Report

Perceived tenure security as a tool for understanding the conflict context and predicting violent conflict

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Executive Summary

Introduction

Land is central to violent conflict. Over the period 2000-2015, land was an element in over half of violent conflicts (Bruce, 2017), and "where there is conflict, land and natural resources issues are often found among the root causes or as major contributing factors" (EU and UN, 2012; 13). UN Habitat (2018; VIII) notes that, in the coming decades, "land is likely to become even more important as a factor in conflicts". With challenges such as climate change, population growth and the "youth bulge", migration, urbanisation and rising food insecurity are all likely to intensify competition over land. Land-related conflicts are often localised in nature but have the potential to spill over to national or even regional conflicts in certain settings.

Yet land is often not considered centrally in conflict analysis and prediction. Few conflict analysis tools recognise the role that land and property issues can play in instigating, sustaining and re-igniting conflict. Even fewer recognise or incorporate the concept of tenure security[1] — the expectation that you can use your land or property for a period of time — or *perceived* tenure security (PTS) — how people assess or view their level of tenure security and the risk that they will lose their right to use land or property in the future.

Including such measures could unpack land-related conflict drivers and provide additional information about the broader conflict context. An initial quantitative analysis of the relationship between PTS and violent conflict, using the Prindex global dataset (www.prindex.net), shows that PTS could strengthen conflict analysis and play a role as a predictor of future violence.

The continuing cost of violent conflict

Violent conflict has far-reaching impacts: the World Bank Group (2020) anticipates that by 2030, more than half of the world's poor — and up to two-thirds of the world's extreme poor — will live in conditions of fragility, conflict and violence. The costs of violence and its containment are enormous, reaching an all-time high of US$14.8 trillion in 2015, equivalent to 13% of world GDP (Institute for Economics and Peace, 2017). This far outweighs the costs of preventing conflict in the first place (UN and World Bank, 2018). The ability to analyse and predict conflict, and to design interventions to head it off, are key to that prevention.

[1] Tenure security refers to people's ability to "control and manage land, use it, dispose of its produce and engage in transactions, including transfers" (IFAD, 2015).

What do we mean by "violent conflict"?

Conflict occurs naturally and takes place when two or more parties find their interests incompatible, express hostile attitudes or take action which damages the other parties' ability to pursue those interests. *Violent conflict* is the intentional use of physical force or power, threatened or actual, against another person or against a group or community, that either results in — or has a high likelihood of resulting in — injury, death or psychological harm in a conflict.

Source: WHO (2002) and Lund et al. (1999)

Violent conflict continues to be a critical issue globally. While the absolute number of war deaths has been declining since 1946, conflict and violence are at historically high levels. In 2019, there were 54 active conflicts involving a state actor — matching the previous peak in 2016 — the highest since 1946. While the number of conflicts involving non-state actors declined in 2019, the average number per year remains high: 70 conflicts per year between 2012 and 2019, compared to 31 conflicts between 1989 and 2011 (Pettersson and Öberg, 2020).

Even when peace agreements have been signed and countries may officially be in a post-conflict process of transition, renewal of armed violence is common; 18% of conflicts restart again within a year (UN and World Bank, 2018).

The role of land and property issues in violent conflict

While the relationship between land, property, tenure security and violent conflict can be complex, existing studies provide a framework to support better understanding of the interaction (UN and World Bank, 2018; World Bank, 2017; UN and World Bank, 2020; GSDRC, 2017; Avis, 2019; and Bruce and Holt, 2011).

Drawing on this framework, this study understands violent conflict to be driven by a set of *structural factors* that interact with *institutions and governance* factors, and *voice and agency* (actors) to form *drivers* for either violence or non-violence. These drivers are accentuated by more readily changeable *proximate factors* (events or developments which can change with greater speed and ease than structural factors) and *trigger events* (more immediate incidents or actions) which can tip the balance of a fragile situation towards violent conflict (ibid.).

Land, property and tenure security can play a part at every level of this framework:

Structural factors

Land-related violent conflict can have its roots in longstanding structural discrepancies and inequalities in land distribution, control and access, contributing to deep-seated grievances.

Structural inequalities in the use, access and control of land can arise from colonial legacies or major dispossessions by conquest, consolidated by centralised land allocation

systems and perpetuated by a landed elite with the incentives and ability to suppress rebellion (Bruce, 2017; Thomson, 2016).

Institutions and governance

Institutions and governance play a significant role in fomenting or defusing land-related disputes, determining the rules about how land is used, controlled and accessed, and in how those rules are enforced and adjudicated when there are competing claims. Inadequate land administration systems and overburdened or untrusted justice systems can undermine tenure security, and lead to competing claims and unresolved disputes that exacerbate underlying tensions.

Mechanisms to resolve disputes are key to dissipating tensions, but capacities of both formal and informal dispute resolution systems can vary, which can allow land-related disputes to escalate into wider conflict. Conflict itself may undermine the capacity of institutions, further destabilise existing norms systems and create gaps between customary and formal dispute resolution mechanisms.

The existence of different and parallel systems for governing tenure can lead to competing authority and uncertainty about which source of law will prevail in setting and enforcing the rules of access, use and control of land (Eck, 2014). The existence of multiple tenure regimes — formal and customary — does not necessarily constitute a problem, if roles and responsibilities are clearly defined and delineated, and if different tenure arrangements are awarded the same level of legitimacy and legal protection. Problems arise when parallel systems create overlapping rights and competing claims as well as multiple dispute resolution mechanisms with different levels of recognition and legitimacy.

In addition, the way in which institutional and governance frameworks are applied — and the level of trust in both the capacity and legitimacy of different institutional and governance frameworks — affects tenure security, access to land and how much tension can build up around land.

Voice and agency

Where structural grievances around land already exist and there is a perception that existing legal frameworks and resolution mechanisms are not effective or legitimate, violent conflict can be instigated by actors with the capacity to mobilise grievances around land, establishing the perception of threats to land and resulting opportunities for gain.

The capacity to mobilise grievances is greatest when: land grievances are based on relative land insecurity and contentious claim-making between insider and outsider groups; elites have a high capacity to distribute land rights to constituents; and when there are relatively large proportions of outsiders relative to insiders (Klaus & Mitchell, 2015). Conflict itself offers opportunities for such mobilisation.

Proximate factors

Changes in the institutional, socio-political and physical context (proximate factors) — such as decreasing trust in the judiciary to resolve land disputes, or intensifying competition for land

(and related resources) due to worsening environmental degradation — can aggravate underlying drivers of conflict.

Trigger events

Against the backdrop of changes that increase existing tensions, associated trigger events can be the spark that lights the tinder of conflict, including elections, large-scale land concessions or the replacement of existing customary authorities.

The impact of climate change

Climate change is a 'threat multiplier' that can compound existing stresses and vulnerabilities, such as intensifying competition for land, thereby increasing the likelihood of violent conflict, even if it is not a cause of conflict itself. And conventional land governance systems are not equipped to deal with the increased migration that climate change might cause.

A gendered lens on conflict

The discussion on gender issues in conflict focuses less on gender inequality as a driver of conflict and more on how to change norms, policies and practices that perpetuate gender inequality in conflict and post-conflict settings (Yoshida et al., 2021).

Women often face additional vulnerabilities relative to men that exacerbate the impact of land-related conflict, particularly as they have less decision-making power related to land. Removing legal barriers to women's access to and ownership of land — combined with effective implementation and changes in social norms — contributes to their political and economic empowerment. This, in turn, contributes to their capacity for meaningful voice and access to decision-making opportunities, including in peacebuilding and transitions from conflict.

Using perceived tenure security to capture the role of land-related issues

Why is PTS important to include in conflict analysis and forecasting and early warning?

The importance of perceptions in understanding and predicting violence is increasingly recognised. The World Bank and UN (2018; xxii) note that "[s]ome of the greatest risks of violence today stem from the mobilisation of perceptions of exclusion and injustice, rooted in inequalities across groups". Recent evidence on the role of service provision in building state legitimacy suggests how services are delivered, including perceptions of fairness, matter as much as (and at times more than) the quality of services delivered (Sturge et al., 2017). However, when it comes to land and property, titles — or the possession of formal documentation to legally

certify land and property rights — are often used as a proxy for tenure security, rather than gauging people's perceptions.

Preliminary evidence from this research shows that PTS is related to violent conflict and could strengthen analysis — and possibly, the prediction — of violent conflict. The review shows that higher levels of perceived tenure insecurity at the country level are associated with future violence, and there is a relationship between levels of PTS and the intensity of violence. However, this is dependent on the type and scale of conflict. The evidence is stronger for violence that is localised, such as riots, than violence from larger scale, militarised conflicts.[2]

Measuring and tracking the levels and drivers of PTS can make conflict analysis and prediction more accurate and detailed in two ways:

1. Unpacking land-related conflict drivers — and how people will react to them — when land is an important factor in a conflict, even if it is not the dominant factor.

   For effective violent conflict prevention, conflict tools need to identify and monitor the risks associated with tenure insecurity, and recognise how tenure security fits into the conflict system. Perceptions drive behaviour, and PTS provides a more accurate and direct picture of tenure security than proxy indicators, such as levels of property documentation (*de jure tenure*) or numbers of evictions (*de facto tenure*). Strengthening tenure security through increasing documented tenure rights requires the presence of capable and trusted institutions to enforce the rights conferred by formal documentation. Tenure security may also be strong in the absence of formal documentation, if access to land is backed by strong and credible informal or customary institutions;[3] however, dissonance between customary and statutory legal systems, where it exists, can lead to tenure insecurity.

   Furthermore, in dynamic Fragile and Conflict Affected States (FCAS) settings, changes in other factors may alter the risk of violent conflict associated with tenure insecurity. Governance capacity or institutional legitimacy may change, a new actor may enter a context and proximate factors — such as increasing competition for natural resources — may exacerbate existing competition for land. Including PTS in conflict analysis can strengthen the monitoring of the impact of these changes, and how they interact individually to identify whether the risk of violent conflict has changed.
2. Providing additional information about the broader conflict context when land is not a direct factor contributing to conflict risk.

   PTS may be able to provide other information on a range of conflict drivers and factors, signalling issues that might be missed by other indicators in existing tools, and adding to the broad power to predict conflict. In the same way that many of the global conflict prediction models include infant mortality as a general indicator of economic development and governance capacity in a country, assessing levels of and changes in PTS and the drivers of those changes can be an indicator of broader issues. For example,

[2] As the analysis is based on limited data, we must be cautious about drawing conclusions, especially on causation and to wider applicability. Further analysis, when more data on PTS is available, will be required to confirm and elaborate these findings.

[3] The GLTN's "Continuum of Rights" approach demonstrates the wide range of tenure arrangements that can exist in different situations while the Voluntary Guidelines on the Responsible Governance of Tenure set out principles and internationally accepted standards for practices for the responsible governance of tenure of all forms of tenure: public, private, communal, indigenous, customary, and informal.

PTS can be an indicator of confidence in legal and governance systems or tensions within or between communities.

How can the use of PTS for conflict analysis and forecasting be supported?

Five sub-types of tools can benefit from including PTS in their framework and analysis:

- Conflict analysis for prevention and peace building, detailing how the conceptual framing of PTS could be integrated into the analysis, and identifying what data is needed and ways to gather it, including considerations around gender.
- Conflict sensitivity, where measures of PTS could be used to monitor the impact of an intervention.
- Local level early warning and response, using PTS as an indicator for alerts, in categorisation of recorded violent events and within thematic analysis and associated outputs.
- Longer-term quantitative forecasting, once a multi-year dataset on PTS, such as Prindex, is available to investigate how PTS could increase the ability of these tools to predict violent conflict if it is not correlated with variables they already use.
- Qualitative forecasting, where adding PTS could aid understanding of the conflict context and risk of future conflict.

Land-related conflict is often most important in local level violent conflict. Given this fact and current data availability, two tools stand out as priorities: sub-national level conflict analysis for prevention and peace building, and local level early warning.

Once a multi-year data set for PTS is available, we can investigate the relationship between PTS and violent conflict at national scale in a more comprehensive manner. After this, we will be able to develop guidance on quantitative forecasting at global level. In the interim, an alternative avenue of investigation would be assessing the value of including PTS in broader stability and fragility trackers, such as OECD's States of Fragility and EC's INFORM suite of tools.

Identifying guiding principles for including PTS in conflict tools

Practical guidance is needed to support the use of measures of PTS in conflict analysis and forecasting. This report provides outline guidance for the two priority tools, based on the following six principles:

1. The guidance should supplement existing tools and early warning and early response (EWER) systems rather than propose new ones.
2. The guidance should be flexible enough to be used with different tools and systems.
3. Guidance needs to minimise resources, both time and financial, which can be considerable constraints for conflict analysis and EWER systems.
4. PTS will not be relevant in all contexts and when it is, it will play different roles in conflict systems.
5. Participation of stakeholders that are affected by the conflict, and have locally relevant knowledge, should be maximised.

6. Factors which relate to increased conflict risk, and those that contribute towards non-violence and peace, should be included.

Next steps

Testing and operationalising the inclusion of PTS in conflict analysis and forecasting requires three steps to move forward:

1. Pilot the outline guidance in different contexts. This will test and develop the methodology and provide further evidence for connections between PTS and violent conflict.
2. Improve data on PTS, investing in time-series data and a greater level of geographic granularity to the local scale, enabling better monitoring and analysis of land related conflict. Further investment in the global dataset will enable testing of the suitability of PTS data for global level conflict forecasting.
3. Build a community of practice on land and conflict to take advantage of emerging research. This needs to include donors and governments already committed to best practice and stakeholders in areas where destabilising violations of tenure rights takes place.

1 Introduction

1.1 Background and justification

Discussions of FCAS have highlighted the roles of land and property in contributing both to escalating conflict and to peace building (see, for example, Pantuliano et al., 2009; Bruce and Holt, 2011; and Boone, 2018). Over the period 2000-2015, land was an element in over half of violent conflicts worldwide (Bruce, 2017), and the UN and EU (2012; 13) state that "where there is conflict, land and natural resources issues are often found among the root causes or as major contributing factors". Bruce (2017; 9) argues that "conflict over land is prone to violence because land is so closely tied to issues of livelihoods, identity and power". Indeed, the relationship between land and violent conflict dates back through the centuries, albeit taking different forms over time and place.

UN Habitat (2018; VIII) notes that in the coming decades, "land is likely to become even more important as a factor in conflicts". With challenges such as climate change, population growth and the "youth bulge", migration, urbanisation and rising food insecurity are all likely to intensify competition over land.

Within this debate, select parts of the literature on land and violent conflict highlight the importance of tenure security[4] — the expectation that you can use your land or property for a period of time — in understanding the conflict context and preventing conflict: "few measures are more important (in preventing conflict) than those which build security of tenure" (Bruce & Holt, 2011; 90).

Despite these references, there is a limited amount of literature, conceptual or empirical, that seeks to draw a direct link between tenure security and the onset, continuation and re-emergence of violent conflict/systemic violence.

Moreover, within the literature, the existence of titles — or the possession of formal documentation to legally certify land and property rights — is sometimes used as a proxy for tenure security, which can omit central factors that affect how land disputes can escalate into violent conflict. Strengthening tenure security through increasing statutory tenure rights, requires the presence of capable and trusted institutions to enforce the rights conferred by formal documentation. Tenure security may also be strong in the absence of formal documentation, if access to land is backed by strong and credible informal or customary institutions;[5] however, dissonance between customary and statutory legal systems, where it exists, can lead to tenure insecurity.

[4] Tenure security refers to people's ability to "control and manage land, use it, dispose of its produce and engage in transactions, including transfers" (IFAD, 2015).

[5] The GLTN's "Continuum of Rights" approach demonstrates the wide range of tenure arrangements that can exist in different situations while the Voluntary Guidelines on the Responsible Governance of Tenure set out principles and internationally accepted standards for practices for the responsible governance of tenure of all forms of tenure: public, private, communal, indigenous, customary, and informal.

There is even less discussion of *perceived tenure security* (PTS) — how people assess or view their level of tenure security and the risk that they will lose their right to use land or property in the future — although the broader literature on conflict increasingly uses perceptions and perceptions data in understanding the risk of violent conflict (UN and World Bank, 2018).

Exceptions include the EU and UNDP toolkit on land and conflict (2012; 20) which states that "perceptions of increased insecurity of tenure – for whatever reason – can contribute to the outbreak of armed conflict". Bruce and Holt (2011; 45) refer to the "awareness of the threat of loss, even where actual risk of loss of land has not increased".

Understanding how secure people feel about their land and property and what drives that (in)security is critical to understanding how they will behave and the decisions they take (Sjaastad and Bromley, 2000), and therefore to designing interventions to reduce tenure insecurity and the risk of conflict.

Assessing PTS can also shed light on a range of institutional, social, political and economic factors that go beyond land and property alone, such as trust in the government or the effectiveness of institutions in enforcing the "rules of the game", including land and property rights.

As such, assessing and monitoring changes in PTS may yield a deeper understanding of the conflict context and improve the accuracy of future conflict modelling or early warning tools, which currently do not include PTS as a factor. This can be combined with the experience of the land community's work on legal empowerment, land tenure regularisation and dispute resolution mechanisms, to support the design of interventions to improve PTS and prevent land-related disputes and conflict from escalating into violence, or from developing into more protracted violent conflict.

Incorporating measures of PTS into conflict analysis and prediction have been limited by the lack of systematic and comparable data on PTS: previous evidence has been both sparse and derived from case studies (see Stickler et al., 2018; and van Gelder, 2015). More systematic analysis is now possible with the publication of a comprehensive database in 2020 (see www.prindex.net) that measures how people perceive the security of their tenure rights across 140 countries.[6]

1.2 Purpose of research

This research assesses whether and how levels of and changes in PTS can help to understand the conflict context and predict the potential onset of violent conflict in specific areas. It further explores the potential for using an understanding of the PTS-conflict relationship to enhance existing conflict monitoring and analysis tools and mechanisms, including the Joint Analysis of Conflict and Stability (JACS) approach used by HMG of the United Kingdom.

On the basis of this analysis, the paper proposes a potential framework for assessing and tracking PTS at local level. It does not aim to develop a new tool; rather, it identifies the prospects for including such tracking in existing tools and mechanisms which aim to reduce conflict risk and build stability.

[6] Including 40 of the 57 countries classified as extremely fragile or fragile by the OECD in 2020 (OECD, 2020)

1.3 Approach and methodology

The analysis is based on a review of empirical studies, both qualitative and quantitative; interviews with key users of conflict analysis tools; and a review of existing Prindex data and methodology.

Annex 1 presents the list of those interviewed; the Inception Report contains details of the inclusion criteria, search strings and quality assessment criteria used for the literature review.

1.4 Structure of the report

The report begins by setting the scene on land, property, tenure security and violent conflict,[7] identifying the definition and trends in violent conflict derived from the literature, and how land and conflict is discussed in the literature. This is not a comprehensive or systematic review of the literature, which is dealt with elsewhere (e.g. Pantuliano et al., 2009; Bruce and Holt, 2011: Bruce, 2017; and Boone, 2018); our purpose is to situate our analysis within the main strands of the debate that are most relevant to land and conflict.

Section 2 establishes a framework for analysing land, property, tenure security and violent conflict, first explaining different drivers of conflict and factors at play in violent conflict, and then identifying how land may feature in that framework. This is not intended as a new framework for conflict analysis but distils features of existing frameworks and situates land, property and tenure security within it.

Section 3 assesses the treatment of land, property and tenure security in key conflict tools, highlighting to what extent they feature in conflict analysis and forecasting.

Section 4 gauges to what extent PTS could shed light on links between land and conflict in conflict analysis and forecasting, and on informing broader analysis. It analyses the value that PTS could add to conflict analysis and forecasting, the limitations of its analytical and predictive power and which factors affect its potential for integration.

The final section develops outline guidance for incorporating PTS into existing conflict analysis and prediction tools, based on principles of complementarity and adaptability to existing tools, minimising resources needed and maximising the participation of stakeholders affected by the conflict.

2 Land, property and tenure security and violent conflict

[7] We will often use the shorthand of “land and violent conflict” in the report for simplicity.

This section presents a broad definition of violent conflict that will be the basis for analysis of the paper, one that is in keeping with the current state of international policy, and facilitates understanding the role of land, property and tenure security issues.

2.1 Characterising and defining violent conflict

Violent conflict is a recurrent feature of human interaction in society over time and place. It takes forms that mirror wider trends and multiple dimensions in economic and human development, governance and institutions and technological change, and in response to drivers and triggers that are historically situated and context specific. It reflects wider political economies of how conflict and contestation are manifested, channelled and addressed, and the role that violence plays. Trajectories of violent conflict are often non-linear, and violent conflict can become intractable and prolonged (ICRC, 2016).

Conflict and contestation exist in all societies and are a feature of how disputes or differences over the allocation of power and resources are articulated by groups or individuals (World Bank, 2017; UN and World Bank, 2018). However, most societies develop institutional and political arrangements that can resolve conflict and contestation through non-violent means. Violent conflict describes, thus, a context where recourse to violence trumps other non-violent pathways to resolving or addressing issues of conflict at stake, or to advancing new goals of political, social or economic transformation.

The definition of violent conflict can be broken down into different categorisations of the phenomenon. For instance, the Uppsala Conflict Data Program (UCDP) definition includes descriptive categories that focus on the types of actors that deploy violence (Box 1). In our definition, we are not limited by this list, but such descriptive categories may be useful for understanding the political economy of violent conflict in different contexts.

Box 1 Categories of violent conflict

The UCDP definition of armed conflict distinguishes between three categories:

· "*State-based armed conflict* includes all cases where at least one of the parties is the government of a state, that is, armed conflicts between states and within states (government vs a rebel group)…. ;

· *Non-state conflicts* include fights between rebel groups and militias (….) but also conflicts between informally organized groups, notably between groups with a common identification along ethnic, clan, religious, national, or tribal lines…..;

· *One-sided violence* entails the targeted killing of unarmed civilians, by states or formally organized non-state groups."

Source: Allanson et al 2017

There is no agreed definition of violent conflict (Avis, 2019; Allanson, 2017; and Kett and Rowson, 2007) due to the diverse experiences of conflict — including interstate conflict, civil war, revolution, communal, transboundary and other forms of armed conflict. For the purposes of this study, we define conflict as follows:[8] conflict occurs naturally and takes place when two or more parties find their interests incompatible, express hostile attitudes, or take action, which damages the other parties' ability to pursue those interests. *Violent* conflict is the intentional use of physical force or power, threatened or actual, against another person, or against a group or community, that either results in — or has a high likelihood of resulting in — injury, death or psychological harm in a conflict.[9]

Our working definition of conflict accommodates the complexity and range of experiences, avoiding the suggestion of simple, causal connections, and rather frames it in such a way that different elements can be pieced together in different contexts to inform prediction, prevention and peace-building efforts.

UCDP sets the threshold of what constitutes a context of armed conflict as involving at least 25 deaths per year. For our analysis, we use the Armed Conflict Location & Event Data Project (ACLED) database, and a single fatality as an indication of violent conflict.

2.2 Trends in violent conflict

There are a number of notable trends in how violent conflict has evolved in the 21st century. The UN and World Bank (2018) note some of the following:

- Interstate war, which was a more prominent feature of the 20th century, has reduced. But conflict *within* states is calculated to be increasing and becoming increasingly internationalised, for example in Syria, Yemen, Somalia and Ethiopia.

[8] The definition draws on WHO (2002) and Lund et al (1999). It is also in keeping with current understandings of violent conflict, as reflected in Hogblath 2019, World Bank 2017, UN and World Bank 2018; World Bank Group 2020a.

[9] We exclude in our working definition interpersonal violence at the family/domestic level. While interpersonal violence at the family/domestic level may be associated with conflict-related masculinities, these exceed the boundaries of our enquiry.

- Low-income countries remain especially vulnerable to armed violence, but violent conflict is now also increasing and becoming entrenched in middle-income countries.
- Violent conflict is not confined within national borders, but rather appears to be increasingly transnational and transborder in its reach.
- Violent conflict in some contexts has become protracted, generating new opportunities and incentive structures by which conflict entrepreneurs have become invested in sustaining the political economy of violence for economic gain and power.
- Even when peace agreements have been signed and countries may officially be in a post-conflict process of transition, renewal of armed violence is common; 18% of conflicts restart again within a year (UN and World Bank, 2018). This suggests that underlying grievances remain unaddressed; there is active resistance by 'losers' of the conflict who retain disruptive capacity; or that there is a wider failure in peacebuilding efforts to build the basis for an inclusionary political settlement, and that there is ongoing or deteriorated institutional fragility (World Bank, 2011).
- Conflict can be patchy: although there are significant regional and national hotspots of violent conflict, there are also large areas where non-violent relationships and cooperation continue — including within the same country. Even within the hotspots, violent conflict is usually punctuated and intermittent, and takes place alongside situations of cooperation (IIED, 2020).

There has also been a multiplication in the range of armed actors involved in violent conflict, several of which can operate simultaneously and cooperate to a greater or lesser extent. These include at least the following (Hogblath, 2019; UN and World Bank, 2018; and World Bank Group, 2020a):

- Governments of formally recognised states at national and sub-national levels, who use (the threat of) violence against civilians in ways that exceed the legitimate use (and monopoly) of violence by the state to provide security and law-enforcement.
- Formally organised groups, including non-governmental groups of people with an announced name that use armed force against a government (state-based), another similarly formalised group (non-state conflict) or against unorganised civilians (one-sided violence).
- Informally organised groups, including organisations without an announced name, but which use armed force against another organised group (non-state conflict) or civilians, and where violent activity constitutes a recurrent pattern of violent incidents where the use of armed force is a prevailing form of engagement. This includes organised crime.
- Forms of violence that may not be organised but reflect systemic cleavages in society, which may erupt into violence. This includes violence associated with caste or ethnicity, (for instance caste-based violence in South Asia) which may be widespread and oppressive.

2.3 Land, property, tenure security and violent conflict in the literature

Limited access to land, tenure insecurity and historical injustices are recurrent aspects associated with land-related grievances and violent conflict (UN and World Bank, 2018): land is a valuable resource — the basis for livelihoods of many people — and competition over land is a regular issue in violent conflict. The changing use of land due to population increase, migration and climate change is contributing to greater land-related conflict. Who owns it, who can regulate its use and access, how it is used and how disputes about its use, control and ownership are resolved, are key issues in social, political and economic development. The strong interlinkages between power and control over land explain why disputes over land are a frequent feature of competition and conflict — whether this is manifested in violent ways, or channelled through a progressive reform process within existing governance structures (UN and World Bank, 2018; Boone, 2018).

Key features of land-related conflict covered in the literature include:

- Land-related conflict is often localised, at least initially (Huggins, 2010; Scott-Villiers, 2017; and Klaus and Mitchell, 2015), and most studies on land and conflict are country-specific and specific to a region within a country. Land-related features of conflict often vary significantly at sub-national levels, reflecting the features of land, tenure, ownership and competition over this at sub-national levels. The literature on the great revolutions (notably the French Revolution of 1789, the Russian Revolution 1917, the Mexican Revolution of 1917 and the Cuban Revolution of 1959) has emphasised the role of conflict over land, shifting allegiances and power dynamics associated with ownership and use of land, in shaping experiences of violent conflict and related pathways to structural social, political and economic transformation.[10]
- Some land-related conflicts transcend national boundaries. This applies particularly to farmer-herder conflicts in the Sahel and Horn of Africa (over land and related resources, such as water), as pastoralists themselves cross international borders (Kratli & Toulmin, 2020; Dafinger and Pelican, 2006). In some cases recorded, e.g. Eastern DRC, local conflicts fed into and drove provincial, national and even regional conflicts (Pottek et al., 2016). The almost decade-long conflict in Eastern DRC triggered massive population displacement and resulted in the deaths of more than 50,000 people. Longstanding disputes were exacerbated by Ugandan occupation, bringing together conflict vectors which made it more likely that tenure conflicts would extend from their immediate source locations into surrounding regions, and from the rural grassroots level into the upper echelons of national and regional state institutions (ibid.).
- Land-related electoral conflict, or conflict driven by electoral imperatives, features strongly in analysis. Kenya is a key example, analysing the role of land in the violence associated with the 2007 elections, in which over 1,500 people were killed during post-election violence and nearly 700,000 displaced (Klaus and Mitchell, 2015). Boone (2018) discusses the partisan alignments over land issues that emerged in five African countries (DRC, Kenya, Rwanda, Cote D'Ivoire and Zimbabwe) in the 1990s and 2000s.

[10] Barrington Moore 1966; Skocpol 1979 have explored through comparative historical analysis how transformations in use and distribution of land shaped large scale experiences of violent conflict.

- Some analysis focuses on the role of the distribution of — and access to — land as a cause of conflict, e.g. Colombia, Cyprus, Nepal, South Sudan, Yemen, Zimbabwe (McCandless, E. 2018; UN and World Bank, 2018).
- However, there tends to be more focus on the role of conflicts over land sustaining or sparking a return to conflict, and the role of land reform in post-conflict efforts, than discussions about its role in instigating conflict (Bruce, 2017). According to Kobusingye (2018: 115), "the way land is governed in post-conflict settings is very crucial for the restoration of peace or the continuation of conflict". In places where violence has been systemic for a prolonged period, such as eastern DRC, Huggins (2010; 24) argues that "land is not only a cause of conflict, it is also a factor in the perpetuation of conflict". Some literature also analyses how the role of land in conflict changes over time (EU and UN, 2012).

2.4 Developing a framework for land and property and violent conflict

In this section, we develop a preliminary analytical framework to enable analysis of violent conflict in relation to land. The framework draws on analytical framing in the Pathways for Peace report (UN and World Bank, 2018) and related literature (World Bank, 2017; UN and World Bank, 2020; GSDRC, 2017; and Avis, 2019), and in Bruce and Holt (2011) to understand how violent conflict comes about, where there might be opportunities for change or strategic engagement with a view to enhancing conflict prevention, and the prospects for progress towards peace.[11]

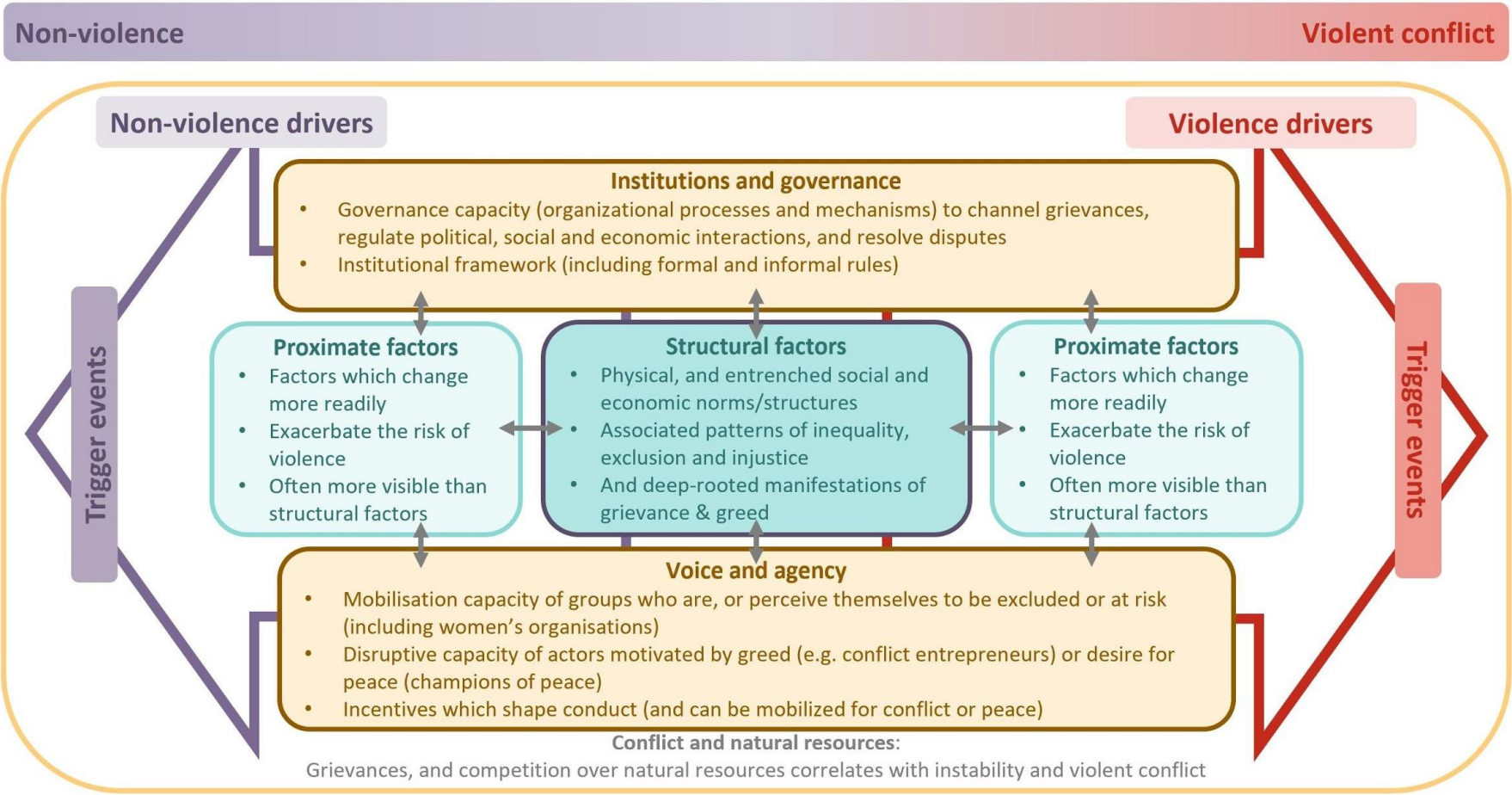
2.4.1 Explaining violent conflict

The framework captures recurrent explanatory factors and the multi-dimensional dynamics of how these may interact — in different contexts and in a non-linear way — to explain and shape violent conflict, identify possible pathways towards peace or move between the two (Figure 1):

- The framework identifies *structural factors* that interact with *institutions and governance* factors, and *voice and agency* (actors) to form *drivers* for either violence or non-violence.
- These drivers are accentuated by more readily changeable *proximate factors* (events or developments which can change with greater speed and ease than structural factors) and *trigger events* (more immediate incidents or actions) which can tip the balance of a fragile situation towards violent conflict. These are explained further below.

[11] The report is not proposing a new framework but pulling together existing framing that is most relevant for land-related conflict.

Figure 1 **Analytical framework to explain violent conflict**



Structural factors

These include the embedded social, economic, demographic and physical features of a context, and are associated with how patterns of inequality, exclusion and injustice take shape.[12] These form the backdrop against which incentives and opportunity for violent conflict develop (Gledhill, 2018; UN and World Bank, 2018). Grievances associated with objective and perceived inequalities and exclusion are key features over time of violent conflict (UN and World Bank, 2018). Importantly, structural inequalities can persist over time without related grievances being acted or translated into violent conflict. Contestation — including through violent conflict — involves the capacity for voice and agency by affected groups.

Voice and agency factors

Grievances are articulated at an individual or collective level, which can be mobilised to instigate violence. Voice and agency involve the capacity to speak up, air grievances and shape narratives and discourse of change and contestation. They refer to the capacity of groups or individuals that are — or perceive themselves to be — excluded or at risk, or are motivated by greed to act in ways that can alter the status quo. The relative power balance between actors and the nature of the power dynamics between conflicting parties (state or non-state) is relevant for understanding the risk of violence. Mobilisation by aggrieved parties (whoever they are) takes many forms, and the choice to take up violence is only one of many options, but violence often signals that institutional pathways to resolve conflict and address grievances are no longer functional or the object of contestation.

As violent conflict unfolds, incentives, structures and opportunities can result in conflict entrepreneurs invested in perpetuating the political economy of conflict for gain. These may be individuals or groups, such as gangs, criminal organisations, militias or self-defence groups, which may adapt to a situation of conflict and develop vested interests in the continuation of violent conflict and related institutional fragility.

Governance and institutional factors

Legitimate and sustainable governance and institutional capacity — the combination of rules, processes and mechanisms to channel conflict and resolve disputes through non-violent means — is key to preventing conflict, building peace and increasing the resilience of societies to enable conflict mediation (World Bank, 2017; UN and World Bank, 2018).

Three types of institutional and governance breakdown are associated with cooperation and commitment problems (World Bank, 2017) including: "(1) the unconstrained power of individuals, groups, and governments; (2) failed agreements between participants in the bargaining arena; or (3) the exclusion of relevant individuals and groups from this arena. Power sharing, resource redistribution, dispute settlement, and sanctions and deterrence have long been identified as potential ways governance can prevent, reduce, or end violent conflict, yet they succeed only when they constrain the power of ruling elites, achieve and sustain agreements, and do not exclude relevant individuals and groups." (World Bank, 2017; 110).

[12] Population increase, migration and displacement can create important pressures on land use and security of tenure; tenure insecurity, land grabs, conflict over land in turn can also drive displacement and demographic shifts that can exacerbate social inequalities and exclusion in other ways.

In addition, findings from the Secure Livelihoods Research Consortia signal that institutional legitimacy is not only based on transactional calculations (for instance, associations with expectations about service delivery, and whether these are met). Institutional legitimacy is also *co-constructed* with the population, drawing on their beliefs or perceptions about how power should be exercised, and negotiating what those expectations should include (McCullough et al., 2020).

In practice, situations of legal and normative pluralism prevail in most parts of the world, with varying degrees of tension or complementarity (Pathfinders, 2019). Associated forms of institutional dissonance in situations of normative pluralism, can contribute to tensions in divided societies where such pluralism represents competing norm systems, and institutions can result in divergent outcomes in how they resolve disputes. Legal dissonance in land governance systems is one such example (Section 3). It is also the case that normative pluralism can be politically negotiated and reconciled, creating a pathway for inclusion of excluded groups, or finding complementarity between diverse understandings of justice (Wily, 2011; Assies, 2011; and Manji, 2013). Legal pluralism can be addressed and aligned through legal and policy reform; in Latin America, for example, the wave of constitutional reforms in recognition of indigenous rights and customary norms since the 1990s, has contributed to narratives of inclusions.

Proximate factors

Proximate factors are events or developments which change more readily than structural features, escalating existing tensions or grievances over a shorter time span. Examples include policies that alter the power balance between groups; changes in technology; environmental change; and development projects, such as the building of dams (Bruce and Holt, 2011). The proliferation of low cost and easily accessible small arms can often contribute.

Trigger events

Trigger events are more immediate incidents or actions which can tip the balance of a situation already experiencing tensions or fragility towards violent conflict. Examples include the assassination of a leader or elections, the legitimacy of which are called into question, or natural disasters, such as droughts or floods.

Recognising the importance of gender in conflict

The evidence on how gender-based inequalities intersect with violent conflict indicates that there is a high correlation between high levels of gender inequality and gender-based violence, with both greater vulnerability to violent conflict, and the severity of violence in conflict (UN and World Bank, 2018; Caprioli et al., 2007; and GIWPS and PRIO, 2017).

More than that, we know that all experiences of violent conflict are deeply gendered, and that violent conflict affects men and women, and boys and girls in different ways. Across these analytical categories, it is important to integrate a gendered lens, including to inform programming choices to ensure they ‘do no harm’. The Women Peace and Security agenda (through UNSCR 1325) mandates and commits donors to engage meaningfully in addressing the gendered experience of conflict, in conflict prevention and in pursuit of inclusive pathways out of conflict.

2.4.2 Applying a conflict framework to land

A recurrent feature of violent conflict is the presence of disputes and competition over natural resources — whether through their scarcity or their abundance (Collier and Hoeffler, 1998; Bardhan, 2005). Some resources may feed directly into violent conflict in the degree to which they generate rents that fund and sustain patterns of violent conflict.

Box 2 Types of land-related disputes

Land disputes can be categorised into five types,[13] using Pottek et al's (2016) typology, revolving around disagreements about:

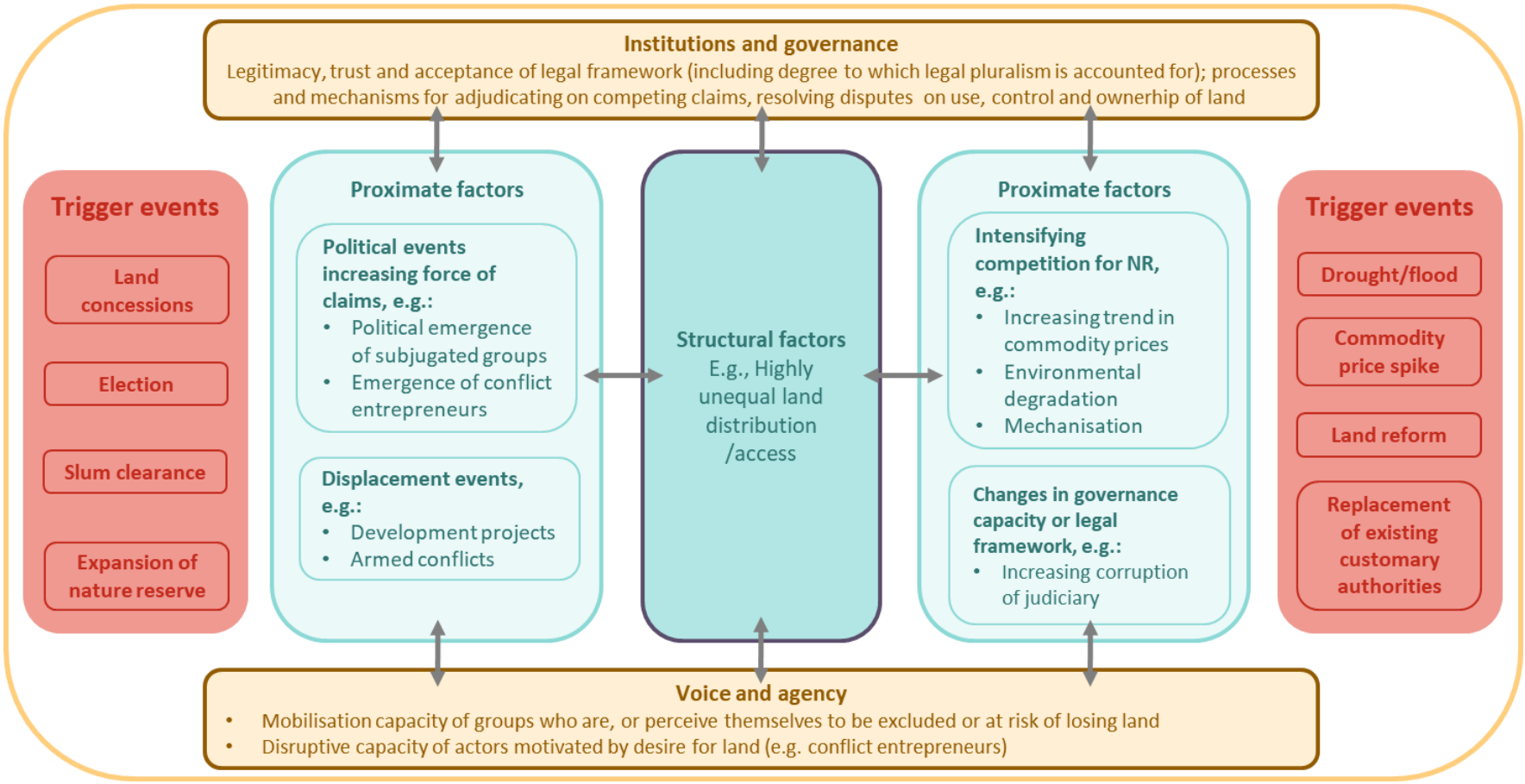
· *Succession*, mainly at household level, about who will inherit land and property; with fewer, but larger-scale, disputes about succession of customary authorities who may control access and the utilisation of land.
·*Contract legitimacy*, caused by overlapping titles or awarded user rights and multiple tenure systems (e.g. customary vs State) in rural and peri-urban areas.
·*Boundaries* depicting where user and ownership rights begin and end, for concessions, dense urban areas, customary plots, communal lands and public land.
·*Land use*, where land use priorities and needs conflict between different groups, typically settled farmers and nomadic pastoralists, or artisanal miners.
·*Land occupations*, by the landless or displaced, of others' plots, communal lands, private concessions, and nature reserves or other government land.

Figure 2 applies the framework for conflict analysis to the case of land, providing examples of structural factors and drivers, proximate factors and trigger events that can combine to escalate land-related disputes to violent conflict.[14] This draws particularly on Bruce and Holt's work on land and conflict resolution (2011; 2013) and Bruce (2017). Our discussion of the different factors influencing conflict links this framing to a range of examples of land-related conflict from different regions and countries.

[13] We have excluded the sixth category, which refers to forced evictions, as this fits more with the concept of a trigger event.

[14] This diagram demonstrates one direction – towards violent conflict. Many of the factors that can lead to land-related disputes escalating to violent conflict can lead to peace if applied in reverse, e.g. strengthening dispute resolution mechanisms (institutions), resolving underlying inequalities (structural factor).

Figure 2 Framing the link between land and violent conflict



Structural factors

Land-related violent conflict can have its roots in longstanding structural discrepancies and inequalities in land distribution, control and access, setting the scene for deep-seated grievances. While such inequalities do not inevitably give rise to violent conflict, "if a sufficiently large group is unable to access land in the normal course of things, conflict may arise" (Bruce, 2017; 15), and the onset of violent conflict is significantly correlated with higher levels of land inequality (Thomson, 2016).[15]

Structural inequalities in the use, access and control of land can arise from colonial legacies or major dispossessions by conquest, consolidated by centralised land allocation systems and perpetuated by a landed elite with the incentives and ability to suppress rebellion (Bruce, 2017; Thomson, 2016):

- In Kenya, the colonial coupling of ethnicity with territorial entitlements and citizenship laid the foundations for post-independence politics and established structural factors affecting the role of land and property in conflict. Since British colonial rule, the allocation of land in Kenya has been highly centralized, meaning that political elites have had the power to allocate land to followers while undermining the land rights of challengers (Manji, 2013; Klaus and Mitchell, 2015). This played a part in the violence associated with the 2007 elections, in which over 1,500 people were killed during post-election violence and nearly 700,000 displaced (Klaus and Mitchell, 2015).
- In Ituri, DRC, structural inequalities of land distribution and access among and between communities, predating the arrival of the Belgian colonialists, have created longstanding disputes, seen to be one of the causes of the near decade-long conflict that triggered massive population displacement and resulted in the deaths of more than 50,000 people (Huggins, 2010). Colonial power exacerbated these inequalities and tensions by restricting the movement of some communities, intervening in the local customary administrative structures and providing more material and political support to some communities than others (ibid.).
- Colombia — where land dispossessions in rural areas were seen as a cause of the armed conflict (Lopez-Uribe and Sanchez Torres, 2018) that left as many as 220,000 dead, 27,000 disappeared and six million displaced over the last fifty years (Grupo de Memoria, 2016) — has one of the highest concentrations of land ownership[16] in the world. Large properties emerged under the Spanish Crown during colonial occupation (Faguet et al., 2016) and, despite decades of land reform, 1% of the population holds 80% of the land (Oxfam, 2017). This pattern is replicated across much of Latin America, including Guatemala, Mexico, Bolivia, Peru and Brazil.
- In Sri Lanka, colonial legislation to acquire land for plantation settlers led to displacement of former inhabitants. These policies were continued by post-colonial governments to provide land for Singhalese settlers and development projects, which deepened Tamil grievances and contributed to armed conflict (Muggah, 2008).

[15] Previous literature on the relationship between inequality of landholdings showed inconsistent results on the link between landholding inequality and violent conflict. Thomson argues that this is due to inadequate measurements of rural inequality that failed to include landlessness.

[16] Concentration of land ownership is the ownership of land in a specific area by a small number of people or organisations.

- In Solomon Islands, alienation of customary land for plantations and commercial development by both colonial and post-colonial government, created tensions over land; coupled with pressures from migration, this contributed to the conflict between 1998 and 2003 which displaced 10% of the population and hundreds of deaths (Foukona, 2002; Allen, 2012).

Institutions and governance

In the case of land and property, institutions and governance play a significant role in fomenting or defusing land-related disputes, determining the rules about how land is used, controlled and accessed — and how those rules are enforced and adjudicated when there are competing claims.

The potential for land and property issues to contribute to the onset or continuation of violent conflict centres around two institutional and governance factors: (i) capacity and legitimacy and (ii) the coherence of multiple legal systems.

a.

Capacity and legitimacy

Inadequate land administration systems and overburdened or untrusted justice systems, can undermine tenure security and lead to competing claims and unresolved disputes that exacerbate underlying tensions. A land administration system that does not maintain accurate and up-to-date land records allows for competing claims of ownership or user rights. The "debilitation of customary and formal land and property institutions as a major cause of rural marginalisation, disenfranchisement, and poverty in Sierra Leone, all of which led to pronounced discontent", was a key driver in Sierra Leone's internal war (Moyo and Foray, 2009; 13).

Mechanisms to resolve disputes are key to dissipating tensions but capacity can vary, which can allow land-related disputes to escalate into wider conflict. In Afghanistan, where land disputes are a primary driver of conflict, weak dispute resolution and enforcement mechanisms (both formal and informal) allow land disputes to "fester and multiply" (Gaston and Dang, 2015). Often, formal justice systems are considered expensive, slow and far away; they can be overwhelmed with very large numbers of land-related cases which can take many years to resolve (Sackey, 2010). In response to this, many opt first for informal, local dispute resolution mechanisms that are more accessible. While these informal systems often have an important role to play, their capacity to resolve, and enforce, longstanding disputes can be variable, and some disputes may not be within their remit to resolve; e.g. in Burundi, there are double legitimate claims of returnees and occupants to particular plots and the demand for indemnification by people that lost property as a result of redistribution after expropriation (van Leeuwen and Haarsen, 2005).

Conflict itself may undermine the capacity of institutions, further destabilise existing norms systems and create gaps between customary and formal dispute resolution mechanisms. This may result, for instance, in "de-securing farm and pasture rights, jeopardising the ability of administrators or courts to manage or uphold rights fairly, and threatening confidence in the capacity of the constitution or other state law to protect existing land rights" (Wily, 2003), all elements of supporting tenure security. For example, in Ituri, the occupation by the Uganda Peoples Defence Forces (UPDF) created a void in dispute resolution mechanisms, meaning that actors who could act as potential arbiters of land disputes, were no longer in position to do so. The UPDF, in collaboration with local militia groups, supported one community's interests, appointing members to important administrative positions. Without recourse to traditional or

formal justice systems, and with the increasing widespread availability of small arms at low cost, members of other communities turned to violence.

The way in which institutional and governance frameworks are applied — and the levels of trust in both the capacity and legitimacy of different institutional and governance frameworks — affect tenure security, access to land and how tensions can build up around land. In Sierra Leone, tension between exploited rural youth and landowning elites has been cited as a cause of the civil war (Moyo and Foray, 2009; 10), underpinned by the collaboration of Paramount Chiefs. Chiefs helped to supply labour to landowners by controlling access to land and forcing local youth to work off fines in agricultural labour, who were prevented from finding alternative livelihoods (ibid.).

b.

Legal pluralism

The existence of different and parallel systems for governing tenure can lead to competing authority and uncertainty about which source of law will prevail in setting and enforcing the rules of access, use and control of land (Eck, 2014). Conflict itself can cause existing land governance and institutional frameworks to disintegrate, and the development of multiple "normative orders" in their stead (Unruh, 2003).

The existence of multiple tenure regimes — formal and customary — does not necessarily constitute a problem, if roles and responsibilities are clearly defined and delineated, and if different tenure arrangements awarded the same level of legitimacy and legal protection. Many countries have a breadth of ownership and tenure regimes, and corresponding institutional and governance frameworks for those different regimes (Manji, 2013; Boone, 2018; and Boone, 2007) — called legal pluralism. Even in countries where there appears to be a uniform policy of state land ownership, such as Ethiopia, customary systems have endured and even grown in influence, affecting the way that land is accessed and controlled (Lavers, 2018).

Problems arise when parallel systems create overlapping rights and competing claims as well as multiple dispute resolution mechanisms with different levels of recognition and legitimacy. In urban Mexico, overlapping legal frameworks applied to rural and municipal sectors create a legal limbo into which informal settlements can fall — exacerbating tenure insecurity and elevating the potential for disputes that can boil over into conflict (Lombard, 2016).

However, recognising, or resolving, legal pluralism in itself does not necessarily resolve the power dynamics reflected in inequalities in the use, or ownership, of land. Well-intended efforts to award different institutional and governance frameworks of equal legal status and recognition, e.g. through formal recognition of communal ownership rights, may provide security to some marginalized groups, while potentially also re-affirming other inequalities (Archambault and Zommers eds,. 2015), particularly in systems organised around kinship, ethnicity or political and sectarian affiliations.

Actors, voice and agency

Where land is the issue underlying a structural grievance and there is a perception that existing legal frameworks and resolution mechanisms are not effective or legitimate, violent conflict can be instigated by actors with the capacity to mobilise grievances around land. "Land becomes a rallying cry to protect the community against rival groups and is held as the prize in exchange for eliminating rivals" (Klaus and Mitchell, 2015; 633). This is particularly powerful in countries

where the majority of citizens continue to rely on land as a livelihood source and where land rights institutions are weak. The violence in Bangladesh's 2014 elections is an example, where leaders of the opposition alliance mobilised their supporters to seize land of minority Hindu and indigenous Buddhist communities, using this to both undermine support for the governing party and redistribute land to their supporters (ibid.).

The capacity to mobilise grievances to establish the perception of threats to land (and resulting opportunities for gain) is greatest when land grievances are based on relative land insecurity and contentious claim-making between insider and outsider groups;[17] elites have a high capacity to distribute land rights to constituents; and when there are relatively large proportions of outsiders relative to insiders (Klaus & Mitchell, 2015). In Kenya, political leaders drew on local land grievances to convince followers that their land rights hinged on the outcome of elections, establishing a motive or logic for violence (ibid.).

Conflict itself offers opportunities for such mobilisation. In his historical tracing of state failures in late 20th century Africa, Bates writes: "While inflicting widespread costs, disorder also offered attractive prospects for those willing to invest in the building of political organizations. Among the strategies they could employ, one stood out: the championing of claims to land." (Bates, 2008; 125).

Proximate factors and trigger events

Changes in the institutional, socio-political and physical context (proximate factors) — such as decreasing trust in the judiciary to resolve land disputes, or intensifying competition for land (and related resources) due to worsening environmental degradation — can aggravate underlying drivers of conflict:

- In Kenya, a change in the institutional and governance framework in 2013 — devolution of budgetary and legislative authority to 47 counties — exacerbated local tensions in some counties, setting the scene for persistent violence, albeit at a lower level than that experienced in 2007. Devolution heightened political competition around the election of the county governor in Marsabit county, with land being a "question of life and death to many" (Scott-Villiers, 2017; 258). Many residents believed that if "they [their ethnic group] did not have the governorship, they would lose control over their land" (ibid.), which had implications for their economic and social standing and thus represented a loss of relative power.
- In Ituri province, two proximate factors escalated long-standing land disputes between Balendu communities, who were mainly agriculturalists, and Bahema businessmen, who specialised in commercial ranching (Huggins, 2010):
    - The establishment of internationally funded development projects in the 1980s which focused on investment in pastoralism, at the expense of agricultural land; and
    - The removal of effective dispute resolution mechanisms — formal or informal — undermined by UPDF interventions and the near absence of the State.

[17] Insiders and outsiders are terms used by Klaus & Mitchell (2015). Insiders are groups who are native to an area and outsiders are more recent migrants, foreigners or non-natives.

Against the backdrop of changes that increase existing tensions, associated trigger events can be the spark that lights the tinder of conflict, including elections, large-scale land concessions or the replacement of existing customary authorities, which can be mobilised by 'conflict entrepreneurs' to achieve particular goals through organised violence.

In Kenya, violence intensified in the period during and after the elections in 2007, and to a lesser degree in 2011 around the 2013 elections. Elections also contributed to the onset or escalation of many other instances of violent conflict, such as Côte d'Ivoire (2010-2010), Bangladesh (2014) and Kyrgyzstan (2010) (Klaus and Mitchell, 2015).

How climate change acts across land and conflict

There is weak and contradictory evidence attesting to any simple, causal chain between climate change and conflict. In the overwhelming majority of cases where poverty and deprivation are caused by natural resource scarcity — and here climate is a factor — the outcome is depressed development outcomes, rather than overt violent conflict (Peters et al., 2020).

The emerging consensus is that "climatic factors can be just one of many drivers of conflict" (Peters et al., 2020: 1) — a 'threat multiplier' that can compound existing stresses and vulnerabilities, thereby increasing the likelihood of violent conflict. Climate change can act as a proximate factor and increase the frequency of trigger events related to natural disasters that can lead to conflict, exacerbating stresses, such as lack of income and food insecurity, and increasing competition for agricultural and grazing land. For example, farmer-herder conflicts in the Sahel region — while they are not conflicts driven by climate — are being accentuated by the increasing incidence of droughts and floods in the region, combined with other factors like population growth, the availability of small arms and ineffective local justice mechanisms (International Crisis Group, 2018). A Swedish International Development Agency study (2018) found that societies that already have a history of conflict, run a high risk of worsened conflict due to further climate-related stress.

Weak institutional and governance systems that fail to prevent or resolve conflicts (Peters et al., 2020) worsen this situation and may not be equipped to deal with tensions provoked by large-scale climate related migration. Conventional land governance systems are not designed to cope with large numbers of people who have had to move because their land no longer sustains them; such people can then come in conflict with others holding land rights, in either rural or urban areas.

Gender, land and conflict

The discussion of the relationship between gender and conflict in the literature focuses principally on the gendered impact of conflict, and (increasingly) the instrumental value of ensuring women are involved in all decision-making processes in peacebuilding and post-conflict governance, at national and sub-national levels.

Conflict and fragility are experienced by men and women differently, in terms of vulnerability to violence and how violence is experienced; and violent conflict often contributes to a reaffirmation of gender unequal social norms. This is especially so, where violent masculinities are exacerbated by violent conflict (Strachan and Haider 2015; Domingo et al., 2013).

Greater inclusion of women's voices in peacebuilding seems to correlate with more durable peace. The momentum of peacebuilding or transition processes can create

opportunities for mobilisation and strengthen women's voices in peace agreements, legislative or constitutional reform or other institutional change processes.

The Women Peace and Security (WPS) agenda (Box 3) — set up with UNSCR 1325 and subsequent UNSC resolutions — is now firmly established as an international policy commitment and agenda, that recognizes gendered impacts of conflict and fragility and calls on the international community to act on this.

Box 3 The Women, Peace and Security Agenda

The Women, Peace and Security agenda commits donors to addressing the gendered experience of conflict across four key pillars of action:

- *prevention* (of conflict);
- *protection* (from women and girl's experience of violence, with a strong focus on practice on SGBV);
- *participation* (committing to ensuring women are involved in decision-making processes at all levels, including those relating to peacebuilding and to the elimination of discriminatory legal and socio-normative barriers that exclude women and girls);
- *recovery and resilience* (investing in women's capacity for recovery, overcoming trauma, and investing in their economic and livelihoods opportunities).

The relationship between gender, conflict and land has been less closely examined (Birchall, 2017) and there is not strong evidence to indicate that gender unequal access to, or control of, land is a driver of conflict. However, where scarcity of land and access to, or control of, other natural resources increases (such as access to water) — whether as a result of conflict, climate change or other disruptive factors — the effect of this will be gendered (Yoshida et al., 2021), affecting women and girls disproportionately. This can result in greater care and domestic burdens on women and girls, increasing their vulnerability and exposure to different forms of violence, or worsening girls' access to education.

In addition, women often face additional vulnerabilities relative to men that exacerbate the impact of land-related conflict, particularly as they have less decision-making power related to land. In many countries, legal and policy frameworks do not ensure equal rights of men and women when it comes to owning property, inheriting assets from parents or spouses or to the valuation of non-monetary contributions (Prindex, 2020). According to the World Bank's Women, Business and the Law data, 44 of 191 countries around the world do not provide female and male surviving spouses with equal rights to inherit assets, and while law does not provide for the valuation of non-monetary contributions in 57 countries (World Bank, 2020).

Although there have been important legal change gains in recent decades that have improved the institutional landscape on women's right to land and property, policies and legislation remain discriminatory in many parts of the world. And legal change itself does not guarantee a shift in underlying social norms which maintain discriminatory access to and control over land and other natural resources.

Removing legal barriers to women's access to and ownership of land — combined with effective implementation and meaningful changes in social norms — will contribute to women's political and economic empowerment. This in turn, can strengthen women's capacity for

substantive voice and access to decision-making opportunities, on land governance and more broadly, in peacebuilding and transitions from conflict.

3 Bringing to light the role of perceived tenure security in conflict analysis and prediction

This section demonstrates how including PTS in conflict analysis and prediction could help to ensure the full risks or range of factors related to land and property rights and tenure security are considered.

3.1 Understanding PTS

To better understand how PTS can add important information to increase the accuracy of existing tools, we delve into the factors that combine to form PTS. Drawing together — and substantially adding to — previous research and discussions on (perceived) tenure security, the Prindex Initiative has developed a conceptual framework and methodology for assessing PTS and its drivers.

Figure 3 presents a framework (Nizalov et al., 2020) articulating the three main factors affecting individual PTS:[18]

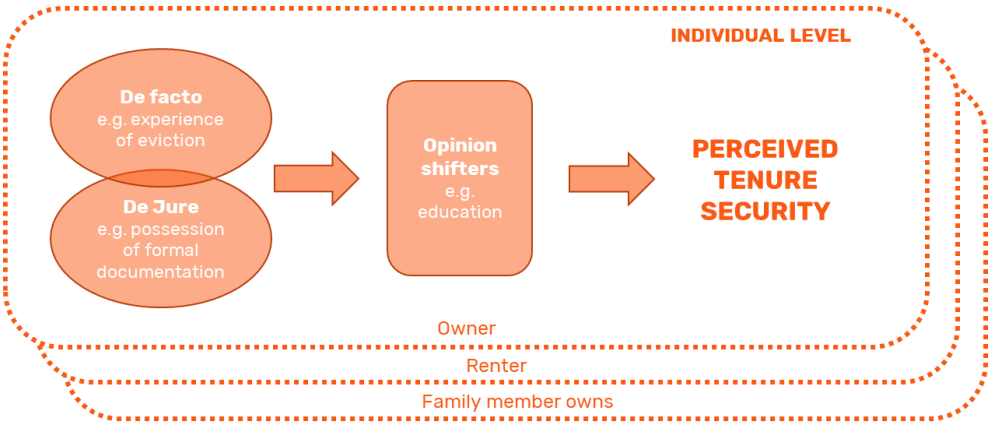
- *De jure* tenure or legal rights: possession of formal documentation that can be used in court, as evidence of rights, e.g. ownership titles, registered lease agreements and registered rental contracts. The degree to which these PTS is contingent on several other factors — institutional and individual — including the willingness and ability of authorities to enforce the rights the documents are meant to bestow, and an individual's capacity to navigate the judicial system to protect their rights.
- *De facto* tenure (practice of rights): an individual's past experience of exercising their land and property rights. Proxies for this could include the duration of tenure, experiences of conflict with neighbours or experience with evictions. Other people or organisations may view an individual's claims as legitimate. Therefore, interactions with these, for example by paying property taxes or receiving and paying for utilities, may also be evidence of exercising rights. *De facto* tenure can be present with or without *de jure* tenure.
- Opinion shifters: mental models used to derive subjective assessment of tenure security. *De jure* and *de facto* tenure provide information and experience that an individual can use to assess the risk of losing their rights to land or property in the future, which feeds into a set of mental models and frameworks. These mental models and frameworks are formed and influenced by families, peers and other social groups (cultural norms) as well as other factors, such as education and public awareness campaigns. Trust in the

[18] We hypothesise that comparable elements will define an individual's perception of a group's tenure security, a subject of ongoing research.

government, often influenced by perceptions of the capacity and legitimacy of existing institutions — land or otherwise — can be a key factor.

The effect of these factors is specific to the bundle of rights or form of tenure, e.g. ownership or rental (Sjaastad and Bromley, 2000). For example, renters of property are subject to the risk of eviction by owners while owners face the risk of expropriation by state or non-state actors. This is illustrated by the vertical layers in Figure 3.

Figure 3 Conceptual framing for PTS



3.2 What PTS can add to conflict analysis and prediction

Identifying, understanding and tracking these factors — and bringing them together in a measure of PTS — can make conflict analysis and prediction more accurate and detailed in two ways:

1. Unpacking the land-related conflict drivers — and how people will react to them — when land is an important factor in a conflict, even if it is not the dominant factor.
2. Providing additional information about the broader conflict context when land is not a direct factor contributing to conflict risk.

3.2.1 Unpacking conflict drivers when land, property and tenure security are factors in a conflict

As illustrated in Section 2, tenure insecurity (risk of loss of land or property) can be a direct driver of violent conflict. People can react in violent ways when they fear they may lose their land and property and have no viable non-violent way to defend their rights. For effective prevention, this risk needs to be identified and monitored, and how tenure security fits into the conflict system needs to be understood.

People can act on their perceptions, and as our conceptual framework for PTS shows, PTS is a combination of *de jure* tenure and *de facto* tenure mediated through opinion shifters. Therefore, conflict analysis and/or prediction using *proxies* for tenure security, based only on backward looking objective measures, such as levels of property documentation (*de jure* tenure)

or numbers of evictions (*de facto* tenure), may not be effective in identifying the risk of violence related to tenure insecurity or understanding it.

In addition, in dynamic, fragile and conflict affected settings, changes in other factors may alter the risk of violent conflict associated with tenure insecurity. Governance capacity or institutional legitimacy may change, reducing the belief that property documentation is an effective means of defending property rights. A new actor may enter a context and fuel fears of expropriation connected to historic grievances or upcoming events. Proximate factors, such as increasing competition for natural resources, may exacerbate existing competition for land. These factors may interact and change over time.

Therefore, current frameworks that monitor, analyse and predict conflict using, in part, data on *proxies* for tenure security may fail to uncover how far tenure security is an actual conflict driver.

PTS can be affected by non-conflict related factors and someone may not resort to violence in response to their tenure security being threatened. For example, someone who rents their home may think it is likely they will be asked to leave by the landlord, but they may not act in a violent manner in response if it is simple to find another place to live and they do not perceive this to be unfair. Therefore, when assessing PTS, it is vital that the reasons an individual or group feels insecure is determined and these reasons are situated in the wider socio-economic context.

3.2.2 Providing additional information about the broader context

PTS may be able to provide other information on a range of conflict drivers and factors, signalling issues that might be missed by other indicators in existing tools, and adding to the broad power in predicting conflict. In the same way that many of the global conflict prediction models include infant mortality as a general indicator of economic development and governance capacity in a country, assessing levels of and changes in PTS and the drivers of those changes can be an indicator of broader issues. For example, PTS could be an indicator of confidence in legal and governance systems or tensions within or between communities.

3.3 PTS in conflict analysis and prediction — empirical analysis

A preliminary quantitative analysis of the relationship between PTS and violent conflict supports the idea that PTS should be used in conflict analysis and could have a role as a predictor of future violence. Further analysis, when more data on PTS is available, will be required to confirm and elaborate these findings.

Using Prindex's global dataset (www.prindex.net), we assessed the relationship between nationally representative measures of PTS for countries that experienced violent conflict in two ways. Firstly, we compared levels of PTS between countries that had at least one fatality from violent conflict to those that did not[19] in the twelve months after the Prindex survey was conducted. Data on fatalities were taken from the ACLED dataset[20] as this was the most up-to-date source at the time of the analysis. Secondly, we assessed the relationship between levels of PTS and intensity of violent conflict in the twelve months following the Prindex survey. The

[19] This is in line with our overall definition of violent conflict.

[20] https://acleddata.com/

measures of intensity of violence are fatalities per 100,000 population and violent events per 100,000 population.

The measures of PTS included:

- Overall levels of PTS and insecurity[21] in each country for all properties for which the respondent has rights and the respondent's home.
- Levels of PTS and insecurity for various groups and differences in levels between these groups. The comparisons were based on gender, tenure type (owners vs renters), self-reported income adequacy (respondents who report they find it difficult on their current income v all others) and location (urban vs rural). The groups were selected based on data availability and evidence on factors that affect violent conflict.

The first analysis shows that higher levels of perceived tenure insecurity and lower levels of security at country level are associated with future violence. This relationship is illustrated in Figures 4 and 5. Levels of perceived tenure insecurity were higher in countries which subsequently experienced fatalities than in countries that did not: on average, 24% of respondents in the former category felt insecure compared to 14% in the latter, a ten percentage point difference. The relationship is stronger when comparing levels of PTS: an average of 68% of respondents in countries that had fatalities felt secure, compared with 81% of respondents in countries that did not, a 13 percentage point difference. There is a similar relationship when countries which experienced fatalities in the year *before* the Prindex survey and those that did not, are analysed separately.

[21] Tenure security refers to the percentage of the population who report feeling secure about their tenure, and insecurity is the percentage that report feeling insecure. These do not necessarily sum to 100 percent because some respondents do not answer the question in the survey. Box 4 contains further details.

Figure 4 Mean levels of PTS for countries which had at least one fatality from violent conflict and those that did not

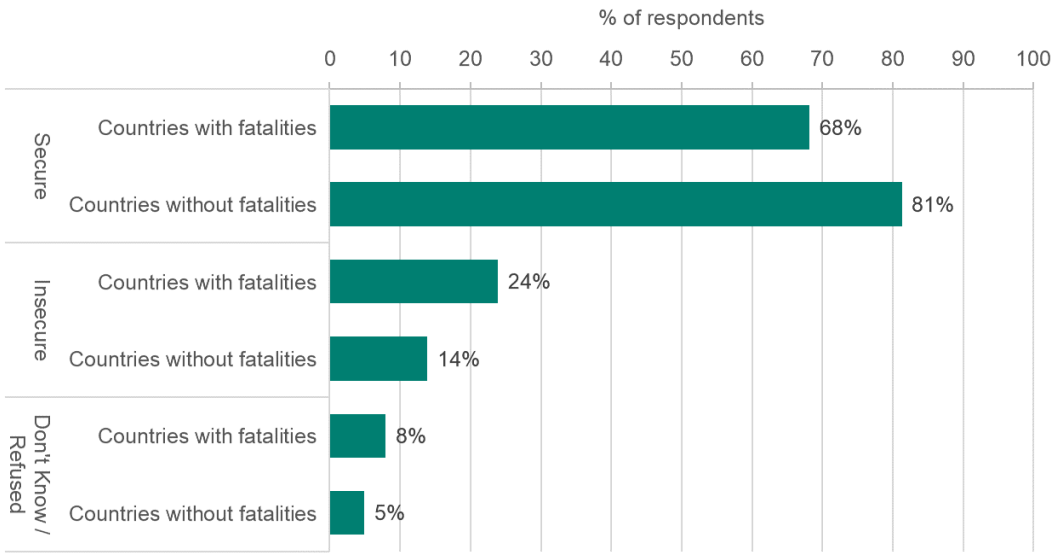
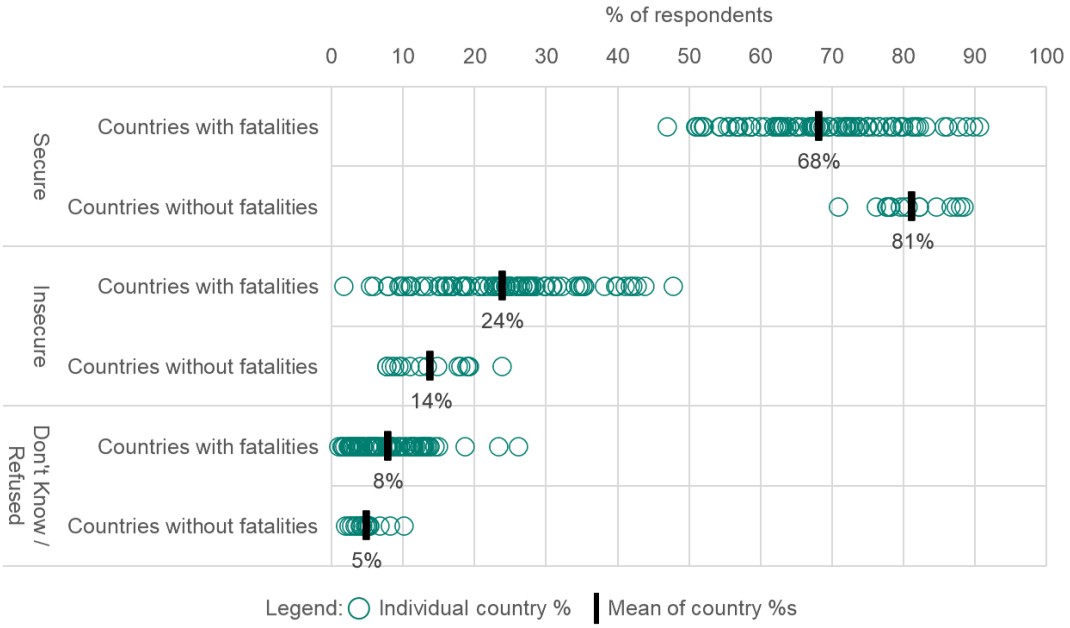


Figure 5 Comparative levels of PTS for countries which had at least one fatality from violent conflict and those that did not



The relationship is similar for levels of PTS based on the respondent's home and for men, women, urban areas, rural areas and people who report that they are 'getting by' or are 'comfortable' on their current income. It appears to be stronger for levels of PTS for owners. The relationship is weaker for levels of PTS for people who report they find it 'difficult' on their current income. There appears to be no relationship between levels of PTS of renters and future violent conflict.

The difference between owners and renters could be related to the impact of loss of rights. Potentially, the perceived impact by owners could be higher than renters as they risk losing an asset that could be a source of wealth, status and could have socio-cultural significance.

The relationships between differences in levels of PTS between groups and future violent conflict are inconclusive. In all cases, the relationships appear to be weaker than for overall levels of PTS and with high levels of variability.

The analysis suggests that levels of PTS may be a better indicator of future violence than levels of insecurity as the relationship appears to be stronger, and that the PTS of owners may be the most effective indicator among the different measures of PTS we assessed. However, the PTS of other groupings are not covered in this analysis, such as ethnicity, and differences between these may be more effective.

The second analysis indicates that there is a relationship between levels of PTS and intensity of violence, but this is dependent on the type and scale of conflict.

There appears to be a relationship between PTS for the entire population and total fatalities per 100,000 when outlier countries of Azerbaijan, Afghanistan and Yemen are excluded, with higher intensity of violence being associated with lower levels of tenure security (Figure 6).

These three outlier countries experienced far higher levels of violence than the majority of countries. When these countries are included in the analysis, there does not appear to be a trend, Figure 6. This suggests that PTS is not strongly associated with large scale and/or militarised conflicts, or that the relationship between PTS and violent conflict is different in these contexts.

The relationship between total fatalities and levels of PTS of all the different groups we assessed is similar to the relationship for the entire population, except for people who rent their home. The apparent lack of a relationship between PTS for renters and fatalities is in line with our findings from the first analysis. The total number of violent events per 100,000 of population does not correlate with levels of PTS for the entire population nor any of the different groups.

Figure 6 Level of PTS vs total fatalities per 100,000 population excluding Azerbaijan, Afghanistan and Yemen

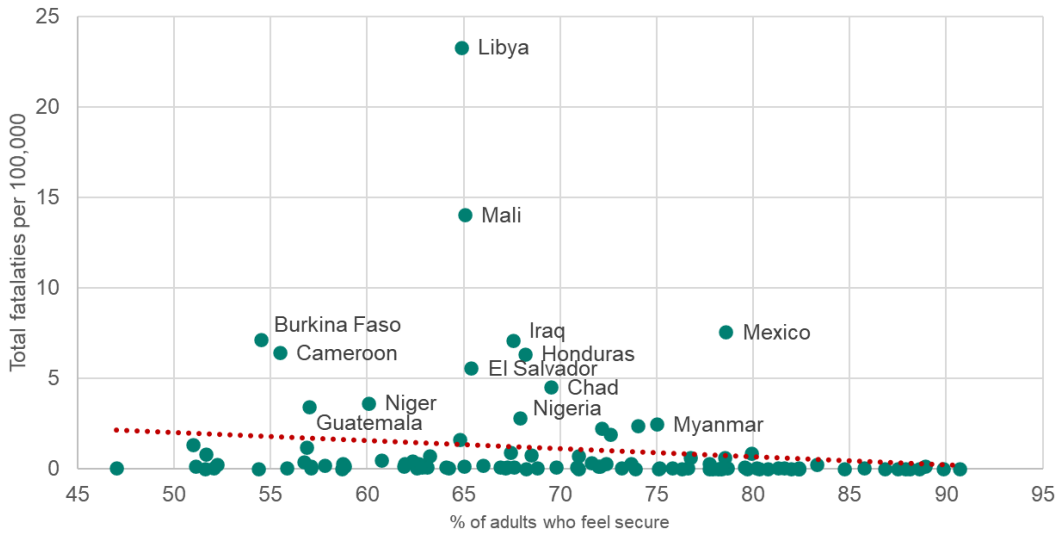
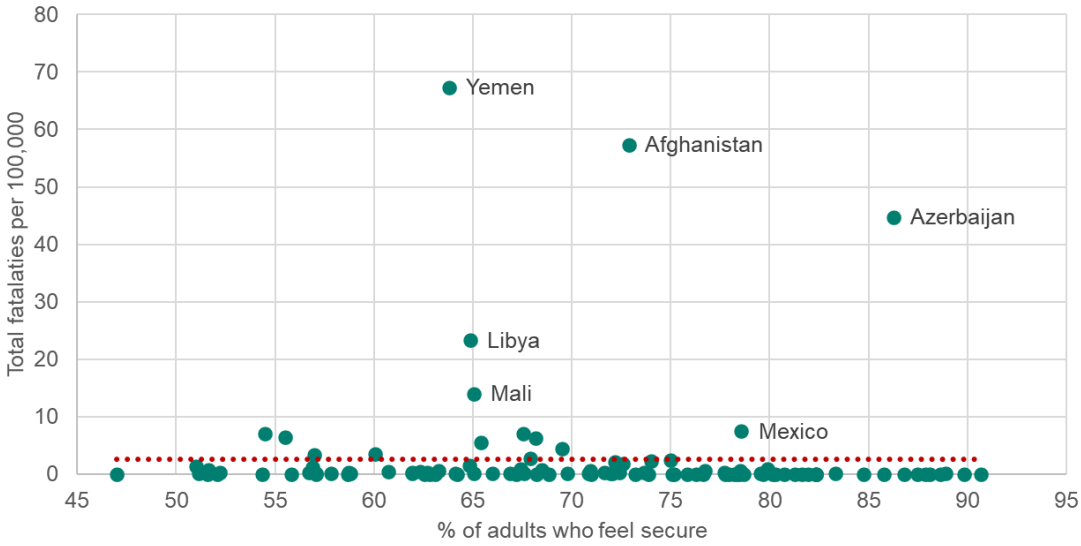


Figure 7 Level of PTS vs total fatalities per 100,000 population for all countries



The conclusion that PTS is more closely associated with local-level violence than large scale and/or militarised conflicts, is supported by our analysis of the different types of violence in the ACLED data (Table 1).

In summary:

- *Battles and armed clashes:* The relationship between fatalities from battles and armed clashes and PTS is similar to the relationships described for fatalities from all events. The analysis does not indicate a relationship between levels of PTS and number of fatalities per 100,000 population with Azerbaijan, Afghanistan and Yemen in the analysis, but does when they are excluded. Conversely, the analysis indicates a relationship between the number of events per 100,000 population and levels of PTS, but only when Azerbaijan, Afghanistan and Yemen are included in the analysis. The reasons for this require further investigation.
- *Violence against civilians and attacks:* There are few clear patterns to the relationships between events of or fatalities from violence against civilians and attacks and levels of PTS, with or without the inclusion of Azerbaijan, Afghanistan and Yemen. The most notable exception is PTS of owners. There appears to be a relationship between PTS of owners and number of fatalities per 100,00 in both types of event, irrespective of whether Azerbaijan, Afghanistan and Yemen are included in the analysis. This is further evidence for the importance of PTS of owners in conflict settings.
- *Riots and mob violence:* The relationships between fatalities from riots and mob violence and PTS are the most consistent of all the event types we assessed. There appears to be a relationship for all groups, except renters, with and without the inclusion of Azerbaijan, Afghanistan and Yemen. The relationship between fatalities from riots and PTS is the strongest of all the different event types studied. There does not, however, appear to be a relationship between the number of riots or mob violence events and any measures of PTS.

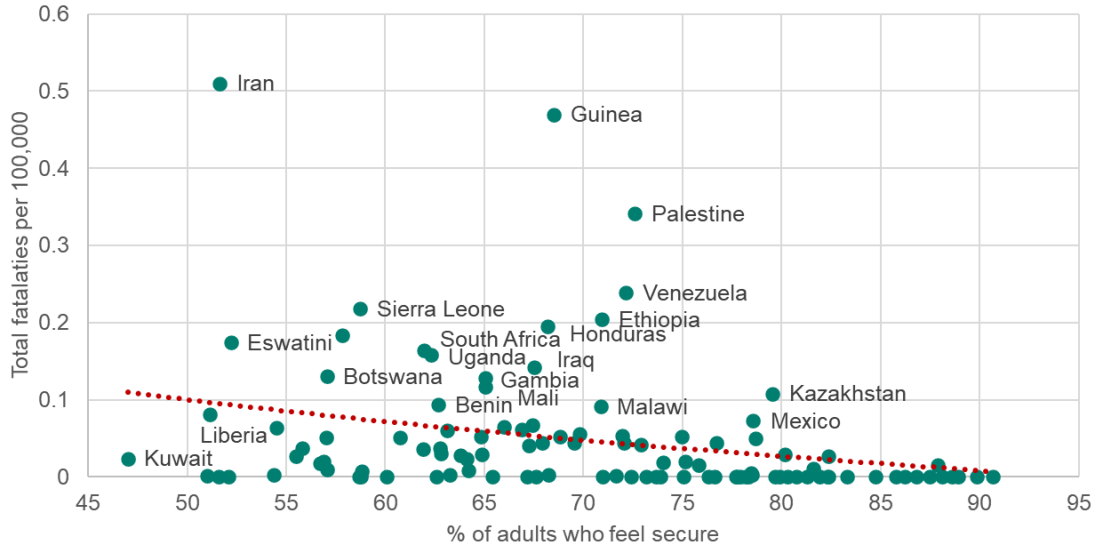
Table 1 ACLED event and sub-event types[22]

The blue-highlighted cells in Table 1 indicate the types of events and sub-events over which we assessed the relationship to levels of PTS.

General	Event Type	Sub-Event Type
Violent events	Battles	Armed clash
		Government regains territory
		Non-state actor overtakes territory
	Explosions / Remote violence	Chemical weapon
		Air/drone strike
		Suicide bomb
		Shelling/artillery/missile attack
		Remote explosive/landmine/IED
		Grenade
	Violence against civilians	Sexual violence
		Attack
		Abduction/forced disappearance
Demonstrations	Protests	Peaceful protest
		Protest with intervention
		Excessive force against protesters
	Riots	Violent demonstration
		Mob violence
Non-violent actions	Strategic developments	Agreement
		Arrests
		Change to group/activity
		Disrupted weapons use
		Headquarters or base established
		Looting/property destruction
		Non-violent transfer of territory
		Other

[22] See https://acleddata.com/resources/general-guides/

Figure 8 Level of PTS vs total fatalities per 100,000 population from riots



The results from both sets of analysis support our conclusions from the literature (Section 2) on the potential value added of PTS in conflict analysis and forecasting and early warning. The current evidence is strongest for violence that is localised, such as riots. The relationship between PTS and violent conflict in the form of battles between armed groups, appears to be contingent on the scale of fatalities or other contextual factors. The analysis also highlights the importance of the PTS of owners in conflict contexts, including when violence is directed towards civilians.

However, these preliminary findings need to be substantiated by further data and analysis, given that:

- PTS may be acting as a proxy for other factors and so we cannot infer any causality between PTS and the potential for future conflict.
- The analysis did not include all countries and those that were included were not randomly selected, indicating that caution is needed in making inferences to other countries or other times. However, if the analysis included many of the countries excluded, which are less likely to have violent conflict and also tend to have lower levels of perceived tenure *in*security, the analysis would be more representative and may show that the relationships are stronger than this analysis implies.
- We only have a single data point for PTS for each country, making it impossible to assess the relationships between violent conflict and changes in PTS. We will be able to address this once we have multiple years of Prindex data.
- The analysis is based on national-level datasets and so may not be applicable at local levels. Further data with local level representatively is needed to carry out this analysis.

4 Assessing the treatment of land, property and tenure security in conflict tools

Many tools, methodologies and guidance documents[23] have been developed to assess the conflict context, predict violent conflict and support the design and monitoring of interventions which aim to reduce conflict risk. In this section, we review a range of these tools, assessing how land and property issues are integrated, and the gaps and opportunities that exist for greater integration.

4.1 Approach and Methodology

For the purposes of this research, we selected tools that represent the overall landscape of tools currently being used, and illustrate the range of uses and users; analytical approaches, data sources and types; and geographical coverage and scope. We concentrated on recently developed and most widely used tools in the public domain.[24] We excluded tools that aim to understand causes and dynamics of historic conflicts because the focus of this study is on the practical application of tools to reduce future violent conflict. We have not assessed the effectiveness of the tools.

4.2 Tools reviewed

The tools we reviewed fall into two main categories:

1. Conflict analysis: tools that aim to understand the conflict context, including the reasons for conflict and potential future scenarios. They are typically used to inform conflict-sensitive approaches, conflict resolution and prevention and/or peace building (Herbert, 2017).
2. Conflict forecasting and early warning: tools that aim to predict the onset or escalation of violent conflicts. They are usually intended to be used as part of early warning and early response (EWER) systems.

These two types may be combined to form parts of integrated early warning and response systems, and both types can be needed for effective interventions in conflict affected contexts. For example, results from forecasting and early warning can prompt the need to carry out more detailed conflict analysis. In our analysis, we focus on the conflict forecasting and early warning elements of integrated systems, as conflict analysis is covered by our review of these specific tools. Similarly, we have not focused on the predictive elements in conflict analysis tools, beyond triggers of conflict and scenario planning.

[23] For succinctness, for the rest of the report, we refer to all the tools, guidance and methodologies as simply tools.

[24] This review is largely based on guidance documents published by the developers and interviews with users of the tools and we have not sought to assess the effectiveness of them.

We further subdivide the conflict analysis tools into two groups: general purpose tools, without a thematic focus, and bespoke tools focused on land and property.

4.3 Criteria for assessing tools

We assess the tools in two ways: firstly, the general characteristics of the tools, which determine and assess the factors which affect how PTS could be integrated into them; and secondly, the extent to which they include land and property in their analysis.

The approach is slightly different for the two types of tools. For the conflict analysis tools, which have overlapping characteristics, we provide an overview of those general characteristics, assess the extent to which they provide specific advice on how to assess the role of land and property in a conflict context, and highlight any bespoke tools. For the forecasting and early warning tools, which are less homogenous, we assess each tool separately.

Several factors affect if and how data on PTS could be integrated into different tools, and we have used these as criteria to guide our assessment of the tools, namely the:

- Purpose of the tool: conflict analysis or conflict forecasting and early warning and the degree to which causes of conflict need to be determined;
- Geographical focus, e.g. national or sub-national;
- Timescale of analysis: for the predicted onset or escalation of violence in the case of forecasting/early warning tools, e.g. monthly, annual or multi-year, and in the case of conflict analysis, the length of validity of the analysis;
- Type and source of data used, e.g. qualitative or quantitative data; primary or secondary sources.

While the purpose of this study is not to assess the effectiveness of the tools in general, a critique of standardised conflict tools, which frame conflict along technocratic and formulaic lines, is that users may apply the tools in standardised ways, missing local nuance or different ways of looking at the problem (Mac Ginty, 2013). This could result in other locally relevant ways of reading conflict and intervening in a conflict being missed, an issue particularly important for land and property issues.

4.4 Treatment of land, property and tenure security in different tools

4.4.1 General purpose conflict analysis tools

Principal characteristics

Most of the general-purpose tools (those without a thematic focus) we reviewed (Table 2) do not focus on any particular theme and share similar high-level analytical framings.

However, there are many differences in the detail, and an array of terminology. In broad terms, the tools:

- Assess the overall context, for example, physical and geographical characteristics, history, socio-economic and demographic characteristics etc.
- Assess the factors contributing to the risk of violent conflict. Typically, they distinguish between root/structural factors and proximate/intermediate factors.
- Assess the factors alleviating the risk of violent conflict, sometimes called peace factors.
- Identify the key actors and assess their relative power, motivations and interconnections.
- Assess risk of conflict, in terms of how the context, conflict and peace factors and actors interact to form dynamics that increase or decrease the risk.

Generally, the guidance suggests that the users of the tool identify conflict and peace factors across a wide set of scales and domains, which could include land and property and tenure security. For example, UNDP's Conflict and Development Analysis (CDA) suggests organising factors into political, security, economic, social, cultural and environmental domains over national, regional and local scales. Land is used as an example in the economic domain (UNDP, 2016). The JACS guidance includes similar suggested domains (Stabilisation Unit, 2017).

Outputs from the tools are used for a range of activities, the most common of which are: strategy and policy development; programme design and monitoring; and conflict sensitivity;[25] to develop a shared understanding of conflict context between actors and to support diplomacy or advocacy work. In all cases, the tool needs to identify the causal relationship between the identified factors and the risk of conflict.

The CDA *Do No Harm* tool is probably the biggest departure from this general approach as it is primarily designed for conflict sensitivity analysis.

Treatment of land and property issues

Our review of the conflict analysis tools suggests that land and property issues do not feature strongly, and tenure security even less so. Most of the analytical frameworks are sufficiently generic that land and property could be included as a factor in the conflict. However, the likelihood of this and how effectively it is done is likely to depend on the details of the framework and the proposed data sources.

[25] Determining the impact of a planned project or intervention on a conflict to ensure it, as a minimum does not exacerbate the risk of conflict escalating to violence.

Across the general-purpose conflict analysis tools we reviewed, land and property is often cited in illustrative examples. However, typically, there is no detailed guidance on how the role of land and property in conflict contexts could be assessed and no reference to tenure security, perceived or otherwise.

The only exception is UNDP's CDA (UNDP, 2016). The UNDP CDA guide contains specific advice on the inclusion of land and property in conflict analysis, describing three main drivers of 'land-related conflicts' within a module on the links between conflict and natural resources: unequal distribution of land, or inequitable access; land tenure insecurity; and overlapping land tenure systems and legal pluralism. The module includes questions that could be used to investigate the drivers, one of which is related to uncertainty of security of tenure, especially for vulnerable populations.

However, there are gaps in this advice: PTS is not mentioned as part of these questions; and there is no guidance on how they could be answered, for example how a user of the guidance could measure the 'uncertainty of security of tenure'.[26]

[26] The CDA Guide asks: "Is there uncertainty regarding security of tenure and other land rights, particularly for already vulnerable populations?"

Table 2 Summary of general-purpose conflict analysis tools

Name of tool	Main author / developer	Main data sources and types			Geographic scope	Timescale of analysis	Guidance on land and property		Guidance on tenure security		Guidance on PTS
		Source	Quant.	Qual.			Extent	Details	Extent	Details	Extent
Conflict Analysis Framework: Field Guidelines and Procedures	Global Partnership for the Prevention of Armed Conflict (GPPAC)	Range of primary and secondary sources	Yes	Yes	Community to Regional	Dependent on context and purpose. Regular updates suggested.	Very limited	Used in illustrative examples	None		None
Conflict and Development Analysis (UNDP CDA)	UNDP	Range of primary and secondary sources	Yes	Yes	Community to Regional	Dependent on context and purpose. Regular updates suggested.	Moderate	Chapter on land including guiding questions	Limited	Guiding questions related to tenure security	None
Conflict assessment Framework version 2.0 (USAID CAF 2.0)	USAID	Range of primary and secondary sources	Yes	Yes	Sub-national and National	Dependent on context and purpose. Regular updates suggested.	Very limited	Land related question in context analysis and used in illustrative examples	Very limited	Tenure related question in context analysis and used in illustrative examples	None
Do No Harm	CDA Collaborative Learning Projects (CDA)	Workshops and FGDs	Limited use	Yes	Community to national	Dependent on context and purpose. Regular updates suggested.	Very limited	References bespoke guidance	Very limited	Used in illustrative examples	None
Guide to context analysis	FAO	Range of primary and secondary sources	Yes	Yes	Community to Regional	Not specified. Timescale for updates should be included in recommendations.	Very limited	Included in two guiding questions	Very limited	Suggested topic to be included in analysis	None
Joint Analysis of Conflict and Stability assessment (JACS)	UK Stabilisation Unit	Range of primary and secondary sources	Yes	Yes	Sub-national and Regional	Dependent on context and purpose. Regular updates suggested.	Very limited	Used in illustrative examples	None		None

Joint Recovery and Peacebuilding Assessments (RPBA)	UN, The World Bank and EU	Range of primary and secondary sources	Yes	Yes	National	Dependent on context and purpose. Regular updates suggested.	None		None		None
Making Sense of Turbulent Contexts (MSTC)	World Vision	Workshops	Limited use	Yes	Sub-national and National	Dependent on context and purpose. Updates every 3 to 10 years suggested	Very limited	Used in illustrative examples	None		None
Manual for Conflict Analysis	Sida	Not specified	Not specifie d	Not specifi ed	Community to national	Dependent on context and purpose. Regular updates suggested.	Very limited	Used in illustrative examples	None		None

4.4.2 Bespoke land and property conflict analysis tools

Principal characteristics

All the bespoke tools (those with a thematic focus on land and property) we reviewed (Table 2) provide specific guidance on the assessment of the role of land and property in violent conflicts. This ranges from 'how to guides', such as from the Global Land Tool Network (GLTN) (GLTN, no date), to detailed conflict analysis and prevention guides and guides which follow specific frameworks. The land and conflict prevention handbook (Bruce and Holt, 2011) and Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict developed for the UN and EU (UN-HABITAT, 2012) are the most comprehensive guides we reviewed in terms of land-related conflict. The Do No Harm in Land Tenure and Property Rights guide also offers detailed guidance, but this is within the overall Do No Harm framework.

The analytical framings used in the bespoke tools broadly align with those used in the general-purpose tools. However, differences in details will affect how easily different types of tools can be used together:

- The outline methodology adopted in the GLTN tool uses a root cause, proximate cause and trigger conceptual model, similar to many of the general-purpose tools. No further details on the analytical framework are provided, such as how to determine the factors, how they interact or fit into the wider conflict context.
- Both of the more comprehensive tools (Bruce and Holt, 2011; UN-Habitat, 2012) use similar analytical frameworks to the overarching framework used in many of the general-purpose tools. Similarities include the characterisation of factors into root and proximate, the identification of triggers, the importance of stakeholder analysis and the recognition of violent conflict as multi-causal.
- One significant difference is that both bespoke land and property tools focus on factors which could lead to violence and give less attention to the assessment of factors that could contribute to non-violence. These 'peace factors' are a feature of the majority of the general-purpose guides.
- As would be expected, the general-purpose tools which have the most tailored analytical frameworks and terminology, have the most notable inconsistencies with these bespoke tools. For instance, the analytical frameworks and terminology used by the bespoke tools do not map directly onto those used in Conflict assessment Framework version 2.0 by USAID. These differences in framing and terminology do not appear insurmountable with careful use of the tools.
- Guidance which is tailored to specific general-purpose tools addresses the issues with terminology and analytical framing, for example the Do No Harm in Land Tenure and Property Rights (Goddard and Lempke, 2013). This is at the expense of widespread applicability, however, as the highly bespoke tool can only be easily used with the corresponding general-purpose tool.

Treatment of land and property issues

As the name suggests, the 'How to do a root cause analysis of land and conflict for peace building' tool by GLTN (GLTN, no date) presents a framework to determine the structural or root causes

of land related conflict. It is intended to be used when land has been identified as a key issue in a wider conflict analysis. The outline methodology it sets out aims to aid identification of root cause, proximate cause and triggers of land related conflicts. Tenure insecurity is not explicitly mentioned but is implied in several of the categories of proximate causes, for example 'competing land claims' and 'denial of access, use or control of land' and 'inability to solve land-related disputes'. However, there is no advice on how these causes could affect tenure security, how this could be assessed or on how they are connected to other aspects of a conflict system. While the GLTN tool provides a good starting point to understand the role land plays in conflict, more detailed guidance than this will typically be required to fully assess the role of land and property in a conflict context, including how it interacts with other drivers and with the broader conflict context.

The Land and Conflict Prevention handbook (Bruce and Holt, 2011) and Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict, developed for the UN and EU (UN-Habitat, 2012), both provide detailed guidance on determining the role of land and property in a conflict context. This includes the role of tenure security and mentions PTS but provides neither a conceptual framing of PTS which would allow it to be fully integrated into the analysis nor information on how it could be assessed.

Table 3 Summary of bespoke conflict analysis tools

Name of tool	Main author / developer	Main data sources and types			Geographic scope	Timescale of analysis	Guidance on land and property		Guidance on tenure security		Guidance on PTS	
		Source	Quant.	Qual.			Extent	Details	Extent	Details	Extent	Details
Do No Harm in Land Tenure and Property Rights	CDA Collaborative Learning Projects (CDA)	Workshops and FGDs	Limited use	Yes	Community to national	Dependent on context and purpose. Regular updates suggested.	Extensive	Detailed guidance on including land and property in Do No Harm framework	Extensive	Detailed guidance on including tenure in Do No Harm framework	None	
Gender analysis of conflict toolkit. Section 6 Topic guide 1: Land	Saferworld	Range of primary and secondary sources	Not specified	Yes	Community to Regional	Dependent on context and purpose. Regular updates suggested.	Extensive	Detailed guidance on including gender on conflict analysis related to land	Extensive	Detailed background guidance on tenure and references to other sources	Limited	Perception and feelings about risk of loss identified as a factor in conflicts
How to do a root cause analysis of land and conflict for peace building	UN-Habitat Global Land Tools Network (GLTN)	Not specified			Community to Regional	Dependent on context and purpose. Regular updates suggested.	Moderate	Guidance on types of causes of conflict related to land	Very limited	Tenure security is implied in some of the suggested causes	None	
Land and Conflict Prevention Handbook	Initiative on Quiet Diplomacy	Range of primary and secondary sources	Yes	Yes	Not specified	Not specified	Extensive	Detailed guidance on land related conflict analysis	Extensive	Detailed guidance on considering tenure in conflict analysis	Limited	Perception and feelings about risk of loss identified as a factor in conflicts
Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict	UN and EU	Not specified			Community to national	Dependent on context and purpose. Regular updates suggested.	Extensive	Detailed guidance on land related conflict analysis	Extensive	Detailed guidance on considering tenure in conflict analysis	Limited	Perception and feelings about risk of loss identified as a factor in conflicts

Gender considerations in conflict analysis tools

The extent of guidance on how to include gender within conflict analysis varies considerably across the tools we reviewed. Our analysis suggests, however, that there is no need for another bespoke gender and land tool, but any guidance on PTS should include gender considerations.

Gender is mentioned in all bar one of the tools. The tools that mention it can be broadly split into three groups:

- Group one: gender is mentioned as a consideration, especially in terms of data collection and analysis, but no detailed guidance is provided, for example MSTC (Garred et al., 2015) and FAO's Guide to context analysis (FAO, 2019);
- Group two: gender is noted as a key consideration which should be mainstreamed in the analysis, some guidance is provided and reference is made to specific gender focused guides, for instance UN/WB/EU Joint Recovery and Peacebuilding Assessments (EU, The World Bank and UN, 2017) and JACS (Stabilisation Unit, 2017);
- Group three: detailed guidance on including gender is provided within the tool; examples include Land and conflict prevention handbook (Bruce and Holt, 2011) and Do No Harm in Land Tenure and Property Rights (Goddard and Lempke, 2013).

When the tool being used does not provide sufficient guidance on the integration of gender into conflict analysis, existing bespoke gender-focused tools can provide this, such as Saferworld's Topic guide on land in their gender analysis of conflict toolkit (Saferworld, 2016). Similar constraints to those faced by the land specific tools on the use of this type of guide to supplement general-purpose guides will exist, for instance compatibility of analytical framing and data sources. Also, like the other land and property related tools, the Saferworld topic guide mentions PTS but does not give any guidance on conceptualisation or how it could be assessed.

4.4.3 Conflict forecasting and early warning tools

Principal characteristics

The forecasting and early warning tools we reviewed are detailed in Table 4. They are less homogeneous than the conflict analysis tools and so we review them in three groups. These groups are based on a combination of: the purpose of the tool and the nature of the outputs; the geographic scope for their prediction or forecast; the time scale of the prediction/forecast; and the type of data used.

GCRI and ViEWS

Both the Global Conflict Risk Index (GCRI) (Halkia et al., 2020) and Violence Early-Warning System (ViEWS) (Halkia et a., 2020) predict the probability of violent events occurring in the future. Both sets of forecasts are publicly available, and the GCRI forecast is an input into the EU Early Warning System (EWS). The predictions are based on quantitative data largely about structural conditions across different themes:

- GCRI uses 24 variables that represent structural conditions at national level across five themes: political, security, social, economic and geographical (Halkia et al., 2020).
- ViEWS uses an even greater number of variables across five themes (conflict history, demographic, economic, institutions, history of protest) for its national level forecasts and

variables across six themes (five from national level plus natural geography) for its sub-national forecasts (Hegre et al., 2019).

The GCRI gives national level forecasts for the next one to four years. ViEWS gives monthly forecasts for the coming three years for Africa at both national and sub-national scales.

CrisisWatch

CrisisWatch uses expert analysis to track the trends and identify risks of escalation of violence conflict or opportunities for peace in 80 conflicts around the world. Their monthly updates include a succinct summary narrative and itemisation of relevant events in each country, and the political and security situation is rated as either significantly deteriorated, significantly improved or neither deteriorated nor improved. The monthly updates also identify countries in which there is a risk of new violence or a major escalation, and if there is a particular opportunity to advance peace efforts in the coming month. These monthly updates are supported by longer thematic reports and summarised into a monthly 'global overview' (Crisis Group, 2020a).

CEWARN and PIND

Conflict Early Warning and Response Mechanism (CEWARN, no date) and PIND are both examples of early warning and early response systems. CEWARN is a regional system set up by Intergovernmental Authority on Development (IGAD) and covers members of IGAD (CEWARN, no date). The system established by PIND, a Nigerian Non-Profit organization, focuses on the Niger Delta area (PIND, 2019). Both systems use or plan to use a combination of data to track conflict trends and give early warning for potential onset or escalation of violence: locally sourced data on incidents of violence and indicators of violent conflict; external data, such as The Armed Conflict Location and Event Data Project (ACLED);[27] and qualitative analysis.

Both systems produce similar outputs, including: alerts (either through reports, emails or SMS) of potential onset or escalation of violence; periodic updates on conflict trends (ranging from weekly to annually); more in-depth reports and briefs; and online GIS tools for visualisation of incidents and other contextual data.

Treatment of land and property issues

The degree to which land and property is included in the forecasting and early warning tools varies.

GCRI and ViEWS

Neither the GCRI (Halkia et al., 2020) or ViEWS (Hegre et al., 2019) directly include data associated with land and property in the analysis for their predictions. Both use a large number of independent variables (predictors). These typically cover structural conditions such as GDP per capita, measures of government effectiveness and population, but none are directly related to land and property.

Both tools require historic data on violent conflicts to use as the basis for their predictions. Both use the UCDP datasets. The most longstanding of these datasets, the Georeferenced Event Dataset, restricts the types of events it includes to those between certain actors and with minimum thresholds of casualties, (Section 2.1). While the dataset is extensive, covering hundreds of groups and conflicts, these restrictions could result in land and property related violence being excluded if the groups involved are not classed as 'informally organised', and if the threshold of 25 deaths in a

[27] https://acleddata.com

single year is not met. If this is the case, forecasts based on this data may not include the full risk of land and property related violence. Even though a detailed analysis of the dataset will need to be carried out to confirm if this is the case, it is illustrative of the broader point: to be able to forecast land and property related violent conflict, such events need to be recorded with sufficient accuracy.

CrisisWatch

Land and property features in detailed thematic reports produced as part of CrisisWatch (Crisis Group, 2020a), but is less explicitly included in alerts and monthly updates. Several of the categories used to itemise the events in the monthly updates could have a land and property rights dimension, for example farmer-herder violence, election violence and inter-communal violence. However, based on our rapid review of the updates, they do not typically include analysis of the deeper causes, such as tenure security or implications of events. Although, these may have been included in the expert analysis behind these updates. The thematic reports examine the causes and impacts of violent conflict in greater depth. Some of these contain detailed analysis on the role of land and property, for example the report on communal violence in Mali published in November 2020 (Crisis Group, 2020b). Our review did not identify the use of PTS data in either the monthly updates or thematic reports.

CEWARN and PIND's conflict early warning systems

Both conflict early warning systems we reviewed incorporate land and property into several aspects of their data collection, analysis and outputs. CEWARN was originally designed to address cross border conflicts among pastoral groups and communities in the IGAD countries. Its current strategy aims to increase this to other types of conflict and a larger geographical area (CEWARN, no date). CEWARN's initial focus on conflicts among pastoral groups and communities evidently had a land and property dimension. The importance of land and property issues for CEWARN is also clear in the more recent strategy. All countries identified land issues as one or more of their priority themes during the strategy development (ibid.). PIND's system does not have a thematic focus.

The categories which CEWARN[28] and PIND use to classify the data they collect on incidents of violence allows analysis of certain types of land and property related violence and potentially early warning alerts for land and property related violence. The categories which PIND include 'Land Competition / Cattle rustling', 'Displaced by Land Seizure' and 'Inter-Communal Tension or Violence' (PIND and FFP, 2020). CEWARN's categories include 'raids' that result in destruction of property and communal violence. No categories directly reference tenure security.

PIND's situation reports regularly include updates on conflict related to land, for example the weekly update in October 2020 (PIND, 2020b) focused on communal violence linked to land disputes and the quarterly tracker published at the end of the third quarter for 2020, identifies land disputes as a major cause of communal violence in the Niger Delta region (PIND, 2020a). Conflict over access to land among pastoral groups and communities feature regularly in the historic situation briefs produced by CEWARN. Recent situation briefs from CEWARN are currently unavailable. However, based on the reports we reviewed, changes in tenure security was not used to elaborate on the risk of violent conflict.

[28] CEWARN's recently updated indicators are not available online. This analysis is based on those described in 2007-2011 CEWARN strategy (CEWARN, 2006)

Table 4 Summary of forecasting and early warning tools

Name of tool	Main author / developer	Main data sources and types			Geographic scope for forecasts	Timescale of forecasts	Inclusion of land and property		Inclusion of tenure security		Inclusion of PTS
		Source	Quant.	Qual.			Extent	Details	Extent	Details	Extent
Global Conflict Risk Index (GCRI)	EU	Open source datasets	Yes	Not directly	National	Annual updates on conflict risk in next 1 to 4 years	None		None		None
Violence Early-Warning System (ViEWS)	Department of Peace and Conflict Research, University of Uppsala	Open source datasets	Yes	Not directly	Subnational and national	Monthly updates on conflict risk in next 3 years	None		None		None
Crisis watch	The International Crisis Group	Expert analysis	Not directly	Yes	National	Monthly updates on changes in conflict risk	Moderate	Included in detailed thematic reports. Less explicated included in alerts and monthly updates.	Very limited	Some thematic reports include analyses related to tenure security.	None
CEWARN	Intergovernmental Authority on Development (IGAD)	Field monitors	Not directly	Yes	Subnational and trans boundary	Immediate alerts and monthly updates on changes in conflict trends	Extensive	Primary focus on pastoral groups and communities. Incidents related to destruction of property and communal violence are tracked and reported	Unclear	Historic reports do not include tenure security. More recent reports are unavailable.	None
PIND integrated early warning and response system	PIND	Field monitors and open source datasets	Yes	Yes	Subnational	Immediate alerts and weekly, monthly and quarterly updates on conflict trends	Extensive	Incidents related to and land and property are tracked and reported.	Moderate	The role of land disputes is included in some periodic reports.	None

Gender considerations in forecasting and early warning tools

The manner and extent to which a gender lens is used in the forecasting and early warning tools differ. Gender is not an aspect in any of the predictor variables used by GCRI and ViEWS, but it does feature in CrisisWatch, PIND's EWER and CEWARN.

Gender is a major theme in many of the longer thematic reports by CrisisWatch. The reports have included analysis on the impacts of violence and conflict on women, the role of women in insurgencies and in peace building. There is limited consideration of gender in the monthly updates. Casualty figures are not typically disaggregated by gender, but the role and impact on women is mentioned in some events, for instance when protests are led by or are predominantly attended by women and when there has been an increase in domestic violence.

Of the two EWS we reviewed, PIND's includes gender most extensively. The events linked to conflict and violence recorded in the online GIS map can be disaggregated by whether they affected women and girls. The weekly updates do not typically provide this disaggregation, but some do have a gendered focus and the quarterly trend reports include updates on violence against women and girls. Gender considerations are less apparent in the CEWARN system, although 'women peace messengers' and 'all male migration' are indicators that are considered in the situation reports.

4.5 Conclusions

Our analysis indicates there are gaps in how land and property are treated in both the conflict analysis and forecasting and early warning tools, and that PTS is not factored into any model or tool:

- The general-purpose conflict analysis tools do not provide sufficient guidance on how to assess the role of land and property in a conflict context. The bespoke land and property-related conflict analysis tools which we reviewed could be used alongside the more general tools to enhance them — although terminology, details of analytical framing and types of data may need to be aligned for certain tools. However, neither the general purpose nor the bespoke conflict analysis tools provide guidance on assessing the role of PTS and using this in conflict analysis.
- There are also gaps in how land and property are integrated into the conflict forecasting and early warning tools, varying across the three types of tool we reviewed:
    - Neither of the quantitative forecasting tools uses any data related to land, property or tenure security in their analysis.
    - CrisisWatch, the largely global qualitative tool, includes information about land and property in its detailed analysis but does not appear to include this in its monthly updates and associated alerts.
    - The two early warning and response systems include information about land and property in their analysis and alerts.
- None of the conflict forecasting or early warning tools include information on tenure security or PTS

Additionally, to be useful for policymakers and practitioners, these tools need to provide information on heightened risks of land related conflicts sufficiently early to enable timely prevention engagements. Tools also need to be relevant for situations where land related disputes are simmering but are below the conventional radar. We have not reviewed how PTS and other land issues are recognised and tools and analysis are applied in processes within partners when designing country engagements (e.g. strategies and programs) that include the range of activities across agencies (e.g. diplomatic, security, trade & investment, humanitarian, development, financial, etc.) and in regular assessments of their engagements. Deeper integration of PTS into the mainstream of these partner engagements might produce real conflict prevention benefits.

5 Strengthening conflict tools – the potential for incorporating PTS

Successfully incorporating PTS requires selecting which tools could most benefit from integrating PTS as an additional data source — designing a robust way to measure levels of PTS and its drivers and identifying how the methodology for assessing PTS, will need to adjust to the different needs of those tools.

5.1 Identifying tools where PTS can add most value

Within conflict analysis, and forecasting and early warning tools, five sub-types of tools could benefit from incorporating PTS to sharpen their accuracy and predictive power:

- Conflict analysis for prevention and peace building, flagging how the conceptual framing of PTS could be integrated into the analysis, and identifying what data is needed and ways to gather it, including considerations around gender.
- Conflict sensitivity, where measures of PTS could be used to monitor the impact of an intervention.
- Local level early warning and response, using PTS as an indicator for alerts, in categorisation of recorded violent events and within thematic analysis and associated outputs.
- Longer-term quantitative forecasting, once a multi-year dataset on PTS, such as Prindex, is available to investigate how PTS could increase the ability of these tools to predict violent conflict if it is not correlated with variables they already use.
- Qualitative forecasting, where adding PTS could aid understanding of the conflict context and risk of future conflict.

Based on donor priorities, current data availability and our current understanding of the importance of PTS in local-level violent conflict that has not escalated into large scale militarized conflict — two tools stand out as priorities for providing more detailed guidance on how to incorporate PTS: sub-national level conflict analysis for prevention and peace building, and local level early warning. We set out outline guidance for this in the following sections.

While there is growing interest in global level forecasting, we have not included guidance for this because we do not have a multi-year data set for PTS. Once this is available, we can investigate the relationship between PTS and violent conflict in a more comprehensive manner, especially how changes in PTS affect violent conflict risk. In the interim, an alternative avenue of investigation, which is outside of the scope of the current study, would be assessing the value of including PTS in broader stability and fragility trackers, such as the OECD States of Fragility and EC's INFORM suite of tools. A first step in this analysis would be to assess if national levels of PTS add a distinct dimension to these indexes.

Before setting out the suggested guidance on how to incorporate PTS into these tools, we describe the key factors which affect how PTS is measured and interpreted.

5.2 Measuring and interpreting PTS

Measuring levels of PTS and interpreting what is affecting those levels requires information on several elements:

1. *Whose* PTS needs to be assessed. For example, is it an individual's or a group's tenure security? Is it an individual's perception of their own tenure security, or their perception of another person's or group's? Prindex' global methodology (Box 4) focuses on individual perceptions but tailors that methodology to suit other situations, such as measuring community perceptions (which would be important for assessing farmer-herder conflicts where pastoralists usually operate communally or for conflicts involving community-based rights). Gender should be a key consideration when assessing PTS. Levels of PTS and the reasons for insecurity can vary significantly between genders in some contexts[29].
2. *How* PTS should be assessed. Should this be based on risk, for example, asking about how likely it is that the respondent may lose their rights, or emotion, e.g. how worried they are about it. The global Prindex methodology uses a risk-based question as that has proved to be the most neutral and consistent across many countries. However, questions based on worry or fear may be more effective measures in conflict settings as they are more closely connected with threats.
3. Over what *timescale*. The global Prindex methodology uses a five-year projection of PTS but a shorter timescale, one year or less, may be more appropriate for conflict contexts.
4. *Which* land or property to include. For example, is all land and property to which a respondent has rights, or is it only their home or agricultural land? This is important because respondents may face different threats to their home than to other land and property they own, and may respond differently to these threats.
5. *Why* respondents are feeling insecure. Although the concept of PTS is designed to be universally applicable across contexts, locally specific conditions will affect *why* people feel insecure about their tenure and *how* this could be altered, for example, the form of tenure and associated rights (owners, tenants, communal rights etc.); the land and property governance, administration; and the economic and social role of land and property (Nizalov et al., 2020). The global Prindex dataset includes a set of responses across all countries which identify different sources of insecurity — internal (e.g. family disputes) and external (e.g. loss of land to agribusiness or lack of trust in the government/customary authority). The responses will need to be tailored to local contexts and include questions that are important to understand the conflict context as well as other, non-conflict related, factors that affect tenure security. Conflict related responses will need to cover the entire conflict context: structural factors, proximate factors, institutions and governance, actors (voice and agency) and triggers as set out in Figures 1 and 2.
6. What the perceived *impact* of tenure insecurity and/or loss of rights is. This is not assessed in detail in the current Prindex methodology, but could be a critical factor in whether PTS is associated with violent conflict risk. For example, if loss of rights to land or property would have a significant effect on livelihood, political power or access to land with strong emotional links (e.g. sacred places), an individual or group may be more likely to respond to this and look for others to blame, than if the loss of rights will have a limited impact. Assessing this in a

[29] See the Prindex initiative's report on PTS and gender for an overview.- https://www.prindex.net/reports/womens-perceptions-tenure-security-evidence-140-countries/

conflict sensitive manner will be important. Using questions about worry or fear of loss of rights (as described in Point 2) could be an indirect way of assessing impact.

All of these factors require further investigation in conflict contexts. This will be an important aim when piloting the suggested guidance set out below.

Box 4 The Prindex Initiative's methodology for the globally comparative survey

The Prindex Initiative assesses an individual's perceived tenure security using the question: *In the next five years, how likely or unlikely is it that you could lose the right to use this property, or part of this property, against your will?*

Respondents are given four main response options: very unlikely, unlikely, somewhat likely and very likely. They are also given the option to say they don't know or refuse to answer the question. Based on these responses, we classify each respondent as follows: tenure secure, if they respond very unlikely or unlikely, and tenure insecure if they respond somewhat likely and very likely, providing a balanced assessment across the different options (Table 5). This question is aligned with the question used for SDG indicator 1.4.2. If the respondent is classified as insecure, they are asked the reasons for their answer.

Table 5 Perceived tenure security classifications

Response	Very unlikely	Unlikely	Somewhat likely	Very likely	Don't know	Refuse to answer
Classification	Secure		Insecure		Don't know or refused to answer	

The survey is conducted with a randomly selected member of each household, not just the head of household or property owner. This allows the survey to capture a representative sample of the total adult population and a more accurate read on individual women's perceptions. Respondents are asked the above question in relation to the main property in which they live and any other land or properties which members of their household have rights to. In addition to allowing comparisons across of groups and tenure types, this approach is in accordance with the requirements for SDG 1.4.2

The survey also includes several other questions to help identify individual-, household- and property-characteristics associated with PTS. These include tenure classification, age, marital status, income, household size, levels of educational attainment, urbanicity and whether land is attached to the property or not. Respondents are also asked if they or other family members have any documents that demonstrate their right to live in the current dwelling and for rights to any other property.

5.3 Suggested guidance on how to include PTS in local level early warning and response and conflict analysis

In the following sections we set out suggested guidance on how PTS could be integrated into local level early warning and response and conflict analysis. We also include some supplementary guidance on the inclusion of land and property related factors more broadly based on the framework we describe in Section 2. This guidance is based on our current understanding of the role of PTS in violent conflict. There are gaps in the evidence and understanding of this. Therefore, piloting this guidance to fill these evidence gaps and allow the development of more robust guidance is an important next step.

We have followed the following principles to develop the suggested guidance:

1. The guidance should supplement existing tools and EWER systems rather than propose new ones. The developers of the existing tools and EWER systems have invested significantly in their development and operationalisation. Therefore, new tools or systems are unlikely to be widely adopted.
2. The guidance should be flexible enough to be used with the different tools and systems. There are already many conflict analysis tools and EWER systems and each uses slightly different approaches. Therefore, to maximise impact of the guidance it should be flexible so it can be used by different tools and systems.
3. Guidance should minimise resources required, both time and financial, which can be considerable constraints for conflict analysis and EWER systems. The guidance should help users to figure out if PTS is relevant in their context, and if it is, how to collect data on it in a cost and time efficient manner.
4. PTS will not be relevant in all contexts and when it is it will play different roles in the conflict system. As well as supporting users to assess the relevance of PTS, this means that the guidance should not be based on narrow assumptions on the role of PTS. This is a key area of uncertainty in the guidance because of the current lack of empirical evidence on the role of PTS in violent conflict.
5. Participation of stakeholders that are affected by the conflict, and have locally relevant knowledge, should be maximised. This is highlighted as important for effective conflict analysis in the majority of the conflict analysis tools we reviewed and for effective early warning and response systems (Rohwerder, 2015)
6. Factors which relate to increased conflict risk and those that contribute towards non-violence and peace should be included. This is in line with the conflict framework we present in Section 2, the majority of the conflict analysis tools we reviewed and guidance on how early warning and response systems could be improved (Nyheim, 2015).

5.3.1 Outline guidance on including PTS in a local level integrated EWER system

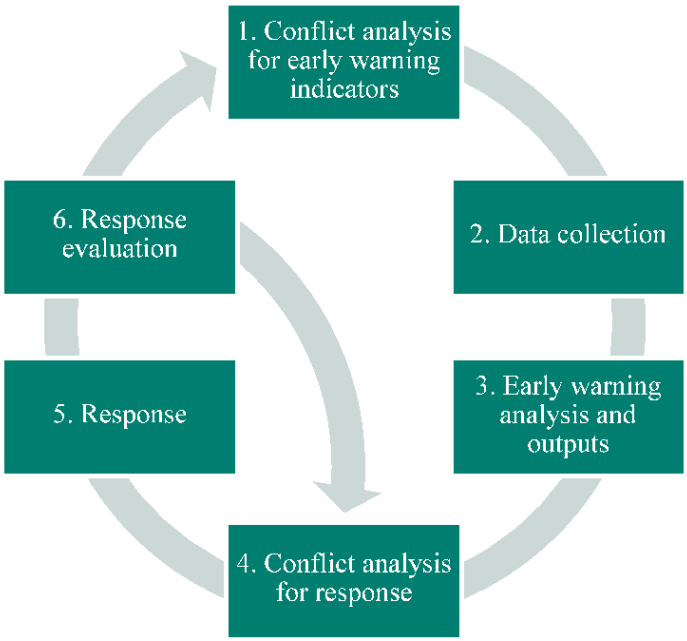
To illustrate how PTS could be included in a local level integrated EWER system, we will use an idealised process for this type of system (Figure 9). The guidance is for integrated early warning and response systems which combine conflict early warning, conflict analysis and prevention

interventions. This includes evaluating the responses and feeding the outcomes from this back into the data collection and analysis process.

The process is adapted from best practice guidance published by the developers of the PIND system and other guidance on effective EWER systems (Nyheim, 2015).

It assumes that the EWER system focuses on sub-national level violent conflicts for two reasons. Firstly, this is the scale of most recent violent conflict and land-related conflict. Secondly, this should be the scale at which the guidance can be most readily piloted, as it will require less resources than piloting at regional or international scales.

Figure 9 Idealised EWER system



Stage 1: Conflict analysis to determine the early warning indicators

At the start of the process, one needs to determine whether data on land and property related factors, including PTS, are relevant and sufficiently important to be included in the regular early warning data collection and analysis — and if they are, the issues that affect them identified so these can also be included. We suggest this is assessed through a preliminary conflict analysis including exploratory quantitative analysis, if data is available.

The Initiative on Quiet Diplomacy's 'Quick Guide to Land and Conflict Prevention' (Bruce and Holt, 2013) provides useful guidance on how to conduct a scoping exercise on land and property related factors in conflict analysis. For a comprehensive review, we suggest this analysis should cover all the components of the framework we set out in Section 2: structural factors, proximate factors, governance and institutions, voice and agency (actors) and trigger events. The data on PTS could be sourced through key informant interviews with land and property experts and key figures in the conflict, through focus group discussions with or surveys of the affected communities and existing datasets.

This assessment needs to take into account the key factors associated with the assessment of PTS (Section 5.2). It also needs to situate levels of PTS, reasons for it and the perceived or objective impacts in the wider socio-environmental context. This will allow aspects of PTS that are a factor in the conflict and those that are not to be determined.

As outlined in Section 5.2 and the Prindex report on gender, gender should be a key consideration in this analysis as PTS and reasons for insecurity can vary between genders in some contexts. The intersection of gender, PTS and violent conflict will be a key area of investigation when piloting this guidance as these connections have not been extensively researched.

At this stage, only assessing levels of tenure security (percentage of people who feel (in)secure) is not sufficient because tenure insecurity on its own may not be directly associated with conflict risk. For instance, people may feel insecure for financial reasons and this may not result in grievance or conflict.

Stage 2: Data collection for the early warning indicators

PTS and land and property related factors more broadly could be included in early warning indicators in different ways:

1. PTS could be a standalone indicator, e.g. levels of PTS; the reasons for this and impacts could be monitored for different individuals or groups as a direct indicator for conflict risk.
2. Incidents or events that could affect risk of violent conflict associated with land and property could be monitored.

When PTS is a key factor in the conflict, both indicators are likely to be needed to give a complete view of the risk of violent conflict related to land and property.

Data on PTS could be collected in different ways depending on the types of indicator, the organisational arrangements of the EWER and on characteristics of the required data, for example whose tenure security is being assessed and for what type of land or property. Options to collect data on PTS when it is a standalone indicator include:

- *Surveys by community-based field monitors:* Community-based field monitors could collect and report the data as part of their regular monitoring and reporting. To monitor levels of PTS and reasons for it, they could use periodic interviews with a representative panel of key informants in relevant communities. These could be conducted in person or by mobile phone. This data could be triangulated and supplemented through focus group discussions with key groups.
- *SMS surveys:* Periodic SMS based surveys of a representative panel of key informants in relevant communities, could provide data on levels of PTS and reasons for this. The panel could be selected by representatives of the EWER system, for example the community-based field monitors or CSOs working with the EWER system. This would allow fast and efficient data collection and could be integrated into SMS based incident monitoring systems. The number and complexity of questions would need to be more limited than in person or mobile phone interviews. Therefore, supplementary interviews or focus group discussions may be necessary.
- *Surveys by CSOs or government institutions:* Questions related to PTS could be integrated into existing surveys conducted by CSOs or government institutions. The feasibility of this will depend on the characteristics of the existing survey, for example topic, frequency, coverage and whether the implementing organisation will affect an interviewee's responses.

The types of incidents or events related to land and property that are monitored will depend on the context, but should cover all the components from the framework we set out in Section 2. The majority of the data could be gathered through typical event and incident reporting systems used by

EWER systems, including, community-based field monitors, SMS reporting systems and from external data sources, such as ACLED or Nigeria Watch. Key informant interviews or focus groups discussion may also be required to track some factors, for example forthcoming legislation, changes in community leadership or planned land acquisitions.

Stage 3: Analysis of the data and production of the early warning outputs

During this stage the early warning data is analysed and outputs produced to facilitate prioritisation of conflict issues and to support further analysis and planning. PTS and other land and property related data and analysis could be integrated into the typical suite of outputs from EWER systems in different ways.

- *Alerts:* Alerts sent to organisations or individuals who can rapidly react to sudden events or incidents are typically based on predetermined trends in early warning indicators, for instance an increase in numbers of incidents. Changes in levels of PTS in a community or in the number of land and property related events could be used in an equivalent manner. The significance of any changes would need to be calibrated to a given context, i.e. the number of people who need to report a change in their PTS or number of events that would trigger an alert.
- *GIS mapping of recorded incidents:* Data on PTS and land and property related events could be directly integrated into GIS maps produced by EWER systems without significant changes to how these function. Data on levels of PTS of individuals or groups may require more adaptation of the systems used to produce the GIS maps, but this could be included using standard functionality of GIS software, for example heat maps.
- *Periodic and thematic reports:* Periodic and thematic reports on trends, hotspots and patterns in the early warning indicators and wider factors in the conflict can also incorporate PTS and other land and property data. They typically include basic quantitative analysis which could include data on levels of PTS and numbers of events. Qualitative analysis could be supplemented with data collected during interviews with key informants or focus group discussions.

It is best practice to make all of these outputs publicly available (Nyheim, 2015). The addition of PTS data, even when collected from individuals, should not be a barrier to this because it can be anonymised in a similar manner to other types of sensitive data managed by EWER systems, such as incident reports.

Stage 4: Conflict analysis to enable a response to be developed

Once a key violent conflict risk has been identified, more detailed conflict analysis facilitates the design of a response. Rapid analysis for events requiring a fast response to stem possible violence and loss of life, could be supported by supplementary data collection on reasons for changes in PTS or other land related factors collected by field monitors or SMS surveys of regular respondents.

More detailed conflict analysis, to address longer-term conflict risks, could be carried out using any conflict analysis tool with supporting guidance on conflict analysis related land and property, such as The Initiative on Quiet Diplomacy's 'Land and Conflict Prevention' handbook (Bruce and Holt, 2013). The conflict framework set out in Section 2 could also be used to organise this research and ensure that all aspects of land and property relevant to the conflict are included.

Additional data collection to understand how PTS fits into the conflict system is likely to be required for more detailed analysis. Data collection for this could include:

- More extensive data on levels of PTS and reasons for it amongst the affected communities could be collected through household surveys or focus group discussions. This will need to take into account factors that affect assessment of PTS, (Section 5.2). The reasons for insecurity and the impacts of tenure insecurity and loss of rights are likely to be important focuses for this analysis.
- Key informant interviews and desk-based research to situate the levels of PTS, reasons for it and impacts in the wider conflict context. This will need to cover connections between PTS and structural factors, proximate factors, trigger events, institutions and governance and actors (voice and agency). This research should extend beyond the local level focus of the EWER to include national and transboundary factors.

As stated in Stage 1, gender should be a key consideration in this analysis because PTS and the reasons for insecurity can vary significantly between genders in some contexts.

Stage 5: Implementation of the response

During the response, data on PTS and other land and property related factors could be used to monitor the impact. The data could be collected through the channels described for Stage 2. It will probably be possible to monitor short term responses that aim to address immediate triggers of violence using the typical early warning metrics. Responses that aim to address proximate or structural factors, voice and agency and institutions may require supplementary indicators that are directly connected to the response.

Stage 6: Evaluation of the response

The evaluation of the response will feed back into any future conflict analysis used to update the early warning indicators or further responses. Assessment of PTS and other land and property related factors could also be included in this stage as indicators of impact. As proposed in Step 5, it will probably be possible to evaluate short term responses using the typical early warning metrics. Responses that aim to address proximate or structural factors, voice and agency and institutions may require supplementary indicators.

5.3.2 Outline guidance to include PTS in local-level conflict analysis which is not part of an integrated EWER system

When local-level conflict analysis is conducted outside of an integrated EWER system, PTS and other land and property related data could be included in a similar way to Stage 4 of the EWER approach. However, in this case we suggest the addition of a scoping stage, similar to Stage 1 in the EWER process before the detailed conflict analysis is carried out to determine if land and property, and PTS are significant enough factors to warrant detailed investigation.

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Annex 1: List of Interviews

	Expert Name	Affiliation	Role / Area of expertise
1	Frederik Teufel	AfDB	AfDB lead on fragility and conflict
2	Yero Baldeh	AfDB	AfDB Director for Transition States
3	Aurelien Tobie	FCDO	FCDO conflict advisor
4	Charlotte Scawen	FCDO	FCDO conflict advisor
5	Liz Drew	FCDO	FCDO conflict advisor
6	Rachael Knight	IIED	IIED Senior associate for Natural Resources and Namati founder
7	Catherine Boone	London School of Economics	Professor of Comparative Politics, London School of Economics
8	Jon Unruh	McGill University	Associate Professor Director, African Field Studies Semester, McGill University
9	Jago Salmon	UN	Key person on peacebuilding and a co-leader of the UN-WB report on conflict prevention
10	Oumar Sylla	UN-Habitat	Director of UN-Habitat's Regional Office for Africa
11	Rhodri Williams	Folke Bernadotte Academy	Specialist, Rule of Law; Department for Governance