, on the other hand, gets a far lower score (Figure 29).

[76] Farmer, male, 28. Participant in riots
[77] Farmer, male, 28
[78] Fisherman, male, 58. Participant in riots.

Figure 29: Percentage of 'yes' responses to which issues justifies a demonstration/protest march



The above accounts are fully in line with Williams' (2003) distinction between a 'real grievance', as opposed to mere deprivation and dissatisfaction. While the former 'rests upon the claim that *injustice* has been inflicted upon undeserving victims' and 'are normative protests, claiming violations of rights or rules', the latter might be accepted as 'just the way things are' (ibid, 131).

In summary, while group identification and comparison preceded the gas discoveries, the feeling of injustice is new, and claimed to be the main motivating factor for the participants in the protests and riots.

Before I move on, it is important to note that in retrospect, most interviewees hold that they would not have become so angry if they had only been given information and education on the rationale for the pipeline decision at the same time as it was taken. To them, this decision was tantamount to no local benefits and development, and at least a part of their anger was linked to a feeling of not being consulted or informed.

5.5.3 Framing and blaming – and mobilization

Making people aware of injustices often requires leadership intervention (Brass 1991). Particularly the social movements literature emphasize how people may live silently with severe inequality unless elites actively highlight the injustices and pins the blame

on a specific actor – very often the government (Benford and Snow 2000, Gamson 1992). Such leadership intervention took place in Mtwara. Several public meetings were held throughout the last months of 2012 – one of the largest allegedly attended by more than 10 000 people (Mampilly 2013). The meetings were organized by political party leaders from altogether 9 opposition parties, of which the biggest were Chama Cha Demokrasia Na Maendeleo (Chadema), Civic United Front (CUF) and Chama cha Mageuzi na Ujenzi wa Taifa (NCCR–Mageuzi)[79]. In addition, both Christian and Muslim religious leaders participated, as did some local representatives of the incumbent party Chama Cha Mapinduzi (CCM). The main message at these meeting was very clear: the gas should not leave Mtwara[80]. The government had broken their promises of local development, and the locals were encouraged to take to the streets to show that they did not accept it. In addition to the meetings, people were mobilized via extensive text messages and flyers[81]. 'Gesi haitoki' – the gas should not come – became the slogan that could be seen written on surfaces all across Mtwara, and that in the end even school girls chanted (Mampilly 2013)[82].

Despite this relatively massive mobilization, many of my informants – including most of those participating in the riots – claim that there were no leaders, and that it was only the people themselves that decided to take to the streets. '*[T]here was no leader, we were one*'[83]. Rather than indicating that no mobilization took place – which is well documented – this is likely to be a sign on how widespread the sentiments became, and how the message travelled by word of mouth to those who did not take part in the meetings. This resonates with the riot literature, which has long proposed that 'no riot ever occurs without rumours to incite, accompany, and intensify the violence' (Allport and Postman 1947, 193). Equally important, as I will discuss in a later section, it is also likely to be an indication on how well the message from the leaders resonated with the population.

[79] Journalist, Mtwara and Student, female, 25
[80] Ibid.
[81] Journalist, Mtwara
[82] Both the interviews and media articles leave little doubt that moving the gas was the main mobilization issue. However, the opposition party leaders appear to have been relatively pragmatic and strategic – picking the topic most likely to fuel support. For the population further inland, where cashewnut farming is the main source of income, people were allegedly mobilized based on frustrations linked to missing subsidies and under-pricing. (Journalist, Mtwara)
[83] Male, Student, 22, participant in riots

In terms of blaming, it was clearly the government that became the culprit. The government took the decision on the pipeline, and is responsible for the natural gas management specifically and the lack of development in general. Hence, blaming the government for the injustice appears to have been relatively straightforward[84].

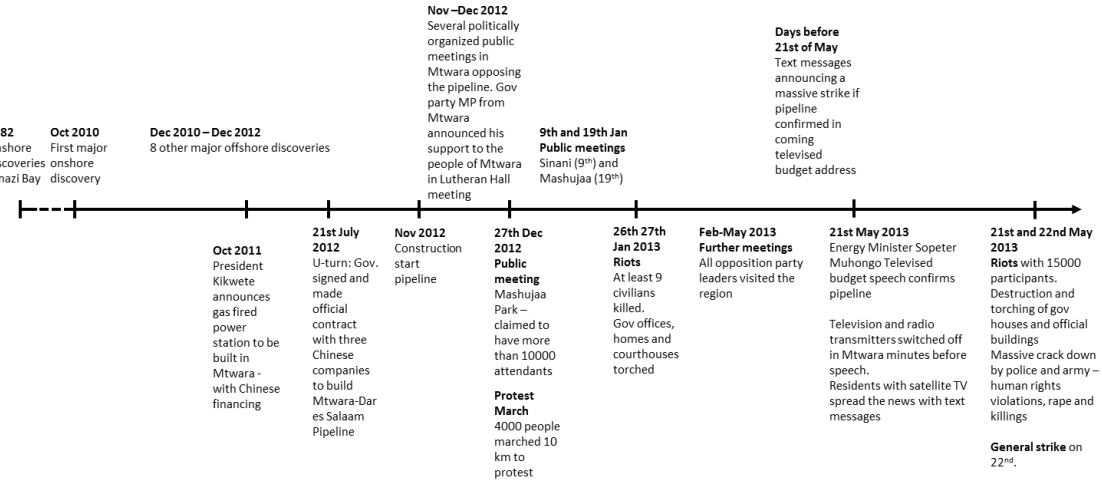
It is clear that the opposition party leaders have their own agenda linked to the overall political landscape in Tanzania, with the dominance of the incumbent party and the struggle to get to power in a country were elections are far from free and fair. In that sense, the case is a perfect example of what Stewart (2008) describes as a situation particularly likely to fuel conflict: when the political horizontal inequalities experienced by the elites align with the economic horizontal inequalities felt by the masses – creating a forceful common ground for mobilization.

The framing and blaming and the actual mobilization is hard to distinguish into separate steps in the case of the Mtwara riots. The community meetings, flyers and text messages served to trigger all these mechanisms at the same time. It is hard to say whether there would have been any protests and riots if the framing, blaming and mobilization had not taken place. The way it all unfolded, with the first protests starting right after the 27 December public meeting, and the second round of riots following more meetings and text messages, this part seems to have played a crucial role.

A timeline with main incidents leading up to the protests and riots is given in Figure 30.

[84] Blaming the oil industry would have been a less obvious choice. The knowledge of both the companies and their operations is extremely low among the locals. For example, only 1.5% had heard of Maurel and Prom, the company who operates the onshore field feeding the pipeline. Those few with knowledge of the oil industry expressed very positive views, and highlighted how the industry brings skills and investments that are currently not available in Tanzania.

Figure 30: Gas discoveries, political decisions and mobilization timeline



Sources:
https://www.ophir-energy.com/about-us/history/, http://www.statoil.com, Africa Confidential 54:12, Mampilly 2013, Interviews 2014/15

5.5.4 Opportunity/Claims and repression

Historically, scholars have engaged in debates concerning the relative importance of grievances and motivational factors (Davies 1962, Gurr 1970, Wood 2003) vs. opportunity and feasibility factors (Collier and Hoeffler 2004, Fearon and Laitin 2003, Tilly 1978) in inducing conflict. However, recent work tends to regard both motivation and opportunity as necessary conditions for conflict to materialize (e.g. Bara 2014, Chenoweth and Ulfelder 2015). The importance of opportunity structures are clearly demonstrated by the case of Mtwara. According to many of my informants, before the first round of protests, the political leaders first went to the Regional Commissioner and asked him to join the meetings to discuss their claims. Allegedly, he refused to listen to their message. With no conventional political channel to handle their interests, the leaders then saw no other options to protesting. Several sources also emphasize that the initial protests were approved and supported by other local government officials, of which some also attended the public meetings (Mampilly 2013, Interviews 2014/2015)

In terms of resources, protests and riots require little beyond motivated participants, and feasibility is thus very much governed by the expected government response to a mobilization. At the time of the first protests, no one expected brutal government repression, and in this sense opportunity was unrestricted. Correspondingly, the crack-down by the police and the army came as a surprise to most of the protesters, according to my informants. This same brutal response and human rights violations – ranging

from killings and torture to rape (Mampilly 2013, Interviews 2014/2015) in the end effectively put a stop to further protests. In addition, a total ban on public meetings was only lifted during the election campaign in 2015, and the local radio – by far the most frequently used source of information[85] – was until recently not allowed to broadcast any gas related information. While the killings and the abuse served to increase local grievances – now visible in the annual Memorial Day in the name of the victims – opportunity to stand up against the injustices is very restricted. My first visit to the region coincided with the first year anniversary of the May 2013 riots, and the fear of new riots – and efforts to contain them – was visible in armed roadblocks, army presence with tanks and personnel, closure of all shops and business and a curfew starting at 09:00 pm.

In summary, the opportunity to protest is now restricted by the expected high cost and low reward of participating: '*Since that time things have come and gone for the people of Mtwara. The people here are looking at the president so that they can see what he's going to do. If he wants to take it, then let him take it, what can we do? Get beaten again and killed? We're just silent, we don't have the power*'[86].

5.5.5 The relationship between objective horizontal inequalities, group grievances and natural resources

This paper started with a critique of how empirical studies of horizontal inequalities assume that objective structural asymmetries and grievances overlap and that the former thus can be used as a proxy for the latter. The mostly qualitative data reported in this paper support the conjecture that grievances and a newly acute sense of injustice and indignation stimulated the mass mobilisations that gripped southern Tanzania during 2012 and 2013. Indeed, all of the proposed mechanisms – group identification and comparison, injustice frames and identification of who is to blame – were all clearly observed during my fieldwork. Yet, it remains to be established whether the existing objective horizontal inequalities helped fuel the grievances, or whether the natural gas mismanagement drove the grievances irrespective of the historical marginalization. In other words, was the natural gas-mismanagement an intervening or an independent variable? This is very hard to conclusively test without much more extensive data, but the literature and the interviews offer some indications.

[85] According to the survey responses, close to 80% listen to the local radio regularly.
[86] Fisherman, Male, 28

In a rare but much cited study of the relationship between natural resources, grievances, leadership framing and conflict, Aspinall (2007) looked at the separatist conflict in the Aceh province in Indonesia. He concluded that natural resources can be used as a mobilization tool by elites, but only if a relevant collective identity is already in place. This concurs with realistic group conflict theory, for which empirical studies find that an emerging threat from competition over resources increases in-group solidarity, but only when this in-group solidarity is above a certain threshold before the threat arises (Brewer and Campbell 1976, Sherif et al. 1961). Earlier empirical studies thus point to the importance of a pre-existing identity – without linking this to inequality. Looking then to the framing literature, more clues to the importance of historic marginalization emerge. This literature claims, and finds, that the effectiveness of collective action frames in creating mobilization varies from case to case, and that one important success-factor is the degree to which the frame resonates with the population. This resonance is in turn driven by the credibility of the frame and its relative salience – how close to the reality and the available evidence is the frame, and how relevant is its scope for the population to be mobilized? (Benford and Snow 2000) In the case of Mtwara – clearly very close and highly relevant. Hence, from existing theory and empirical evidence one should expect that the historical marginalization, or the objective horizontal inequality, helped support the narrative of the mobilizer, and hence played a part in inducing conflict.

This overlaps with the accounts of the interviewees. The previous neglect by the government and the recent mismanagement is so intertwined in the accounts that it is hard to conclude that the historic objective inequalities played no part. In general, it seems that the various variables reinforced the same overall story: first they gave us nothing, then they promised us change, and then they went back on their word and instead took what rightfully belongs to us: '*It has taken 50 years to build the road, and it still isn't finished. Now they are building the pipeline in 18 months*[87]'

Natural resources – or more specifically – natural resource mismanagement, seem to have acted as an intervening variable, not an independent variable in the case of southern Tanzania. If we look back at the mechanisms driving grievances, it is not very surprising that natural resource mismanagement may serve as such a potent intervening

[87] Journalist

variable. Natural resources are inherently local, which makes them likely to induce competition between the group(s) living in the resource rich area and the rest of the country (Collier 2013, Koubi et al. 2014). Furthermore, natural resources very often lead to unrealistic expectations of local gains and future revenues – driven both by politicians, media coverage and expert reports from external bodies such as the IMF (Weszkalnys 2008, Ross, Lujala, and Rustad 2012). Once these hopes are broken, frustrations and a feeling of injustice are likely to arise. The fact that the resources are discovered in the group's land and are thus interpreted as 'belonging to us', further fuels a feeling of injustice. Finally, historic neglect by the government of the group in question coupled with perceived mismanagement of the resources makes framing and blaming by elites straightforward and 'credible'. In Mtwara, the fact that the government first made extensive promises, and then were perceived to break these, made the fuelling of group grievances particularly strong.

5.5.6 Summary

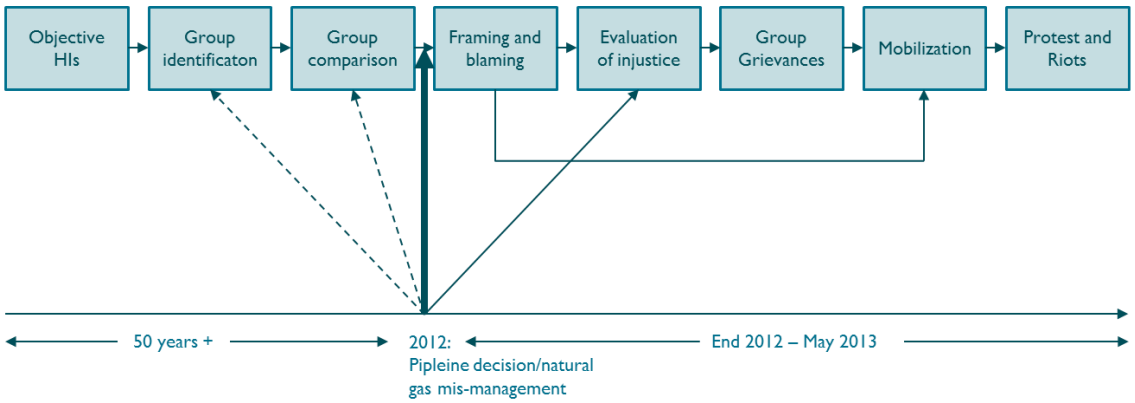
Objective horizontal inequalities were clearly not enough to trigger conflict in southern Tanzania – such asymmetries have been present for 50 years or more, and actually show a decline after the first gas discoveries[88]. So while the years of marginalization seemingly helped enforce the group grievances in the end, they did not by themselves constitute a sufficient condition for conflict. According to my sources, it was group grievances that motivated people to take part in the protests and riots. These group grievances were not entirely absent before the pipeline decision, but increased substantially after it. Overall, my analyses indicate that protests and riots materialized in the period in which both opportunity and grievances were high. After the riots, the grievances are still high – potentially even higher than before due to the human rights violations and losses of civilian lives – but opportunity is low mainly due to the fear of the police and the army.

On a more granular level, the four mechanisms suggested by Cederman, Gleditsch and Buhaug (2013) all contributed to fuel group grievances. But rather than being four independent steps, my analysis reveals the following: First, group identification and competition seems to have increased following the natural gas mismanagement, but was present before the decision on the pipeline. Second, evaluation of injustice is likely to

[88] See graph in background section. The slight decline is plausible – the gas activities have brought increased local spending in real estate, hotels, infrastructure, etc.

be partly a result of the framing and blaming, rather than a step before it. As noted earlier, framing campaigns may succeed or fail, and the ultimate measure of a campaign's success lies in gauging whether it has actually created a sense of injustice. In Mtwara, this sense of injustice was present, and the participants in the protests and riots directly linked this feeling to their motivation to participate. While some of this perception of injustice is likely to be a direct result of the broken promises, the framing presumably served to get the message out to a large share of the population. Hence, for the case of Mtwara, instead of the four steps to grievances as stipulated by Cederman et al, the process unfolded as portrayed in Figure 31:

Figure 31: The process from marginalization to mobilization in Mtwara



5.5.7 Alternative mechanisms – greed

Critics of grievance based explanations of conflict rightly claim that the studies investigating this relationship never measure the grievances directly. Hence, they cannot rule out that inequalities – on individual or group level – rather fuels motivation based on self-interest and greed (Collier and Hoeffler 2004). Regardless of the fact that academics may have grown tired of the greed vs. grievance debate, greed remains a recurring explanation for mobilization. In fact it is precisely what the participants in the Mtwara riots were accused of – both by government officials and academics. Rather than addressing people's questions about how they would benefit from the gas discoveries, in a televised address to Parliament, President Kikwete denounced the protesters and warned that the natural resources were the property of all Tanzanians, regardless of where they were found (Mampilly 2013). The Minister for Minerals and Energy, Professor Sospeter Muhongo, agreed and labelled those rioting naïve and non-patriotic (Mgamba 2013). The only academic work on the riots I have come across paints a picture of a population with 'imagined rights' with their pockets full of future

money: ’Like the hoboes in the *Punch* cartoon, local youth quickly started claiming that they no longer needed to work (Collier 2013, 52)’.

Claiming that the locals in Mtwara and Lindi do not want to work stand in stark contrast to the wishes and priorities revealed both in the interviews and the survey. In the interviews, local industries and employment is precisely what people ask most frequently for. ‘*If this gas is discovered they should look into it that we get employment because our youths do not have any other way to progress their lives*[89]’.

In the survey, when asked what the most important thing they think the government should do for the local population, basic services like health, clean water, electricity, education, as well as industries and jobs, not money, or riches, are most frequent.

Turning once more to the motivations as stated by the participants in the protests and riots, the rights of the group and the development of the region are emphasized, never individual gain: ‘*That’s why I was supporting them because I being a south person I also value the development of this place*’[90].

Such a group motivation may not have been the main incentive for the all leaders of the mobilization – given that their campaign must be seen as a part of the overall struggle for power in Tanzania. Still, some local incumbent party leaders openly supported the campaign on the grounds that the south should no longer be exploited or marginalized[91].

5.6 Conclusion

Current studies of horizontal inequalities, natural resources and conflict analyse the link between structural background patterns and conflict risk without taking into account the relevant steps in the causal process. While the general assumption behind these studies is that grievances drive conflict, they never explicitly observe these grievances, and rather assume that they overlap with the measured objective inequalities. This leaves them vulnerable to two sets of criticism: First, they cannot prove that it is in fact grievances, and not an alternative mechanism, that drives conflict. Second, and most importantly, since people’s subjective views and judgements differ substantially to

[89] Unemployed, male, 22
[90] Student, male, 22. Participant in riots
[91] Journalist, Mtwara

objective facts, current analyses based on the latter to a certain extent miss the target in their evaluation of conflict risk.

In this paper I take an in-depth look at the causal mechanisms driving group grievances, and how these in turn drive mobilization. My analyses support the view that group grievances do indeed induce conflict if favourable opportunity structures are in place. The group aspect is vital – people are motivated to defend their region, the development of it and the rights of the people living there. On the other hand, greed as an alternative mechanism to instigate conflict has little explanatory power for the Mtwara case.

Framing and blaming is central for group grievances to arise, while an evaluation of injustice is partly a sign that the framing campaign has succeeded, and that group grievances have indeed developed. Such a feeling of injustice is in turn closely linked to perceptions of being robbed of something that belongs to the group, and to have been deceived by politicians breaking their promises of local development. While Mtwara and Lindi's decades long marginalization and relative underdevelopment were accepted with resignation and thus not framed as a tangible 'injustice', the mismanagement of the natural gas discovery 'felt' like an injustice. This was powerfully symbolised by the new resource being literally piped from its source in the southern periphery to the wealthier north without 'payment'. In the words of many of the interviewees: we were "robbed". This is what in the end transitioned many people from accepting their fate to mobilizing to try and improve it.

The long lasting objective horizontal inequalities, and the pre-existing group identity and comparison, made the narrative of the mobilizers resonate well with, and be credible to, the population – factors demonstrated to positively affect the success of framing campaigns. Natural resource mismanagement apparently acted as an intervening variable between objective horizontal inequalities and group grievances triggering framing and blaming and a feeling of injustice, while also to some extent enforcing existing group comparisons.

My findings have several implications for the existing literature. Current empirical studies analysing the effect of structural background patterns on conflict risk elide the question of whether these cleavages are politically relevant or not. In a sense they leave out agency: whether there are people and events that spark conflict. To avoid this, future studies should aim to measure perceptions and grievances more directly. Second, the

mobilization around a regional identity in Tanzania, coupled with the multiple identities actually present, show that large-N studies should make an effort to establish which group identity is relevant before embarking on their analyses. Most current studies start with an assumption that it is the ethnic identity that is salient for all the countries included in the analysis, without testing this bold conjecture. Such an overall approach would totally miss the perception of regional inequality in Mtwara and Lindi.

For policy makers in emerging petroleum regions, the importance of realistic information as opposed to lofty promises must be underlined. Frustrated expectations and a perception that the central government is 'grabbing' what rightfully belongs to the local population was a strong grievance and conflict driver in Mtwara. For policy makers and government officials working with other recent petroleum discoveries in areas with marginalized groups, such as in Kenya, Uganda and Ghana, this is an important lesson.

5.7 Appendices Chapter 5

Appendix 5.7.1 Semi structured interviews

Lecturers at Stella Maris Mtwara University College were of great help in providing access to leaders. Other than that, people were recruited from the streets, outside their houses and at their working places. Participants in the riots were recruited mostly via snowballing. All interviewees where given information on the aim of the study, and the name and affiliation of the principal investigator. One person declined to be interviewed, while one interview was disrupted towards the end due to a gathering crowd which made the interviewee feel uncomfortable.

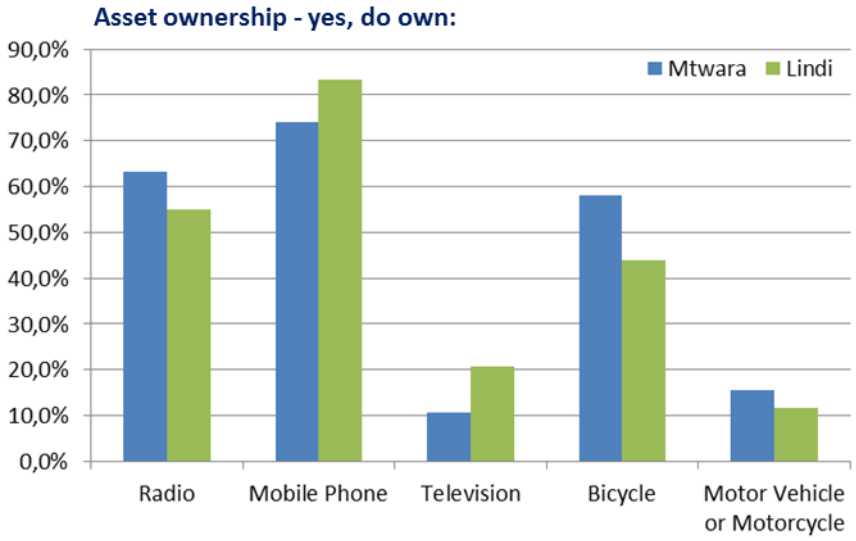
Apart from five interviews, all interviews were tape recorded (The five included four students as well as the high ranking government official, who all preferred not to be recorded). For the five unrecorded interviews, extensive notes were taken and immediately cleaned once the interviews were done. Some of the interviews with students, as well as all the leader/journalist interviews were done in English – 11 in total. 14 were done in Swahili and English together with an experienced interpreter. Finally, 10 were done by an experienced research assistant in Swahili. All the recorded interviews have been transcribed by a professional fluent in both Swahili and English based in Kenya. The interviews were coded in excel using the codes listed in. Table 45, which also includes an example of coding.

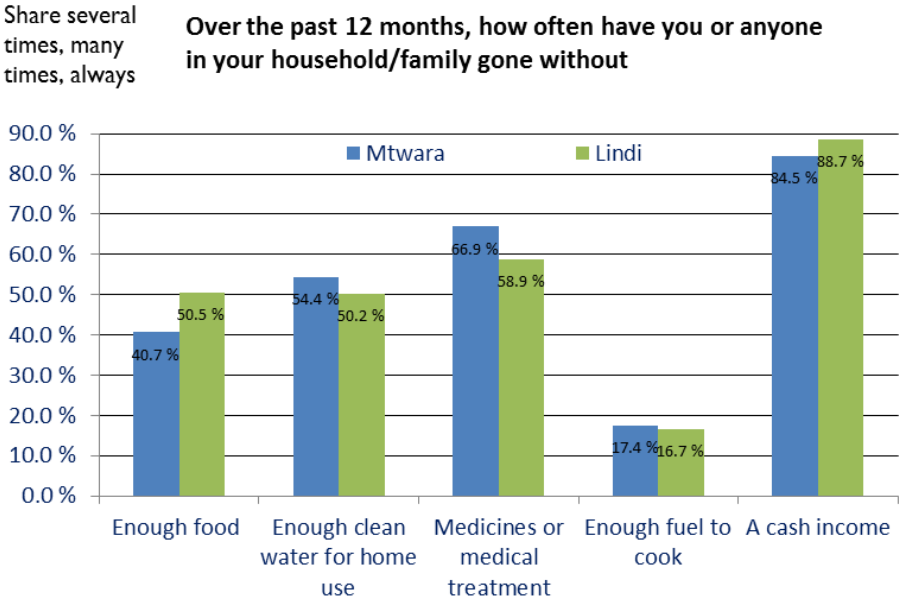
Table 45: List of interview codes and coding example

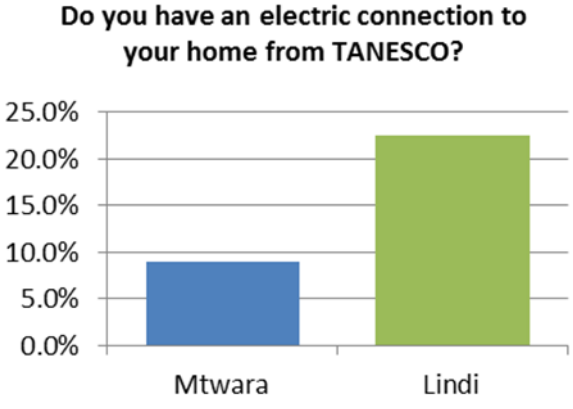
List - Codes
attitude companies
benefit
Broken promises
cashewnuts
change
Companies done
education
Expectations
Expectations companies
Expectations government
fatalities
fomented grievances
Government done
grievance
group
heard of gas
heard of pipeline
Horizontal Inequality
Identity
Inequality
Information
Involvement
Jobs
land
Leaders
Marital status
Mobilization
motivation
Opportunity
Participants
Participation
police violence
political party
poverty
Promises
reflected
Religion
Response
rights
Riots
road
satisfaction
status
steal
Support
Timeframe
Treated unfairly
tribe
water

Number	Line	Identifyer	Place of intervi	Gender	Age	Date	File numb	Total time	Language	Folder	Participat	ID	Qs and responses	CODE1	CODE2	CODE3
10	117	Cashewnu	Mtwara Town	Female	43	23rd May 2014	VN800016	27.11	E/S	C	no	Resp:	So, first instead of educating the community first, they decided to lie and extract it. That's why the riots happened. But if there would have been education, those riots wouldn't have been there.	riots	information	involvement

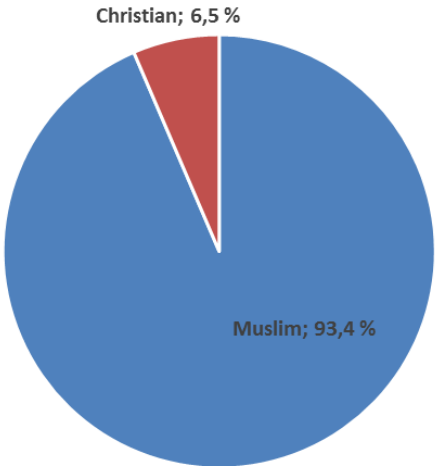
Appendix 5.7.2: Objective economic indicators Mtwara vs. Lindi – relatively on par

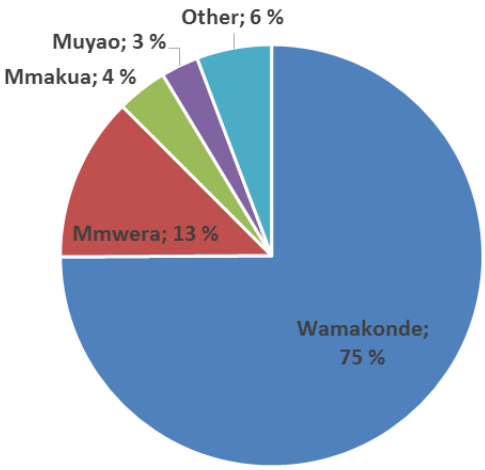






Appendix 5.7.3 – Religious and ethnic affiliation, survey sample





6 Concluding remarks

After decades of debate, recent work on horizontal inequalities and conflict has been able to establish that inequality do indeed lead to conflict when it overlaps with salient group identities. Economic (Cederman, Weidmann, and Gleditsch 2011, Cederman, Weidmann, and Bormann 2015, Østby 2008b) and political (Cederman, Weidmann, and Gleditsch 2011, Cederman, Gleditsch, and Buhaug 2013) horizontal inequality increases the risk of civil war as well as other types of political conflict (e.g. Chenoweth and Ulfelder 2015, Fjelde and Østby 2014). Important as these studies are, they still cannot fully answer *when* and *how* horizontal inequalities lead to conflict. Providing a better answer to this question has been the main aim of this dissertation project.

My first conclusion is that people act on perceived horizontal inequality, and such perceptions do not always reflect the objective reality. The discrepancies between objective and perceived structural asymmetries are documented by extant studies and confirmed throughout my own analyses. I find the correlation between objective and perceived *regional economic* deprivation to be 0.22 based on World Values Survey. Objective and perceived *ethnic economic* inequality have a correlation of 0.33 based on Afrobarometer Survey data. Also based on Afrobarometer data and the Ethnic Power Relations data I find the correlation between objective and perceived *ethnic political* influence to be as low as 0.18. Finally, in my survey of 800 respondents in Southern Tanzania, I find a large spread in the perceptions of *regional economic* inequality despite the fact that all the respondents live in the same marginalized regions and are by definition equally objectively deprived[92]. In line with my – and existing studies' – stated theoretical expectations, my analyses further suggest that perceived horizontal inequalities increases the risk of conflict. My evidence indicates that perceived regional economic inequality increases the risk of civil war (Chapter 2), that the combination of high objective and perceived ethnic economic inequality, and more so objective and perceived political ethnic inequality, increases the risk of communal conflict (Chapter 3), and that perceived regional economic inequality and perceived unfair treatment of the region increases support for and participation in civil unrest in Southern Tanzania (Chapter 4 and 5). With these analyses, I believe I provide a better test of the grievance

[92] In Mtwara and Lindi, 53% of the respondents think their region is worse or much worse off than other regions in the country, 19% think their economic situation is the same, and 14% think it is better or much better. The rest of the respondents replied that they do not know.

mechanism assumed to motivate people to mobilize for conflict. While extant studies based on objective data cannot rule out that structural horizontal inequalities lead to conflict via alternative mechanisms such as expectations of material gains, my analyses indicate that the grievance mechanism is indeed crucial in inducing conflict.

Second, and also in line with my theoretical expectations, I find support that the conflict potential is strongest when horizontal inequality is also considered unfair. In my Tanzania study, I first find a relatively stronger link between perceived unfair group treatment by the government and conflict attitudes and participation – compared to the effect of perceived horizontal inequality. While I do consider perceived horizontal inequality and perceived unfair treatment of the group by an actor as two different measures of group grievances, that may capture some of the same effects, I do expect the feeling of unfairness to be the most comprehensive and direct measure. The fact that this measure gives the strongest results is in line with this assumption. The importance of judging horizontal inequalities as unfair is particularly evident in my last article (Chapter 5). Riot participants in Mtwara link their motivation to participate directly to a feeling of their region being treated unfairly and to being victims of injustices. These feelings are in turn directly linked to the government's management of the natural gas resources. Dashed expectations following broken promises of local development, and a feeling that the central government 'takes' what rightfully belongs to the people of Mtwara and Lindi, is what most informants highlight as 'unjust'. The long lasting economic marginalization, on the other hand, though resented, is never explicitly stated as unjust.

This is all fully in line with my theoretical framework, in which I expect the overall grievance level to be higher once people are aware of horizontal inequalities, and highest once these same horizontal inequalities are considered unfair and the fault of an identified actor. This resonates with Williams' (2003, 131) distinction between a 'real grievance' which, as opposed to 'mere' deprivation, is linked to a notion of being the victim of an injustice, and rests on claims that rights or rules have been violated. It also resonates with earlier studies showing that people may blame economic inequalities on themselves and their own lack of capabilities. Given such attitudes, they are less likely to mobilize to rectify their situation.

Third, I argue that the discovery of large non-renewable natural resources – and the management of these resources – is particularly potent in creating group grievances. This is not surprising if we look at factors established by former studies to affect both perceptions and a feeling of unfairness. Natural resources introduce competition between local groups where they are found and the rest of the country, creates enormous expectations of future wealth that are unlikely to be fulfilled, and gives political entrepreneurs ample room for portraying the central governments management as unjust. All these factors played a role in intensifying grievances and fuel conflict in Mtwara.

Fourth, I find support that group grievances – measured as perceived horizontal inequalities (Chapter 3 and 4) and as perceived unfair treatment of the group (Chapter 4 and 5) also increases the risk of other types of conflict – such as communal conflict, riots, and non-violent protest marches and demonstrations – in addition to civil war (Chapter 2).

Fifth, in Chapter 2, and particularly in Chapter 4 and 5 based on my Tanzania study, I find region to be an important group identity around which mobilization can be centred. While ethnicity remains salient, especially in many African countries, Tanzania is an example of a country where ethnicity is less politically relevant, and where high level analyses hinging on this particular identity marker would not capture the conflict potential rising in the southern regions.

Sixth, my analysis also supports the importance of the *group* aspect. My focus on perceptions and judgements led me to ask whether also *individual* inequality matters, and that the reason previous quantitative studies have not been able to pin down its effect is the objective measures they apply. In Chapter 2 and 4 I test this, and find no association between perceived individual inequality and civil war (Chapter 2) or civil unrest (Chapter 4). Also, the qualitative accounts from riot participants in Chapter 5 all highlight a motivation grounded in a defence of the rights of the group, never the individual.

Finally, I do not disregard the effect of objective horizontal inequalities in inducing conflict. While I have not been able to fully investigate all the links between structural asymmetries, perceptions and judgements of these, and their motivational strength, I have gathered some clues to their relationship. In Chapter 3 I find that ethnic economic

inequality leads to a higher risk of communal conflict only if both objective and perceived deprivation is high. This resonates with findings from the social movements literature which link the efficiency of framing by political entrepreneurs to how close it is to reality. In other words, it is easier to mobilize people to rectify group inequalities that actually exist. This is also what I find in my Tanzania studies, particularly in Chapter 5. While it seems to be the perceived injustices linked to the natural gas management that finally push the long marginalized locals to mobilize, and the regional economic deprivation alone never did, the new injustice seems to have added to old perceptions of inequality and made them stronger. In this case, the natural resource management seemingly acted as an intervening variable between objective regional inequality and group grievances – substantially increasing the latter, and hence paving the way for mobilization.

In summary, while objective horizontal inequalities may or may not be politically relevant, and will not lead to mobilization unless they are, perceived horizontal inequalities, and even more so perceived unfair group treatment, are better measures of the group grievances assumed to drive mobilization. In line with this, I find their effect on conflict risk to be more pronounced.

While the *motivation* to participate in conflict has been the main focus of this dissertation, conflict will only arise where it is actually possible to organize. In short – opportunity to mobilize also matters. My final article (Chapter 5) highlights this for the case of Tanzania. However, this article also emphasizes that it is not opportunity alone that triggers when horizontal inequalities lead to conflict – as contentious politics scholars may argue (e.g. Tarrow, Tilly, and McAdam 2001). The opportunity to protest and riot was only restrained by the government *after* the civil unrest in 2012 and 2013 – before that it had remained unrestrained for decades. Both opportunity and motivation is needed, but it was a group grievance-induced motivation that changed after the natural gas management, and that in the end sparked the mobilization.

Returning to the research questions presented in the introductory chapter, I answer yes to number 1 and 2 – group grievances increase the probability of both civil war as well as other types of political mobilization. I furthermore conclude that objective and perceived horizontal inequalities do not amount to the same thing, although existing objective asymmetries may make it easier for political entrepreneurs to fuel perceptions

of inequality and unfairness (research question 3). Finally, large non-renewable natural resources are particularly likely to trigger group grievances, especially through dashed expectations, and a feeling that the central government is taking something that rightfully belongs to the local population (research question 4).

As more thoroughly described in the introductory chapter, my analyses come with certain limitations. The two first papers (Chapters 2 and 3) are subject to a risk of ecological fallacy. No matter how well group measures are constructed, as long as there is no direct link between the groups and conflict incidents analysed, one cannot fully establish that the measured objective and perceived horizontal inequalities reflect the grievances of those group members that mobilize. This problem is however not present in my two final articles (Chapters 4 and 5). In Chapter 4 I use the individual as unit of analysis and link personal perceptions to personal participation in, and attitudes towards, civil unrest. Both this analysis and the direct accounts from the semi-structured interviews presented in Chapter 5 support the overall conjecture that group grievances drive mobilization for conflict.

The two first chapters are also particularly vulnerable to potential endogeneity issues, as it cannot be firmly established that the observed objective and perceived horizontal inequalities are causing the conflict incidents or are instead products of previous conflicts. Particularly my last Tanzania article (Chapter 5) once more supports my overall conclusion that group grievances cause conflict, given the personal accounts highlighting precisely this. Finally, the problem with missing data and lack of representativity to some extent affecting the two first articles is also handled in my quantitative Tanzania paper, which is based on rigorous and random sampling fully representative of the population in both natural resource affected and unaffected parts of Mtwara and Lindi.

In summary, I can with reasonable confidence conclude that horizontal inequalities lead to conflict – in various forms – when people are aware of them and consider them unjust. Or, as the theoretical causal chains underpinning extant studies also postulate: horizontal inequalities lead to conflict when they have developed into politically relevant group grievances. I have identified the mismanagement of large non-renewable natural resources as a potent trigger for such group grievances, although several other factors may have the same effect. Identifying and testing relevant triggers constitutes

one interesting route for future research – along with others that I will further elaborate on in the next section.

6.1 Future research

Following from my conclusions, the noted limitations of my studies, and also from the gaps identified in the introductory chapter, five particularly relevant routes of future research stand out. First, while my analyses constitute a first step towards capturing the role of perceptions and judgements in facilitating mobilization, cross-country studies with a clear link between the groups that mobilize and the conflict incidents would provide an even more rigorous tests of the relationship between group grievances and conflict.

Second, horizontal inequality studies in general should pay more attention to the salience of the identity categories that are applied in their analysis. Ideally, proper tests of which identity group people in each country feel most associated with should be undertaken, and the analyses of the link between horizontal inequality and conflict should then be based on the outcome of this test. Existing cross-country studies of horizontal inequalities and conflict in Sub-Saharan Africa – including my own – tend to analyse ethnic groups, while a regional or a religious identity may be more relevant in many countries[93]. My Tanzania study underlines the importance of this – ethnicity has low political relevance, while a regional identity, and also increasingly a religious identity, have more.

Third, the association between religious horizontal inequalities and conflict is understudied, and more analyses taking this particular identity dimension into account would be welcome. This also to some extent holds for the regional group identifier – especially for analyses of the political dimension of horizontal inequality.

Fourth, my own (Chapter 3) as well as other studies' (Bormann et al. 2016, Kanbur and Venables 2005) conclusion that also objective horizontal inequalities vary over time calls for analyses of time-variant data.

[93] I do however perform robustness tests where I exclude countries in which more than 50% of the population hold that their national identity is more important than their ethnic.

Most importantly, the link between objective horizontal inequalities and group grievances deserves more scrutiny. Future studies should further investigate when and how objective asymmetries turn politically relevant, which factors triggers group grievances – other than non-renewable natural resource mismanagement – and whether mobilization mostly happen where the objective reality and the perceptions and judgements of it overlap. We need to fully understand these relationships in order to be able to recommend efficient conflict risk reducing measures and policies in countries at threat.

6.2 Policy implications

While rectifying objective horizontal inequalities remains a vital policy task, my dissertation first and foremost points to the importance of also taking into account how structural asymmetries are perceived and judged, and which incidents shape and form such judgements. According to my analysis, this should add to our understanding of when and how conflict breaks out, and hence provide some guidance on how to reduce the risk of serious political violence.

Furthermore, according to the UN, 'The challenges associated with preventing, managing and resolving natural resource-induced conflicts may well come to define global peace and security in the 21st century.'[94] This is particularly the case for Africa. Recent high-impact discoveries in a range of countries, and especially along the east coast, have made leading scholars warn that natural resources constitute a substantial security threat on the continent (Collier 2015), especially when combined with identity group tensions (e.g. Basedau and Pierskalla 2014). My analyses underline this challenge. I have identified the discovery and management of large non-renewable natural resources in a historically marginalized region as a particularly potent driver of group grievances. With new large oil and gas discoveries in areas inhabited by marginalized groups in countries such as Kenya, Uganda, Mozambique and Ghana, the importance of policy recommendations on sound management of these resources are urgent.

Managing expectations stands out as a main priority. Grand promises of future wealth at early stages of resource development are likely to backfire – just as they did in

[94] http://www.un.org/en/land-natural-resources-conflict/

Tanzania. Dashed expectations have repeatedly been identified as a grievance inducing mechanism (e.g Davies 1962, Gurr 1970), and proved to be so in Mtwara as well. The way to handle overall expectations is straight forward, although not necessarily easy to carry out in practice: If a realistic or even a deliberate understatement of potential future outcome is given, the risk of frustration is greatly reduced, while at the same time unexpected positive results could be welcomed as an 'over performance bonus' (Lindstadt and Staton 2010, 14). More specifically, people in resource rich regions and countries should be informed about realistic future consequences of the resources – both negative and positive – as early as possible in the development phase. This is the responsibility of governments and the media, but also of international experts and organizations such as the International Monetary Fund, who often release reports on future revenue scenarios without much regard to how such reports may also drive expectations (Weszkalnys 2008).

However, managing expectations also entails implementing local development initiatives targeting what people want and need. This is challenging in areas where there exist no data on the priorities, needs and attitudes of the local population, and where one have limited knowledge of which information sources are used and trusted. Such lack of representative data was an issue in Tanzania, and is likely to be one reason that key stakeholders have invited me to present, and proven very interested in, my results. In September 2015 I presented the main conclusions to the Tanzanian Ministry of Energy and Minerals, represented by the Head of Government Communication Mrs. Badra Masoud. I further made a presentation to Statoil Tanzania's Management Team, to Oxfam Tanzania, to the Friedrich Eibert Stiftung and to the Norwegian Embassy in Dar es Salaam. All these presentations were mostly focused on descriptive statistics from my survey, as my data constitutes the first representative sample with information on the actual situation as well as perceptions and attitudes among people in Mtwara and Lindi. Later in September I also presented overall findings at the Annual Army Summit for the Norwegian Army.

Some of my results surprised the stakeholders. For instance, the demand among the Southerners for local industries is well known. However, that most locals are happy with their current job, or want a minor upgrade, and rather want their children to get education and skills sufficient to work in these industries, surprised most. While this does not solve challenge of employing enough Tanzanians to fulfil government

established local content quotas, it makes it easier to manage expectations. Meeting a collective expectation of immediate high level local employment in the petroleum production facilities is close to impossible. Working to provide improved health care, infrastructure, education and information, which is what the locals ask for, is, if not easy, at least possible. Statoil did in fact change some of their social investment programs to focus on health and information after my presentation[95].

The Head of Government Communication Mrs. Badra Masoud was surprised by the low share of Southerners that had access to a television, and the very high share that listened to, and trusted, the local radio. Previous government natural gas information campaigns had, according to her, been broadcasted on television and hence had limited reach.

On the other hand, much of my descriptive data confirmed what the stakeholders assumed to be true, but, according to for example Oxfam Tanzania, they were not sufficiently confident about to initiate efforts based on it. My representative data helped bring such assurance.

I include these examples because they highlight how also the most straightforward results of academic research – in this case descriptive statistics based on representative data – can be useful for practitioners. This is particularly the case when oil or gas is discovered in remote regions where such lack of data is endemic. Targeted data collection hence stands out as a key task in order to create a sound basis for local development and sustainable natural resource management.

In the next decades, the majority of the world's oil and gas supplies are projected to come from developing countries (Ross 2012). This will add to the already discovered resources in sub-Saharan Africa. For these resources to foster peace and development rather than unrest and political violence, it is paramount that the rights, attitudes and opinions of the groups living close to them are properly taken into account.

[95] Information given in a follow up meeting with amongst others Sustainability Manager Juliet Mboneko in June, 2016.

7 Bibliography

Abrams, Dominic, and Michael A Hogg. 1988. *Social identifications: A social psychology of intergroup relations and group processes*: Routledge.

AED. 2015. "African Elections Database." Accessed 27.03.2015. http://africanelections.tripod.com/.

Africa Confidential. 2013. "Protests fuel political crisis." *Africa Confidential*.

Akpan, Nseabasi S. 2010. "Governance and communal conflicts in a post-democratic Nigeria: A case of the oil-producing Niger Delta Region." *Journal of African Studies and Development* 2 (3):065-074.

Alesina, Alberto, and George-Marios Angeletos. 2005. "Fairness and redistribution." *The American Economic Review* 95 (4):960-980.

Alesina, Alberto F, and Paola Giuliano. 2009. Preferences for redistribution. National Bureau of Economic Research.

Allport, Gordon W, and Leo Postman. 1947. "The psychology of rumor."

Almas, I., A. W. Cappelen, E. O. Sorensen, and B. Tungodden. 2010. "Fairness and the development of inequality acceptance." *Science* 328 (5982):1176-8. doi: 10.1126/science.1187300.

Anderson, Benedict. 1991. *Imagined Communities. 1983. rev. ed*: London: Verso.

Arnson, Cynthia J, and I William Zartman. 2005. *Rethinking the economics of war: The intersection of need, creed, and greed*: Woodrow Wilson Center Press.

Aryeetey, Ernest, and Emmanuel Asmah. 2011. "Africa's New Oil Economies: Managing Expectations." *FORESIGHT AFRICA*:22.

Asal, V., M. Findley, J. A. Piazza, and J. I. Walsh. 2015. "Political Exclusion, Oil, and Ethnic Armed Conflict." *Journal of Conflict Resolution*. doi: 10.1177/0022002714567948.

Aspinall, Edward. 2007. "The construction of grievance natural resources and identity in a separatist conflict." *Journal of Conflict Resolution* 51 (6):950-972.

Ballentine, Karen, and Jake Sherman. 2003. *The political economy of armed conflict: Beyond greed and grievance*: Lynne Rienner Publishers.

Bara, C. 2014. "Incentives and opportunities: A complexity-oriented explanation of violent ethnic conflict." *Journal of Peace Research* 51 (6):696-710. doi: 10.1177/0022343314534458.

Barron, Patrick, Kai Kaiser, and Menno Prasad Pradhan. 2004. "Local conflict in Indonesia: Measuring incidence and identifying patterns." *World Bank Policy Research Working Paper* (3384).

Barrows, Walter L. 1976. "Ethnic diversity and political instability in Black Africa." *Comparative Political Studies* 9 (2):139.

Basedau, Matthias, and Jann Lay. 2009. "Resource curse or rentier peace? The ambiguous effects of oil wealth and oil dependence on violent conflict." *Journal of Peace Research* 46 (6):757-776.

Basedau, Matthias, and Jan Henryk Pierskalla. 2014. "How ethnicity conditions the effect of oil and gas on civil conflict: A spatial analysis of Africa from 1990 to 2010." *Political Geography* 38:1-11.

Bates, Robert H. 2008. *When things fell apart. State Failure in Late-Century Africa*: Cambridge University Press.

Beck, Nathaniel, Jonathan N Katz, and Richard Tucker. 1998. "Taking time seriously: Time-series-cross-section analysis with a binary dependent variable." *American Journal of Political Science* 42 (4):1260-1288.

Benabou, Roland, and Jean Tirole. 2006. "Belief in a just world and redistributive politics." 121 (2):699-746.
Benford, Robert D, and David A Snow. 2000. "Framing processes and social movements: An overview and assessment." *Annual review of sociology*:611-639.
Blattman, Christopher, and Edward Miguel. 2010. "Civil war." *Journal of Economic Literature*:3-57.
Bormann, Nils-Christian , Lars-Erik Cederman, Yannick Pengl, and Nils B. Weidmann. 2016. "Globalization, Exclusion, and Ethnic Inequality." European Network of Conflict Researchers Conference, Geneva, January 21-22.
Brass, Paul R. 1991. *Ethnicity and nationalism: Theory and comparison*: Sage Publications (CA).
Brass, Paul R. 1997. *Theft of an idol: Text and context in the representation of collective violence*: Princeton University Press.
Brewer, Marilynn B, and Donald T Campbell. 1976. "Ethnocentrism and intergroup attitudes: East African evidence."
Brown, Graham K, and Arnim Langer. 2010. "Horizontal inequalities and conflict: a critical review and research agenda." *Conflict, Security & Development* 10 (1):27-55.
Buhaug, Halvard, Lars-Erik Cederman, and Kristian Skrede Gleditsch. 2014. "Square pegs in round holes: Inequalities, grievances, and civil war." *International Studies Quarterly* 58 (2):418-431.
Buhaug, Halvard, Kristian Skrede Gleditsch, Helge Holtermann, Gudrun Østby, and Andreas Forø Tollefsen. 2011. "It's the local economy, stupid! Geographic wealth dispersion and conflict outbreak location." *Journal of Conflict Resolution* 55 (5):814-840.
Campbell, Donald T. 1965. "Ethnocentric and other altruistic motives." Nebraska symposium on motivation.
Cederman, L. E., N. B. Weidmann, and N. C. Bormann. 2015. "Triangulating horizontal inequality: Toward improved conflict analysis." *Journal of Peace Research* 52 (6):806-821. doi: 10.1177/0022343315597969.
Cederman, Lars-Erik, Kristian Skrede Gleditsch, and Halvard Buhaug. 2013. *Inequality, grievances, and civil war*: Cambridge University Press.
Cederman, Lars-Erik, Nils B Weidmann, and Kristian Skrede Gleditsch. 2011. "Horizontal inequalities and ethnonationalist civil war: A global comparison." *American Political Science Review* 105 (03):478-495.
Cederman, Lars-Erik, Andreas Wimmer, and Brian Min. 2010. "Why do ethnic groups rebel? New data and analysis." *World Politics* 62 (01):87-119.
Chen, Daniel L. 2007. "Islamic resurgence and social violence during the Indonesian financial crisis." *Institutions and norms in economic development*:179-200.
Chenoweth, E., and J. Ulfelder. 2015. "Can Structural Conditions Explain the Onset of Nonviolent Uprisings?" *Journal of Conflict Resolution*. doi: 10.1177/0022002715576574.
CIESIN, FAO, and CIAT. 2005. Gridded Population of the World, Version 3 (GPWv3): Population Count Grid, Future Estimates. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC).
Collier, Paul. 2013. "Under Pressure." *Finance and Development* 50 (4):50-53.
Collier, Paul. 2015. "Security Threats Facing Africa and its Capacity to Respond." *Prism: a Journal of the Center for Complex Operations* 5 (2):30.

Collier, Paul, and Anke Hoeffler. 2000. "Greed and grievance in civil war, world bank policy research working paper 2355." *World Bank (http://www. worldbank. org/research/PDF)*.
Collier, Paul, and Anke Hoeffler. 2004. "Greed and grievance in civil war." *Oxford economic papers* 56 (4):563-595.
Collier, Paul, Anke Hoeffler, and Dominic Rohner. 2009. "Beyond greed and grievance: feasibility and civil war." *oxford Economic papers* 61 (1):1-27.
Connor, Walker. 1993. "Beyond reason: the nature of the ethnonational bond." *Ethnic and racial studies* 16 (3):373-389.
Cramer, Christopher. 2005. *Inequality and conflict: A review of an age-old concern*: UNRISD Geneva.
Cramer, Christopher. 2006. *Civil war is not a stupid Thing. Accounting for violence in developing countries*: Hurst & Company.
Cunningham, David E, and Douglas Lemke. 2011. "Beyond Civil War: A Quantitative Analysis of Sub-state Violence." APSA 2011 Annual Meeting Paper.
Dancygier, Rafaela M. 2010. *Immigration and conflict in Europe*: Cambridge University Press.
Davies, James C. 1962. "Toward a theory of revolution." *American sociological review*:5-19.
Deiwiks, Christa, Lars-Erik Cederman, and Kristian Skrede Gleditsch. 2012. "Inequality and conflict in federations." *Journal of Peace Research* 49 (2):289-304.
Domasa, Sylivester. 2013. "Inside Mtwara natural gas bloody chaos." *IPPMedia*, 10th August.
Duffield, Mark. 2000. "Globalization, transborder trade, and war economies." *Greed and Grievance: Economic Agendas in Civil Wars* 69:89.
Easterlin, Richard A. 1995. "Will raising the incomes of all increase the happiness of all?" *Journal of Economic Behavior & Organization* 27 (1):35-47.
Eifert, Benn, Edward Miguel, and Daniel N Posner. 2010. "Political competition and ethnic identification in Africa." *American Journal of Political Science* 54 (2):494-510.
Elbadawi, E, and Nicholas Sambanis. 2000. "Why are there so many civil wars in Africa? Understanding and preventing violent conflict." *Journal of African Economies* 9 (3):244-269.
Esteban, Joan, and Debraj Ray. 2008. "On the salience of ethnic conflict." *The American Economic Review* 98 (5):2185-2202.
Fearon, James D. 2005. "Primary commodity exports and civil war." *Journal of conflict Resolution* 49 (4):483-507.
Fearon, James D, and David D Laitin. 1996. "Explaining interethnic cooperation." *American political science review* 90 (04):715-735.
Fearon, James D, and David D Laitin. 2003. "Ethnicity, insurgency, and civil war." *American political science review* 97 (01):75-90.
Fjelde, Hanne, and Gudrun Østby. 2014. "Socioeconomic inequality and communal conflict: A disaggregated analysis of sub-Saharan Africa, 1990–2008." *International Interactions* 40 (5):737-762.
Fjelde, Hanne, and Nina von Uexkull. 2012. "Climate triggers: Rainfall anomalies, vulnerability and communal conflict in sub-Saharan Africa." *Political Geography* 31 (7):444-453.
Förster, Michael, David Jesuit, and Timothy Smeeding. 2005. "Regional poverty and income inequality in Central and Eastern Europe: evidence from the Luxembourg income study." *Spatial Inequality and Development*:311-347.

Frey, Bruno S. 2008. "Happiness: A revolution in economics." *MIT Press Books* 1.
Friedman, Jed. 2005. "How Responsive is Poverty to Growth? A Regional Analysis of Poverty, Inequality, and Growth in Indonesia, 1984-99." *Spatial Inequality and Development*:163-208.
Gamson, William A. 1992. *Talking politics*: Cambridge university press.
García-Verdú, Rodrigo. 2005. "Income, mortality, and literacy distribution dynamics across states in Mexico: 1940-2000." *Cuadernos de economía* 42 (125):165-192.
Gates, Scott. 2004. "Assessing the Empirical Nature of Civil War." CSCW workshop,"Exploring the Boundaries of Civil Wars: Identifying 'Grey Areas' and Testing Definitions", organized by the 'International Dimensions' Working Group.
Gates, Scott, Håvard Hegre, Mark P Jones, and Håvard Strand. 2006. "Institutional inconsistency and political instability: Polity duration, 1800–2000." *American Journal of Political Science* 50 (4):893-908.
Geertz, Clifford. 1963. Primordial sentiments and civic politics in the new states: The integrative revolution. Free Press.
Gest, Justin. 2010. *Apart: Alienated and engaged Muslims in the West*: Hurst & Co.
Gilmore, Elisabeth, Päivi Lujala, Nils Petter Gleditsch, and Jan Ketil Rød. 2005. The Diamond Dataset Codebook. Oslo: Centre for the Study of Civil War, PRIO. www. prio. no/cscw/datasets.
Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. 2002. "Armed conflict 1946-2001: A new dataset." *Journal of peace research* 39 (5):615-637.
Goldstone, Jack A, Robert H Bates, David L Epstein, Ted Robert Gurr, Michael B Lustik, Monty G Marshall, Jay Ulfelder, and Mark Woodward. 2010. "A global model for forecasting political instability." *American Journal of Political Science* 54 (1):190-208.
Green, Elliott. 2011. "The political economy of nation formation in modern Tanzania: explaining stability in the face of diversity." *Commonwealth & Comparative Politics* 49 (2):223-244.
Gubler, J. R., and J. S. Selway. 2012. "Horizontal Inequality, Crosscutting Cleavages, and Civil War." *Journal of Conflict Resolution* 56 (2):206-232. doi: 10.1177/0022002711431416.
Gurr, Robert. 1993a. *Minorities at risk*: US Institute of Peace Press.
Gurr, Ted Robert. 1970. *Why men rebel*: Princeton, PUP.
Gurr, Ted Robert. 1970/2011. *Why men rebel*: Routledge.
Gurr, Ted Robert. 1993b. "Why minorities rebel: A global analysis of communal mobilization and conflict since 1945." *International Political Science Review* 14 (2):161-201.
Gurr, Ted Robert. 2000. *Peoples versus states: Minorities at risk in the new century*: US Institute of Peace Press.
Hack, Andreas, and Frauke Lammers. 2008. The role of expectations in the formation of reference points over time. GERMAN ECONOMIC ASSOCIATION OF BUSINESS ADMINISTRATION – GEABA.
Han, Christine, Jan Germen Janmaat, Bryony Hoskins, and Andy Green. 2012. "Perceptions of Inequalities: implications for social cohesion." *London: Centre for Learning and Life Chances in Knowledge Economies and Societies*.
Hechter, Michael. 1975. *Internal colonialism: The Celtic fringe in British national development, 1536-1966*. Vol. 197: Univ of California Press.

Hegre, Håvard, and Håvard Mokleiv Nygård. 2015. "Governance and conflict relapse." *Journal of Conflict Resolution* 59 (6):984-1016.
Hegre, Håvard, Gudrun Østby, and Clionadh Raleigh. 2009. "Poverty and civil war events a disaggregated study of Liberia." *Journal of Conflict Resolution* 53 (4):598-623.
Hegre, Håvard, and Nicholas Sambanis. 2006. "Sensitivity analysis of empirical results on civil war onset." *Journal of conflict resolution* 50 (4):508-535.
Holmqvist, Göran. 2012. "Inequality and Identity: Causes of War?".
Horowitz, Donald L. 1985. *Ethnic groups in conflict*: Univ of California Press.
Horowitz, Donald L. 2001. *The deadly ethnic riot*: Univ of California Press.
Ianchovichina, Elena, Lili Mottaghi, and Devarajan Shantayanan. 2015. Inequality, Uprisings, and Conflict in the Arab World. In *Middle East and North Africa Economic Monitor*. World Bank, Washington, DC.
IMF. 2014. UNITED REPUBLIC OF TANZANIA: SELECTED ISSUES
Jennings, Michael. 2008. *Surrogates of the state: NGOs, development, and Ujamaa in Tanzania*: Kumarian Press.
Johannes, Eliza M, Leo C Zulu, and Ezekiel Kalipeni. 2015. "Oil discovery in Turkana County, Kenya: a source of conflict or development?" *African Geographical Review* 34 (2):142-164.
Kahneman, Daniel, and Alan B Krueger. 2006. "Developments in the measurement of subjective well-being." *The journal of economic perspectives* 20 (1):3-24.
Kahneman, Daniel, and Amos Tversky. 1979. "Prospect theory: An analysis of decision under risk." *Econometrica: Journal of the econometric society*:263-291.
Kaldor, Mary. 1999. New wars and old wars: Organized violence in a global era. Cambridge: Polity Press.
Kalyvas, Stathis N. 2003. "The ontology of "political violence": action and identity in civil wars." *Perspectives on Politics* 1 (03):475-494.
Kalyvas, Stathis N. 2006. "The Logic of Violence in Civil War (Cambridge Studies in Comparative Politics)."
Kanbur, Ravi , and Anthony J. Venables, eds. 2005. *Spatial Inequality and Development. .* Oxford: Oxford University Press.
Kanbur, Ravi, and Xiaobo Zhang. 2005. "Fifty years of regional inequality in China: a journey through central planning, reform, and openness." *Review of development Economics* 9 (1):87-106.
Keen, David. 1998. "The economic functions of violence in civil wars (special issue)." *The Adelphi Papers* 38 (320):1-89.
Keen, David. 2008. *Complex emergencies*: Polity.
Kelley, Jonathan, and Mariah DR Evans. 1993. "The legitimation of inequality: occupational earnings in nine nations." *American Journal of Sociology*:75-125.
Kenny, Paul D. 2008. "Discipline, Identity and Cohesion in Armed organizations." *Unpublished working paper, Yale University*.
Khan, Adeel. 2002. "Pakistan's Sindhi ethnic nationalism: Migration, marginalization, and the threat of" Indianization"." *Asian Survey* 42 (2):213-229.
Kluegel, James R, and Eliot R Smith. 1986. *Beliefs about inequality: Americans' views of what is and what ought to be*: Transaction Publishers.
Koubi, Vally, Gabriele Spilker, Tobias Böhmelt, and Thomas Bernauer. 2014. "Do natural resources matter for interstate and intrastate armed conflict?" *Journal of Peace Research* 51 (2):227-243.

Langer, Arnim, and Satoru Mikami. 2013. "The relationship between objective and subjective horizontal inequalities: Evidence from five African countries." In *Preventing Violent Conflict in Africa*, 208-251. Springer.
Langer, Arnim, and Kristien Smedts. 2013. "Seeing is not believing: perceptions of horizontal inequalities in Africa." *Centre for Research on Peace and Development*.
Liang, Jersey, and Thomas J Fairchild. 1979. "Relative deprivation and perception of financial adequacy among the aged." *Journal of Gerontology* 34 (5):746-759.
Lichbach, Mark Irving. 1989. "An evaluation of "does economic inequality breed political conflict?" studies." *World politics* 41 (04):431-470.
Lindstadt, R, and Jeffrey K Staton. 2010. Managing expectations: When does it work and what are the consequences. Mimeo.
Linehan, William J. 1980. "Political instability and economic inequality: Some conceptual clarifications." *Conflict Management and Peace Science* 4 (2):187-198.
Linke, Andrew M., Sebastian Schutte, and Halvard Buhaug. 2015. "Population Attitudes and the Spread of Political Violence in Sub-Saharan Africa." *International Studies Review* 17 (1):26-45. doi: 10.1111/misr.12203.
Lujala, Päivi. 2010. "The spoils of nature: Armed civil conflict and rebel access to natural resources." *Journal of peace research* 47 (1):15-28.
Mampilly, Zachariah 2013. "Accursed by Man, Not God: The Fight for Tanzania's Gas Lands." *Warscapes*, 20. August.
Mancini, Luca. 2008. *Horizontal inequality and communal violence: Evidence from Indonesian districts*: Springer.
Marshall, Monty G, and Keith Jaggers. 2002. "Polity IV project: Political regime characteristics and transitions, 1800-2002."
Marx, Karl. 1887/1967. *Capital: a critique of political economy, 3 vols*. Edited by F. Engels. New York: International Publishers.
McKay, James. 1982. "An exploratory synthesis of primordial and mobilizationist approaches to ethnic phenomena." *Ethnic and Racial studies* 5 (4):395-420.
Mgamba, Richard. 2013. "Mtwara people need knowledge and assurance, not just `bombs`." *IPP media*, 19th May.
Miodownik, Dan, and Lilach Nir. 2015. "Receptivity to Violence in Ethnically Divided Societies: A Micro-Level Mechanism of Perceived Horizontal Inequalities." *Studies in Conflict & Terrorism*.
Moore, Barrington. 1993. *Social origins of dictatorship and democracy: Lord and peasant in the making of the modern world*. Vol. 268: Beacon Press.
Murshed, S Mansoob, and Scott Gates. 2005. "Spatial–horizontal inequality and the Maoist insurgency in Nepal." *Review of Development Economics* 9 (1):121-134.
Nagel, Jack. 1974. "Inequality and discontent: a nonlinear hypothesis." *World politics* 26 (04):453-472.
Ng'wanakilala, Fumbuka 2016. "Tanzania makes big onshore natural gas discovery - local newspapers." *Reuters*, 25 February.
Niehues, Judith. 2014. "Subjective perceptions of inequality and redistributive preferences: An international comparison." *IW-TRENDS discussion papers* (2).
Nisbett, Richard E, and Lee Ross. 1980. "Human inference: Strategies and shortcomings of social judgment."
Nordhaus, William D. 2006. "Geography and macroeconomics: New data and new findings." *Proceedings of the National Academy of Sciences of the United States of America* 103 (10):3510-3517.

Norton, Michael I, and Dan Ariely. 2011. "Building a better America—One wealth quintile at a time." *Perspectives on Psychological Science* 6 (1):9-12.
Olzak, Susan. 1994. *The dynamics of ethnic competition and conflict*: Stanford University Press.
Osberg, Lars, and Timothy Smeeding. 2006. "“Fair” inequality? Attitudes toward pay differentials: the United States in comparative perspective." *American sociological review* 71 (3):450-473.
Østby, Gudrun. 2008a. "Inequalities, the political environment and civil conflict: evidence from 55 developing countries." In *Horizontal Inequalities and Conflict*, 136-159. Springer.
Østby, Gudrun. 2008b. "Polarization, horizontal inequalities and violent civil conflict." *Journal of Peace Research* 45 (2):143-162.
Østby, Gudrun. 2011. "Horizontal inequalities and political violence." Univeristy of Oslo.
Østby, Gudrun, Ragnhild Nordås, and Jan Ketil Rød. 2009. "Regional Inequalities and Civil Conflict in Sub-Saharan Africa." *International Studies Quarterly* 53 (2):301-324.
Østby, Gudrun, Henrik Urdal, Mohammad Zulfan Tadjoeddin, S Mansoob Murshed, and Håvard Strand. 2011. "Population pressure, horizontal inequality and political violence: A disaggregated study of Indonesian provinces, 1990–2003." *The Journal of Development Studies* 47 (3):377-398.
Ostrom, Elinor. 1990. *Governing the commons: The evolution of institutions for collective action*: Cambridge University Press Cambridge:.
Petersen, Roger D. 2001. *Resistance and rebellion: lessons from Eastern Europe*: Cambridge University Press.
Petersen, Roger D. 2002. *Understanding ethnic violence: Fear, hatred, and resentment in twentieth-century Eastern Europe*: Cambridge University Press.
Pettersson, Therése, and Peter Wallensteen. 2015. "Armed conflicts, 1946–2014." *Journal of Peace Research* 52 (4):536-550.
Posner, Daniel N. 2004. "The political salience of cultural difference: Why Chewas and Tumbukas are allies in Zambia and adversaries in Malawi." *American Political Science Review* 98 (04):529-545.
Raleigh, Clionadh, Andrew Linke, Håvard Hegre, and Joakim Karlsen. 2010. "Introducing acled: An armed conflict location and event dataset special data feature." *Journal of peace research* 47 (5):651-660.
Robinson, Robert V. 1983. "Explaining perceptions of class and racial inequality in England and the United States of America." *British Journal of Sociology*:344-366.
Roemer, John E. 1985. "Rationalizing revolutionary ideology." *Econometrica: Journal of the Econometric Society*:85-108.
Rokkan, Stein. 1967. "Geography, religion, and social class: crosscutting cleavages in Norwegian politics." *Party systems and voter alignments* 367:379-86.
Ross, Michael. 2003. "The natural resource curse: How wealth can make you poor." *Natural resources and violent conflict: options and actions*:17-42.
Ross, Michael. 2012. *The oil curse: how petroleum wealth shapes the development of nations*: Princeton University Press.
Ross, Michael L. 2001. "Does oil hinder democracy?" *World politics* 53 (3):325-361.
Ross, Michael L. 2004. "What do we know about natural resources and civil war?" *Journal of peace research* 41 (3):337-356.

Ross, Michael L. 2007. "How mineral-rich states can reduce inequality." *Escaping the resource curse* 237.
Ross, Michael L. 2013. "Oil and gas data, 1932-2011." *Harvard Dataverse Network*.
Ross, Michael L. 2015. "What Have We Learned about the Resource Curse?" *Annual Review of Political Science* 18:239-259.
Ross, Michael L, Päivi Lujala, and Siri Aas Rustad. 2012. "Horizontal inequality, decentralizing the distribution of natural resource revenues, and peace." *High-value natural resources and post-conflict peacebuilding*.
Rothschild, Joseph. 1981. *Ethnopolitics, a conceptual framework*: Columbia University Press.
Rubin, Zick, and Letitia Anne Peplau. 1975. "Who believes in a just world?" *Journal of social issues* 31 (3):65-89.
Rustad, Siri A. 2016. "Socioeconomic inequalities and attitudes toward violence: A test with new survey data in the Niger delta." *International Interactions* 42 (1):106-139.
Sachs, Jeffrey D, and Andrew M Warner. 1995. Natural resource abundance and economic growth. National Bureau of Economic Research.
Sambanis, Nicholas. 2005. "Using case studies to refine and expand the theory of civil war." *Understanding civil war* 1:303-334.
Seppälä, Pekka, and Bertha Koda. 1998. *The Making of a Periphery: economic development and cultural encounters in southern Tanzania*. Vol. 32: Nordic Africa Institute.
Sherif, Muzafer, Oliver J Harvey, B Jack White, William R Hood, and Carolyn W Sherif. 1961. *Intergroup conflict and cooperation: The Robbers Cave experiment*. Vol. 10: University Book Exchange Norman, OK.
Snyder, David, and Charles Tilly. 1972. "Hardship and collective violence in France, 1830 to 1960." *American Sociological Review*:520-532.
Solt, Frederick. 2009. "The standardized world income inequality database." *Social Science Quarterly*.
Stewart, Frances. 2002. *Horizontal inequalities: A neglected dimension of development*. Vol. 5: Wider.
Stewart, Frances. 2008. *Horizontal inequalities and conflict: Understanding group violence in multiethnic societies*: Palgrave Macmillan Basingstoke.
Stewart, Frances. 2010. Horizontal inequalities as a cause of conflict: a review of CRISE findings. Wold Bank.
Stewart, Frances, Graham K Brown, and Arnim Langer. 2008. "Major findings and conclusions on the relationship between horizontal inequalities and conflict." In *Horizontal Inequalities and Conflict*, 285-300. Springer.
Stewart, Frances, and Arnim Langer. 2008. *Horizontal inequalities: Explaining persistence and change*: Springer.
Sundberg, Ralph, Kristine Eck, and Joakim Kreutz. 2012. "Introducing the UCDP non-state conflict dataset." *Journal of Peace Research* 49 (2):351-362.
Sundberg, Ralph, Mathilda Lindgren, and Ausra Padskocimaite. 2010. "UCDP GED codebook version 1.0-2011." *Department of peace and conflict research, Uppsala University*.
Sundberg, Ralph, and Erik Melander. 2013. "Introducing the UCDP georeferenced event dataset." *Journal of Peace Research* 50 (4):523-532.
Tadjoeddin, Mohammad Zulfan, Widjajanti I Suharyo, and Satish Mishra. 2001. "Regional disparity and vertical conflict in Indonesia." *Journal of the Asia Pacific Economy* 6 (3):283-304.

Tadjoeddin, Mohammad Zulfan, Widjajanti I Suharyo, and Satish Mishra. 2003. "Aspiration to inequality: regional disparity and centre-regional conflicts in Indonesia." UNI/WIDER Project Conference on Spatial Inequality in Asia, Tokyo, Japan.

Tajfel, Henri, and John C Turner. 1979. "An integrative theory of intergroup conflict." *The social psychology of intergroup relations* 33 (47):74.

Tarrow, Sidney. 2007. "Inside insurgencies: Politics and violence in an age of civil war." *Perspectives on Politics* 5 (03):587-600.

Tarrow, Sidney, Charles Tilly, and Doug McAdam. 2001. *Dynamics of contention, Cambridge University*.

Tay, Thiam Chye. 2013. "Tolerance for Income Inequality and Redistributive Preferences: Cross-nation and Multilevel Perspectives." Doctor of Philosophy in Political Science, University of California.

TEITI. 2014. RECONCILIATION REPORT FOR THE PERIOD 1 JULY 2011 TO 30 JUNE 2012 Tanzanian Extractive Industries Transparency Initiative.

Thieme, Nadja, Päivi Lujala, and Jan K Rød. 2007. "The Petroleum Dataset: Country Profiles, online:< www. prio. no/sptrans/-2009228485." *Country% 20Profiles* 202007.

Tilly, Charles. 1978. *From mobilization to revolution*: McGraw-Hill New York.

Tilly, Charles. 1999. *Durable inequality*: Univ of California Press.

Tilly, Charles. 2003. *The politics of collective violence*: Cambridge University Press.

Toews, Gerhard. 2013. Inflated expectations and natural resource booms: evidence from Kazakhstan. Oxford Centre for the Analysis of Resource Rich Economies, University of Oxford.

Tomz, Michael, Jason Wittenberg, and Gary King. 2003. "CLARIFY: Software for interpreting and presenting statistical results." *Journal of Statistical Software* 8 (1):1-30.

UCDP. "Uppsala Conflict Data Program " Accessed 05.09. 2016. www.ucdp.uu.se.

United Nations. 2010. World Population Prospects: The 2010 Revision. edited by United Nations.

Urdal, Henrik. 2006. "A Clash of Generations? Youth Bulges and Political Violence." *International Studies Quarterly* 50 (3):607-629. doi: 10.1111/j.1468-2478.2006.00416.x.

Utz, Robert J. 2008. *Sustaining and sharing economic growth in Tanzania*: World Bank Publications.

Verme, Paolo, Branko Milanovic, Sherine Al-Shawarby, Sahar El Tawila, May Gadallah, and Enas Ali A. El-Majeed. 2014. Inside Inequality in the Arab Republic of Egypt. Facts and perceptions across people. time, and space. World Bank.

Vokes, R. 2012. "The politics of oil in Uganda." *African Affairs* 111 (443):303-314. doi: 10.1093/afraf/ads017.

Wegenast, Tim C, and Matthias Basedau. 2014. "Ethnic fractionalization, natural resources and armed conflict." *Conflict Management and Peace Science* 31 (4):432-457.

Weidmann, Nils B. 2013. "The higher the better? The limits of analytical resolution in conflict event datasets." *Cooperation and Conflict* 48 (4):567-576.

Weinstein, Jeremy M. 2006. *Inside rebellion: The politics of insurgent violence*: Cambridge University Press.

Weszkalnys, Gisa. 2008. "Hope & oil: expectations in São Tomé e Príncipe." *Review of African Political Economy* 35 (117):473-482.

Whyte, Martin. 2010. *Myth of the social volcano: Perceptions of inequality and distributive injustice in contemporary China*: Stanford University Press.
Wig, Tore, and Andreas Forø Tollefsen. 2016. "Local institutional quality and conflict violence in Africa." *Political Geography* 53:30-42.
Wilkinson, Steven I. 2004. *Votes and violence: Electoral competition and communal riots in India*: Cambridge University Press.
Wilkinson, Steven I. 2009. "Riots." *Annual Review of Political Science* 12 (1):329-343. doi: 10.1146/annurev.polisci.12.041307.075517.
Williams, Robin Murphy. 2003. *The wars within: Peoples and states in conflict*: Cornell University Press.
Wimmer, Andreas. 1997. "Who Owns the State? Understanding Ethnic Conflict in Post-Colonial Societies." *Nations and nationalism* 3 (4):631-666.
Wimmer, Andreas, Lars-Erik Cederman, and Brian Min. 2009. "Ethnic politics and armed conflict: a configurational analysis of a new global data set." *American Sociological Review* 74 (2):316-337.
Wolff, Stefan. 2006. *Ethnic conflict*: Oxford University Press Oxford.
Wood, Elisabeth Jean. 2003. *Insurgent collective action and civil war in El Salvador*: Cambridge University Press.
World Bank. 2011. World development report 2011: conflict, security, and development. Washington, DC: World Bank.
World Bank. 2016. World Development Indicators. edited by World Bank.
Wucherpfennig, Julian, Nils B Weidmann, Luc Girardin, Lars-Erik Cederman, and Andreas Wimmer. 2011. "Politically relevant ethnic groups across space and time: Introducing the GeoEPR dataset." *Conflict Management and Peace Science* 28 (5):423-437.
Young, Crawford. 1993. *The rising tide of cultural pluralism: the nation-state at bay?*: Univ of Wisconsin Press.
Zimmermann, Ekkart. 1983. *Political Violence, Crises and Revolutions (Routledge Revivals): Theories and Research*: Routledge.

8 Supplementary Appendices

Survey Questionnaire

First part

Note: The survey was done with Samsung Tablets and Open Data Kit (ODK) Software. Much of the procedures in the following were automatic (i.e. if the enumerator noted a 'no' on consent from the respondent, the questionnaire would go to the end and the enumerator would have to save it and open a new one for a new respondent).

Please collect the GPS coordinates of this location

GPS coordinated can only be collected when outside

Latitude

Longitude

Altitude

Accuracy

Enumerator information:

Please select the enumerator number that has been assigned to you	
E	

The respondent number consists of your enumerator number and two additional digits. If you are enumerator E1 your first respondent will get the number E101, your second respondent will be E102. If you are enumerator E11 your first respondent will be E1101, your second respondent will be E1102 and so on.

Remember to check your control sheet when you have used a respondent number

Respondent number	
E	

Region	
Mtwara	1
Lindi	2

District	
Mtwara Municipal	1
Mtwara Rural	2
Lindi Municipal	3
Lindi Rural	4
Tandahimba	5
Newala	6

Ward	
Village	

Please introduce yourself using the following script. Please learn the introduction so that you can say it exactly as it is written below:

Hello, my name is _____. I represent Elise Must, a PhD student at the London School of Economics in the UK. Her PhD is on the governance of natural resources, expectations, inequality, and civil unrest. We would like to discuss these issues with a member of your household. We do not represent the government or any political party, or any religious organizations.

All information will be kept confidential. Your household has been chosen by chance. We would like to choose an adult from your household. Would you help us pick one?

Note: The person must give his or her informed consent by answering positively. If participation is refused, walk away from the household and record this in the below table on "Reasons for Unsuccessful Calls." Substitute the household using the next household to the right. If consent is secured, proceed to Respondent Selection Procedure

Do you consent to help us pick one? yes/no

If no:

NOCALL - Reasons for unsuccessful calls	NOC_1
Refused to be interviewed	1
Person selected was never at home after at least two visits	2
Household/Premises empty for the survey period after at least two visits	3
Not a citizen/Spoke only a foreign language	4
Deaf/Disability/Did not speak a survey language	5
Did not fit gender quota	6
No adults in household	7
Other, specify_____	888
Not Applicable	9997

If yes:

Respondent Selection Procedure

Enumerator: Within the household, it is your job to select a random (this means any) individual. This individual becomes the interview Respondent. In addition, you are responsible for alternating interviews between men and women. For the very first interview, start with a male.

	Male	**Female**
Previous interview was with a	1	2
This interview must be with a	1	2

Enumerator read: Please tell me how many males / females [select correct gender] who presently live in this household. Only include males / females [select correct gender] who are citizens of Tanzania and who are 18 years and older. Count only men/women [select correct gender]. Count all eligible household members of this gender who are 18 years or older, even those not presently at home but who will return to the house at any time that day. Include only citizens of Tanzania. I will then give you the corresponding number of lottery tickets. Please write the names of the males / females [select correct gender] on the lottery tickets – one name on each. You will keep the tickets, so we are not asking you to give us the names.

Put the corresponding lottery tickets in a box. Ask the person who is selecting respondents to draw, by saying: **Please draw a lottery ticket. The person who corresponds to the number drawn will be the person interviewed.**

The person I need to speak to is number *[insert number]* _____. **Is the person with this number presently at home?**

If yes:	**May I please interview this person now?**	
If yes:	*Move to next question*	
If no:	**Please record reason in table below**	

NOCALL - Reasons for unsuccessful calls	NOC_2
Refused to be interviewed	1
Person selected was never at home after at least two visits	2
Household/Premises empty for the survey period after at least two visits	3
Not a citizen/Spoke only a foreign language	4
Deaf/Did not speak a survey language	5
Did not fit gender quota	6
No adults in household	7
Other, specify_____	888

If no:	**Will this person return here at any time today?**	
If yes:	**Please tell this person that I will return for an interview at [insert convenient time].** *If this respondent is not present when you call back, replace this household with the next household to the right.*	
If no:	**Thank you very much. I will select another household**. *Substitute with the next household to the right and repeat the respondent selection procedure. (NOTE: YOU CAN ONLY SUBSTITUTE HOUSEHOLDS NOT INDIVIDUALS.) Please record reason in table below.*	

NOCALL - Reasons for unsuccessful calls	NOC_3
Refused to be interviewed	1
Person selected was never at home after at least two visits	2
Household/Premises empty for the survey period after at least two visits	3
Not a citizen/Spoke only a foreign language	4
Deaf/Did not speak a survey language	5
Did not fit gender quota	6
No adults in household	7
Other, specify_____	888

If the selected respondent is not the same person that you first met, repeat Introduction:

Hello, my name is _____. I represent Elise Must, a PhD student at the London School of Economics in the UK. Her PhD is on the governance of natural

resources, expectations, inequality, and civil unrest. We would like to discuss these issues with you. We do not represent the government or any political party, or any religious organizations.

TO ALL RESPONDENTS: Your answers will be kept confidential. They will be put together with 800 other people we are talking to, to get an overall picture. It will be impossible to pick you out from what you say, so please feel free to tell us what you think. This interview will take about 50 minutes. There is no penalty for refusing to participate. Do you wish to proceed?

Do you consent: yes/no

Note: The person must give his or her informed consent by answering positively. If participation is refused, walk away from the household and record this in the below table on "Reasons for Unsuccessful Calls." Substitute the household with the next household to the right. If consent is secured, proceed with the interview.

NOCALL - Reasons for unsuccessful calls	NOC_4
Refused to be interviewed	1
Person selected was never at home after at least two visits	2
Household/Premises empty for the survey period after at least two visits	3
Not a citizen/Spoke only a foreign language	4
Deaf/Did not speak a survey language	5
Did not fit gender quota	6
No adults in household	7
Other, specify_____	888

Second Part – Questions

Let's begin by recording a few facts about yourself.

1. a. How old are you? *[Interviewer: If respondent is aged less than 18, stop interview and use cards to randomly draw another respondent in the same household]*	
1b. If the respondent doesn't know, make and estimate and fill in the categories	
18-24 years	1
25-34 years	2

35-44 years	3
45-54 years	4
55-64 years	5
65-74 years	6
75 years or older	7
Don't know	999
Refused to answer	777

2. Are you the head of the household?	

3. How many people live in your household?	

4. What is your marital status?	
Single	1
Married	2
Divorced	3
Widowed	4
Refused to answer	777

5. How many children do you have, if any? *[If no children add 0]*	

6. **What is your ethnic community, cultural group or tribe?** *[Do NOT read options. Code from response]*			
Wanyakyusa	740	Wakurya	752
Wachaga	741	Wagogo	753
Wahaya	742	Waluguru	754
Wangoni	743	Wafipa	755
Wakwere	744	Wamanyema	756
Wapare	745	Wanyiramba	757
Wahehe	746	Wanyaturu	758
Wamakonde	747	Mixed	759

Wanyamwezi	748	Tanzanian only, or "doesn't think of self in those terms"	9990
Wasukuma	749	Refused to answer	777
Wamasai	750	Don't know	999
Wameru	751	Other *[If other, please specify]*: _____	888

7. What is your level of education? *[Code from answer. Do not read options]*	
No formal schooling	0
Informal schooling only	1
Some primary schooling	2
Primary school completed	3
Intermediate school or Some secondary school / high school	4
Secondary school / high school completed	5
Post-secondary qualifications, other than university e.g. a diploma or degree from a polytechnic or college	6
Some university	7
University completed	8
Post-graduate	9
Refused to answer	777
Don't know *[Do not read]*	999

8. Do you have a job that pays a cash income? *[If yes, ask:]* **Is it full-time or part-time?** *[If no, ask:]* **Are you presently looking for a job?**	
No (not looking)	0
No (looking)	1
Yes, part time	2
Yes, full time	3
Refused to answer	777
Don't know (Do not read)	999

9. What is your main occupation? (If unemployed, retired or disabled, what was your last main occupation?) *[Do not read options. Code from responses.]*	
Never had a job	0
Student	1
Housewife/Homemaker	2
Agriculture / farming / fishing / forestry	3
Trader / hawker / vendor	4
Retail / Shop	5
Unskilled manual worker (e.g., cleaner, laborer, domestic help, unskilled manufacturing worker)	6
Artisan or skilled manual worker (e.g., trades like electrician, mechanic, machinist or skilled manufacturing worker)	7
Clerical or secretarial	8
Supervisor / Foreman / Senior Manager	9
Security services (police, army, private security)	10
Mid-level professional (e.g., teacher, nurse, mid-level government officer)	11
Upper-level professional (e.g., banker/finance, doctor, lawyer, engineer, accountant, professor, senior-level government officer)	12
Other	95
Refused to answer	777
Don't know *[Do not read]*	999

10. Do you work for yourself, for someone else in the private sector or the non-governmental sector, or for government? *[Read out options]*	
Works for self	1
Private sector	2
Non-governmental Organizations or civil society sector	3
Government	4
Not applicable *[i.e., if answer above was unemployed, or student]*	7
Refused to answer	777
Don't know *[Do not read]*	999

11. Which type of job would you like to have if you could choose? *[Do not read options. Code from responses.]*	
No job	0
Student	1
Housewife/Homemaker	2
Agriculture / farming / fishing / forestry	3
Trader / hawker / vendor	4
Retail / Shop	5
Unskilled manual worker (e.g., cleaner, laborer, domestic help, unskilled manufacturing worker)	6
Artisan or skilled manual worker (e.g., trades like electrician, mechanic, machinist or skilled manufacturing worker)	7
Clerical or secretarial	8
Supervisor / Foreman / Senior Manager	9
Security services (police, army, private security)	10
Mid-level professional (e.g., teacher, nurse, mid-level government officer)	11
Upper-level professional (e.g., banker/finance, doctor, lawyer, engineer, accountant, professor, senior-level government officer)	12
Other	888
Refused to answer	777
Don't know *[Do not read]*	999

12. What is main occupation of the household head? *[Do not read options. Code from responses.]*	
Never had a job	0
Student	1
Housewife/Homemaker	2
Agriculture / farming / fishing / forestry	3
Trader / hawker / vendor	4
Retail / Shop	5
Unskilled manual worker (e.g., cleaner, laborer, domestic help, unskilled manufacturing worker)	6

Artisan or skilled manual worker (e.g., trades like electrician, mechanic, machinist or skilled manufacturing worker)	7
Clerical or secretarial	8
Supervisor / Foreman / Senior Manager	9
Security services (police, army, private security)	10
Mid-level professional (e.g., teacher, nurse, mid-level government officer)	11
Upper-level professional (e.g., banker/finance, doctor, lawyer, engineer, accountant, professor, senior-level government officer)	12
Other	95
Refused to answer	777
Don't know *[Do not read]*	999

Let's now discuss economic conditions							
13. In general, how would you describe: *[Read out options]*							
	Very Bad	Fairly Bad	Neither good nor bad	Fairly Good	Very Good	Refused	Don't know *[Do not read]*
A. The present economic condition of this country?	1	2	3	4	5	777	999
B. The present economic condition of this region? *[State if Mtwara or Lindi Region]*	1	2	3	4	5	777	999
C. Your own present living conditions?	1	2	3	4	5	777 999	

14. **In general, how do you rate your living conditions compared to those of other Tanzanians?** *[Read out options]*	
Much Worse	1
Worse	2
Same	3
Better	4
Much Better	5
Refused to answer	777
Don't know *[do not read]*	999

15. Think about the condition of people living in this region *[State if Mtwara or Lindi Region]***. Are their economic conditions worse, same as or better than for people in other regions in this country?** *[Probe for strength of opinion] [read options]*	
Much Worse	1
Worse	2
Same	3
Better	4
Much Better	5
Refused to answer	777
Don't know *[do not read]*	999

16. **Over the past 12 months, how often, if ever, have you or anyone in your household:** *[Read out options]*

	Never	Just once or twice	Several times	Many times	Always	Don't know [do not read]
A. Gone without enough food to eat?	0	1	2	3	4	999
B. Gone without enough clean water for home use?	0	1	2	3	4	999

C. Gone without medicines or medical treatment?	0	1	2	3	4	999
D. Gone without enough fuel to cook your food	0	1	2	3	4	999
E. Gone without a cash income?	0	1	2	3	4	999

17. Which of these things do you or someone in your household own?			
	Yes	No	Don't know [DNR]
A. Radio	1	2	999
B. Mobile phone	1	2	999
C. Television	1	2	999
D. Bicycle	1	2	999
E. Motor vehicle or motorcycle	1	2	999

18. How often do you use: *[read out options]*						
	Every day	Weekly	Monthly	Yearly	Never	Don't know [DNR]
A. Mobile phone?	4	3	2	1	0	999
B. The Internet?	4	3	2	1	0	999

19. Please tell me whether each of the following are available inside your house, inside your compound or outside your compound: *[read out options]*					
	None, no latrine available [DNR]	Inside the house	Inside the compound	Outside the compound	Don't know [DNR]
A. Your main source of water for household use		1	2	3	999

B. A toilet or latrine	0	1	2	3	999

20. *[Interviewer: If it is 100% clear that there is no electricity supply to the home, e.g., in an unserved rural area, do not ask the question of the respondent. Just select 0=No electricity supply and continue to the next question.]* **Do you have an electric connection to your home from TANESCO?**	
No mains electric supply or connection to the home	0
[If yes] **How often is electricity actually available?**	
Never	1
Occasionally	2
About half of the time	3
Most of the time	4
All of the time	5
Refused to answer	777
Don't know *[Do not read]*	999

21. How often do you get news and information from the following sources: *[read out options]*						
	Daily	Weekly	Monthly	Yearly	Never	Don't know [DNR]
A. Newspapers	4	3	2	1	0	999
B. Local radio	4	3	2	1	0	999
C. National radio	4	3	2	1	0	999
D. TV	4	3	2	1	0	999
E. Local Government	4	3	2	1	0	999
F. National Government	4	3	2	1	0	999
G. Opposition Parties	4	3	2	1	0	999
H. Oil/Gas Companies	4	3	2	1	0	999
I. Religious organizations	4	3	2	1	0	999
J. International/Donor organizations	4	3	2	1	0	999
K. Tanzanian CSOs	4	3	2	1	0	999
L. Family, neighbours or friends	4	3	2	1	0	999

M. Internet, blogs, SMS, Whatsapp, etc	4	3	2	1	0	999

22. **When did you hear for the first time that fields of natural gas have been discovered in Mtwara and Lindi?** *[Select one]*	
More than 5 years ago	5
3-5 years ago	4
1-2 years ago	3
During the last year	2
This is the first time I hear about this *[Go to question number 35]*	1
Refused to answer	777
Don't know	999

23. From which source did you first hear about Tanzania's recent discoveries of oil and gas? *[Do not read out options. Code from responses]*	
1. Newspapers	1
2. Local Radio	2
3. National Radio	3
4. TV	4
5. National government	5
6. Local government	6
7. Opposition Parties	7
8. Oil/Gas companies	8
9. Religious organizations	9
10. International/Donor organizations	10
11. Tanzanian CSOs	11
12. Family, neighbors or friends	12
13. Internet (blogs, social media)	13
14. SMS, Whatsapp	14
15. Other, specify_____	888
Refused to answer	777
16. Don't know	999

24. Nowadays, what is your main source of information about Tanzania's recent discoveries of oil and gas? *[Do not read out options. Code from responses]*	
1. Newspapers	1
2. Local Radio	2
3. National Radio	3
4. TV	4
5. National government	5
6. Local government	6
7. Opposition Parties	7
8. Oil/Gas companies	8
9. Religious organizations	9
10. International/Donor organizations	10
11. Tanzanian CSOs	11
12. Family, neighbors or friends	12
13. Internet (blogs, social media)	13
14. SMS, Whatsapp	14
15. Other, specify_____	888
Refused to answer	777
16. Don't know	999

25. Who do you think give the most reliable information about Tanzania's recent discoveries of oil and gas? *[Do not read out options. Code from responses]*	
1. Newspapers	1
2. Local Radio	2
3. National Radio	3
4. TV	4
5. National government	5
6. Local government	6
7. Opposition Parties	7
8. Oil/Gas companies	8
9. Religious organizations	9
10. International/Donor organizations	10
11. Tanzanian CSOs	11

12. Family, neighbors or friends	12
13. Internet (blogs, social media)	13
14. SMS, Whatsapp	14
15. Other, specify_____	888
Refused to answer	777
16. Don't know	999

26. **Have any politicians been active in giving out information on the natural gas developments in your District?** *[State District][Read all options]*	
Yes	1
No *[Go to question number 28]*	2
Refused to answer *[do not read] [Go to question number 28]*	777
Don't know *[do not read] [Go to question number 28]*	999

27. **Where these politicians:** *[Read all options]*	
Opposition party members	1
CCM members	2
Both opposition party and CCM members	3
Refused to answer *[do not read]*	777
Don't know *[do not read]*	999

28. **When you get together with family, friends or people at work, how often do you discuss what Tanzania's discoveries of oil and gas will mean for you or your community?** *[Read all options][Select one]*	
Daily	1
Weekly	2
Monthly	3
Yearly	4

Never	5
Refused to answer	777
Don't know *[do not read]*	999

29. **When was the first time you heard about the Mnazi Bay to Dar es Salaam natural gas pipeline?** *[Select one]*	
More than 5 years ago	1
3-5 years ago	2
1-2 years ago	3
During the last year	4
This is the first time I hear about this *[Go to question number 33]*	5
Refused to answer	777
Don't know	999

30. **BEFORE you had heard of the pipeline, how did you expect the natural gas developments to change the future living conditions of the following people? Make them** *[Read out options]*

	Much worse	*Worse*	*The same*	*Better*	*Much Better*	*Don't know [DNR]*
A. Yourself	1	2	3	4	5	999
B. People in your region *[State if Mtwara or Lindi Region]*	1	2	3	4	5	999
C. People in Tanzania	1	2	3	4	5	999

31. **How satisfied are you with the development in the living conditions for the following people so far – compared to what you expected?** *[Read out options]*

	Very dissatisfied	*Dissatisfied*	*Neither dissatisfied nor satisfied*	*Satisfied*	*Very satisfied*	*Don't know [DNR]*
A. Yourself	1	2	3	4	5	999
B. People in your region *[State if Mtwara or*	1	2	3	4	5	999

Lindi Region]						
C. People in Tanzania	1	2	3	4	5	999

32. **If you compare your view today with your view BEFORE you heard of the pipeline, would you say that your faith in the government's ability to improve the living conditions of the following people has:** *[Read out options]*						
	Decreased a lot	*Decreased*	*Stayed the same*	*Increased*	*Increased a lot*	*Don't know [DNR]*
A. Yourself	1	2	3	4	5	999
B. People in your region *[State if Mtwara or Lindi Region]*	1	2	3	4	5	999
C. People in Tanzania	1	2	3	4	5	999

33. **How do you expect the natural gas developments will change the future living conditions of the following people? Make them** *[Read out options]*						
	Much worse	*Worse*	*The same*	*Better*	*Much Better*	*Don't know [DNR]*
A. Yourself	1	2	3	4	5	999
B. People in your region *[State if Mtwara or Lindi Region]*	1	2	3	4	5	999
C. People in Tanzania	1	2	3	4	5	999

34. **When do you expect to notice a change in the living conditions for the following people due to the gas developments?** *[Read out options]*								
	This year	*Next year*	*2-5 years*	*6-10 years*	*11-15 years*	*More than 15 years*	*Never*	*Don't know [DNR]*
A. Yourself	1	2	3	4	5	6	7	999
B. People in your region *[State if Mtwara or Lindi Region]*	1	2	3	4	5	6	7	999

C. People in Tanzania	1	2	3	4	5	6	7	999

35. What are the most important things you think the government should do for your local community? *[do not read – code from responses. Accept up to three answers. If respondent offers more than three options, ask "Which three of these are the most important?" If respondent offers one or two answers, ask "Anything else?"]*

	1st response	2nd response	3rd Response
Improve infrastructure	1	1	1
Improve electricity	2	2	2
Improve water supply	3	3	3
Improve roads	4	4	4
Improve health care	5	5	5
Improve education	6	6	6
Improve vocational training	7	7	7
Increase local employment opportunities	8	8	8
Decrease poverty	9	9	9
Improve farming/agriculture	10	10	10
Fight crime and improve security	11	11	11
Fight corruption	12	12	12
Improve women's rights	13	13	13
Involve the local communities in the decision making process	14	14	14
Inform the local communities on the natural gas developments	15	15	15
Refused to answer	777	777	777
Other – specify_____ ___	888	888	888
Don't know	999	999	999

36. **a) Has the government done anything for your local community so far – on your first priority in the previous questions?** *[Remind respondents of first issue raised above. Read out options]*

Yes, a lot	1
Yes, a little	2
No	3
Refused to answer	777
Don't know *[do not read]*	999
b) Has the government done anything for your local community so far – on your second priority in the previous questions? *[Remind respondents of second issue raised above. Read out options]*	
Yes, a lot	1
Yes, a little	2
No	3
Refused to answer	777
Don't know *[do not read]*	999

37. **For each of the following foreign oil and gas companies, I would like you to tell me whether you have heard of them or not.** *[Read out options]* [Yes=1 No =2]

	Yes	No	Don't know
1. BG Group	1	2	999
2. ExxonMobil	1	2	999
3. Maurel and Prom	1	2	999
4. Ophir Energy	1	2	999
5. Petrobras	1	2	999
6. Royal Dutch Shell	1	2	999
7. SONGAS	1	2	999
8. Statoil	1	2	999
9. Wentworth Resources	1	2	999

38. What are the most important things you think the foreign oil and gas companies should do for your local community? *[do not read – code from responses. Accept up to three answers. If respondent offers more than three options, ask "Which three of these are the most important?" If respondent offers one or two answers, ask "Anything else?"]*

	1st response	2nd response	3rd Response
Improve infrastructure	1	1	1

Improve electricity	2	2	2
Improve water supply	3	3	3
Improve roads	4	4	4
Improve health care	5	5	5
Improve education	6	6	6
Improve vocational training	7	7	7
Increase local employment opportunities	8	8	8
Decrease poverty	9	9	9
Improve farming/agriculture	10	10	10
Fight crime and improve security	11	11	11
Fight corruption	12	12	12
Improve women's rights	13	13	13
Involve the local communities in the decision making process	14	14	14
Inform the local communities on the natural gas developments	15	15	15
Other – specify_____ ___	888	888	888
Don't know	999	999	999

39. **Have the oil and gas companies done anything for the local community so far – on your first and second priority in the previous questions?** *[Remind respondents of first and second issue raised above. Read out options]*	
Yes, a lot	1
Yes, a little	2
No	3
Refused to answer	777
Don't know *[do not read]*	999
b) Have the oil and gas companies done anything for the local community so far – on your first and second priority in the previous questions? *[Remind respondents of second issue raised above. Read out options]*	
Yes, a lot	1
Yes, a little	2

No	3
Refused to answer	777
Don't know *[do not read]*	999

40. I'm going to read out some forms of political action that people can take, and I'd like you to tell me, for each one, whether you have done any of these things, whether you might do it or would never under any circumstances do it *[Read out options]*

	Have done	Might do	Would never do	Don't know (DNR)	Refused to answer (DNR)
A. Joined others in your community to request action from Government	1	2	3	999	777
B. Contacted the media, like calling a radio program or writing a letter to a newspaper	1	2	3	999	777
C. Contacted a government official to ask for help or make a complaint	1	2	3	999	777
D. Joined unofficial strikes	1	2	3	999	777
E. Participated in a demonstration or protest march	1	2	3	999	777
F. Used force or violence for a political cause	1	2	3	999	777

41. Which of the following statements is closest to your view? Choose Statement 1 or

Statement 2 [*Interviewer: Probe for strength of opinion. Do you agree or agree strongly?*]			
Statement 1: People should not participate in protest actions against the government, as it threatens stability in our country.		Statement 2: People should participate in protest actions against the government, as this shows the government that the people have a voice.	
Agree strongly with Statement 1 1	Agree with Statement 1 2	Agree with Statement 2 3	Agree strongly with Statement 2 4
Agree with neither *[Do not read]*			5
Refused to answer			777
Don't know *[Do not read]*			999

42. I will now read out several issues. For each one, please tell me if it justifies a demonstration or a protest march, or not. *[Read out]*	
High unemployment rates	Yes/No/Refused/Don't know
Displacement due to industrial development	Yes/No/Refused/Don't know
Sale of land rights to foreign companies	Yes/No/Refused/Don't know
The government breaking promises of local development	Yes/No/Refused/Don't know
Lack of electricity	Yes/No/Refused/Don't know
Local pollution due to natural gas developments	Yes/No/Refused/Don't know
None of the above	Yes/No/Refused/Don't know
Other, please specify _____ ____	888

43. Which of the following statements is closest to your view? Choose Statement 1 or Statement 2 [*Interviewer: Probe for strength of opinion. Do you agree or agree strongly?*]			
Statement 1: The use of violence is never justified in Tanzanian politics today.		Statement 2: In this country, it is sometimes necessary to use violence in support of a just cause.	
Agree strongly with Statement 1 1	Agree with Statement 1 2	Agree with Statement 2 3	Agree strongly with Statement 2 4
Agree with neither *[Do not read]*			5
Refused to answer			777
Don't know *[Do not read]*			999

For this draw a random number between 1 and 2, and read the list that corresponds to the number. Enumerator please report which list (1 or 2) the respondent was given

Which list was given?	
List 1	1
List 2	2

44. I am now going to give you a list of statements. Please tell me HOW MANY of them are true for you. I don't want to know which ones, just HOW MANY	
LIST 1: My household has a fridge I can swim I attend village meetings regularly I had contact with a public clinic or hospital at least once in the last 12 months	
Number of statements chosen, list 1	

LIST 2:	
My household has a fridge	
I can swim	
I think it is sometimes necessary to use violence in support of a just cause	
I attend village meetings regularly	
I had contact with a public clinic or hospital at least once in the last 12 months	
Number of statements chosen, list 2	

45. Over the past year, how often, if ever, have you or anyone in your family: *[Read out options]*

	Never	Once or twice	Several times	Many times	Always	Don't know [Do not read]
A. Felt unsafe walking in your neighbourhood?	1	2	3	4	5	999
B. Feared crime in your own home?	1	2	3	4	5	999
C. Been physically attacked	1	2	3	4	5	999

46. Which of the following proverbs do you agree most with? Choose Proverb 1 or Proverb 2 *[Interviewer: Probe for strength of opinion. Do you agree or agree strongly?]*

Proverb 1: Dua la kuku halimpati mwewe/The curse of the chicken does not reach the kite - Or: The prayer of the fowl does not bother the hawk (meaning: It is vain to protest against those in power)		Statement 2: Suluhu haiji ila kwa ncha ya upanga/ Appeasement does not come save by the point of the sword.	
Agree strongly with Proverb 1 1	Agree with Proverb 1 2	Agree with Proverb 2 3	Agree strongly with Proverb 2 4
Agree with neither *[Do not read]*			5
Refused to answer			777
Don't know *[Do not read]*			999

47. **When you get together with your friends or family, would you say you discuss political matters:** *[Read out options]*	
Frequently	1
Occasionally	2
Never	3
Refused to answer	777
Don't know *[do not read]*	999

48. Think about the condition of people living in this region *[State if Mtwara or Lindi Region]***. Do they have less, the same or more influence in politics than people in other regions in this country?** *[Probe for strength of opinion]*	
Much less	1
Less	2
Same	3
More	4
Much more	5
Refused to answer	777
Don't know *[do not read]*	999

Note to enumerator: Please draw a random number (1 or 2), and read the vignette that correspond to the number. Please report which vignette (1 or 2) the respondent was given

Which vignette was given?	
List 1	1
List 2	2

Vignette 1
Let's return to the benefits of oil and gas developments for a moment. In the future, the Government of Tanzania could receive substantial revenues from the natural gas operations. While this should benefit all Tanzanian's, experience from other countries show that the region in which the oil or gas is discovered could get extra gains in terms

of industry development and increased business activity.

Vignette 2
Let's return to the benefits of oil and gas developments for a moment. While the overall revenues might be high, experience from other countries show that little of these revenues actually benefit the people living close to the oil or gas fields. On the contrary, oil and gas regions might actually experience negative effects such as environmental degradation and loss of livelihoods.

49. Which group of people do you think will benefit most from the natural gas discoveries in Tanzania *[Do NOT read out options]*	
People in Mtwara and Lindi	1
People in Dar es Salaam	2
People in the North of Tanzania	3
People in government	4
People in political parties	5
The foreign oil and gas companies	6
Poor people	7
Rich people	8
All Tanzanian's will benefit equally	9
Refused to answer	777
Other, specify _____	888
Don't know *[do not read]*	999

50. How often, if ever, are people living in this region treated unfairly by the government? *[State if Mtwara or Lindi Region] [Read out options]*	
Never	0
Sometimes	1
Often	2
Always	3
Refused to answer	777
Don't know *[do not read]*	999

51. Which of the following statements is closest to your view? Choose Statement 1 or Statement 2 [*Interviewer: Probe for strength of opinion. Do you agree or agree strongly?*]			
Statement 1: Taking to the streets to protest against the government's management of the natural gas resources is not acceptable.		Statement 2: Sometimes, it might be necessary to take to the streets to protest against the government's management of the natural gas resources.	
Agree strongly with Statement 1 1	Agree with Statement 1 2	Agree with Statement 2 3	Agree strongly with Statement 2 4
Agree with neither *[Do not read]*			5
Refused to answer			777
Don't know *[Do not read]*			999

52. What is your religion, if any? *[Interviewer: Code from answer. Do not read options.]*	
None	0
CHRISTIAN GROUPS/DENOMINATIONS	
Christian only (i.e., respondents says only "Christian", without identifying a specific sub-group)	1
Roman Catholic	2
Orthodox	3
Coptic	4
Protestant – Mainline	
Anglican	5
Lutheran	6
Methodist	7
Presbyterian	8
Baptist	9
Quaker / Friends	10
Mennonite	11
Dutch Reformed	30
Calvinist	31

Protestant – Non-mainline	
Evangelical	12
Pentecostal (e.g., "Born Again" and/or "Saved")	13
Independent (e.g., "African Independent Church")	14
Church of Christ	32
Zionist Christian Church	33
Others	
Jehovah's Witness	15
Seventh Day Adventist	16
Mormon	17
MUSLIM GROUPS / DENOMINATIONS	
Muslim only (i.e., respondents says only "Muslim", without identifying a specific sub-group)	18
Sunni	
Sunni only (i.e., respondents says only "Sunni" or "Sunni Muslim", without identifying a specific sub-group)	19
Ismaeli	20
Mouridiya Brotherhood	21
Tijaniya Brotherhood	22
Qadiriya Brotherhood	23
Shia	
Shia	24
Ismaeli	740
Twelver	741
OTHER	
Traditional / ethnic religion	25
Hindu	26
Bahai	27
Agnostic (Do not know if there is a God)	28
Atheist (Do not believe in a God)	29
Jewish	34

Other [Specify]: _____	888
Refused	777
Don't know	999

53. How often, if ever, are people in your religious group treated unfairly by the government? *[State if Mtwara or Lindi Region] [Read out options]*	
Never	0
Sometimes	1
Often	2
Always	3
Refused to answer	777
Don't know *[do not read]*	999

54. Which political party do you feel close to? *[Do not read options. Code from response]*	
Chama Cha Mapinduzi (CCM)	740
The Civic United Front (CUF)	741
Chama cha Demokrasia na Maendeleo (CHADEMA)	742
The Union for Multi Party Democracy in Tanzania (UMD)	743
National Convention for Construction and Reform (NCCR-Mageuzi)	744
The National League for Democracy (NLD)	745
United People's Democratic Party (UPDP)	746
The National Reconstruction Alliance (NRA)	747
Tanzania Democratic Alliance (TADEA)	748
Tanzania Labour Party (TLP)	749
United Democratic Party (UDP)	750
Demokrasia Makini	751
Chama cha Haki na Ustawi (CHAUSTA)	752
The Forum for Restoration of Democracy (FORD)	753
Democratic Party (DP)	754
The Progressive Party of Tanzania (PPT-Maendeleo)	755
Jahazi Asilia	756
Sauti ya Umma (SAU)	757
Other [Specify]:	888

_____	
None	9997
Refused to answer	777
Don't know	999

55. If presidential elections were held tomorrow, which party's candidate would you vote for? *[Do not read options. Code from response]*	
Chama Cha Mapinduzi (CCM)	740
The Civic United Front (CUF)	741
Chama cha Demokrasia na Maendeleo (CHADEMA)	742
The Union for Multi Party Democracy in Tanzania (UMD)	743
National Convention for Construction and Reform (NCCR-Mageuzi)	744
The National League for Democracy (NLD)	745
United People's Democratic Party (UPDP)	746
The National Reconstruction Alliance (NRA)	747
Tanzania Democratic Alliance (TADEA)	748
Tanzania Labour Party (TLP)	749
United Democratic Party (UDP)	750
Demokrasia Makini	751
Chama cha Haki na Ustawi (CHAUSTA)	752
The Forum for Restoration of Democracy (FORD)	753
Democratic Party (DP)	754
The Progressive Party of Tanzania (PPT-Maendeleo)	755
Jahazi Asilia	756
Sauti ya Umma (SAU)	757
Other [Specify]: _____	888
Would not vote	9997
Refused to answer	777
Don't know	999

THANK YOU VERY MUCH. YOUR ANSWERS HAVE BEEN VERY HELPFUL.

END INTERVIEW -- DON'T FORGET TO COMPLETE NEXT SECTION. ALL SUBSEQUENT QUESTIONS SHOULD BE ANSWERED BY THE INTERVIEWER AFTER THE INTERVIEW IS CONCLUDED

56. Were there any other people immediately present who might be listening during the interview?	
No one	Yes/No
Spouse	Yes/No
Children	Yes/No
Household head	Yes/No
Village ward	Yes/No
A few others (not village ward)	Yes/No
A small crowd (not village ward)	Yes/No

57.	Yes	No
A. Did the respondent check with others for information to answer any question?	1	2
B. Do you think anyone influenced the respondent's answers during the interview?	1	2
C. Were you approached by community and/or political party representatives?	1	2
D. Did you feel threatened during the interview?	1	2
E. Were you physically threatened during the interview?	1	2

58. What proportion of the questions do you feel the respondent had difficulty answering?	
All	4
Most	3
Some	2
Few	1
None	0

59. Which questions did the respondent have trouble answering? *[Identify up to three. If the respondent had trouble with less than three, enter "00" in the boxes]*

A. First Question		
B. Second Question		
C. Third Question		

60. What was the respondent's attitude toward you during the interview?			
A. Was he or she	1 Friendly	2 in between	3 Hostile
B. Was he or she	1 Interested	2 in between	3 Bored
C. Was he or she	1 Cooperative	2 in between	3 Uncooperative
D. Was he or she	1 Patient	2 in between	3 Impatient
E. Was he or she	1 At ease	2 in between	3 Suspicious
F. Was he or she	1 Honest	2 in between	3 Misleading

Interview guide, non-leader interviews

Introduction

Thank you for taking the time to talk to me!

My name is Elise Must, I'm a PhD student at the London School of Economics and Political Science. My topic is expectations, inequality, natural resources and conflict, and Mtwara/Southern Tanzania is my case study. Independent.

No right answers. Your opinion

During the interview I would like to discuss the following topics: expectations linked to gas development, satisfaction with the government and the services they provide, views of the petroleum companies, the riots in January and May 2013, information sources and political and economic situation and so on.

Confidentiality! All information anonymized

Do you consent to be interviewed?

If so, is it ok if we use a tape recorder?

Let's first talk about you.

Demographics

How old are you?

How many people live in your household?

What is your marital status?

How many children do you have, if any?

What is your ethnic community, cultural group or tribe?

What is your level of education?

Make note of gender

What is your main occupation? Do you have a job or activity now? (If unemployed, retired or disabled, what was your last main job/activity?)

Which type of job or activity would you like to have if you could choose?

Are you the household head? If not, what is main occupation of the household head?

Group Identity

How do you like other people to identify you? As a Tanzanian, as a Christian, as a Muslim, as a person from Mtwara or a person from (tribe) - ?

Who would you like least to have as your neighbour? (group of people, any definition)

Let's talk about economic conditions

How do you describe the present economic condition of this country?

How do you rate your living conditions compared to those of other Tanzanians?

Think about the condition of people living in this region. Are their economic conditions worse, same as or better than for people in other regions in this country?

Over the past 12 months, how often, if ever, have you or anyone in your household:

- Gone without enough food to eat?
- Gone without enough clean water for home use?
- Gone without medicines or medical treatment?
- Gone without enough fuel to cook your food?
- Gone without a cash income?

Do you or someone in your household own a radio, a mobile phone, a television and/or a motor vehicle?

Information sources, natural gas discoveries and expectations

Where do you get information from on what is going on in Tanzania? And in your region? Village?

When did you hear for the first time that fields of natural gas have been discovered in Mtwara and Lindi? From which source?

What is you main sources of information about Tanzania's natural gas? Who gives most reliable information?

Who do you think should give you information on the natural gas development?

When you get together with family, friends or people at work, how often do you discuss what Tanzania's discoveries of oil and gas will mean for you or your community?

When was the first time you heard about the Mnazi Bay to Dar es Salaam natural gas pipeline?

BEFORE you had heard of the pipeline, how did you expect the natural gas developments to change the future living conditions of yourself? And for the people living in this region?

How satisfied are you with the development in the living conditions for the youself/people living in this region so far – compared to what you expected?

Nowadays, how do you expect the natural gas developments will change the future living conditions of yourself/people living in this region? And when do you think this will happen?

What are the most important things you think the government should do for your local community?

What have they said that they will do?

Has the government done anything for your local community or the region so far?

Do you know the names of any oil and gas companies?

What are the most important things you think the foreign oil and gas companies should do for your local community?

Have the oil and gas companies done anything for your local community or the region so far?

How do you view the fact that foreign companies come to Tanzania to develop the natural gas?

Who do you think will benefit most from the oil and gas discoveries?

Mobilization, civil unrest and violence

- In your view – what where the main reasons for the riots in Jan 2013/May 2013?
- Where they broadly supported?

- Did you support them?
- Who participated? Locals? Others?
- Where there any leaders?
- What was said to make people join?
- Did you participate? If yes, why? If no, would you consider participating if you get the opportunity again? If so, why? And if not, what could make you change your mind?
- How many where killed?
- How was the government response?
- How is the situation in Mtwara now?

Which issues do you think justifies a protest march?

Religion

What is your religion?

How often, if ever, are people in your religious group treated unfairly by the government? (very sensitive, please advise).

Politics

When you get together with your friends or family, how often do you discuss political matters?

Think about the condition of people living in this region. Do they have less, the same or more influence in politics than people in other regions in this country?

How often, if ever, are people living in this region treated unfairly by the government?

How many times, if ever, have injustices been made towards people in this region?

Which political party do you feel close to?

If presidential elections were held tomorrow, which party's candidate would you vote for?

Is there anything else you would like to add before we end?

THANK YOU VERY MUCH. YOUR ANSWERS HAVE BEEN VERY HELPFUL.