IDS WORKING PAPER
Volume **2017** No **487**

Innovative Methods for Research on Social and Political Action in Fragile and Conflict-Affected Settings

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June 2017

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In a world shaped by rapid change, the Action for Empowerment and Accountability Research programme (A4EA) focuses on fragile, conflict and violence-affected settings to ask how social and political action for empowerment and accountability emerges in these contexts, what pathways it takes, and what impacts it has.

A4EA is implemented by a consortium consisting of: the Institute of Development Studies (IDS), the Accountability Research Center (ARC), the Collective for Social Science Research (CSSR), the Institute of Development and Economic Alternatives (IDEAS), Itad, Oxfam GB, and the Partnership for African Social and Governance Research (PASGR). Research focuses on five countries: Egypt, Mozambique, Myanmar, Nigeria and Pakistan. A4EA is funded by UK aid from the UK government. The views expressed in this publication do not necessarily reflect the official policies of our funder.

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IDS Working Paper 487

ISSN: 2040-0209 ISBN: 978-1-78118-371-7
A catalogue record for this publication is available from the British Library.

Available from:
Communications and Engagement Unit, Institute of Development Studies, Brighton BN1 9RE, UK
Tel: +44 (0) 1273 915637
E-mail: bookshop@ids.ac.uk
Web: www.ids.ac.uk/publications

IDS is a charitable company limited by guarantee and registered in England
Charity Registration Number 306371
Charitable Company Number 877338

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Summary

Fragile and conflict-affected settings (FCAS) present particular challenges for researchers seeking to study the effect of social and political action (SPA). These challenges are not simply due to prevalent violence and conflict, but contexts of insecurity can restrict the flow of information, key actors can be hard to identify, and if information can be found, vital pieces of the picture may be missing.

This paper seeks to explore what particular combinations of empirical methods are best suited for research into three distinct aspects of SPA: the context in which it occurs, its type and nature, and the identification of pathways through which SPA can lead to empowerment and accountability. The paper assesses nine methodologies in order to suggest an effective and innovative mix of strategies to match to criteria in making decisions about how to study SPA in fragile and conflict-affected settings.

Keywords: research methodologies; fragility; conflict; social and political action; qualitative; rigour.

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Acronyms

ACLED	Armed Conflict Location and Event Data project
CEM	Conflict Exposure Module
CMO	context–mechanism–outcome
DST	digital storytelling
E&A	empowerment and accountability
FCAS	fragile and conflict-affected settings
GDELT	Global Database of Events, Language and Tone
HiCN	Households in Conflict Network
LGBTQI	lesbian, gay, bisexual, transgender, questioning and intersex
LSMS	Living Standards Measurement Studies
MEND	Middle East Nonviolence and Democracy
PDIA	problem-driven iterative adaptation
QCA	Qualitative Comparative Analysis
RCT	Randomised Control Trial
RDD	Regression Discontinuity Design
SPA	social and political action

1 Introduction

This paper is produced as part of the Action for Empowerment and Accountability research programme which is examining how social and political action (SPA) can contribute to empowerment and accountability in fragile and conflict-affected settings. The research programme focuses on Egypt, Mozambique, Myanmar, Nigeria and Pakistan. The purpose of this paper is to examine what methodologies are best used for researching SPA in these settings, and what are the considerations that researchers need to keep in mind.

Fragile and conflict-affected settings (FCAS) present difficult contexts for studying social and political action, not simply due to prevalent violence and conflict – in fact, many fragile settings may not have very high levels or regular episodes of conflict – but because social and political action may be operationalised against those that control access to these settings. This presents a number of challenges. First, researchers may have a difficult time accessing the country, region or city where research makes most sense. Second, even if they have access, they might find it hard to identify the actors who are key to understanding how such action is mobilised and organised, and what their main strategies are. Although some actors and strategies may be obvious and well known, other vital pieces of the puzzle may be hidden or less obvious. Third, even if the actors and actions can be identified, levels of insecurity may restrict the open or easy flow of information between researchers and actors, and it may require a long period of trust building. Finally, even if the information can eventually be accessed, there may be missing pieces – due to media restrictions, under-staffed statistics offices and ministerial offices, restricted civil society organisations – that are vital to constructing more complete explanations of how and when certain types of social and political action can lead to greater empowerment and accountability.

These challenges make it difficult to operationalise concepts like empowerment and accountability, and to accurately measure the variables and indicators required for rigorous and plausible reasoning. They also increase the challenge of making these indicators comparable across contexts that may not simply be very different, but may also present varying levels and combinations of fragility, violence and conflict. Such contexts require us to revisit our usual methods of research, and to find ways around these multi-level and multi-dimensional challenges. We need to find more innovative and creative combinations of methods to best capture the phenomena – combinations that can be both broad to look at the spread of social and political action, but also deep to understand the ways in which it is able to create or impact processes that lead to further empowerment and accountability. At the same time, methodologies need to be flexible enough to capture the changing, dynamic nature of social and political action. We, therefore, need to draw on multiple disciplines to come up with an array of methods that are most suited to such research.

The approach we suggest sits close to recent calls for changing the way we work in FCAS, and how aid functions and is distributed in these settings. Woolcock (2014) suggests replacing current approaches to working in fragile and conflict-afflicted settings with the problem-driven iterative adaptation (PDIA) approach.

> Helping fragile states escape from capability traps involves pursuing development interventions based on a very different set of principles from those characterizing current practice, not least in fragile states themselves. These interventions should (1) aim to solve particular problems in local contexts (as opposed to transplanting pre-conceived and packaged ‘best practice’ solutions), (2) through incremental processes of ‘muddling through’ that facilitate positive deviation (as opposed to designing projects and programmes and then emphasizing that agents implement them exactly as designed), (3) involving active, ongoing and experiential learning and the feedback of lessons into new solutions (as opposed to enduring long lag times in

> learning from ex-post 'evaluation'), and (4) engaging broad sets of agents to ensure that reforms are viable and relevant – i.e., politically acceptable and practically possible (as opposed to promoting the 'top down' diffusion of innovation). This approach has been called PDIA.
> (Andrews *et al.* 2013; Woolcock 2014: 10)

In terms of a methodological approach, this calls for a deep and thorough engagement with locally specific perspectives and solutions, and empirically grounded research that looks for causes and explanations before deciding solutions. We develop this in the rest of this paper. We argue for and develop a careful contextualisation of fragility and conflict at both the national and subnational levels, and then suggest using different types of research gathered from a wide array of sources, to figure out types of social and political action, and its impact on empowerment and accountability. It is fairly obvious that no one method will satisfy the needs of such an approach. What we require is a combination of different methods, but which ones should we use, where and when? This paper attempts a preliminary answer to this question through a typology of fragile and conflict-affected states, and the types of questions we would like to ask about them.

1.1 Important questions about SPA in FCAS

We need to capture three quite distinct aspects of social and political action for a complete and more rigorous analysis. This includes:

a. An assessment of the context in which social and political action occurs;
b. A descriptive detailing of the type and nature of social and political action;
c. An identification of the specific pathways through which social and political action can lead to and condition empowerment and accountability.

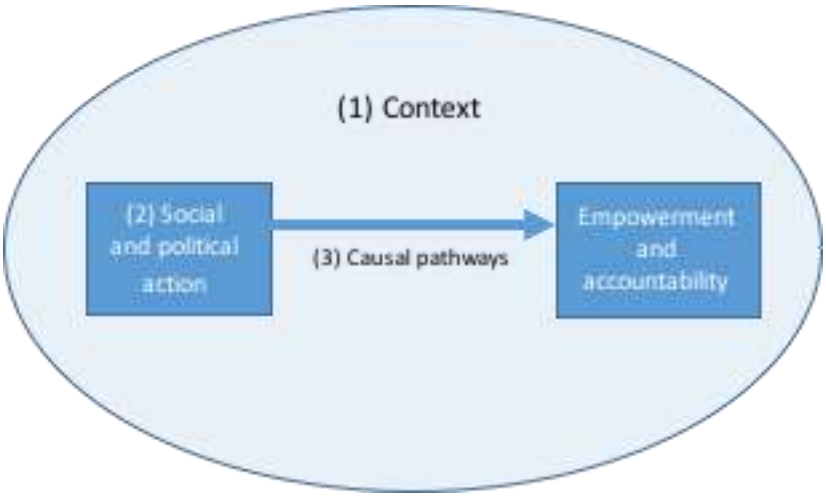
Figure 1.1 graphically represents the interaction between these three aspects. In the later sections of this paper we populate this figure with the methods that may be most suited to each of these aspects. In particular, we are concerned with the following:

(1) *Cross-context variation*: A better understanding of the particular fragile or conflict-affected setting in which the SPA occurs. This is an important initial descriptive and analytical aspect of the work that will assess the particular contextual features that inform the nature of SPA. It helps establish the extent to which different cases – country cases and subnational cases – are actually comparable, and the extent to which lessons can be transferred from one to the other. This initial process thus requires a research effort that can nuance the context, and establish basic variables and indicators of interest that can establish the connections between variations in fragile and conflict-affected settings, and the types of variation that these produce in SPA. The most typical question we would ask within this type of research effort is about the types of regions, cities or countries in which certain types of SPA has historically occurred, and where we might most reasonably expect to see each type of SPA.

(2) *Cross-action variation*: The particular nature of the type of SPA that we find in each context, as well as its historical trajectory. This aspect moves the research effort to the next step, in which our concern is much more with being able to establish comparisons between different types of action and actors, and the way in which different actors – both state and non-state – participate in SPA. Now, rather than a focus on contextual variables like the institutional environment within which SPA operates, we would establish the most important factors, variables and indicators that help us compare one type of SPA with another – within the same country, or even within the same region or city. The most typical questions here would be about the features of different types of SPA within different sectors, how such action evolved historically, and why different types of actors participate in SPA.

(3) *Establishing causal pathways*: The ways in which the particular type of SPA affects empowerment and accountability within the given context. Here the research effort is far more concentrated on the particular ways in which SPA functions, and the trajectories that it creates towards empowerment and accountability (E&A) outcomes. Part of the effort is to establish what these outcomes are, and how these are connected with, or not, with types of SPA. Typical questions in this part of the study would be concerned with establishing causal relationships and mechanisms between SPA and E&A through a range of empirical strategies.

Figure 1.1 Three aspects of studying SPA



A major question for this paper is whether there are certain methods that are better suited to studying one of these aspects of SPA, but that may not be suited to studying another aspect? For example, ethnographies and the case selection component of comparative case work may be particularly suited to capturing the impact of contextual variables; while surveys and digital/visual data collection may be a good way to capture the details of actual incidents of SPA; and natural and quasi experiments and process tracing may be best suited to identifying the causal pathways that lie between action and actors, and the outcome of interest. Furthermore, what combination of methods may work best to improve the rigour of work and the explanatory power of findings in studying each of these three aspects? These are some of the questions we answer in Section 5 of this paper. The main argument that drives the analysis presented in this paper is that research questions and the choice of methods are intimately linked, and that questions determine methods. This central point is emphasised in the various sections presented here.

1.2 Typology of 'fragile and conflict-affected settings'

Each of the three aspects of SPA above are conditioned by the type of fragile and conflict-affected setting in which they occur. Their historical trajectory and evolution, the particular form in which we are now able to observe them, and the particular way in which they may, or may not, impact greater empowerment and accountability, are all context dependent. We argue here that there are two primary dimensions along which we need to disaggregate the setting in which to SPA – the extent of fragility, and the extent of conflict.

The fact that fragile and conflict-affected settings require a different set of methods is a fairly broad statement, and not very useful because there is a great deal of variation to be found both across and within such countries. They can differ from one another both in terms of the level of fragility and conflict, and in the particular ways in which these combine to create unique contexts. There are states that are more fragile than they are conflict-affected, and

states that are more conflict-affected than they are fragile, and states that exhibit a high level of both fragility and conflict. Such countries also exhibit variations at the sub-national level – some parts of a country listed as FCAS may be fairly stable with high levels of state authority and legitimacy and low levels of conflict, while other parts may be facing a substantial level of violence and a serious challenge from non-state actors to state legitimacy. Given this, it is not useful to apply methods for an overall FCAS category that includes a varied and heterogeneous set of countries. We need a more disaggregated approach that creates a typology of FCAS countries and regions. This will allow us to then match the various types of context with the most appropriate research methods.

We use Taylor (2014) as a starting point for a nuanced and logically sound disaggregation of FCAS, in itself a major project (and one that we do not take on in its entirely in this paper). In particular, the paper is helpful in establishing 'the empirical possibility that government can remain effective (or achieve effectiveness in some respects) even in the midst of instability and violent disruption' (Taylor 2014: 6). In other words, fragility and conflict need not always occur together, it is possible for a state to have extensive conflict, but still be less fragile with relatively good governance indicators. This fact allows us to separate out fragility from conflict, and use these as the two dimensions of a typology to categorise not only different types of fragile and conflict-affected countries, but also different types of regions within the same country.

Table 1.1 offers a simple, highly stylised categorisation of countries across two dimensions – fragility and conflict. In reality there may be more nuanced midway points between these two extreme categories, but for the purposes of this paper, this stylised categorisation suffices. In terms of conflict, cases may have low or high conflict – instances of low conflict may have isolated incidents of violence but with no regularised, identifiable pattern, while in high conflict cases there is more protracted and regularised violence and insecurity. In terms of fragility, cases may have less or more fragility – less fragile cases have relatively more state capacity and more legitimate and extensive public authority, while more fragile cases lack state capacity to deliver on most functions, and public authority lies largely with non-state actors.

The interaction between these four conditions give us four categories of FCAS, which we use to disaggregate the regions of two of our focus countries, Nigeria and Pakistan (for illustrative purposes), as follows:

1. Category 1 has cases that exhibit low levels of both fragility and conflict. In these cases, state legitimacy, capacity and public authority is generally intact, and incidences of conflict and violence are restricted. This includes the capitals of both countries, Abuja and Islamabad, most urban parts of Punjab province in Pakistan, and the southwest and southeast regions of Nigeria, which have remained generally peaceful and stable through the countries' crises.
2. Category 2 contains cases of stable states dealing with violent uprisings and militant groups that target the general population. The source of instability and insecurity in these cases is fairly obvious, and Taylor (2014) suggests that we may call this an 'overt crisis (organised conflict and violent disruption of socio-political processes)' (Taylor 2014: 1). This includes the south-south and north-centre regions of Nigeria, and the major cities of Sindh province in Pakistan, where ethnic violence is fairly regular but state capacity, authority and legitimacy are intact.
3. Category 3 is made up of cases where the crisis is less obvious and visible because of a general lack of violence and overt conflict. Instead, the insecurity emanates from a 'latent fragmentation' of the state through 'contested political settlement, state predation, and failure to ensure basic rights and services' (Taylor 2014: 1–2). This includes the rural parts of Punjab and Sindh where overt violence is low but state

capacity to deliver is fairly limited and most public authority lies with non-state actors who can undermine the legitimacy of state institutions.

4. Category 4 is made up of cases that combine both the fragmentation of state capacity and public authority with overt crises characterised by regular incidents of violence and conflict. Such states might exhibit the 'net effects' of fragility and conflict, including 'loss of regime legitimacy, control of the use of force and provision of security, and inability or unwillingness to provide for basic livelihood conditions' (Taylor 2014: 2). Such cases include Baluchistan and Khyber Pukhtunkhwa provinces in Pakistan and the northeast and northwest regions in Nigeria.

Table 1.1 Typology of fragility and conflict

		Conflict	
		Low	**High**
Fragility	**Less**	Category 1 Few incidents of violence or conflict in a fairly stable state *Cases* Nigeria: Abuja, southwest and southeast regions Pakistan: Islamabad, most cities of Punjab province	Category 2 **Overt crisis:** Stable states dealing with violent uprisings and militant groups that target the general population *Cases* Nigeria: south-south and north-centre regions Pakistan: Major cities in Sindh province
	More	Category 3 **Latent fragmentation:** Fragmented and contested public authority, or disproportionate authority with non-state actors *Cases* Pakistan: Rural parts of Punjab and Sindh provinces	Category 4 **Overt crisis and latent fragmentation:** Lack of public authority and existence of insecurity and violence *Cases* Nigeria: northeast and northwest regions Pakistan: KPK and Baluchistan provinces

Source: Authors' own.[1]

Table 1.1 shows that the same fragile and conflict-affected country case may be split by its regions across multiple cells of the typology. It is, therefore, important that a general research approach is not adopted for an entire country. Instead, empirical research approaches and methodologies need to be carefully matched to the particular configuration of fragility and conflict in each context. In Section 5 of this paper, we make an initial suggestion for how cases and methods may be matched.

1.3 Objectives and structure of paper

The main purpose, and challenge, of this paper is to match effective combinations of empirical methods to each of the three aspects of SPA outlined above, in order to provide a guide for methodological and 'value for money' choices in subsequent parts of the research programme. Some methods are better suited to detailed descriptions, others to capturing relevant contextual factors that condition the nature of action and its subsequent outcomes,

[1] I would like to thank Ayobami Ojebode for his help in disaggregating the Nigerian context across the cells of this typology.

while yet others are effective at establishing whether any causal relationship actually exists between different types of SPA and the outcome of interest, i.e. empowerment and accountability. Furthermore, given the nuanced differentiation across different types of FCAS, creative combinations of methods may be required to establish rigorous and credible explanations for the three aspects of SPA in different parts of the world.

The main question that we ask in this paper is, what methodological challenges do we face in studying social and political action in fragile and conflict-affected settings, and what are the most effective ways to overcome these challenges? In the following sections, this paper assesses the strengths and weaknesses of a number of research methodologies in order to match combinations of them to specific questions, and to specific national and sub-national contexts. The paper is organised as follows. In Section 2, we look at the challenge of doing research on SPA in FCAS. In Section 3 we provide a short summary of different methodologies, along with recent examples of their use in FCAS. In Section 4 we look at the unique way in which each method can contribute to understanding such contexts across a set of standards – including their effectiveness in taking a gendered approach, their ability to uncover hidden or often invisible actors and forms of action, the ethics of their use in fragile settings, and the relative costs of each approach. Finally, in Section 5, we match combinations of interdisciplinary research strategies and methods for data collection to the three aspects of SPA we outlined earlier, underscoring the fact that the choice of methods is driven by the research question. In this section we also populate the cells of our typology of cases with the methods most suited to each of these. Section 6 concludes.

2 Research challenges in studying social and political action in FCAS

Recent methodological developments in studying FCAS, such as the collection of large-scale survey data, are a response to the realisation that we have fairly limited knowledge on how people live and survive in areas of violent conflict (Justino 2009, 2012). The World Bank and other institutions have developed sophisticated survey techniques over the last three decades to collect valuable socioeconomic data at the micro-level, most notably through the Living Standards Measurement Studies (LSMS). However, LSMS were never developed to assess the impact of political shocks and events, such as violent protests, communal riots, revolutions, civil wars, genocide or international wars, and they include only sporadic questions on conflict exposure. Overall, our understanding of such contexts continues to be based on descriptive cases that are difficult to compare to one another to develop a more generalised understanding of them.

In particular, we have the challenge of bringing greater rigour to our investigation of contexts that are difficult to work in, and may be quite hostile to both local and external researchers. The usual methods and approaches may work in parts of fragile and conflict-affected countries, but may be quite useless and unhelpful in others. Moreover, the use of single methods may leave out vital bits of information that are important both for building deeper and broader information bases, and for being able to establish how SPA works and conditions empowerment and accountability.

Access to information and evidence within these settings may be very difficult. Accessing data and evidence is beset by challenges in reaching the area most affected by instability and insecurity; contacting the actors central to the research effort; and obtaining bits of sensitive information that are key to cracking the puzzle and providing more complete explanations for how and when certain types of social and political action can lead to greater empowerment and accountability.

Research in these contexts presents a host of other challenges too. Contexts that are very fragile may have fairly low levels of literacy, making it difficult to use methods that require a high level of involvement from respondents, such as respondent-administered questionnaires and some types of action research. Contexts that have high levels of conflict may mean that it is difficult to bring together different social, ethnic or religious groups, so that methods such as focus group discussions would need to separate groups carefully and run sessions with only one type of group at a time. Contexts with high levels of social conservatism may require that male and female groups are kept separate at all times. This may limit the feasibility of methods requiring community participation, such as many participatory methods. Such contexts may also make access by external actors difficult – because of active violence, kidnappings or general feelings of distrust of strangers brought on by heightened insecurity – so that ethnographic and other methods requiring long periods of exposure and immersion may also not be feasible. Methods such as surveys that require exposure to larger parts of the population for more representative data collection may be restricted by the fact that only certain parts of conflict-affected regions may be accessible. For example, in some regions of a country only urban cities may be accessible as rural areas are governed by militants and other non-state actors, or vice versa. In most of these situations, external researchers may need to work with and train local researchers, who will usually have comparatively greater access to these regions.

3 A diverse array of methods

In this section we briefly describe the methods that we believe provide a potential menu suitable for the study of SPA in FCAS. These methods are roughly grouped according to the following organising principle. Research design is an integral part of all research methods, but some methods are more exclusively concerned with this component of the research process than others. Methods concerned with comparison focus in particular on how research is designed, and how cases are selected based on this design. These are grouped together as: (a) comparative methods of similarity and difference, and (b) quasi and natural experiments. These are followed by methods that are more focused on analysis, such as, (c) Qualitative Comparative Analysis (QCA), and (d) process tracing. Data for all four of these methods can be collected through both qualitative and quantitative data collection tools.

We move next to methods that are concerned both with design and with the particular way in which data is collected. These include: (e) survey research, and (f) ethnographic research. The final set of methods are distinguishable by the extent to which research participants play a role in defining the focus of the research and taking key decisions within the research process. These include: (g) participatory action learning, (h) visual methods, and (i) digital data collection. The purpose of this section is to describe these various methods rather than compare them to one another, a task that is unnecessary in any case given that each of these methods have different uses. In Section 5 we will suggest how they may be combined in different ways in order to bring their unique advantages to bear on designing more rigorous mixed-method research for studying SPA.

3.1 Comparative methods

Comparative case studies are a commonly used analytical research method in the social sciences, and have a long history. From Moore's (1966) use of eight cases to ask why the same process of economic modernisation lead to such different outcomes in the UK, Japan, USA, France, Germany, Russia, China, and India, to Skocpol (1979) using three cases to ask why the same outcome – great social revolutions occurring from below – occurred in cases as different from one another as France, Russia and China, comparative cases have

contributed greatly to our understanding of social and political processes. The development of qualitative comparative research, as an alternative to experimental, statistical and case study methods (Lijphart 1971), has received renewed attention over the last decade, and within this, controlled comparisons in particular have been flagged for a revived role in answering political and social questions (see, for example, Ragin 1987; Slater and Ziblatt 2013; and Beach and Pedersen 2016).

Much of the concern with the use of the 'thick' case study method has been its inability to establish causal inferences. Controlled comparisons seek to deal with this by suggesting ways to isolate explanatory factors for the occurrence of a given outcome of interest in two or more cases, using both qualitative and quantitative data. The great value of this method comes from the fact that it is able to provide in-depth descriptive and analytical detail while isolating probable causal conditions. It is a method concerned with understanding the impact of contexts and the causal role played by identified factors within a few cases, rather than comparing variables across a large number of cases. This increased complexity provides both the strength and weakness of the method – the weakness comes from having too many variables in too few cases (Lijphart 1971) and the strength comes from tools that can decipher, rather than eliminate, complexity – historical specificity, configurations of conditions, and multiple conjunctural causation all matter (Ragin 1987).

The tools of controlled comparisons are not new either. They draw on Mill's methods of agreement (or similarity) and difference (Przeworski and Teune 1970), and use the logic of necessary and sufficient causes (Lijphart 1971; George and Bennett 2005). In a stringent application of this method, cases are carefully selected based on the extent of their difference from, or similarity to, one another.

In the method of similarity, cases are selected based on the fact that they exhibit a similar outcome of interest but are otherwise different from one another, especially in terms of the factors or conditions that we would think of as necessary for the outcome. An example of this would be a similar incidence of violence in two regions that are very different from one another in terms of the factors that we would generally associate with the outbreak of violence, such as levels of inequality and ethnic fractionalisation. The analytical effort is then focused on exploring and isolating the factors or conditions that are similar in the cases that are otherwise different from each other, and that can be connected to the similarity that we observe in outcomes.

In the method of difference, cases are selected based on the fact that they have different outcomes even though they are similar in most ways that is of theoretical relevance to the outcome. An example would be two cases with high levels of inequality and ethnic fragmentation, and a number of other relevant similarities, but where conflict erupts in one case and not the other. The analytical effort is then based on exploring and isolating the conditions that led the cases to diverge from one another in terms of outcomes. If a certain condition is always present when the outcome occurs – when similar types of violence erupts in different types of cases – and always absent when the outcome does not occur, we can think of the condition as being necessary for the observed outcome. When cases are selected and analysed based on explanatory factors, rather than on outcomes, these are called the 'most similar systems design' and 'most different systems design' (Przeworski and Teune 1970; Beach and Pedersen 2016).

3.1.1 Examples

There are many studies that have used the comparative case study method to establish important findings. These include Varshney (2003), who used paired comparisons to

understand the nature of communal violence in major cities in India; Collier and Sambanis (2005) who used the most similar systems design to study the occurrence or absence of civil war in Africa; and MacLean (2002), who used the method of difference to look at how the impact of colonialism produced different types of social policy in two otherwise similar countries, Ghana and Cote d'Ivoire.

Recent work at the Institute of Development Studies has applied controlled comparison methods to more unusual and less obvious comparators, selected not on similarities or differences across cases but in terms of the same social issue being on the policy agenda in the cases under investigation. This created pairs such as Colombia and South Africa to study informal labour markets; Ghana and Mexico to look at social action and policy reform dealing with domestic violence against women; Nigeria and El Salvador to look at community-based crime prevention efforts; the East African Savannah and the Andean Antiplano to suggest policy reforms to preserve collective land tenure rights; Argentina and Kenya to study accountability between the legislature and the executive; and Brazil, Mexico, Nigeria and Angola to look at the integration of local economies in the extractive sector. These presented multiple challenges of establishing comparability and control, and also of coordinating the collaborative research effort across teams in different countries. Comparative studies are more easily coordinated when carried out by the same investigators around a tight structure and focus, and become difficult to keep on a comparative track when conducted separately by different groups (George and Bennett 2005: 71). In such cases, design, structure and lots of preparatory work are of paramount importance to the research effort.

3.2 Quasi and natural experiments

Quasi and natural experiments replicate the rigour of randomised control trials (RCTs) to varying degrees, with the vital difference being the fact that the researcher has no control over the assignment of the population to control and treatment groups, nor any role in administering the treatment. In natural experiments, similar groups are assigned 'as if' randomly to different 'treatment' groups by virtue of a historical event or policy decision. In quasi-experiments, the principle of randomisation is relaxed altogether. Groups are chosen on the basis of being as similar as possible, but there is usually no way to ensure that the groups were not formed on the basis of some prior self-selection that may affect the differences in the observed outcome, in addition to the effect of the treatment being observed. Natural experiments are, therefore, valuable because they are able to approximate the rigour of a pure experiment, while quasi-experiments are easier to implement, more feasible in most circumstances, more cost efficient, and therefore, more frequently used.

Quasi-experimental research includes comparisons across time and space, with pre/post tests, or difference-in-difference analyses, across similar groups being the most commonly used design. For example, comparing test scores before and after a change in curriculum has occurred in one school but not in another very similar school. Though the researcher can select schools to ensure that children in each one may be considered similar, the groups cannot be considered identical, or 'equivalent', because there may be prior differences that determined which school individual children would attend. This means that attribution of causality to the treatment or intervention, the curriculum reform in this case, for the observed differences in test scores is not possible with the same level of confidence as in a pure experiment. However, a pre/post test may be combined with other methods to improve causal inference.

A more rigorous version of the quasi-experiment is the Regression Discontinuity Design (RDD), which uses an arbitrarily assigned cut-off point along a continuous variable – creating a discontinuity – to assign groups to pre-treatment and post-treatment. Differences are then

observed across the population that lies close to either side of the cut-off, the assumption being that the population is similar enough to have just as easily fallen into either side of the cut-off point. Quasi-experiments are very useful for applied research, and for evaluating the impact of a particular policy reform on different population groups, and despite concerns about rigour, are a plausible alternative in the absence of a naturally occurring separation between groups that would allow a natural experiment to be set up, or an expensive and time-consuming RCT that might also have attendant ethical issues.

Natural experiments are more rigorous because the population is separated across treatment and control groups randomly by some 'natural' occurrence. This allows investigators to establish with greater confidence that the effect observed is a result of the 'treatment', usually a historical or policy event that separates a similar population randomly into groups that are differently exposed to the given event. Difference-in-difference analysis may be used here as well, but the key difference is the randomisation, which allows results to be causally interpreted.

3.2.1 Examples

Quasi-experiments are regularly used in the social sciences, as are natural experiments where possible. Barr *et al.* (2015) used them to examine the formation and membership of village-level community-based organisations in Zimbabwe by working in villages that were formed by government officials selecting and clustering households. Baldwin and Mvukiyehe (2015) explored the effect of participation on institutions by using a break in the process through which clan chiefs were selected in Liberia at the end of the civil war. Some chiefs were selected by communities while others were selected by higher authorities, and the authors found that communities where chiefs were selected through a participatory process had higher levels of consultation and participation, but lower levels of cooperation around local public goods. A famous example of a natural experiment is Posner's (2004) use of the national border between Zambia and Malawi to analyse why intergroup relations differ between the same two ethnic groups on either side of the border. He finds that the conflict between the Chewa and Tumbuku ethnic groups in Malawi – but not between the same ethnic groups right across the border in Zambia – is explained by the political mobilisation of ethnic differences in Malawi, where the two groups are demographically significant and, therefore, electorally important.

3.3 Qualitative Comparative Analysis (QCA)

Qualitative Comparative Analysis (QCA) is a method for systematic cross-case comparison that was first introduced by Ragin (1987) to understand which qualitative factors are likely to influence an outcome. It has, since then, undergone several developments (Ragin 2000, 2008; Caren and Panofsky 2005; Rihoux and Ragin 2009; Schneider and Wagemann 2012). Despite its name and despite being a case-based method, QCA is not always considered purely qualitative because of its mathematical basis. Compared to other case-based methods, QCA's strength is its ability to compare case-based information systematically, leading to the replicable (rigorous) generalisation of case-specific findings, which is normally considered an advantage of quantitative, variable-based, statistical methods. Compared to these, however, QCA does not require a large number of cases. It retains some of the "thickness", richness or complexity of case-based, in-depth information while bringing replicable generalisation from more quantitative methods (Berg-Schlosser *et al.* 2009; Befani 2013a, 2013b). Because of these abilities, QCA has been said to incorporate the 'best of both worlds' (Vis 2012; Goertz and Mahoney 2012; Befani 2013a, 2013b).

At its core, QCA requires conceptualising cases (for example projects, or groups of projects within countries) as combinations of conditions that we suspect may be causally connected to the outcome. For example, higher levels of economic growth and industrialisation are assumed to influence the sustainability of democracy (Lipset 1960). Once the relevant

conditions and outcomes have been identified, a systematic cross-case comparison is carried out to check which factors are consistently associated with a certain type of outcome (e.g. success of an intervention, or democratic survival) and can potentially be considered causally responsible for it. This allows for a potentially quick, simultaneous testing of multiple theories of change.

In the basic version of QCA (called crisp-set QCA), both the conditions describing the case and the outcome are defined in terms of 'presence' or 'absence' of given characteristics across a set of cases. Each case is either a full member (coded 1) or not (coded 0) of a given condition. Fuzzy-set QCA codes conditions by allowing cases to have partial membership of a given condition by assigning scores that range between 0 and 1. The subsequent analysis based on a systematic comparison of the cases then reveals which conditions are needed and which ones are most effective for the outcome to occur. QCA empirically analyses two questions: (a) which causal factors are necessary for the outcome to occur; and (b) which causal factors are sufficient (alone or in combination) for the outcome to occur? The first question asks if there are any factors which are absolutely or normally required (necessary) for the outcome to occur, on the basis of the available data and knowledge. The second if any factors "guarantee" or dramatically increase the chances of the outcome materialising, alone or in combination, even if they are not normally required (they are 'sufficient' for the outcome). The typical answer to the first question is a list of conditions, or disjunction of conditions. The typical answer to the second question is a series of 'equivalent' combinations of conditions (packages, pathways, patterns). These pathways are equivalent because they all lead to the outcome, even though they are qualitatively different. QCA is thus largely concerned with identifying necessary and sufficient causal conditions for an observed outcome.

3.3.1 Examples

QCA has not been used widely to study fragile and conflict-affected settings but it has been popular with political scientists and other scholars interested in cross-country generalisations. This includes Mahoney's (2003) well known analysis of why some countries were able to develop more than others in Latin America – identifying the strength of liberal elites and the density of indigenous populations as critical factors – and Rihoux and Ragin's (2009) analysis of different pathways that lead to the survival or breakdown of democratic regimes in Europe between the two world wars.

3.4 Process tracing

Process tracing has been referred to as a method (Collier 2011; Beach and Pedersen 2013), a tool (Collier 2011; Bennett 2010), and a technique (Bennett and Checkel 2014) for data collection and analysis. This reflects its focus on theory development as much as on the search and assessment of evidence for a causal explanation. Its purpose is to answer causal questions about how and why outcomes are produced or observable events have taken place. 'Process tracing offers a rigorous approach to assess causal change… through an ex post design without a control group' and 'through establishing confidence in how and why an effect occurred' (Punton and Welle 2015: 6, 1). It is based on a mechanistic understanding of causality in social realities, and starts from the reconstruction of a causal process intervening between an independent variable and an outcome, which could be a theory of change, a complex mechanism or a context-mechanism-outcome (CMO) configuration.

Process tracing involves identifying the steps – a chain of cause and effect, or a causal pathway – between a hypothesised cause (a mechanism) and an outcome. This involves articulating and testing alternative hypotheses or 'causal stories' for how a mechanism is linked to a recorded outcome, and what should be observed if each hypothesis is true or

false. ‘Diagnostic’ pieces of evidence are then gathered and triangulated, and used to overturn or substantiate rival explanations, with the ultimate goal of establishing how the change came about. Judgements about whether there is a causal relationship between the intervention and any observed outcomes are based on the weight of evidence.

There are two main variants of process tracing: (a) tracing forward from a given hypothesis (or theory of change); and (b) tracing backwards from an observed outcome. The tracing forward variant could be either a deductive (theory-testing) or an inductive (theory-generating) process that helps disprove or question the initial hypothesis. The method distinguishes clearly between: (a) the process described in the given theory of change, considered a possible ‘reality’ which might or might not exist or have materialised, and may be unobservable; (b) the researcher’s hypothesis on the existence of that reality, which is an idea in ‘our head’ (Bennett and Checkel 2014), rather than a reality ‘out there’; and (c) the observable and therefore testable implications of the existence of such reality. This tripartite conceptual framework stems from the awareness that mechanisms in the social sciences are usually not directly observable, and that we may never attain perfect certainty of their existence, but nevertheless we formulate hypotheses about their existence and look for evidence in an attempt to increase or decrease our confidence in such hypotheses. Put differently, the aspiration of process tracing is to minimise the inferential error we risk making when producing statements about an ontological causal reality.

The tracing backward variant takes advantage of the fact that, at the time of the investigation, the mechanism that led to the observed outcome has presumably had enough time to leave traces which are able to provide a strong indication of its existence. Process tracing recognises that not all these traces are equally informative, and as a consequence focuses on assessing the quality, strength, power, or probative value that select pieces of evidence hold in support of (or against) the causal mechanism. One of its advantages is that it allows a clear distinction between ‘absence of evidence’, which has little inferential power and does not add much value to what the researcher already knows, and ‘evidence of absence’ which on the contrary can strongly challenge a hypothesis, if it contradicts observable implications stemming from such a hypothesis.

3.4.1 Examples

These features of process tracing have made it popular as an impact evaluation tool, and a strong alternative to RCT-led evaluations. Its roots, however, lie in political science and international relations where it has been used to investigate political and social phenomena. This includes Evangelista’s (2015) careful assessment of the main reasons for the end of the Cold War, and Lerner’s (1958) study of social transformation in a Turkish village through electoral politics. Lyall (2015) has re-analysed Wood’s (2003) study of civil war in El Salvador as a good example of process tracing, a treatment that Waldner (2015) similarly provided to Wood’s (2000) work on democratic transitions and insurgency in El Salvador and South Africa, and Mahoney (1999) provided to Skocpol’s (1979) classic work on revolutions, looking in particular at the causes of state breakdown in France leading up to the French revolution.

3.5 Survey methods

Survey methods have been at the centre of the development of a new research agenda on the micro-level analysis of violent conflict over the last decade.[2] The research uncovers the complex micro-level causes and consequences of violent conflict and fragility by generating important theoretical and empirical insights on a number of their dimensions (Brück *et al.* 2015; see Justino 2012 for a detailed assessment). Researchers have developed innovative techniques to capture complex political and violent events and processes in FCAS. This new

[2] See www.microconflict.eu and www.hicn.org.

empirical research has developed in two main directions (Justino *et al.* 2013; Verwimp *et al.* 2009). The first is the use of socioeconomic datasets implemented in conflict-affected regions that are not explicitly collected for the analysis of conflict and fragility, but either contain a number of variables (often self-reported) that can be used as proxies, or can be merged with conflict event data, such as the ACLED dataset (www.acleddata.com/) and other cross-national datasets such as the World Values Survey, and the Latin America, Africa and Asia Barometers. These contain important variables on changes in values, norms and attitudes across a large number of countries, including information on citizens' mobilisation and collective action, their attitudes towards and perceptions of government institutions and their performance in terms of accountability and inclusiveness.

The second direction is based on surveys specifically designed to identify the causes and functions of violent conflict at the micro-level. This is the ideal approach because specific research questions can be addressed without the need for proxy measures. These include surveys used in research programmes like MICROCON and the Households in Conflict Network (HiCN), which include information about collective action, changes in formal and informal institutions at the community level, and relationships between these institutions and local populations (Justino *et al.* 2013; Brück *et al.* 2013, 2015; Gafaro *et al.* 2014). However, these have generally proved to be expensive, requiring high levels of human and financial resources, and the need to deal with complex ethical and security constraints associated with doing primary research and accessing a large number of respondents in areas affected by violence.

3.5.1 Examples

A complete overview of existing surveys conducted in conflict-affected countries is provided in Brück *et al.* (2013, 2015). These include five types of purposely built surveys (in addition to the use of existing socioeconomic surveys): (i) ex-combatant surveys, (ii) genocide and atrocities surveys, (iii) surveys of displaced populations, (iv) post-conflict reconstruction surveys, and (v) conflict surveys conducted among civilian populations.

One of the limitations of surveys in conflict-affected countries has been the issue of comparability. In order to address this issue, Brück *et al.* (2013, 2015, 2016) developed the Conflict Exposure Module (CEM). This module proposes a series of standardised questions that can be used in surveys to capture the causes and impacts of violent conflicts on individuals, households and communities. The CEM was developed based on four criteria to improve the ability of future standardised socio-economic surveys to collect politically sensitive information in conflict-affected contexts: (i) allow respondents to self-report on conflict events more comprehensively by including conflict-related scenarios in answer categories, (ii) record the timing of events, (iii) be sensitive to the type and intensity of violence, and (iv) include conflict questions across several survey sections and include a range of conflict-related choices in the answer categories. The CEM is currently being adapted by the Living Standards Measurement Studies (LSMS) team at the World Bank. We anticipate this new research to lead to exciting new developments in survey research in conflict-affected countries, including the implementation of a larger number of longitudinal surveys.

3.6 Ethnographic research

According to Ingold (2008: 69) 'the objective of ethnography is to describe the lives of people other than ourselves, with an accuracy and sensitivity honed by detailed observation and prolonged first-hand experience'. It is an idiographic enquiry, aimed at documenting particular facts of past and present lives. Field research is crucial to the ethnographic endeavour, serving the dual purpose of collecting data through the various techniques, as well as giving the researcher an enriched understanding of the case and its context, and

facilitating the analysis of the data (Höglund 2011). Within these techniques, or ethnographic tools, the three most common ones are participant observation, interviews[3] and conversations, and thick description.

Participant observation is a technique whereby the researcher attempts to capture information on social life by simultaneously participating in and observing social, economic, political, and cultural everyday events within a particular society. Participant observation allows for a holistic awareness of events as they unfold, and as such provides a more comprehensive understanding of what really matters to informants. Central to this reliance on observation is the need to keep an 'anthropological eye', that is, a sensibility to local culture and intuitive empathy. Interviews can be structured, semi-structured, or completely unstructured and conversational. A general atmosphere of suspicion and lack of trust of external actors in fragile and conflict-affected areas has a strong influence on the interviewing process, shaping not only the kind of questions we can ask, but also the strategies we must adopt to ask these questions (Goldstein 2014). The multitude of unpredictable parameters which can restrain our interviewing process in such areas (particularly if there is an active conflict) forces us to adapt a reflective, and innovative approach to fieldwork (Barakat and Ellis 1997). Interviewing in such contexts requires patience, subtlety (Goldstein 2014), and above all flexibility (Kovats-Bernat 2002). Goldstein (2014) has suggested that in these situations, it is best to let the informant lead the discussion/interview, as the more comfortable and at ease s/he feels, the greater the likelihood of more detail. Conversations may thus provide a particularly powerful tool in such settings as a process for collecting people's stories, family histories, and descriptions of events by building a certain level of trust and informality between researchers and informants. Unstructured interviews through conversations allow informants the freedom to talk about what matters to them (or what they feel we are interested in listening to), while semi-structured interviews are useful when we have topics we want to discuss, without the constraint of having a structured questionnaire in front of us. Semi-structured interviews can often became focus groups, as other informants will join the conversation with their views, opinions, and stories.

'Thick description' (Geertz 1972) is an ethnographic tool in which the researcher not only explains the behaviour of individuals and groups within a society, but also its context. Thick description is composed not only of facts but also of commentary and interpretation. It is critical for good thick descriptions that ethnographers document their own activities, circumstances, and emotional responses to fieldwork (particularly while conducting it among populations in fragile and conflict-affected settings) as these shape the process of observing and recording others' lives – recording not just what we find out but also *how* we find it out (Emerson *et al.* 2011).

A key challenge of conducting ethnographic research in fragile and conflict-affected settings, particularly when dealing with politically-sensitive topics such as SPA, is the difficulty of writing down accurate field notes while observing and participating in daily life *and* trying to make informants more 'at ease' and relaxed.[4] In such settings, the importance of a 'conversational community' (two or more researchers) listening and observing together, and the 'pelican method'[5] of storing away information for later analysis has been stressed. The idea here is to carefully listen to what people say – sometimes quickly typing keywords on mobile phones between interviews – and then regurgitate the information to discuss as

[3] Some anthropologists show 'focus groups' as a fourth tool. We prefer to keep them under 'interviews', as they are essentially a group interview where participants express themselves within the dynamics of inter-group discussion (allowing us to not only collect multiple individual statements, but also to observe how people work out their thoughts, feelings, and stories through interacting with others).

[4] Having a notepad or a tape recorder in our hands, especially when interviewing informants in sensitive contexts for the first time, does not allow for a relaxed setting.

[5] So named because pelicans fish now to eat later.

quickly as possible after the interviews, separating the notes into three kinds: methodological, descriptive, and analytical (Loureiro 2012). The ethnographic method, and within it the conversation, is ideal to ask teasing and/or probing questions, but in violent social contexts interviews should not start with sensitive questions (Sluka 1990). Instead, researchers need to maintain an 'anthropological eye' (the sensibility to cultural and intuitive empathy), and rely on observation while having an open approach to questioning, focused largely on asking 'how' and 'why' questions.

3.6.1 Examples

Excellent examples of thick descriptive ethnographies in fragile and conflict-affected areas, with researchers taking into consideration their own role within the circumstances, are Daniel's (1996) work in Sri Lanka, Nordstrom and Robben's (1995) collection of essays, *Fieldwork Under Fire*, by anthropologists who have experienced political violence first-hand, and Smyth and Robinson's (2001) edited volume on ethical and methodological issues while doing research in violently divided societies.

3.7 Participatory action research

This action research method is characterised by two key principles: local ownership of analytical decisions (from research questions through to interpretation and communication of and action on findings) and implementation by people for whom the research question is of direct concern (Bradbury 2015a, 2015b; Greenwood and Levin 2007). This usually means a co-research team made up of non-professional researchers, working with or without professional researchers. Research tools are selected by the co-research team and are usually qualitative, and very often involve interviewing, ethnographic observation, and narrative approaches. Action research does not preclude the use of qualitative surveys or quantitative methods, but usually as a collaboration between professional and non-professional researchers.

The approach is oriented towards and includes consideration of action that is taken as a result of research findings (Coghlan and Brannick 2005). This action-orientation is enhanced by a commitment to investigating the action generated by the research, and to developing further questions to interrogate the meaning or effect of that action. As such a third specific requirement of action research is that it includes repeated rounds of analysis, followed by the revision of questions and possible addition of new sources or tools. Understanding is thus developed through iteration and involvement in action, as much as through the application of initial questions and methods across time and space.

Action research has commonly been used by groups of people inside organisations and communities to answer practical questions about how change might be brought about within their group, organisation or society. It is of particular use for questions in which there is a high degree of hidden and invisible power in operation. This makes it useful in fragile and conflict situations that may prevent outside researchers from gaining a clear view, or from having influence on the situation with their findings (Angucia *et al.* 2010; Lundy and McGovern 2006; Lykes 2013; Pearce 2009).

Action research is developed from an epistemology of co-construction, which assumes that understanding of social phenomena (and the dynamics by which they are changing) is built through triangulation of a multiplicity of detailed, accurate views of the phenomena in question and the context in which they exist (Gergen and Gergen 2015). To gain this multiple viewpoint, teams of co-researchers are ideally made up of people who are differently placed within the society/community/organisation that is being studied. This includes ensuring that there is a spread of gender, age, ethnicity, education, etc., within the research team as far as possible, and taking account of the risks of such an approach. In FCAS this can extend to

including people who, though not in violent conflict themselves, belong to groups that are in conflict with one another. This demonstrates one of the difficulties of doing action research ethically and effectively, since the method deliberately seeks to bring difference together within the research team itself, and this difference needs to be managed to make sure no harm is done to anyone inside or outside the research group as a result of the team's constitution. In all conditions, the deliberate multiplicity of positionalities within the team necessitates managing internal power dynamics as well as power and normative difference between team members and others in the society where the research is being carried out.

3.7.1 Examples

Action research was used in Karamoja, northwestern Uganda in 2013, by a group of 24 young people who worked together over a year to investigate the changes in their conflict-affected society (Scott-Villiers and Karamoja Action Research Team 2013). The area had recently returned to peace after more than a decade of civil war. Their work focused primarily on the question of mechanisms for rebuilding local governance systems, solving small and large violent disputes, and the renewal of the local economy. This included considering citizen-state engagement on issues of policing and land expropriation, abuses of which had been the norm during the years of violent conflict.

3.8 Visual methods

Over the last decade there has been a rapid expansion in the use of visual research methods to reveal neglected perspectives on complex social issues (Gauntlet and Holzwarth 2006). Broadly, these methods incorporate visual expression or visual mediation in building research relationships, in driving research processes and generating research data, and in research communication. The term encompasses both traditional and more recent visual forms such as drawing, painting, collages, mapping/diagraming, comics/'zines' and storyboarding, as well as approaches such as photovoice (photography), participatory video, and digital story telling (DST), which also includes audio narratives and images. A key motivation for these methods is that they enable participants to tell their own stories about their lives and their reality, both in terms of *showing* and *telling* their situation through videos and recorded speech (Humphreys and Lorac 2002). Visual methods can be particularly helpful in capturing narratives in post-conflict contexts, allowing the subjects to be in control of the process and the content. Participant-produced visuals are only part of the research process. An equally important component of this method is to recognise and document the meanings participants give to their visual material, the ways in which they interpret it, and the dialogue generated between them and their peers or external audiences, all of which may contain deeper insights of great value in studying social and political action. They can capture subjective, contextual, emotional and dynamic factors that are hidden, hard to access, or may be missed by other methods.

Visual research processes are most usefully applied as a way to structure, drive and mediate participatory research processes. Visual methods are believed to offer enabling spaces in which participants can explore situations, expose local and structural power dynamics, and decide between future pathways (Humphreys and Jones 2006). Many visual methods have a performative aspect, such as using drama, and provide the means for participants to become social actors. Approaches such as participatory video can mediate social relationships more equitably (High 2005), and both motivate participants and re-position them in external communication (Shaw 2015). However, there is a growing interrogation of the claims for empowerment and real-world influence that the method makes (see Milne *et al.* 2012; Shaw 2012), and ethical questions have been raised about the use of participant images in visual methods, and the power dynamics between research project actors (Kindon *et al.* 2012; Wheeler 2012; Mistry *et al.* 2016; Shaw 2016).

3.8.1 Examples

Visual methods have been used in a number of development research projects, such as by institutions like MEND (Middle East Nonviolence and Democracy), which specialises in deliberative processes for empowerment (see Shaw 2015). It has been particularly useful in accessing and exploring the perspectives and contextual understanding of marginalised and disadvantaged groups and communities, such as vulnerable women, men and young people, LGBTQI groups, people with disabilities and mental health issues, the homeless, and so on (e.g. Burns *et al.* 2013). It has also been used in community-based research to show people's situations, stories, locally-identified issues, and to generate and build locally-led solutions. Visual storytelling as a methodology has helped survivors of sexual violence in South Africa to relate their experiences (Mills *et al.* 2015), and helped expose hidden layers and relationships of power in contexts with high rates of violence, such as in Nairobi in Kenya (Scott-Villiers 2014).

3.9 Digital data collection

The scale of digitally generated data is growing. The rapid growth of new information and communication technologies meant that humans are reported to have generated more data in 2012 alone than over the entire course of human history to date (Mancini 2013). This output, and the increasing sophistication of digital tools, platforms and interfaces underpinning it, holds enormous potential for the study of SPA in fragile and conflict-affected settings. Scholars and practitioners rely on keen insights into individual, group and community lives and behaviours in order to understand and respond effectively to changing social and political conditions, as well as to conceptualise, understand and support activities that may lead to empowerment and accountability. Digital data collection methodologies have the potential to facilitate this deeper understanding of contexts, conditions and factors in settings where issues of access, voice and representation can affect more traditional methodologies.

The category of digital data collection refers to an extremely diverse set of tools and methodologies. The centrality of digital technologies to the methodology itself varies, from those in which digital technologies simply facilitate and expedite conventional data collection strategies, to those in which digital technology provides the central architecture of collection, reporting, and analysis, transforming the means and scale of data collection. Digital collection methods can include systems in which researchers rely on conventional data collection professionals, including survey enumerators, sectoral experts or trained staff, who make use of digital data collection to facilitate the collection, sharing, distribution and analysis of data. Examples include using digital survey platforms on smartphones or tablets to input responses directly to a central database (Raymond and Harrity 2016). Relatedly, crowd-seeded digital collection methods can mirror more traditional stakeholder analysis or key informant reporting systems, whereby select stakeholders or representatives – for example, CSO or community leaders – are integrated into a networked reporting system in which they represent wider communities, groups or constituencies. Examples include the use of mobile phones among targeted, representative community members reporting on instances of violence and insecurity in their region (van der Windt and Humphreys 2016).

A third type of digital data collection, crowd-sourcing, departs from the strategy of using known sources and representative samples, and instead relies on larger numbers of individuals or groups reporting information without any filter or exclusion, except access to digital technologies. This approach can in turn be disaggregated between two forms of data collection: (a) those in which participants directly and voluntarily contribute information to monitoring or data collection systems; and (b) those in which otherwise public statements (such as via social media) are analysed for content, details or information, without

participants necessarily directly or intentionally feeding information into monitoring systems. Examples of the former include systems like Ushahidi, in which data on political violence was produced through a reporting system that relied on crowd-sourced information (Meier 2012). Examples of the latter include systems like the Global Database of Events, Language, and Tone (GDELT) which collects and analyses publicly available data from social and digital media (GDELT Project 2016). Typically, the size of these systems means that information reported through them cannot be verified or cross-checked by experts prior to publication or distribution. Collation, publication and distribution may be partially or fully automated, facilitating lower costs and resources. Finally, digital data collection methodologies can involve analysis of passively produced 'big data' that is generated as a by-product of activities: this form of data does not involve the active reporting or documenting of events or information, but instead involves researchers reviewing large quantities of data logged in mobile, or digital systems, such as information about users generated from mobile phones or from internet browsing activity (Greeley *et al.* 2013; Gates Foundation 2014). Related methodologies may involve remote sensing, image analysis and satellite-based assessments of geographic or locational data, which has been deployed in FCAS to monitor the degree of damage following violent clashes (Human Rights Watch 2013).

3.9.1 Examples

Digital data collection methodologies have been used extensively in FCAS. They have been used to collect information on multiple components of social, economic and political life, and to explore these in rigorous research. Studies include meta-analyses of the effects of digital platforms intended to enhance citizen voice, and their effectiveness on government responsiveness in Brazil (Peixoto and Fox 2016); the use of crowdsourcing technologies in international relief efforts in a study of disaster-affected Haiti (Munro 2013; USIP 2010); and monitoring of wider service delivery by governments (Greeley *et al.* 2013; Joshi *et al.* 2015). Digital data collection methodologies have also been used in the monitoring of public health emergencies (Ramalingam 2016), in conventional as well as more innovative ways, for example, involving systems of remote volunteers creating maps of Ebola treatment facilities at the height of the West African crisis (Standby Task Force 2014).

Digital data collection methodologies have also been used to directly measure, analyse and explore dimensions of conflict and fragility themselves. Crowd-sourced reports of violence in Syria collected by Syria Tracker (Syria Tracker 2016), have been used to assess the effects of selective goods provision on the dynamics of violence in the Syrian civil war (de Juan and Bank 2015). Crowd-seeded methodologies have been deployed in Eastern Democratic Republic of Congo, where mobile phones were used as a means of collecting data on the location and dynamics of conflict and violence, data which in turn was used as part of a study on the effect of aid on conflict and the diffusion of violence (van der Windt and Humphreys 2016). Social media content has been used in the study of the micro-dynamics of violent conflict at a level of fine-grained spatial and temporal disaggregation in the 2008–09 conflict in Gaza (Zeitzoff 2011). Content and sentiment analysis of social media and blog content has been used in the study of perceptions of policy positions in contentious foreign policy debates surrounding Iran and Israel (Zeitzoff *et al.* 2015). Satellite-generated imagery and remote sensing technologies have been used in FCAS not only in the context of advocacy and human rights campaigning (HRW 2013), but also in analysis of the interrelationship between conflict and social and economic outcomes in hard-to-reach and inaccessible conflict-affected regions in Nigeria (van den Hoek *et al.* 2016).

4 Assessing the methods – fit for purpose?

All of these methods offer different advantages and varying levels of functionality in conflict settings. These include: (a) extent of rigour; (b) ability to uncover hidden or invisible actors and forms of action; (c) effectiveness in taking a gendered approach; (d) ethics of their use in fragile settings; and (e) relative cost. In the rest of this section we discuss the methods against these standards, and then make suggestions for how particular configurations of fragility and conflict may be matched with combinations of methods (see the Annexe for a summary).

4.1 Questions of rigour

We approach rigour here as the ability to establish a credible and reliable explanation for the research question asked. This broader definition of rigour works particularly well from the perspective of multi-method research, and speaks to the fact that different methods contribute to making research valid and reliable in different ways, and that in the case of particularly complex questions or contexts, a mix of methods may be the most rigorous form of research. Different methods contribute to establishing credible explanations in different ways – some through measurement precision, others through an ability to make valid causal inference, and yet others through narrative coherence and a systematic analysis of mechanisms and pathways. Given this, most of the methods discussed in this paper offer some level of rigour, and equally, they can all fail a test of rigour by not being transparent or systematic enough in the way that data is collected and analysed to arrive at the required explanations.

Natural experiments are rigorous because their design allows for causal inference with great confidence. Quasi-experimental design and controlled comparisons offer less confidence in establishing causal inference than natural experiments because of the presence of more confounding variables, but when carried out in a systematic manner, and when combining different methods for data collection and analysis, they can offer useful and practical alternatives for causal inference. Central to these methods is a concern with making variables and indicators equivalent across contexts in a careful and transparent manner, so as to increase confidence in the explanations arrived at as a result of the comparison (Przeworski and Teune 1966). QCA is rigorous in that it allows a systematic comparison of case-based information on the basis of scores that are assigned similarly to conditions across cases.

Survey methods are rigorous because they allow very precise measurements of complex phenomenon, but quality depends to a great extent on how well questions are formulated and the extent to which they are able to draw on specific contexts. Causal inference usually requires combining surveys with causally-oriented designs, such as experiments and controlled comparisons, or using instrumental variables.

The other methods draw their rigour, not from the careful comparison and manipulation of key variables, but from attention to detail, constructing narrative coherence and carefully creating mechanisms. Perhaps the biggest comparative advantage of process tracing in relation to other qualitative methods is the possibility of measuring the confidence that a given mechanism has led to a certain outcome or impact. Confidence can be measured quantitatively as well as assessed qualitatively (Befani and Stedman-Bryce 2017), and is built incrementally on the basis of diagnostic evidence.

Both participatory action research and ethnographic methods maintain rigour through depth of access to research participants and informants, and the ‘double triangulation’ of data. At a macro level evidence is triangulated across primary data collected through conversations and participant observations, and secondary data derived from previous ethnographies in

the region, and possibly also available statistical data, such as censuses. At a micro level, data is triangulated across conversations with other informants from within the area (snowballing), including informants with conflicting views and perspectives (inverse snowballing), and informants from outside the area. The aim of such triangulation is the construction of narrative coherence. In action research, rigour also comes from implementing and validating research findings in a recursive way before reporting them.

This is also true for participatory visual methods, which draw rigour from the contextualisation of research within a community to allow a deeper understanding of the systemic features of the context within which people live. This is particularly the case when visual methods are applied as iteratively evolving processes of visual production and deliberation. Rigour in both visual and digital data collection also comes from their ability to generate and visualise broad patterns of relationships and mechanisms that can improve knowledge of commonalities and nuanced differences across cases. Digital data collection methodologies can, in theory, offer a high degree of transparency and replicability in some instances, provided transparency best practices are mainstreamed throughout the research (Dafoe and Lyall 2015). However, they are most rigorous when complemented by in-depth, qualitative, and/or ethnographic methods that can illuminate differential patterns of digital usage, such as gendered or class-based discrepancies in digital access.

4.2 Ability to uncover hidden/invisible actors and action

Research on social and political action needs to be able to explore and analyse social and political authority across visible actors – such as the state or organisations that operate in the public domain – as well as those less obvious, and possibly invisible, that operate, for example, within remote communities and marginalised groups. Some methods are better able to do this latter task than others.

Ethnographic methods, participatory action research and visual methods are particularly suited to this purpose, especially through the use of participant observation and probing questions. Drawing the invisible and hidden aspects of action to the surface is a difficult task, achieved in these methods through a process of individual and group reflection and reflexivity (Wheeler 2009). In participatory action research and visual methods this is also achieved through the research being conducted by people within the community, who are well positioned to uncover actors and actions that are invisible to researchers from outside the society, class or culture. At the same time, unless evidence is actively triangulated through repeated rounds of questioning, and rigour is maintained by questioning provisional conclusions, it is also possible for certain actors and actions to be overlooked (Shaw 2015). Action research emphasises asking researchers to investigate why they have arrived at a given provisional conclusion, why they asked a certain question, who they have forgotten, what they are giving priority to, and why. The bias is then used as a springboard to further investigation. In conflict-affected and fragile settings such refinements are not always at the top of the agenda, however. There is often a problem of time, circumstances for logistical arrangements may be highly constrained and the necessity to manage tensions that are seeping into the group from the wider conflicted society can all add up to the deliberate or less deliberate exclusion of specific hidden or invisible actions, actors or beliefs (Lundy and McGovern 2006).

Process tracing too has great potential for uncovering less obvious actors and processes. Indeed, one reason why researchers choose to use process tracing is to demonstrate the existence of unobservable mechanisms and processes. The method offers complete flexibility in choosing the mechanism under investigation, and the process of searching for pieces of evidence with the highest probative value might shift attention to claims or mechanisms that the researcher had not initially considered, that seem more strongly supported than the ones investigated up to that point. The same applies to comparative case

studies. The attention to detail in the thick descriptions that case-based work is naturally oriented towards can highlight unexpected institutions and actors. An example is the uncovering of informal institutions operating within communities in the Western Balkans to provide services to the population. The existence of these institutions emerged, quite unexpectedly, out of detailed case work on decentralisation in some countries in the region (Mohmand and Misic Mihajlovic 2014).

Other methods are less naturally inclined to this purpose, and need the uncovering of hidden actors and actions to be defined as a specific aim of the research effort in order to do so. QCA can highlight unusual and counterintuitive combinations of conditions, and therefore can highlight unexpected processes, but most actors and actions will need to have been captured already by the variables being tested. However, these unexpected processes can then lead to further investigation into the counterintuitive results. It is not unusual for a QCA specialist to have to explain unexpected findings. This is a useful process because it forces the researcher to think of alternative explanations and explanatory factors which might be included in successive iterations of the analysis.

Similarly, it is possible to use surveys to uncover hidden relationships as long as the context is adequately understood, and the surveys are designed for this purpose – for example, to collect information about collective action, changes in formal and informal institutions at the community level, and relationships between these institutions and local populations (Justino *et al.* 2013; Brück *et al.* 2013, 2015). An example is the strategic behaviour of armed groups in conflict areas discussed in Gafaro *et al.* (2014). The surveys are usually done in combination with careful in-depth qualitative analysis that informs the design and pilot assessment of the questionnaires, and typically increases the costs. The use of fieldwork teams from local areas, the building of trust across time (only possible in longitudinal surveys), and the use of unstructured and open-ended questions within the survey will also aid with the process. It is also possible to include vignettes within surveys in order to assess nuanced behavioural changes that cannot be captured in straight direct questions (Gupte *et al.* 2014).

The ability of digital data collection methodologies to uncover hidden actors and action also varies depending on the specific methodology employed. At one end of the spectrum, the use of digital interfaces such as tablet-based surveys by enumerators does not provide any greater access to hidden or hard-to-reach populations than its more conventional counterpart. At the other end, analysis of passively produced ‘big data’ can potentially reveal patterns and actions at a scale that is invisible in other analytical methodologies. Along this spectrum, there are concerns that digital data collection methodologies, unless explicitly designed and carefully targeted, may privilege individuals, groups and communities who have better access to digital technologies, and are therefore not typically among hard-to-reach or invisible actors.

4.3 Effectiveness in taking a gendered approach

Each of the methods discussed here are not particularly more or less effective in taking a gendered approach to questions focusing on SPA in FCAS. If designed for the purpose, they can all be used to get nuanced perspectives on the effects of conflict on women, on their participation in, or exclusion from, social and political action, and the particular impact of such action on their empowerment. The same applies to other social groups. Research may be prone to unrecognised power dynamics within communities. Action research uses ‘outsiders’ to provide support and be alert to issues like gender discrimination in allocation of tasks, validation of data, analytical frames and so on. However, given how strong and deep the gender divides may be within a society in conflict, there is also every possibility that gender, or race, or age or other intersecting inequalities may be given second place to more material dynamics that the research teams identify as important, such as politics or

economics. Deliberate efforts need to be made in such circumstances to make sure such inequalities a core aspect of the research.

Essentially, a gendered approach would require careful attention within the design phase, the inclusion of women in data collection – both as respondents, and as researchers – and the disaggregation of data and evidence by different groups during the analysis phase. For example, gender can be one condition in a QCA model, allowing the analysis to clearly differentiate findings by gender. Similarly, case-based methods, process tracing, participatory action research, visual methods, and ethnographies can all be designed to focus in particular on women, and to adopt a disaggregated approach towards different groups. Similarly, purposively designed surveys have been central to nuancing the effects of conflict on women, men, boys, and girls. A number of papers illustrate examples where this area of research has advanced considerably in recent years.[6]

Digital data collection can be similarly designed for this purpose, but there may be some attendant issues here. Much depends here on the degree of access to digital technologies by women, especially in remote and rural areas. Where careful attention is paid to the targeting and sampling of populations, being mindful of gender and other indicators of social difference, digital data collection methods can make an important contribution to our understanding of social and political action through a gendered lens, including through the collection of data which is disaggregated by gender. However, where methodologies rely on unbounded, crowd-sourced or non-probabilistically sampled participants, critics have raised concerns of a digital 'gender divide,' in access and literacy in ICT (UN DAW 2005: 3). More broadly, the policy, legal, and commercial architecture which structures the technology sector and its relations with society, are sometimes constructed with limited gender perspectives, and can reproduce gender inequalities and hierarchies (Gurumurthy 2004).

4.4 Ethics of their use in fragile settings

None of the methods discussed are particularly unethical in fragile and conflict-affected settings, but unless they are designed and used carefully, each may run into ethical issues. Ethical guidelines are centred on three principles – cultural sensitivity and empathy; privacy and informed consent; and the 'do no harm' principle. However, these types of setting may provide particular challenges to these principles.

For example, surveys and interviews conducted in conflict-affected contexts may ask questions that can potentially cause harm to the respondents and the researchers. Sensitive questions may evoke traumatic memories about suffering, remorse, victimisation or guilt, and some questions may also lead to the revival of old conflicts and tensions, or bring respondents to the attention of political actors. Conflict leads to mistrust and primary data collection under these conditions may reinforce this mistrust. Digital data collection methodologies may have unintended consequences that include the use of crowd-sourcing systems to deliberately and strategically misinform or mischaracterise social and political phenomena, manufacture apparent consensus or limit dissent (Treré 2016), or directly incite violence or hatred in fragile contexts (Mancini 2013).

Similar concerns apply to other methods designed to collect data in such settings, such as ethnographies, action research, and visual methods. Participatory action research is particularly focused on the analysis of differences within a group, and the method deliberately seeks to bring these together inside the research team itself. This can create tensions that need to be managed to make sure no harm is done to anyone inside or outside the research group as a result of the team's constitution. Similarly, visual methods can allow emotional factors and intransigent power dynamics to surface, so that there is the risk of

[6] Accessible at www.hicn.org/wordpress/?page_id=28.

leaving participants feeling worse than before, especially when such methods are used in an extractive, short-term manner and are not based on relationships with local partners that can offer follow on support. Researchers, therefore, need to be self-critical about which questions are absolutely necessary in such contexts, and how far they need to expand the data collection effort. This will depend to a large extent on the level of fragility and conflict, and so contextual analysis that comes before the primary data collection effort is fundamental to minimise these risks.

There is also the risk of the data collection and generation process being dominated by more powerful groups within the context – sometimes simply because they may be more easily accessible within a difficult context – which can further disadvantage marginalised perspectives. Digital data collection may be particularly affected by biases created by uneven access to technology. Real-time monitoring can be problematic in settings where technology use is limited (Ramalingam 2016; Joshi *et al.* 2015; Greeley *et al.* 2013), and may reproduce systemic biases towards communities, groups, individuals, or geographic locations in which access to and familiarity with digital technologies is greater (Perera 2015). The extent of these biases varies in accordance with the digital technology used – for example, mobile phone use is extensive even among low-income populations in many developing country contexts (Gates Foundation 2014: 4, 9),[7] but limited communications infrastructure, unreliable access due to displacement, and/or government surveillance of telecommunications, can seriously undermine some digital data collection methodologies.

Another risk that is particularly pertinent to research with the most vulnerable people in fragile and conflict-affected settings is that of inappropriate exposure and backlash when views of minority groups are shared externally. Data is regularly anonymised in most research methods but this may be more difficult when using visual methods like video and photos, or where individuals or communities feeding into digital data collection can be identified and monitored as participants, informants or social media commentators (Perera 2015). Researchers should understand the dangers, and how to mitigate them. For instance, it is important to keep separate the production of photos, videos, digital stories and other materials to stimulate research discussion in safe spaces, from the production of materials to be viewed externally (Shaw 2015). Additionally, it is not enough to gain consent at the beginning of the research process, when people may have insufficient understanding of what they are consenting to, ethical considerations should foreground the establishing of consensus over ownership, use and distribution of any digitally collected data throughout the process (Mancini 2013). This is particularly important in contexts, such as FCAS, where research and humanitarian actors typically lack the legal and organisational checks and balances to responsibly (and legally) safeguard data, in often volatile and dynamic emergency contexts. McDonald (2016) has illustrated these safeguarding failures in a study of the West African Ebola outbreak, labelled as a 'big data disaster.'

Ethics are a particular concern with the use of digital data collection because technology has typically outpaced common standards, best practices and legal frameworks for its responsible and ethical use (Martin-Shields 2013). Although common standards and recommended best practices are emerging (see, for example, O Donnell and Malallah 2015; Salehyan 2015; Responsible Data 2016), the relative novelty of these methodologies places an additional burden of critical reflection on researchers using them. Critics have also suggested that the remoteness and perceived distance created by these (often disembodied) methodologies may lead researchers to overlook the ethical issues, and the dangers and risks these methods may pose to participants or informants in FCAS (Perera 2015).

[7] Importantly, however, this figure refers only to mobile phone access, and does not distinguish between individuals who own any model of phone, and those who have access to a smartphone (required for access to Twitter or other social media platforms), or have sufficient data to access online platforms or survey forms, etc. (see discussion in Perera 2015).

4.5 Relative costs of each approach

Most of these methods may require high investments of time and money to conduct high-quality data collection in sensitive and insecure areas, especially in terms of specialised training and preparation of enumerators and local research teams; iterative rounds of data collection and triangulation; and putting in place special safeguards for privacy, protection of respondents, and security protocols. These may include the need for armed guards and security companies in some places, intelligence gathering, insurance costs, and special transport requirements.

Surveys may be the most expensive method, but this depends on sample size, national coverage, time coverage, depth of the questions asked, and different techniques included within the survey. Costs can range from £50,000 or so for a simple survey within a limited area of a country, to over £1 million – the annual cost of the ELCA (the Colombian Longitudinal Survey), the most comprehensive survey to date of conflict-affected populations. Costs may be higher when advanced techniques such as vignettes and behavioural experiments are included to nuance behavioural changes that cannot be captured in typically direct survey questions (Gupte *et al.* 2014). The most comprehensive surveys are expensive and time-consuming but have generated invaluable knowledge and are the basis for rigorous project design.

Methods like ethnographies may not be cheap either, although they require fewer researchers, the researchers are based in the field over a long period of time, incurring higher in accommodation and living expenses. Participatory action research is time-expensive and involves the cost of external researchers coming in and out at strategic moments to maintain rigour and ethics, but the fact that it is embedded within the community, usually through volunteers, lowers the costs of data collection relative to other methods. This also applies to visual methods, though they require additional investment in technology and hardware.

Other methods may be harder to budget for. Like other iterative approaches, it is not easy to precisely estimate the cost of a QCA or process tracing analysis. It depends on the number of models and mechanisms being tested, the number of outcomes being analysed, the availability of data and evidence, and the balance between desk research and primary data collection. Process tracing does not necessarily require a high number of interviews, but it might take some time before the pieces of evidence with the highest probative value are uncovered – for example, gaining access to confidential emails or meeting minutes, or learning about the existence of publicly available documentation that is not well known. Often the best evidence is found by reaching out to a limited number of people who have access to it, but it is not known in advance what this evidence might be and who these people are. It is through an iterative process of investigation, desk review and interviews that the researcher zooms in on conclusive evidence. The same considerations apply to controlled comparisons, and quasi and natural experiments, where costs are determined by the number of cases and variables being analysed, and the methods used to collect primary data. For all methods, not just data collection processes, costs associated with data cleaning, storage, maintenance and distribution must also be factored into projected costs.

Costs of digital data collection also vary considerably depending on the methodologies used. Compared to paper-based surveys or polling where costs are typically labour related, digitised systems require more hardware investment, which can be quite high. There may also be greater investment in staffing and training costs to ensure familiarity with the interface, although data entry costs are lower as this is typically automated (Tiwari 2012). Preliminary reviews suggest, however, that ultimately digital methods realise greater savings through lower labour costs than traditional methods (USAID 2008). Fully automated systems of data collection, storage and preliminary analysis may require a high initial outlay to build

and maintain technical architecture and skills for data collection, analysis and distribution, but proceed to function more cheaply than an equivalent research strategy requiring high, sustained levels of human resources.

4.6 Overall strengths and limitations

Each of the nine methods discussed in this paper have particular strengths that make them an ideal tool for studying SPA in FCAS, but they each have their limitations. Controlled comparisons, and quasi and natural experiments allow causal analysis without the need to resort to expensive RCTs. They are also very good at generating new hypotheses and theories through systematic comparison (Collier 1993). However, controlled comparisons can be difficult to manage given the issue of too many variables to consider in too few cases, which can lead to many confounders (Lijphart 1971; Collier 1993), and all three methodologies are limited in terms of external validity, in that explanations cannot generally be extended to other groups, cases or contexts.

Both QCA and process tracing also have the establishment of causal relationships as their central strength. QCA combines the best of qualitative methods (construct validity and rich case-based information) and quantitative methods (generalisation), but it is very sensitive to the lack of comparable data – often entire cases or conditions need to be removed from the analysis because of one or two missing data cells. For both controlled comparisons and QCA, if cases are too diverse, creating common rubrics can become a sterile exercise and standard categories might end up being too broad to be meaningful. Process tracing is the most rigorous method to date to test qualitative causal mechanisms by meticulously assessing the probative value of different pieces of evidence. However, it can be quite subjective on assessing this value for specific claims, and it can be very time-intensive. Overall, both methods can generate high levels of internal and external validity, though the latter is true for process tracing only when the mechanisms explored apply to a medium or large number of cases.

Surveys are able to provide a very accurate measurement of variables of interest, have the ability to generate rigorous causal inference, and to generalise findings across wider populations when using representative samples. However, they are a costly method, especially when additional methodologies are required alongside the surveys to provide more complete information. They may also require a lot of effort to ensure that variables and indicators are comparable across different contexts. Ethnographies offer high internal validity, and have possibly the greatest ability to create an atmosphere of trust outside of more participatory methods, and to fully contextualise cases through systematic, in-depth analysis. However, they are very time-intensive and require researchers to engage with the community over a long period of time. This places severe constraints on external validity since researchers work intensively on a small number of cases.

The more participatory methods – participatory action research, visual methods and digital data collection – are exemplified by their ability to enquire into the unexpected, and enrich the research with the perspectives of those most affected by a given event. The greatest strength of participatory action research is its ability to dig beneath the surface of the visible and elucidate clearly the understandings, opinions, actions and narratives of people whose voices are seldom understood. Its greatest weakness is its unpredictability and the time investment required to keep it rigorous and on track. Similarly, visual methods can make emotional factors, perceptions, and social dynamics that impact change more visible, and bridge communication divides by showing real people in real situations. However, it too requires extensive amounts of time from both the researchers and participants, and needs to be embedded in longer-term relationships.

Digital data collection's greatest strength is that it can facilitate the analysis of patterns, activities and phenomena at a scale that is not feasible with more conventional approaches, offering the possibility of external validity; it can provide near simultaneous, real-time data collection and analysis; and in some forms can allow access to hard-to-reach or otherwise inaccessible regions. However, it can reproduce biases and inequalities by favouring the perceptions of those with better access to technology, and this can limit internal validity if the sample is not carefully and purposively selected (for example, crowd-sourced data).

Table 4.1 Strengths and weaknesses of each method

		Greatest strength	Main limitation
1	**Controlled comparisons**	Causal inference, internal validity, cost effectiveness	Complex, limited external validity
2	**Quasi and natural experiments**	Causal inference (especially natural experiments), internal validity, cost effectiveness	Complex, limited external validity
3	**QCA**	Causal inference, internal and external validity, best of both worlds (qualitative and quantitative)	High data requirements
4	**Process tracing**	Causal inference, internal and external validity, attention to details	Subjectivity, time-intensive
5	**Survey research**	Internal and external validity, measurement and causal inference	Cost
6	**Ethnographies**	Contextualisation, internal validity, creation of trust	Time-intensive, limited external validity
7	**Participatory action research**	Uncover unexpected processes and relationships, internal validity	Time-intensive, unpredictable, limited external validity
8	**Visual methods**	Make processes more visible, bridge communication divides	Time-intensive
9	**Digital data collection**	Scale, cost effectiveness, external validity	Bias, differential access

Given these strengths and weaknesses, the use of a single method may be quite limiting in FCAS. A mixed-method approach that minimises the weaknesses of different methods may be the best way to approach higher levels of internal and external validity. In the next section, we make suggestions for such a mixed-method approach.

5 Mixed methods for studying SPA for empowerment and accountability

An investigation into SPA that leads to greater empowerment of marginalised groups and stronger accountability relationships requires a research effort that is able to probe complex and multi-dimensional processes; is inclusive and ethical; and is able to uncover actors, actions and processes that may be invisible and unexpected. This applies even more to a political economy approach that seeks to delve below the most obvious explanations to look at power dynamics, relationships, and configurations of conditions that constrain or support

such action. The previous section led to the conclusion that the most effective way to investigate SPA in fragile and conflict-affected settings may be through innovative combinations of methods that allow us to draw on their individual strengths while mitigating their weaknesses.

There have been a number of recent innovations in the area of mixed-method research, including: Lieberman (2005), who suggests strengthening causal inference by combining the strengths of intensive case study and survey analysis; Weller and Barnes (2014), who suggest using the strengths of case study methods to interrogate and trace the causal mechanisms that connect correlated variables in quantitative analysis; and Pouliot (2015), who suggested a variant of process tracing, called 'practice tracing', that combines the generalist tendency of process tracing with the specificity of more inductive interpretivism. These provide useful ways forward, but combinations of methods should be determined by the questions we ask – the 'pragmatist' approach suggested by Creswell and Clark (2007) – and the contexts in which we apply them. In this section we suggest how researchers can mix methods based on two criteria: (1) the 'why' criteria, based on the specific question under investigation; and (2) the 'where' criteria, based on the specific national or subnational context in which the research is being conducted.

5.1 Matching questions and methods – the 'why' criteria

Most research projects start with the question, 'which method is best and most suited?' We suggest instead that our work should start with 'what is the best research design for the question we need to answer?' The specific questions we are interested in here are captured by Figure 1.1 (in Section 1), and they cover the following areas:

1. Assessment of contextual conditions,
2. Descriptive detail on SPA,
3. Identification of impact and causal pathways between SPA and empowerment and accountability, and
4. Accompaniment and action learning to ensure operational impact.

In terms of a methodological approach, this calls for a deep, contextualised engagement with locally specific perspectives and solutions, and empirically grounded research that looks for causes and explanations before deciding solutions. However, this has to be far less about choosing specific methods for this purpose, and far more about the best possible research design to match each of these four questions and lead the research process. In other words, we are looking to match designs to questions, and then methods to these designs. Sometimes only 1–2 methods may suffice for the required research strategy, and the use of multiple methods may end up unnecessarily complicating the investigative effort. In other cases, the question may be more complex, and may require either a multi-dimensional research effort, or one that is set up across multiples stages and steps. In this section we consider the extent to which the nine methods from Section 3 can contribute to each of the four questions above, and the combinations in which they may work to complement each other in order to strengthen the explanatory power of the research.

5.1.1 Assessment of contextual conditions

Central to the research effort is a better understanding of the fragile or conflict-affected setting in which the SPA occurs. This is a largely descriptive aspect of the work when it highlights the particular political, social and economic conditions in which a certain type of SPA occurs. However, it takes on analytical aspects when it asks why certain types of SPA occur in some settings but not others. Here the focus is far more on how, and which, contextual conditions may actually impact and produce certain types of SPA. The methods that may be most useful at this stage are those that can help us select contexts, both national and subnational, that can be compared to one another; nuance these contexts; and

provide the most useful concepts, variables, factors and indicators that need to be measured within and across them. A number of methods can contribute usefully to this stage.

Controlled comparisons and quasi-experimental designs are ideally suited to the purpose of selecting national and subnational contexts that may be usefully compared to one another to isolate some key causal, contextual conditions. In the first case, cases are selected based on how different or similar they are overall, or how different or similar SPA or empowerment and accountability outcomes are in each case. In the second case, contexts are selected based on the objective of observing the impact of some historical or political event on SPA outcomes, such as the case of state regulations being eased in one province but not in another very similar province within the same country. Natural experiments are harder to find or identify, given their very stringent requirement of random exposure of populations to interventions – such as a lottery system that determines that some union councils will receive more funds than other similar neighbouring councils. However, if these can be identified, they should certainly be selected as cases because of their ability to provide rigorous causal explanations.

In terms of describing contexts, case-based methods are ideally suited to this purpose. Thick descriptions allow for careful contextualisation, and an ability to observe the ways in which context can change the impact of a hypothesised relationship. A classic example of this is the study of labour politics and action in Sweden, Germany and Italy (Locke and Thelen 1995). Such descriptions can be further deepened or made more multi-dimensional with a combination of ethnographic or visual methods, though these may make the research effort more time-intensive. Similarly, surveys are ideal to assess contextual conditions but will usually need to be preceded by a careful qualitative assessment of the conflict and the actors involved so that questions are nuanced. This can substantially raise the cost of research, especially if additional methods are incorporated within the surveys, such as behavioural, qualitative vignettes or question-based field experiments.

If the project simply requires basic conceptual and contextual details, visual and survey methods may best be left for later questions about relationships or details about specific events. Digital data collection may provide a quicker and cheaper alternative at this point, either through the use of digital interfaces in more traditional research methodologies, or through detailed analysis of crowd-sourced or big data which reveals features of the wider social landscape. Moreover, the contribution of these technologies to expediting data collection, analysis, distribution and sharing can specifically support frequent or real-time reporting of these conditions. Digital data collection methodologies can be used to collect information on specific events, such as an outbreak of disease, and can typically involve nearly real-time reporting, or to collect information on wider indicators, for example, collecting information from health-care facilities on disease incidence (Ramalingam 2016).

In terms of analysis, QCA is ideally suited for the assessment of contextual conditions once these have been identified, and the way in which they affect SPA or empowerment and accountability outcomes. It is useful for understanding interactions of multiple variables across differing and rapidly changing contexts, and is able to analyse and compare different contexts and the different influences they have on the outcome and on the performance of other conditions. Process tracing, on the other hand, is better suited for pathways analysis than the analysis of contexts, while participatory action research is similarly more useful for other questions and stages, especially accompanied learning, given the need to embed it within the research community. This may not be feasible until subnational contexts and sites have been identified through a combination of the methods suggested below.

Suggested combination

Table 5.1 provides the suggested combination of methods for the assessment of contextual conditions: prioritising controlled comparisons and quasi-experiments for the design aspects;

adding QCA for the analysis stages to add greater rigour; and thick descriptions, ethnographic and digital methods for data collection. Existing survey data, or small new surveys designed for subnational analysis, can also add value to the data collection process. A key principle to keep in mind is to minimise the number of methods used, use fewer methods if they can still can answer the question with equal effectiveness.

Table 5.1 Methods and the assessment of contextual conditions

	Typical question	**Main methods**	**Secondary methods**	**Not suited/ required**
Descriptive analysis	What are the key features of the context in which SPA occurs?	*Data collection*: Detailed 'thick description' case studies, plus ethnographic inquiry for a smaller number of cases, or digital data collection for a larger scale and wider scope	- Visual methods will make it more time-intensive - Surveys will make it more cost-intensive	Participatory action research Process tracing
Causal analysis	Why does certain types of SPA occur in some contexts but not in others?	*Design*: Controlled comparisons, quasi-experiments *Analysis*: QCA		

5.1.2 Descriptive detail on SPA

The Action for Empowerment and Accountability research programme is concerned with describing the particular nature of SPA. In addition two other concerns form part of its investigation: (a) the historical trajectory of different types of SPA; and (b) behavioural aspects of the main actors, both state and non-state, that participate in SPA.

Methods that allow us to capture and conceptualise the most important factors, variables and indicators may be most suited to answering questions on the description, historical trajectory, and incidence of SPA. These methods include ethnographies that can help us understand how such actions function and what their most important features are. These can later be turned into variables and indicators within other methods. Visual methods can similarly both document action and generate key variables. In addition, visual methods can be powerful in creating spaces for marginalised communities to express their voices – generating stories that capture differing experiences of power and powerlessness of women and girls, men and boys – especially for groups whose marginality is intensified on account of living in conditions of fragility and heightened insecurity. Digital data collection methodologies can provide a detailed picture of incidents, events or episodes of interest. Digital technologies have been used to create near real-time records of unfolding events, such as conflict, violence and human rights abuses, as well as humanitarian crises such as epidemics or within disaster contexts. They have also been used to validate and sometimes challenge accounts of events for which there are limited verifiable details or which took place in inaccessible areas or among hard-to-reach communities, for example through the use of satellite or other geographic data analysis of damage due to violent conflict (HRW 2013). Additionally, the multimedia nature of some digital data collection methodologies – facilitating not only text or audio independently, but complex data points including geo-referenced location data, imagery and live web links – can provide richer descriptive detail than traditional collection methodologies alone (Weidmann 2015).

Once subnational sites and incidents of SPA have been identified, participatory action research projects can be initiated. These have the ability to amass considerable amounts of

multi-dimensional descriptive details, and to refine both descriptive and analytical details through the iterative research process. Action research can also be initiated through online spaces. Simulations and games give tremendous scope for learning about emergent social processes of change, with the ability to combine participatory methodologies with online modelling and games to better understand the decision-making processes within groups and how networks mobilise to achieve SPA.

QCA can contribute to historical analysis by examining different types of SPA as the outcome of a combination of historical events. Connected to the analysis of contextual conditions above, it can help analyse combinations of conditions that led to certain types of actions by certain types of actors down particular historical trajectories to evolve into certain types of SPA. It can help compare types of SPA – within the same country, or even within the same region or city – with the objective of understanding, for example, why some evolve into full-fledged movements while others may represent important issues but are limited in their scope and scale.

Surveys are a key method at this stage. They can help understand both the nature of SPA as well as the behavioural aspects of key actors. Questions can be asked about social and political participation and many surveys in conflict-affected contexts have done so. One of the best examples is the ELCA survey in Colombia (https://encuestalongitudinal.uniandes.edu.co/), the only example in the world that followed populations living under conflict, and which was used to understand collective action and local institutional change in conflict-affected areas (Gafaro *et al.* 2014). Surveys can be designed to lead behavioural field experiments to provide a more nuanced understanding of how individuals and communities living in FCAS are able to establish new norms of cooperation and trust, and organise institutions that impact empowerment and accountability outcomes.

Suggested combination

Table 5.2 suggests that the most useful combination of methods for providing descriptive detail on SPA may be to prioritise surveys and thick descriptions, combined with visual and digital methods for data collection, and QCA and participatory action research for analysis. There is great support in more recent methods literature for not just combining ethnographies and surveys at different stages of the research, but actually embedding experimental vignettes within surveys – drawn from and developed through prior ethnographic work, called ‘ethnographic vignette-experiments’ (Thachil 2015). Surveys can be made more precise and context-sensitive as a result. Such combinations of qualitative and quantitative work also improves the ‘construct validity’ and accuracy of key measurements and survey experiments, and can make sample and site selection more precise. For example, Thachil (2015) sequenced qualitative research before surveys to discover that ‘circular migrants’ are better surveyed at their workplaces than at their homes.

Such combinations of large surveys and ethnographic vignettes may be all the more important when conducting comparative research across contexts that are very different from one another, and where concepts and questions may be interpreted, and thus answered, in very different ways. King *et al.* (2003) suggest correcting for surveys with vignettes that are specially designed to capture qualitative differences in attitudes and behaviour, and then recoding data to allow more direct and accurate response comparisons. This may be less important across subnational comparisons, but could be very useful across different types of SPA, where actor responses may not be readily comparable and could mislead conclusions.

Table 5.2 Methods and descriptive details on SPA

	Typical question	Main methods	Not suited/ required
Descriptive analysis	What are the key features of SPA?	*Data collection*: Surveys plus ethnographic thick descriptions, plus visual methods for added multi-dimensionality, or digital data collection for a larger scale, wider scope, or real-time monitoring of events	Controlled comparisons, quasi-experiments, natural experiments,
Causal analysis	How did different types of SPA evolve historically?	*Data collection*: Case-based, ethnographic thick descriptions *Analysis*: QCA, process tracing	
	Why do certain actors participate in such actions?	*Data collection*: Behaviour-focused surveys with 'ethnographic vignette-experiments' *Analysis*: Action research (online and on-site) to study decision-making and mobilisation strategies	

5.1.3 Identification of impact and causal pathways

Another central set of questions concerns the causal pathways that connect types of SPA to empowerment and accountability outcomes, both within specific contexts and as a general theory. These questions require methods that are primarily concerned with establishing empirical causal mechanisms between SPA and empowerment and accountability, although they may be supported in a secondary role by other methods.

A number of methods are centrally aimed at establishing causal relationships, though they vary in the extent of rigour with which they are able to do so, and the extent to which they are able to identify mechanisms. As discussed earlier, natural experiments are the most rigorous method for establishing causal inference, and should be identified and used wherever possible to analyse the extent to which SPA can, or has been able to, impact empowerment and accountability outcomes. Instrumental variables and field experiments used within quantitative survey research can produce similarly rigorous findings. The development of new survey work in conflict-affected countries has dramatically changed the ability of researchers to draw causal evidence. The working paper series of the Households in Conflict Network (www.hicn.org) contains over 200 papers which show how surveys can be used to draw causal inference about a range of questions relevant to the understanding of social, economic and political processes in conflict-affected countries. Controlled comparisons and quasi-experiments are less rigorous methods, but far more cost and time efficient.

None of these methods are very strong on their own at identifying and establishing mechanisms through which these causal relationships function, and will usually need to be combined with other methods to do so. Primary amongst these are QCA and process tracing. QCA can add value at the analysis stage through its advantage of being able to look at combinations of conditions, rather than individual variables, in establishing causal relationships. These combinations represent different causal pathways that all lead to the same outcome, and can nuance explanations by introducing 'equifinal' pathways to empowerment and accountability outcomes. Process tracing is optimally suited to identifying impact and causal pathways, and is focused on piecing together fine-grained explanatory mechanisms to demonstrate how a given pathway leads to a certain outcome. The generated pathway incorporates and 'merges' all causal factors responsible for the outcome,

including contextual conditions. While QCA can be used across cases, process tracing is essentially a within-case method.

Other methods can be used in support of these primary ones to provide essential evidence of existing pathways. Ethnographic research can provide key pieces of evidence that point at possible linkages, and can be used to effectively operationalise key concepts and types of impact. It can be very useful, for example, in understanding how exactly a cash transfer programme contributes to the empowerment of women in rural areas. Digital data collection methodologies can be used at strategic points to better understand perceptions and sentiment regarding social or political phenomena. This can be achieved through conventional means such as surveys which are facilitated through digital interfaces, or through analysis of purposely targeted crowd-seeded or crowd-sourced sentiment via reporting systems or social media. Visual media can similarly highlight key linkages along the causal path, and where tipping points of change might occur from the perspective of communities most affected. Similarly, participatory action research allows for impact and causal pathways to be identified by the persons on whom impact is occurring, and can emphasise local explanations built from local cultural understandings and ontologies. These pathways can be developed to some depth through the iterative process of repeated rounds of data collection and analysis (see more below).

Suggested combination

Table 5.3 suggests that the most effective way to probe a causal relationship between SPA and empowerment and accountability is through a combination of methods that can be mixed at the design, data collection and analysis stages. Natural and survey-led field experiments – or quasi-experiments and controlled comparisons in the case of more limited time and resources – are effective designs for this question that can be mixed with a variety of well-designed quantitative and qualitative empirical methods to provide data and evidence. For example, a study of whether or not a particular political action impacted empowerment and accountability outcomes can be designed as a controlled comparison of two similar subnational cases – one in which the political action and outcome occurred and one in which it did not – within which process tracing is combined with some quantitative analysis within each case. This strategy is similar to one in which negative cases are selected to confirm findings from positive cases, such as in Collier and Sambanis' (2005) study of civil war in Africa. The causal processes traced in each case can be compared back across the cases to identify common variables and processes, to generate new hypotheses about the relationships between a given political action and the empowerment and accountability outcomes (Homer-Dixon 1994). To actually trace out the mechanisms through which this relationship works, QCA and process tracing are by far the most effective methods and can be very usefully combined to provide both cross- and within-case analysis of causal pathways.

Table 5.3 Methods and the identification of causal pathways

	Typical question	**Main methods**	**Secondary methods**
Causal analysis	Is there a causal relationship between SPA and empowerment and accountability outcomes?	*Design*: Natural experiments, instrumental variables, survey-led field experiments, quasi-experiments and controlled comparisons *Data collection*: Preference for mixes of qualitative and quantitative data (surveys, ethnographies, etc.) *Analysis*: QCA, Difference-in-difference	*Data collection*: Visual methods, Digital data collection, Participatory action research
	What are the mechanisms through which this causal relationship works?	*Analysis*: QCA plus process tracing	

5.1.4 Accompaniment and action learning to ensure operational impact

Another way to approach the study of SPA and its impact on empowerment and accountability outcomes is through accompanied research that aims to learn through a locally-embedded, adaptive, and iterative research process. The aim of accompanied research is to produce lessons and solutions that are more relevant to the specific problems faced by different groups and communities; less focused on learning from best practices in other parts of the world; and more oriented towards newer, iterative, inclusive approaches to arriving at the most useful explanations for causal processes and impact.

Both visual and participatory action methods can be designed around certain types of action within selected projects or cases, or even be used to set up 'experimental incubators' that allow new mechanisms and strategies for action to be observed. These can then be monitored and recorded in real time – using both local community-based researchers and digital interfaces – and their impact on empowerment and accountability outcomes can be captured as it happens, rigorously tested and applied iteratively, tracing the pathways through which the effect occurs. Cases may be selected or set up according to any of the controlled or experimental methods.

The combination of visual methods and participatory action research within contexts of violence can enable a safe space for project participants to think, provide recognition of what those involved have been through, and establish a platform to build a connection to other local and external actors. This can be useful in generating learning on linkages and processes that is of operational relevance. Action research seeks to include those affected by a given issue in order that the learning generated by the research is immediately useful. The methodology includes a typology of involvement commonly described as 'first, second and third person' research (Coghlan and Brannick 2005).

First person research involves investigation by the researcher into her or his own changing position in relation to the phenomenon being studied. As a member of that society or organisation, the researcher recognises that s/he has a role in making the situation as it is and in being positioned when it comes to investigating and interpreting it (Moncrieffe 2009). This recognition is brought consciously into decisions and analysis and is used to generate clarity as to sources of conclusions, or to identify means of triangulation and review. Second person research involves investigation between co-researchers, and this can extend to others in the society who are not necessarily going about doing the research, but are involved in analysis sessions, or feedback events. For instance, in Karamoja the young people recruited a group of elder men and women with whom they occasionally discussed findings, analyses and plans. These elders not only provided validation and challenge, but also began to take action on rebuilding Karimojong governance institutions and peace resolution interventions as a result (Scott-Villiers and Karamoja Action Research Team 2013). Third person research involves the wider society that can be said to have an interest in and may be impacted by the research but is not involved in it. This level involves an ethical responsibility to promote wider learning and effective action. With these three levels of research engagement, come three levels of action learning and operational impact, each of which is embedded in the research system itself (Ruiz 2009).

Digital data collection methodologies can support action learning and enhanced operational impact in several ways. The timeliness of real-time monitoring systems can support ongoing assessments of contexts, activities and outputs against project assumptions and goals, and support relatively rapid course-correction where required. Similarly, the potential for the enhanced voice of marginal or lesser-represented groups through some digital data collection can support more disaggregated information on potential differentiated impacts of actions and interventions, thereby leading to greater learning and targeted impact.

Suggested combination

Table 5.4 suggests a combination of methods for accompanied research, based on the discussion above. This combines participatory action learning with visual methods to set up accompanied learning projects. The cases or projects that are to be studied could be selected according to the criteria of either controlled comparisons or experimental techniques. Within each case, data on processes and emerging pathways is collected in real time through digital techniques and platforms, and possibly even through small, specially designed surveys at strategic points. Ethnographies can provide some crucial data through critical questioning that can trigger informants to reflect on various processes and their actions within these. Researchers can insert 'ethnographic episodes' at points when other methods are not able to dig deep enough. As data accumulates, emerging pathways can be constructed through small pieces of evidence using process tracing, and rigorously testing these across different cases using QCA. Difference-in-difference methods can also be used to analyse emerging differences across the cases. The findings from these techniques can then be applied within the project iteratively – using action research principles – and new pathways constructed to refine findings on causal impact.

Table 5.4 Methods and accompanied learning

Purpose	Design	Data collection	Analysis
Constructing pathways and analysing impact	Participatory action research, plus visual methods plus controlled or experimental case methods (for case selection)	Digital data collection, ethnographies, small surveys	Process tracing, QCA, difference-in-difference

5.2 Context matters – the 'where' criteria

So far we have matched methods to the types of questions we want to ask and answer about the relationship between SPA and empowerment and accountability. However, we also need to consider the context in which we ask these questions. Table 1.1 disaggregated contexts affected by fragility and conflict at the subnational level. This should allow more fine-grained analysis and greater leverage in providing causal explanations. Snyder (2001: 94) argues that looking at subnational units through a comparative method allows us to increase the number of cases we can observe within the same context, while holding many more factors constant to allow stronger designs for controlled comparisons. It also allows a lens onto the 'uneven nature of major processes of political and economic transformation' that unfold within the same fragile and conflict-affected context.

The challenge now is to match the methods discussed in the previous sections to the typology of fragile and conflict-affected cases developed in Section 1. This is not an easy task and will in all probability vary even across each subnational context within each cell of the typology. Table 5.5, however, provides some broad principles on how this might work. This is based on the assumption that contextual analysis will precede any primary data collection effort in order to assign the national or subnational context to a category, and to minimise risks to research participants.

Methods concerned with design – controlled comparisons, and quasi and natural experiments – are less affected by context and can essentially be used across any of the cells of the typology. Similarly, as long as data are available, methods aimed at the analysis of comparative designs – such as QCA and process tracing – should also work across all contexts. The application of both methods may be limited in Category 4 contexts by their need for very fine-grained evidence and measures, which may be hard to come by in situations where protracted fragility or conflict have led to low capacity for archival data and regularly updated official data sets.

Table 5.5 Typology of fragility and conflict, with possible methods.

		Conflict	
		Low	**High**
Fragility	**Less**	*Category 1* Few incidents of violence or conflict in a fairly stable state *Cases* Nigeria: Abuja, southwest and southeast regions Pakistan: Islamabad, most cities of Punjab province *Methods*: Any method, depending on the question	*Category 2* **Overt crisis:** Stable states dealing with violent uprisings and militant groups that target the general population *Cases* Nigeria: South-south and North-centre regions Pakistan: Major cities in Sindh province *Methods*: Most methods would work across different actors, but need for more strategic and innovative designs because of limited access to populations and sites. Better access to existing data because of lower fragility
	More	*Category 3* **Latent fragmentation:** Fragmented and contested public authority, or disproportionate authority with non-state actors *Cases* Pakistan: Rural parts of Punjab and Sindh provinces *Methods:* Most methods would work, but need greater primary data collection effort because of high fragility. Also, greater use of methods that are able to investigate unusual actors, less obvious processes and mechanisms	*Category 4* **Overt crisis + latent fragmentation:** Lack of public authority and existence of insecurity and violence *Cases* Nigeria: Northeast and northwest regions Pakistan: KPK and Baluchistan provinces *Methods*: Need for reflective, strategic designs – more rapid methods of investigation that can get more detailed information from fewer actors in limited parts of the country

The methods that are most affected by differences across the four categories of the typology are those concerned primarily with data collection. These include surveys, ethnographic research, participatory action learning, visual methods, and digital data collection. Each of these offer trade-offs which can complicate decisions on how they are to be employed in fragile and conflict-affected contexts. This mostly affects Category 4. For example, surveys are based on asking many questions in a short amount of time, which can make them insensitive to both contexts and respondents and create issues of trust, thus affecting response validity. In places with higher levels of insecurity and fear of outside actors, methods that are more embedded within the community and focused on building trust may provide better and more credible responses, such as participatory action research and visual methods. However, high levels of violence may make extended interaction between researchers and respondents difficult. Also, as discussed earlier, the emphasis within these methods on bringing out differences and power dynamics across groups may prove volatile in these circumstances. Some digital data collection methods, such as ‘big data’ analysis of passively produced data, allows information to be gathered without undue exposure to violence, but it is limited in the range of evidence it can collate, especially in terms of

respondent narratives of what they are living through. Many other types of digital data collection, even those like social media analysis, and digital reporting via smartphones or SMS, however, are similarly limited by high levels of violence because of the need to validate, verify and triangulate data through other methods in order to maintain high levels of rigour. In contexts that combine fragmentation and overt crises (Category 4) research teams will need to reflect critically on the most effective and least harmful way to collect credible data to enable rigorous analyses.

Cells 1–3 offer fewer trade-offs and more options. Most methods can be usefully employed in these contexts, but may require some adjustments. In situations with high fragility (Category 3), more effort to collect primary data is required since available data may be limited, incomplete or of poor quality on account of limited capacity across state, private and civil society organisations. This effort is possible in this context because conflict is low. Also, it may be useful to use methods that have a greater ability to look for unusual and less obvious processes, actions and actors, since these may be playing a disproportionately important role within these contexts. On the other hand, in situations with high conflict (Category 2), access to populations and certain regions may be variable and quite limited. Primary data collection may thus be constrained, and will require more strategic and innovative designs. However, because fragility is low, there may be access to good and credible existing data sources that can be used to build the evidence base for analysis.

6 Conclusion

This paper assessed a selection of nine methodologies in order to suggest an effective and innovative mix of strategies to match two criteria in making decisions about how to study SPA in fragile and conflict-affected settings. The first criterion concerns the type of question we want to study, and the second criterion considers the specific, disaggregated context in which we want to study it. The paper discussed the inherent challenges in doing such research, described each of the nine methodologies, assessed them in terms of their effectiveness across a range of standards, and finally made some initial suggestions on how they can be matched to the two criteria above. It argued mainly that these two criteria – namely, the question and the context – must determine decisions about which mix of methods is employed to provide credible explanations. These are intended as broad, initial suggestions to guide methodological and ‘value for money’ choices for research projects being undertaken within the Action for Empowerment and Accountability research programme. The methodologies will need to be carefully and reflectively adapted to each fragile and conflict-affected context, and as the research projects advance, these suggested mixes will be further refined and made more specific.

Annexe

	1	2	3	4	5	6	7	8	9
	Controlled comparisons	**Quasi and natural experiments**	**QCA**	**Process tracing**	**Survey research**	**Ethnographies**	**Participatory Action Research**	**Visual methods**	**Digital data collection**
Rigour-based on?	Systematic comparison across cases	Selection of similar population groups (randomised in the case of natural experiments)	Systematic comparison through similar scores across cases	Evidence-based construction of causal mechanisms	Size of sample and precision of measurements	Double triangulation and depth of access	Double triangulation, depth of access and recursive validation	Recursive validation and visualisation of general patterns	Generation of generalised patterns
Ability to uncover hidden actors and action?	High	Not centrally focused on this	Medium	High	Low – in combination with other methods	High	High	High	Mixed – depends on specific method used
Possibility of disaggregated, gendered approach?	Yes, depends on the question and research design	Yes, depends on the question and research design	Yes, depends on the question and research design	Yes, depends on the question and research design	Yes, everything depends on sample selected	Yes, depends on the question and research design	Yes, depends on the question and research design	Yes, depends on the question and research design	Dependent on the degree of gendered access to, familiarity with, and control over digital technologies

(Cont'd.)

Annexe (Cont'd.)

	1	2	3	4	5	6	7	8	9
	Controlled comparisons	**Quasi and natural experiments**	**QCA**	**Process tracing**	**Survey research**	**Ethnographies**	**Participatory Action Research**	**Visual methods**	**Digital data collection**
Ethical in FCAS?	Yes (an issue more in data collection than design)	Yes (an issue more in data collection than design)	Yes (an issue more in data collection than analysis)	Yes (an issue more in data collection than analysis)	May be problematic in some situations, depending on questions (requires training)	Some challenges, given close contact	Some challenges, given close contact	Some challenges, given close contact (requires safeguards for participant protection and privacy)	Some challenges, given close contact (requires safeguards for participant protection and privacy)
Cost of method: **(a) fairly expensive** **(b) cost effective** **(c) indeterminate**	Indeterminate, dependent on number of cases and methods used	Indeterminate dependent on number of cases and methods used	Indeterminate, dependent on number of models and outcomes analysed	Indeterminate, dependent on number of mechanisms analysed	Fairly expensive	Fairly expensive because of longer engagement periods	Cost effective	Cost effective	More cost effective, though dependent on mix of hardware investments and labour costs

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