K4D | Knowledge, evidence and learning for development

Climate change, vulnerability to violent extremism and conflict in Kenya

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13 August 2019

Question

In what ways do the impacts of and responses to climate change affect vulnerability to inter-group conflict and violent extremism in Kenya and other similar contexts?

Contents

1. Summary

This rapid review explores the evidence of indirect connections between conflict, vulnerability and climate change in Kenya. The connections between climate change and conflict are complex, dependent, and not fully understood; robust scientific evidence of this relationship remains obscure, with debates ongoing. Evidence suggesting a direct, linear relationship between conflict and climate-related or climate-sensitive factors is contested (see Adger et al., 2014); this review does not go into detail on this debate or seek to make a direct connection (see Price, 2019). There is, however, some agreement in the literature on indirect links and mediating factors where climate-related change can influence factors that lead to or exacerbate conflict under certain circumstances. There are also areas where vulnerabilities to conflict and climate change impacts intersect.

Evidence from northern and coastal Kenya was prioritised at the request of the DFID advisers. Some other countries with similar contexts were also explored to a lesser degree. There are many different forms of violence. The rise of violent extremism[1] in the Horn of Africa region is associated with the emergent regional security threat posed by Somalia's al-Shabaab group. Non-climate push and pull factors (such as unemployment, corruption, culture, ethnic tensions) are key when considering violence and inter-communal conflict in Kenya. There is evidence that climate-related disasters (/impacts) and conflict share both underlying vulnerabilities and mitigation strategies. Although generalisations are difficult as local contexts vary markedly. The literature emphasises the importance of considering context and understanding conflict dynamics and projected climate change impacts at the local level. Political, spatial and temporal dimensions should also be included when studying these links. Just as conflict often reinforces already existing vulnerability, exposure and inequality, so can climate-related effects, which will not be felt equally by all (Sida, 2018). Likewise conflict is not necessarily bad and cooperation is not necessarily good (Netherlands Organisation for Scientific Research, 2018d). This review provides some brief highlights of areas where vulnerabilities may interact.

Main findings include:

- Historically, competition over access and control of natural resources (such as water, pasture, and land-use), border/boundary disputes and political contestations during elections have been the main manifestations of conflicts in Kenya. Inter-clan or cross-boundary tensions in Kenya are majorly attributed to competition over limited resources such as water and pasture; however, issues around marginalisation and political representation are gaining ground in the literature.

- Northern areas of Kenya came up more in the literature than coastal areas. This could be due to the focus on pastoralist conflicts and their use of natural resources.

- Profound changes are taking place in northern Kenya, including: wealth differentiation as a result of recurrent livestock losses; greater sedentarisation; increasing demand for education and livelihood diversification; and changing gender roles (Pavanello, 2015).

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[1] There are varying definitions of violent extremism in the literature, and it remains poorly defined. Most definitions identify violent extremism as "an act carried out by a non-state actor for ideological, religious, or political motives" (*Villa-Vicencio, Buchanan-Clarke & Humphrey,* 2016, p. 6).

- Despite differences in clan-based groupings within northeast counties in Kenya (Garissa County, Wajir County and Mandera County), some similarities have been noted in fundamental drivers of clan conflicts. Competition over scarce natural resources (water, pasture and land); the creation of new internal boundaries that disrupt traditional migration routes; and the struggle for political representation have all played a significant role in intensifying clan conflicts in all three counties. Furthermore, al-Shabaab has exploited existing clan conflicts and dynamics in the region by influencing and exacerbating clan divisions (Sahgal et al., 2019; Chome, 2016).

- Conflicts in northern Kenya are transforming away from traditional resource-based incidents and livestock-theft and are increasingly driven by larger economic agendas (including oil and geothermal) as well as regional security pressures beyond Kenya (Lind, 2018). While devolution might minimise certain types of political violence in Kenya, in many ways it has reinforced social divisions, especially in northern Kenya, where violence has often been an important feature of social relations (Bennet, 2018).

- The literature emphasises that there is no simple, direct link of causation between scarce natural resources and conflict in northern Kenya (Lind, 2015). Complex political, economic and social processes have long strained pastoralists' strategies, customary institutions, and livelihood systems in the area (Pavanello, 2015).

- Previous peacebuilding efforts in northern Kenya have not been successful. Lessons learned include recognising the limits of local-level reconciliation in a context of structural conflict, generalised insecurity, and absence of the rule of law. Addressing the root causes of conflict and advancing peacebuilding efforts require both improved governance and security and economic growth of the region. Local acceptance and confidence in such efforts is also key, but has been lacking (Lind, 2015).

- The discovery of oil and other extractives in various parts of Kenya, especially in northern areas, has the potential to exacerbate existing local tensions and further complicate conflict dynamics (Johannes, Zulu & Kalipeni, 2015).

- Links between cattle raiding and climate in northern Kenya are not clear, with competing theories; some see raiding being linked to more rain (or the rainy season) and others to drought. Schilling et al (2014) propose that in regular years, raiding is mostly conducted before and during the long and short rains. But when rains fail and a certain threshold of resource scarcity is reached, raids are conducted not only to compensate drought-related livestock losses but to protect or gain control over scare pasture and water resources.

- Conflict is part and parcel of the adaptation process in many parts of Kenya, not just an external factor inhibiting local adaptation strategies. For example, in Turkana, violence has transformed the social relations and networks used in livelihood adaptations during times of increased vulnerability. Hence, conflict resolution (including improved protection against violence and access to justice) is critical to adaptation (Eriksen & Lind, 2009).

- Vested interests and political barriers must be considered when developing and implementing effective adaptation strategies, including the need to challenge existing power structures and relations locally and nationally in Kenya (Eriksen & Lind, 2009).

- Increasing attention to resilience and adaptation among humanitarian actors in Kenya may not lead to reduced vulnerability because resources tend to be captured through existing power structures, thus sustaining the marginalisation processes that cause vulnerability to climate shocks and stressors (Mosberg et al., 2017).

- A study in the Horn of Africa found that the effects of economic and climate-related shock on household food security could be mitigated by strengthening community and institutional conflict management skills and systems. Further research is needed to understand the contextual elements that might be required for bridging social capital to support resilience (Kurtz & McMahon, 2015).

- Migration due to drought and environmental degradation (in conjunction with other factors and complexities) is a reported coping strategy in Kenya (van Baalen & Mobjörk, 2016). There is some evidence that Kenyans who report relocating due to drought or water shortages are more likely to be victims of violence than people who do not move in (Linke et al., 2018).

- Coping strategies to dry seasons, and particularly drought, can put women and girls at higher risk of (sexual) violence (Pavanello, 2015). A study into the lives of girls in pastoralist communities in Turkana and the role they play in household and community resilience found that during times of drought, the increased responsibilities girls carry and the specific livelihood strategies they employ may precipitate a protection crisis with increased risk to violence, exploitation and abuse (Chetail et al., 2015). Adolescent boys were equally affected by this protection crisis, although due to different factors.

- Many papers explore reasons for joining jihadist groups in Kenya, but none of these mention climate change and environmental factors as playing a role. Implying that although impacts may indirectly influence push/pull factors such as unemployment and livelihoods, these are not significant in relation to other key factors.

- Findings from the Conflict and Cooperation in the Management of Climate Change (CCMCC) programme offer insights into conflict-sensitive adaptation approaches and natural resource use, and challenges the traditional way of thinking around definitions of conflict and cooperation (Netherlands Organisation for Scientific Research, 2018d).

This review draws on a wide range of academic and non-academic sources. The literature base is growing rapidly; however, debates (and controversies) remain. There is currently little academic research on violent extremism. There are also challenges in research in the fields of conflict and climate change due to the differing understandings and definitions of key terms such as resilience, fragility, violent extremism, etc. An important issue to consider is that although the literature base has been rapidly expanding in the climate change-conflict sphere, geographic coverage is still biased towards certain areas (in particular East Africa). In addition, there is recognition of a need for further practical studies and understandings of how conflict and climate change adaptation interact, and how to practically refine adaptation and disaster risk reduction strategies, tools and approaches so that they are appropriate and effective in conditions of violent conflict. Further research and attention is needed on counterfactuals where tensions over resources or scarcity has not resulted in violence but have been successfully mitigated.

2. Understanding the issues

Context, complexity and multiple connections

There is general agreement that climate change and conflict may be indirectly linked, i.e. factors that play a role in increasing conflict risk may be reinforced by climate change. There are also examples showing how local conflicts around natural resources may be triggered or exacerbated

by climate-related factors, particularly in economies that are highly dependent on natural resources (Sida, 2018). Integrating climate change adaptation and peacebuilding could be beneficial, but remains a challenge for practitioners (Tänzler, Rüttinger & Scherer, 2018).

In a workshop on climate change adaptation and conflict in 2012, participants highlighted that it is important to consider the multifaceted ways that climate change and conflict could interconnect (Adaptation Partnership, 2012, p. 3):

- Climate change exacerbating existing conflict dynamics
- Climate change leading to *new* conflict dynamics
- Conflict reducing communities' resilience to climate change and generating vulnerability by damaging human and social capital and limiting adaptation options
- Climate change and conflict interacting to deepen complex emergencies and crisis
- Activities related to climate change adaptation being leveraged to help build peace
- Activities related to peacebuilding being used to improve the outcomes of climate change adaptation efforts
- Activities related to other development areas being adapted to be more climate- and conflict-resilient.

Models developed by Freeman (2017, p. 370) suggest that environmental variability and climate change are more likely to be linked to small-scale conflicts such as cattle raiding, agrarian–pastoral clashes, and rural labour competition in Africa, thus suggesting that policymakers should similarly focus at the local level. Freeman argues that "attention needs to be paid to local-level manifestations of conflict and (mal)adaptive forms of migration to understand the potential propensity of environmental change to lead to conflict in Africa" (Freeman, 2017, p. 351).

A policy brief summarising the findings from a systematic literature review of 44 academic articles investigating the links between climate-related environmental change and violent conflict, focusing on East Africa, was produced by SIPRI (2016; van Baalen & Mobjörk, 2016). The research emphasises that climate-related environmental change does not automatically cause violent conflict, and that the political, economic and cultural context is often key. In particular, political processes and "political institutions are critical for understanding why some local resource conflicts turn violent, while most do not" (SIPRI, 2016, p. 2). Temporal and spatial dimensions (i.e. climate change impacts occur at different time scales, and not all areas experience the same climate-related environmental changes and or an equally high general risk of violent conflict) are also important to consider when analysing the connections between climate-related environmental change and violent conflict (van Baalen & Mobjörk, 2016).

Van Baalen and Mobjörk present five explanations for why, how and when climate-related environmental change can lead to violent conflict in East Africa (SIPRI, 2016, pp. 1-2; see van Baalen & Mobjörk, 2016 for full report):

- *Deteriorating livelihood conditions:* Economic hardship can significantly increase the risk of violent conflict. Environment degradation and adverse climatic conditions (e.g. drought and floods) can impact livelihood conditions in East Africa, where reliance on rain-fed agriculture is widespread. According to the research "with their livelihoods threatened, people believe that they stand to lose less by using violence or by joining armed groups"

(SIPRI, 2016, p. 1). There is a risk of the livelihoods-conflict cycle being perpetuated as violent conflict leads to the breakdown of social relations and often forces people to adopt unsustainable livelihoods.

- *Increased migration:* Resource scarcity in one area may lead to migration to more favourable areas within the same region (i.e. an adaptation strategy), which often has been the case in East Africa (Sida, 2018). Tension and conflict could then arise when the sedentary population and migrants compete over land and water (SIPRI, 2016). Migration linked to the risk of climate-related tensions is mainly local, within borders, or regional.

- *Changing pastoral mobility patterns:* Pastoralists earn their livelihood mainly by herding livestock and rely on mobility as a way of coping with the harsh climate conditions in East Africa. Pastoralists are increasingly changing their normal mobility patterns, due to both climate-related environmental change (e.g. drought) and non-climate factors. When their routes change, conflicts often arise with other groups over water and pasture; these can sometimes turn violent (SIPRI, 2016).

- *Tactical considerations:* Weather and short-term climate fluctuations can also affect the tactical considerations of armed groups, notably livestock raiders. Several studies show that livestock-related violence in East Africa is more likely to occur during wet periods or periods when the vegetation cover increases. This explanation concerns how the climate affects the decision on *when* to engage in violence, and not on *why* groups wish to engage in violence in the first place (SIPRI, 2016).

- *Elite exploitation of local grievances:* Most resource-related violent conflicts in East Africa (as described above) are relatively low-intensity conflicts among loosely organised groups at local level. However, these local conflicts can sometimes become integrated into larger processes of civil war, ethnic cleansing and insecurity through elite exploitation. Political elites sometimes view fuelling intergroup violence as an effective means of diverting attention away from their own shortcomings, crushing political opponents or ensuring the continued support of their constituencies (SIPRI, 2016).

Vulnerability

As highlighted by Eriksen et al. (2017, p. 2), "vulnerability to climate change is driven by multiple and diverse social processes, such as dispossession of land, conflict, and loss or lack of employment opportunities." Rights and access to resources are key in understanding vulnerability, and there is increasing recognition that to adapt to climate change, "deeper, more fundamental and *transformative* changes in the structures and processes that drive vulnerability" are needed (Eriksen et al., 2017, p. 2). Vulnerability is highly dynamic and uneven across and within groups, and may change if, for instance, power relations shift (Mosberg et al., 2017). Few et al. (2018, p. 10) highlight that "vulnerability is highly differentiated socially, both in terms of exposure and underlying susceptibility"; in particular, gendered differentiations of vulnerability are increasingly being highlighted in research in East Africa.

Eriksen and Lind (2009, p. 818) highlight that "strengthening local adaptive capacity to shocks such as drought and conflict is critical to achieving adaptation to climate change." Furthermore, they suggest, "local adaptive capacity depends on the ability to promote interests in decision-making processes regarding access to required capital and adjustment options under varying contexts… Marginalized groups remain vulnerable because they cannot, more generally, participate and influence decisions and structures that determine the range of adjustment

alternatives available to them" (Eriksen & Lind, 2009, p. 818). Hence, power and the ability to form social relations are a determinant of uneven outcomes from adaptation.

Peters and Peters (2018, p. 2) explore disaster risk[2] through considering the role of violent conflict in disaster vulnerability. Violence, conflict, fragility and insecurity are often still missing from interpretations of disaster risk, even though they can significantly increase vulnerability to disasters and undermine the capacities of citizens and governments to effectively reduce disaster impacts. Peters & Peters (2018, p. 12) argue "a more critical approach is needed to ensure that DRR [disaster risk reduction] measures do not inadvertently reinforce systemic drivers of or vulnerability to disaster and conflict risk. Delivering DRR in contexts of violent conflict may require looking beyond state-centric approaches." Another important consideration is that "the post-disaster space can provide opportunities for (as well as limitations to) measures that alter the dynamics of peace and violent conflict" (Peters & Peters, 2018, p. 14).

Resilience and peacebuilding

Despite the international attention and commitment to "resilience", there is no consensus on what resilience is and how it should be approached and assessed; this is reflected in the proliferation of definitions and analytical frameworks available (Pavanello, 2015). Generally, definitions of resilience emphasise the ability to cope or change in the face of adverse shocks and stresses. It is also understood as the ability to maintain and improve well-being despite shocks and stresses (Crawford et al., 2015). Resilience has been linked to climate change and, along with adaptation, is an integral part of modern climate policymaking. Many see resilience as being key to peacebuilding, especially in fragile and conflict affected states.

A purely technical understanding of adaptation to climate change is insufficient to cope with the socio-political consequences of climate change, and that adaptation if poorly designed may even contribute to conflict potentials (as activities will affect existing resource allocation and power relations) (Tänzler, Mass & Carius, 2010; Saferworld, 2011, p. 3). Tänzler, Rüttinger and Scherer (2018, p. 2) argue that climate change adaptation, peacebuilding and conflict prevention interrelate in three main ways:

1. Adaptation can serve as a peace builder, acting as a catalyst for dialogue and peaceful conflict resolution.
2. If they encounter resistance, adaptation measures might, however, cause or contribute to friction and conflict.
3. Adaptation can be hindered by conflicts, which can interrupt adaptation programmes and projects, reverse development and adaptation gains, and destroy resources and infrastructure.

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[2] Disaster risk is understood as the combination of hazard, exposure and vulnerability (Peters & Peters, 2018, p. 5). More recently, coping capacity and resilience have been included in this definition.

Crawford et al. (2015, p. 1)[3] argue that interventions in fragile and conflict-affected states need to strive to achieve peacebuilding and climate resilience objectives simultaneously through:

- *Climate-resilient peacebuilding* interventions that take into consideration the implications of near- and long-term climate risk as a contributing factor in driving conflict.
- *Conflict-sensitive climate change* responses designed to ensure that, at a minimum, interventions do not increase the risk of conflict and, preferably, serve to enhance peacebuilding opportunities

However, Crawford et al. (2015) appreciate that there are challenges to effectively operationalising integrated approaches to climate change adaptation and peacebuilding.

Biases and gaps in research

Many studies seeking to identify relationships between disasters, climate and violent conflict have been criticised on methodological grounds, including for failing to take adequate consideration of context or causal mechanisms (Buhaug et al., 2015), and the tendency for climate change-conflict research to be concentrated in certain regions, leading to significant biases and overstating of simplistic links (see Adams et al., 2018).

Adams et al. (2018) explored whether the research claiming a link between climate change and violent conflict is based on a biased sampling strategy through a systematic review of the relevant academic literature for the period 1990–2017. They highlight three major biases in climate-conflict research (Adams et al., 2018; Hendrix, 2018):

- Scholars have "gone looking for climate–conflict links in countries and regions that have been conflict-affected, rather than those most affected by climate change", ignoring locations where environmental shocks were not followed by armed conflict. For example, "the drought that affected Syria also affected neighbouring Jordan, Lebanon and Cyprus, yet widespread violence did not occur there" (Hendrix, 2018, p. 190).
- Scholars have "not focused more attention on those countries most likely to be affected by[/vulnerable to] climate change". For example, "comparatively climate-change exposed countries such as Bangladesh and Haiti have received very scant attention from researchers investigating climate–conflict impacts" (Hendrix et al., 2018, p. 190).
- Scholars have "been focusing effort on cases where it is more convenient to conduct research" (Hendrix, 2018, p.190). For example, "Kenya, which ties as the single most-often-mentioned country in the climate–conflict literature, is neither particularly conflict-prone nor climate vulnerable" (Hendrix, 2018, p. 191).

These three biases could be applicable to Kenya, and are important to bear in mind when considering climate-conflict connections and research here. Hendrix (2018, p. 191) argues that these findings have important implications (and limitations) for the understanding of "the

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[3] Crawford et al (2015, p. 7) also developed six principles they argue can help guide practitioners in designing and implementing climate-resilient peacebuilding interventions (aimed at conflict and fragile affected states)

socioeconomic and political conditions in which climate-related conflict is likely to emerge and for informing policy interventions designed to mitigate climate–conflict risk".

Tadesse (2013, p. 1) highlights that relatively little scholarly or political attention has been given to how climate change adaptation relates to the mitigation or prevention of conflict and supporting resilient societies in fragile or conflict-prone areas. Climate change has not yet been adequately incorporated into fragility or peace and conflict assessments. There is no common, widely accepted methodology for assessing the links between climate change, conflict and fragility. Furthermore, fragility and climate impacts are highly context specific, complicating any assessment. There is also a lack of a common language between practitioners in each sector, even though the root causes of vulnerability are often the same (Tänzler, Rüttinger & Scherer, 2018, p. 6). Furthermore, relatively little is known about how to practically refine adaptation and disaster risk reduction strategies, tools and approaches so that they are appropriate and effective in conditions of violent conflict (Harris et al., 2013 cited in Peters & Peters, 2018, p. 10).

3. Indirect links and evidence from Kenya

Natural resources and land struggles

Conflicts over natural resources, including water, pasture and land-use, are common in Kenya. Land is a highly contentious issue in Kenya and continues to be a mainstay of local level violence, with broader connections to the national political environment. Competition and conflict over land also relates to agro-pastoralist conflicts and conflicts between pastoralists (Sida, 2018). New conflict dynamics are emerging, with more complex, multifaceted and multi-party dimensions. In Kenya in recent years, communal conflict, largely related to natural resources, land and political differences, has dominated (Peters & Peters, 2018, p. 4). Northern Kenya has particularly been studied in relation to pastoralist conflicts over natural resources. However, grievances over land and property rights is just one of multiple dimensions of ethno-regional, socioeconomic discrimination in Kenya that affects different communities in different ways.

Natural resources and conflict

Lind (2015) explores the links between natural resources and conflict in the Karimojong Cluster, a remote and sparsely populated dryland region that stretches from northeastern Uganda and southeastern South Sudan across the Turkana region of northwestern Kenya and into the southwestern corner of Ethiopia. Importantly, Lind (2015, p. 97) highlights that "there is neither a simple, direct link of causation between scarce natural resources and conflict in the region nor, indeed, any singular reason for the region's chronic, armed violence." The region is used to high levels of uncertainty and variability in rainfall and natural resource scarcities; and these features have largely defined past and present pastoralist social relations. Lind (2015, p. 97) further argues that, "regardless of variability in their shared climate, the social relations of pastoralists in the region historically has been and continues to alternate between open hostility and cooperation." Furthermore, scarcity of natural resources in the region does not necessarily indicate a trend of deteriorating ecological conditions and, thus, a possible cause of conflict.

Lind (2015, p. 106) highlights a number of important lessons learned from previous peacebuilding efforts in the region:

- *Limits of local-level reconciliation:* Important to recognise the limitations of local-level reconciliation work in a context of structural conflict, generalised insecurity, and absence of the rule of law. Local peacebuilding efforts have been an adjunct to, not a substitute for, the failure of state authorities to provide lasting security for the region's pastoralists. Further, the many initiatives focused on reconciling neighbouring groups have tried to address local manifestations of armed violence rather than root causes of conflict.

- *Addressing conflict reduction:* The Karimojong region has a long history of violent conflict. Addressing the root causes of conflict and advancing peacebuilding efforts require both improved governance and security (including the need to establish security and the rule of law in the region), and economic growth of the region (creating sustainable livelihoods for those who live there).

- *Many factors raise doubts and concerns:* Another lesson learned from peacebuilding efforts in the Karimojong Cluster is that the success of such efforts depends on unequivocal local acceptance and support, and this has been lacking.

- *Insufficient use of confidence-building measures:* Acceptance and support of peacebuilding work has been further compromised because local-level confidence in such efforts has not been sufficiently built. Failing to adequately engage pastoralist communities prior to engaging in reconciliation efforts has hampered promoters of peace from both local civil society and outside aid agencies. Aid and government agencies have struggled to communicate their notions of peace in an environment where conflict is routine and a normal feature of pastoralist social relations.

A qualitative study by Pavanello (2015) for CARE International was aimed at understanding the ability of different individuals from study sites in northern Kenya and southern Ethiopia to cope with or adapt to the risks that they are confronted with, without compromising their long-term prospects. It also examined the extent to which the Regional Resilience Enhancement Against Drought (RREAD) programme implemented by CARE Kenya and CARE Ethiopia has supported this ability. Fieldwork was undertaken in November-December 2013. The study found close linkages between a limited ability to manage drought risks – through livestock mobility and access to dry season grazing zones – and conflict. Specifically, respondents in Dambi Hara and Ketala in Ethiopia "unanimously indicated conflict as the second most significant risk, after drought" (Pavanello, 2015, p. 10). Furthermore, the constraints to accessing dry season grazing zones and the weakening of traditional early warning systems are symptomatic of the current state of pastoralism in the region. Pavanello (2015) suggests that "attaining positive livelihoods outcomes and managing risks [here] is increasingly challenging not merely because of weather-related stresses, but because of complex political, economic and social processes that have long strained pastoralists' strategies, customary institutions, and livelihood systems." This further emphasises the complexity and interconnected nature of these issues.

Cattle raiding and climate

Different strands of logic emerge in relation to the indirect links between livelihoods, climate change and conflict, emphasising the complexity of the connections (see discussion and references in van Baalen & Mobjörk, 2016, pp. 20-23). Suggested pathways include: 1) drought increases the scarcity of natural resources, resource scarcity increases the possibility of conflict; 2) a higher level of violence is associated with increased rainfall, which increases the availability and abundance of resources (Schilling et al., 2014, p. 245).

Case study evidence from Kenya suggests that when faced with periods of drought, pastoral groups deploy a set of social institutions that mediate agency towards inter-group cooperation and guarantee access to resources, thereby reducing the risk of violent conflict (Adano et al. 2012 cited in van Baalen & Mobjörk, 2016, p. 21; see also Linke et al. 2015).

Schilling et al. (2014) explore possible links between climate change and livestock raiding in Turkana, northern Kenya, analysing climate data in conjunction with conflict records and qualitative fieldwork carried out in 2011. This region is highly vulnerable to climatic changes and more frequent and prolonged droughts are expected in the future. Adaptive capacities of pastoralists, which have been developed over centuries, are increasingly being overwhelmed due to the changing climatic conditions in combination with political and socio-economical marginalisation and the availability of small arms. Schilling et al. (2014, p. 250) developed the 'Resource Abundance and Scarcity Threshold' (RAST) hypothesis, which suggests that: "In regular years with sufficient rain, raiding is mostly conducted before and during the long and short rains to make use of the fortunate raiding conditions (healthier animals, vegetation providing cover, own herds need less attention). But when rains partly or completely fail and a certain threshold of resource scarcity is reached, raids are conducted despite the less fortunate restocking conditions not only to compensate drought-related livestock losses but to protect or gain control over scare pasture and water resources." Despite the limited time-series this is based on, Schilling et al. (2014) maintain that it is valid as it reflects information from their qualitative interviews. Schilling et al. (2014) go on to argue the need to improve not only the adaptive capacity of pastoralists, but also to strengthen inter-communal conflict prevention and resolution mechanisms through the support of traditional institutions and peace meetings.

Resilience and risk to clan violence

Chome (2016) explores the relationships between resilience and risk to clan violence and to violent extremism in Kenya's northeast, based on (25) interviews across the three northeastern counties of Garissa, Wajir, and Mandera. Chome (2016, p. 22) concludes that, "Clan conflict and violent extremism are enabled by a conjunction of risk and resilience, such as the effect of spillover conflict, and continued operation of smuggling and criminal networks with local factors, such as a locally divided leadership and lack of collective action in addressing communal problems." Furthermore, al-Shabaab is adept at exploiting local clan structures, local economies, and the operation of kinship networks in the region, taking advantage of the close ties between clans on either side of the (porous) Kenya-Somalia border. Chome (2016, p. 23) suggests, alongside other recommendations such as strengthening civic-government partnerships and local governance capacities, integrating "*resilience to conflict and violent extremism thinking in existing resilience programming*" to environmental shocks such as drought and flooding.

Extractives based conflicts

The discovery of oil and other extractives in various parts of Kenya, especially in northern areas, is increasingly becoming a conflict and security issue. For example, the discovery of oil in Turkana County is likely to pose a threat to pastoralist resilience to environmental change if appropriate measures are not put in place. It "may exacerbate pre-existing tensions and likely

result in full-blown violent conflicts among the already marginalized Turkana against local and foreign investors such as Tullow Oil" (Johannes, Zulu & Kalipeni, 2015, p. 1).[4]

Johannes, Zulu and Kalipeni (2015) examine drivers, impacts, and local perceptions of resource-based conflicts in Turkana, and impacts of added vulnerabilities, risks, and opportunities introduced by the recent discovery and development of oil using Le Billon's resource-curse framework. Their literature review identifies four main contributing sources of conflict and/or stability in Turkana (Johannes, Zulu and Kalipeni, 2015, p. 149): 1) environmental stressors including climate change; 2) the Ilemi Triangle boundary dispute[5]; 3) dams and their ecological impacts on the waters of Lake Turkana; and 4) the recent interest by international and local actors attracted by the discovery of oil. They find pre-existing low intensity but increasingly militarised and violent internal and cross-border conflicts among various ethnic pastoral groups in Turkana, driven primarily by competition for scarce pasture and water resources, exacerbated by traditional ethnic rivalries and recent criminal elements centred on cattle raiding and fuelled by ready access to arms. The oil discovery has further complicated these dynamics, with newfound interest from, and an influx of, Kenyan and foreign outsiders into the region. Interviews among the Turkana revealed a predominant local fear that the oil discovery would worsen their social and economic marginalisation (Johannes, Zulu & Kalipeni, 2015).

Political processes, power and conflict

Kenya has many tribes who in most cases live peacefully and are able to co-exist. Inter-clan or cross-boundary tensions in Kenya are majorly attributed to contest over limited resources such as water and pasture, however, issues around marginalisation and political representation are gaining ground in the literature.

Devolution, inter-communal relations and conflict

Studies on the recurrence of intra-state conflict have found political exclusion to be one of the most important factors (Bennet, 2018, p. ii). Yet, devolution risks reinforcing social divisions. In Kenya, devolution began in 2010, by decentralising power to 47 counties, each with democratically elected governors with autonomy over decision-making; it was hoped that devolution would lead to more inclusive and accountable county institutions able to deliver better services for all, which would in turn reduce the tensions and divisions causing conflict (Bennett, 2018, p. i). Bennett (2018, p. i-iii) explains that "Competition between ethnicities for public office – long seen in Kenyan national politics – has been devolved to the counties, inadvertently institutionalising and strengthening the ethnicisation of local politics. This has led to a negotiated democracy in Isiolo [county], whereby clan leaders carefully craft voting blocs in a bid to gain power."

Reinforcement of social divisions due to devolution in Kenya is most evident among pastoralist communities where the practice of cattle raiding remains central to people's identities. In

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[4] See also the project Seeing Conflict at the Margins for further insights around oil exploration and natural resource exploitation in Kenya (and Madagascar): https://seeingconflict.org/ [accessed 8th August 2019]

[5] This is a traditional grazing area for the Turkana, which is currently embroiled in an international conflict among South Sudan, Ethiopia, Kenya, and to a lesser extent Uganda, over control.

addition, disputes over land ownership, boundaries, and resources are common. However, devolution is transforming how these conflicts are framed and managed. Ethnic competition for power within the county administration means conflicts are sometimes instrumentalised for political gain (Bennett, 2018, p. iii).

Lind (2018, p. 135) focussing on Turkana County, finds that "while levels of conflict have increased in northern Kenya since 2010, devolution enmeshes with other factors that define the region's changing relationship with the centre, including resource and infrastructural development as well as al-Shabaab violence. These result in place-specific dynamics, creating a patchwork topography of conflict, confounding assumptions that there is a clear and unambiguous relationship between devolution, inter-communal relations and conflict." Furthermore, Lind (2018, p. 139) highlights that

> Conflicts in northern Kenya are transforming away from traditional resource-based incidents and livestock-theft and are increasingly driven by larger economic agendas [including oil, geothermal and wind] as well as regional security pressures beyond Kenya. …Thus, governance in northern Kenya stands at the crossroads of two parallel trends: political devolution and the allocation of substantial public resources to county administrations happening in tandem with intensifying militarisation as the centre seeks to exert control over resource enclaves and transport corridors crossing the margins.

Hence, while devolution might minimise certain types of political violence, it may not necessarily address the causes of sub-national conflict in northern Kenya, where violence has often been an important feature of social relations, local governance and wider relations between the centre and pastoral societies at the margins (Lind, 2018, p. 139). Multi-level governance of conflict in northern Kenya will be needed given the connections between "seemingly localised conflict events into longer chains of violence" (Lind, 2018, p. 146). Land reforms that guarantee community rights, legal guarantees and institutionalised mechanisms for sharing resource rents with county governments, and local content measures that promote greater localised economic benefits of resource exploitation are also needed.

Political elite and existing power structures

Eriksen and Lind (2009, p. 817), based on fieldwork (undertaken in 2004-2006) on people's adaptive capacity in two areas of Kenya (Endau in Kitui District in the lowlands of eastern Kenya, and Turkana in northwestern Kenya), explore the argument that "people's adjustments to multiple shocks and changes, such as conflict and drought, are intrinsically political processes that have uneven outcomes." Importantly, in their study the authors did not consider climate change and stress as sources of conflict. They found the following (Eriksen & Lind, 2009, p. 817):

- "In the face of drought and conflict, relations are formed among individuals, politicians, customary institutions [e.g. clans, spiritual leaders], and government administration aimed at retaining or strengthening power bases in addition to securing material means of survival". Political alliances emerge to gain control over resources and to influence policy over the issue. For example, their findings in Endau suggest that livelihood adjustments to drought, such as trade, can challenge and rearrange existing power bases.

- "National economic and political structures and processes affect local adaptive capacity in fundamental ways, such as through the unequal allocation of resources across regions, development policy biased against pastoralism, and competition for elected political positions". For example, in Kitui, competition between political candidates for local and national elections compromised the capacity of the poor and landless to use these routes to promote their interests around water and land access.
- "Conflict is part and parcel of the adaptation process, not just an external factor inhibiting local adaptation strategies". For example, in Turkana, violence has transformed the social relations and networks used in livelihood adaptations during times of increased vulnerability.
- "There are relative winners and losers of adaptation, but whether or not local adjustments to drought and conflict compound existing inequalities depends on power relations at multiple geographic scales that shape how conflicting interests are negotiated locally". Relative poverty is not in itself sufficient to explain adaptive capacity. For example, in Endau, drought adjustments created new wealth among well owners and traders, some of whom were initially impoverished.
- "Climate change adaptation policies are unlikely to be successful or minimize inequity unless the political dimensions of local adaptation are considered; however, existing power structures and conflicts of interests represent political obstacles to developing such policies".

In their discussion of vulnerability and adaptive capacity of Turkana people, Eriksen and Lind (2009) highlight the role of structural inequality in Kenya and a history of failed development interventions (where pastoralism was seen as unproductive and few public resources were allocated to those areas of Kenya) in shaping the Turkana people's adaptation options. In both Endau and Turkana, the nomadic pastoralists are generally marginalised in terms of their representation of their interests in government decision-making. Structural inequalities and political processes at the national level shape how conflicting interests (such as local adjustments to drought) are negotiated locally, and whether these compound existing inequalities (Eriksen & Lind, 2009, p. 832). Hence, conflict resolution (including improved protection against violence and access to justice) is critical to adaptation. Vested interests and political barriers must be considered when developing and implementing effective adaptation strategies, including the need to challenge existing power structures and relations locally and nationally.

Mosberg et al. (2017) explore adaptation to climate change in view of changing humanitarian approaches in Isiolo County, northern Kenya, which although historically neglected and marginalised has in recent years received increasing attention and investment, leading to significant optimism, as well as new avenues for power plays and political struggles. The humanitarian sector in Isiolo is moving away from short-term interventions towards more holistic, integrated and longer-term approaches including terms such as resilience and DRR – at least on paper. However, their findings suggest, "that increasing attention to resilience and adaptation among humanitarian actors may not lead to reduced vulnerability because resources tend to be captured through existing power structures, directed by who you know and your place in the social hierarchy" (Mosberg et al., 2017, p. 79). Thus sustaining the marginalisation processes that cause vulnerability to climate shocks and stressors, and lacking any systemic, transformative change. Mosberg et al. (2017, p. 80) stress the need for the "new" humanitarian policies and practices to address socio-political drivers of differential vulnerability, if they are to challenge

existing asymmetric power relations and dynamics in Isiolo County that lead to differential vulnerability. Another important point bought up by this study is the extent to which findings from "participatory" vulnerability assessments and consultations are acted upon in practice, or can be considered participatory if they are attended by the most wealthy and powerful of a community and so do not reflect the needs of those who are the most vulnerable (Mosberg et al., 2017, p. 88). Mosberg et al. (2017, p. 89) highlight the importance of the following:

- Understanding how historical trajectories and relationships shape decision-making in contexts with weak formal institutions is key.
- Paying particular attention to the role of power and politics in the design and implementation of humanitarian interventions, and ensuring that "community" participation does not exacerbate existing vulnerability dynamics but rather gives a voice to the marginalised is important.
- Assumptions about linear causal relationships between, on the one hand, increased focus, funding and knowledge about climate change among humanitarian actors, and on the other, outcomes for those who have the least capacity to cope with and adapt to climate change should be questioned.
- Adaptation is fundamentally a governance issue and more attention is needed to the socio-political factors and processes that drive adaptation decisions and outcomes at sub-national and local levels.

Drought, migration and violence

Voluntary (often-temporary) migration due to drought and environmental degradation (in conjunction with other factors and complexities) is a reported coping strategy in Kenya (van Baalen & Mobjörk, 2016). However, "human mobility and climate change in relationship with violence and insecurity remain understudied" (Linke et al., 2018, p. 1). Although there has been some improvement in recent years, these studies of environmental change dynamics in East Africa are frequently ethnographic in nature, cover relatively few actors within a limited number of regions in the respective countries, and often ignore the complexity of the issues.

Linke et al. (2018, p. 1) used original national survey data from Kenya (interviewing 1400 Kenyans) to investigate whether people who report relocating due to drought or water shortages are more likely to be victims of violence than people who do not move. They also examine whether this migrant sample supports the use of violence at higher levels than the general population, conditional on their experiences. Controlling for many individual-level and contextual variables, they find that "those who have relocated are consistently more likely to be victims of violence than those who have not, and that those who relocated temporarily support the use of violence at higher levels than the general population if, and only if, they are themselves victims of violence. Vulnerable migrant populations […] are not likely to be the sources of violence unless victimized first" (Linke et al., 2018, p. 1). The authors recognise some limitations in their survey design and the influence of pastoral livelihoods in the sample.

Violence against girls in pastoralist communities in Turkana

Mercy Corps undertook a study in April 2014 into the lives of girls in pastoralist communities in Turkana (in Northwest Kenya) and the role they play in household and community resilience (Chetail et al., 2015). Research was undertaken through focus group discussions and semi-

structured interviews in 20 communities in Turkana. The study aimed to get a better understanding of the intersection of gender, youth and resilience, specifically in relation to food security.

In pastoral cultures, a girl's life stages come with specific roles and responsibilities. In Turkana, girls' traditional "duties as domestic caretakers, income-generators, and future brides and mothers preclude their ability to develop and realize their full potential as agents of resilience and change within their households and communities" (Chetail et al., 2015, p. 5). This situation is further exacerbated by the recurrence of major climatic shocks, such as drought. Chetail et al. (2015, p. 6) highlight that "contrary to popular assumption, responsibility over livestock in Turkana is governed not only by gender, but, most importantly, by maturity and eldership", emphasising the complexities of the cultural traditions in Turkana that define duties and affect the development of adolescent girls.

The study highlights that during times of drought, "the increased responsibilities girls carry to support their families and themselves during times of scarcity, and the specific livelihood strategies they employ, may precipitate a protection crisis with increased risk to violence, exploitation and abuse" (Chetail et al., 2015, p. 6). The study found that during times of drought, youth are forced to go further afield for resources (such as water, food and fuel), but are also faced with more dangers associated with diversification of income generating activities. For example, during times of drought, girls can be "sent to the city to live with relatives where they seek work as domestic servants, or engage in prostitution to meet their basic needs"; families can hasten the marriage of girls to cope with the loss of livestock and replenish herds through dowry. The study emphasises that adolescent boys are equally affected by this protection crisis. The study highlights that "overall, the fragmentation of the family unit in times of drought in some ways increases the autonomy of both boys and girls, but also increases the risks of violence and abuse" (Chetail et al., 2015, p. 6).

The study also looked at communities that are in transition[6], and found that girls here compared to those in pastoral communities generally have more access to social services (such as education, access to health and family planning services, more diverse income-generating activities) and opportunities for increased decision-making power. However, "when drought hits, these girls are pulled out of school to devote more time to income-generating activities, which increases their exposure to new risks" (Chetail et al., 2015, p. 7).

The study makes the following recommendations (Chetail et al., 2015, pp. 7-8):

- *Address the contextual and age-segmented challenges that pastoralist adolescents girls face:* Little attention has been given to pastoralist adolescent girls as distinct and intentional targets for development programmes. It is also critical to develop an age-segmented understanding of these girls' lives to inform a proper programmatic response.
- *Reinforce pastoralist girls' capacities to diversify their sources of food and income during crises:* Programming interventions that broaden pastoralist girls' livelihood skills will help improve their contribution to the food security and resilience of their household, and

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[6] Defined by Mercy Corp as "sedentary communities to which former pastoralists have migrated, and where pastoralism is no longer the primary livelihood" (Chetail et al., 2015, p. 10).

reduce their exposure to violence. Simultaneously, providing them with opportunities to increase their networks and relationships within their communities or beyond through economically or socially motivated groups, will expand their access to informal safety nets and empower them to take collective action.

- *Address the social and economics drivers behind early marriage:* As the status of girls within pastoralist households and communities revolves primarily around the worth of their dowry, marriage plays a central role in the lives of Turkana girls. Concrete actions are needed to mitigate some of the underlying causes of early marriage.

- *Leverage the opportunities offered to the girls in communities in transition while overcoming inherent protection challenges:* Families and communities that transitioned out of pastoralism did so in a time of crisis – often during drought or after a conflict. While the evidence is inconclusive as to whether such transitions represent an adaptive strategy that has allowed communities and adolescents in particular to become more resilient to drought. At the same time, it is vital that programmes understand and address the ways diversification of income-generating activities may also expose girls to new risks.

- *Establish and promote adaptive basic social service provision models:* Education programming, specifically for pastoralist girls, needs to address the trade-off between the value of increasing one's opportunities and well-being with the need for labour at home and role of marriage in Turkana society.

- *Address land tenure issues and help pastoralist households diversify their revenue streams:* Cattle rustling raises protection issues for both boys and girls. These are some of the effective ways of limiting the number of cattle raids, and thus decreasing the incidents of violence. Formalising community-based agreements on land use has proven an efficient way of ensuring land access to pastoralist groups in other countries, and could be applied in Turkana. However, important to consider that livelihoods diversification among youth may incur trade-offs and increase exposure to other serious risks, and should not be seen as exclusively "positive" (Chetail et al., 2015, p. 37).

- *Importance of social cohesion:* The role of social capital/cohesion in community and household resilience should also be considered and further research is needed into this (Chetail et al., 2015, p. 39). Van Metre (2016, p. 36) in her study of community resilience to communal violence in Kenya (focusing on six urban neighbourhoods in Nairobi and Mombasa), found that overall "communities with genuine associations (through clubs, investment groups, dialogue, intermarriage, familial interactions) with religious members from different groups experience less violent extremist activity," highlighting the importance of social cohesion. More research is needed to better understand the nuances and connections.

Coping strategies to dry seasons, and particularly drought, which can put women and girls at higher risk of (sexual) violence were highlighted by Pavanello (2015). Many of the women in focus group discussions in Kenya and Ethiopia talked about the challenges and risks they face when they walk long distances to fetch fodder. In Dambi Hara, Ethiopia, temporary migration of children and youth (both males and females) to urban centres was frequently mentioned as a strategy adopted in 2011 to the drought by vulnerable households.

Violent extremism – reasons for joining

Many papers explore reasons for joining jihadist groups in Kenya, but none of these mention climate change and environmental factors as playing a role. Implying that although these may indirectly influence push/pull factors such as unemployment and livelihoods, people are not making those connections, or that these are not significant in relation to other key factors. For example, Villa-Vicencio, Buchanan-Clarke and Humphrey (2016, p. x) in their research into community perceptions of violent extremism, highlight that, "there is no single pathway to violent extremism, and engagement should be seen as a complex psychosocial process… Structural marginalisation, the breakdown of family and community structures, the proliferation of criminal gangs, youth unemployment and corruption, human rights abuses, individual and collective trauma, among other factors, merge in different ways to create environments conducive to the spread of extreme ideologies." They stress that the role of perceived personal rewards in the recruitment process is under-represented in discussions around violent extremism in Kenya. Another key finding in the study was that "the factors driving violent extremism identified by respondents varied by region. However, specific contributing factors that arose in discussions were cross-cutting, including poverty, unemployment and economic marginalisation" (2016, p. xi).

Similar results were found in International Alert/Kenya Muslim Youth Alliance (KMYA)'s (2016, p. 7-8) rapid assessment of the factors that have fuelled or mitigated violence in six selected neighbourhoods: Pumwani and Eastleigh in Nairobi; and Likoni, Old Town, Kisauni and Majengo in Mombasa. The research targeted communities that are considered vulnerable to violent extremism and helped tease out some of the key issues that affect communities' vulnerability or resilience to radicalisation and violence. The respondents consistently focused on (International Alert/KMYA, 2016, p. x):

- socio-economic changes associated with rapid urbanisation and internal migration during the 1990s;
- divisions within and between communities; a sense of marginalisation of Muslims on the coast and in Nairobi; the spillover effects of events in Somalia;
- the ability of radical imams and ideologies to leverage the divisions between communities, and the sense of frustration created by adverse social change;
- the combined effects of a demographic youth bulge with intensified competition for socio-economic opportunities, and a widening sense of marginalisation and exclusion;
- the erosion of the legitimacy of public institutions, which are unable to provide basic services and are perceived as culturally distant;
- the securitisation of the government's responses to violent extremism, which seems to further reduce citizens' trust in government institutions and weaken communal mechanisms of resilience.

Role of women in violent extremism

Research has also demonstrated the evolving role of women in violent extremism. An independent report for DFID on the role of women and girls in violence and jihadist groups finds that, "understanding women's and girls' perspectives and motivations is critical in order to explain why some women support organisations that use extreme violence and which do not treat women as equals" (Ladbury, 2015, p. 5). It highlights that counter violent extremism interventions

have been targeted almost exclusively at men and boys; however, the growing significance of women and girls' involvement means they can no longer be ignored (Ladbury, 2015).

Ndung'u, Salifu and Sigsworth (2017, p. iii) highlight that "very little is known about women and violent extremism in the context of Kenya." Their study used focus group discussions (11) with women in affected communities and individual interviews with three al-Shabaab returnees and other stakeholders. They found that there is a complex set of dynamics influencing how and when women become involved in violent extremism in Kenya or work towards countering violent extremism in their communities; these dynamics operate at different levels (societal, community, family and personal), are context specific, and can change across time and space. In the communities studied, a range of dynamics drives women's involvement in violent extremism, including poverty, socio-political marginalisation, the involvement of their partners or husbands in violent extremist organisations etc. However, climate change or environmental factors were not mentioned.

4. Evidence from programmes

Mercy Corps in the Horn of Africa

Mercy Corps (Kurtz & McMahon, 2015) undertook research in the Greater Horn of Africa to better understand how conflict management and peacebuilding programmes affect resilience to shocks and stresses in pastoral areas. Previous Mercy Corps research in the Horn of Africa demonstrated that peacebuilding interventions can have positive effects on pastoralists' abilities to cope with and adapt to severe drought. Building on these insights, Mercy Corps developed and examined two theories to identify specific strategies for resilience within conflict management programmes (Kurtz & McMahon, 2015, p. 1):

1) *increased social cohesion* developed through positive inter-communal interactions can be tapped into when a community experiences a shock; and
2) an *enabling institutional environment* where local leaders are better able to prevent and manage conflict will reduce the effect of conflict, economic, and environmental shocks and stresses on communities.

The research[7] found that the effects of economic and climate-related shock on household food security could be mitigated by strengthening community and institutional conflict management skills and systems. Other findings included: where stronger institutional-level conflict management skills and systems are in place, peace and security conditions are better; and where government representatives and traditional leaders work together, more conflicts are resolved satisfactorily. However, "greater *inter*-ethnic social cohesion was not found to be linked with improved security conditions nor greater food security[; but…] *intra*-ethnic social cohesion is linked to both increased peace and security as well as improved food security" (Kurtz & McMahon, 2015, p. ii). However, the authors emphasise that this finding for inter-ethnic social cohesion, "is at odds with previous research that found higher levels of interaction across ethnic

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[7] Based on two of Mercy Corps programmes in the greater Horn of Africa: a programme on natural resource management and peacebuilding in the Mandera Triangle, and the Growth, Health and Governance programme in the northern Karamoja region of Uganda.

lines to be positively correlated with household food security in the face conflict and climate-related shocks (Mercy Corps, 2013)" (Kurtz & McMahon, 2015, p. ii). They recommend further research and analysis to understand "the contextual elements that might be required for bridging social capital to support resilience, such as the strength and legitimacy of local institutions" (Kurtz & McMahon, 2015, p. ii). Kurtz and McMahon (2015, p. ii) also recommend that development and humanitarian actors should support interventions that strengthen the social networks that people rely on during times of stress.

Strengthening Resilience to Violence and Extremism (STRIVE-II) in Kenya

The overall objective of this EU-Trust Fund Programme is to increase peace, stability and inclusive economic opportunities for youth and marginalised areas of Kenya. The STRIVE II project, running from 2016-2019, is implemented by the Royal United Services Institute for Defence and Security Studies (RUSI).[8]

Sahgal et al. (2019) summarise conference proceedings from a RUSI conference on Clan Conflict and Violent Extremism in the North-Eastern Counties of Kenya, held in January 2019. The conference aimed to share findings of studies that had been supported by RUSI under its STRIVE-II programme.

Papers were presented on three counties in the region – Garissa County, Wajir County and Mandera County. Despite differences in clan-based groupings within these counties, similarities were noted in fundamental drivers of clan conflicts across all three (although important differences also existed). In particular, competition over scarce natural resources, particularly water, pasture and land, was identified as "among the critical drivers of clan conflict in the largely livestock-dependent counties of North-East Kenya[, …]conflict over grazing land and water points was a major source of clan animosity" (Sahgal et al., 2019, p. 7). For example, in Wajir County, changes in climatic conditions (erratic rainfall), diminished pasturelands, and depleted water supply in catchment points, have increased competition and have been significant contributors to clan conflicts. Administrative borders, particularly the creation of new internal boundaries by Kenya's Independent Boundaries and Electoral Commission (IEBC), that disrupt traditional migration routes for nomadic pastoralists have also played a significant role in intensifying clan conflicts in all three counties. The struggle for political representation following the promulgation of Kenya's new constitution in 2010 and the introduction of a decentralised system of government have deepened existing conflicts in the region, especially where clientelism (the exchange of goods and services for political support) is rife (Sahgal et al., 2019, p. 9). The three papers found that: "al-Shabaab has exploited existing clan conflicts and dynamics in North-Eastern counties by influencing and exacerbating clan divisions with the ultimate aim of advancing their operations and activities in Kenya" (Sahgal et al., 2019, p. 13).

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[8] See https://eeas.europa.eu/delegations/kenya/47387/strengthening-resilience-violent-extremism-ii-strive-ii_it [accessed 7th August 2019]

The following recommendations were developed through the conference discussions; some were directed at non-governmental actors, while others were addressed to county and national governments (Sahgal et al., 2019, p. 15):

- Further rigorous research and policy action is needed to address some of the changing dynamics and better understand the root causes of conflict.
- Resolving underlying drivers of clan conflicts. There is a need to build and strengthen platforms for clan-level dialogue for conflict resolution.
- Strengthening the capacity of civil society organisations and Community Peace Committees to promote the relationship between security agents and the community.
- Advancing the evidence base on the nature of clan conflicts in the northeast region and how violent extremist groups exploit existing conflicts.
- Revising administrative and election boundaries with the involvement of all clans from the affected area.
- County governments should do more to build resilience.

Conflict and Cooperation in the Management of Climate Change (CCMCC) programme

Adaptation interventions are not always win-win, and may spark conflict themselves if not properly thought out. In trying to better understand the potential impacts of such interventions, DFID funded a five-year research and innovation programme to feed into current and future climate investments, programmes and approaches in vulnerable developing countries (Netherlands Organisation for Scientific Research, 2018b). The Conflict and Cooperation in the Management of Climate Change (CCMCC) programme[9] researched seven themes in twelve countries (including Kenya), and ran from 2014 to 2018. In particular, the programme has challenged the traditional way of thinking around definitions of conflict and cooperation. The programme applied a broad understanding of conflict, from disagreements to differences of interest and imbalances of power. A key finding that conflict is not necessarily bad and cooperation was not necessarily good was an insight across the seven projects (Netherlands Organisation for Scientific Research, 2018d). The CCMCC programme also showed that conflict dynamics are omnipresent in contexts where climate policies are rolled out; these are often superimposed on existing policies and interventions and therefore build on to existing inequalities.

Four of the projects had a focus on developing more conflict-sensitive adaptation approaches, key insights from these included (Netherlands Organisation for Scientific Research, 2018b, p. 1):

- Understanding conflict dynamics in relation to climate interventions and existing resource claims is crucial to improving the management of natural resources in environmentally and socially just ways.

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[9] See https://www.nwo.nl/en/research-and-results/programmes/conflict+and+cooperation+in+the+management+of+climate+change+%28ccmcc%29 [accessed 6th August 2019]

- Adaptation interventions do not significantly differ from conventional development interventions. Many climate policies and interventions are not actually new: existing natural resource policies and development interventions are being reframed as 'climate policies' and 'climate interventions'. There is a range of existing knowledge on interrelations with conflict dynamics within government, research, NGO and community-based organisations that should be included in climate intervention design.
- Adaptation interventions that target specific communities may lead to the exclusion of non-beneficiary communities/groups and, accordingly, conflict. A social landscape perspective is crucial for developing climate interventions that are more conflict-sensitive.
- Communities are not homogeneous: deep understanding of power and conflict dynamics within and between communities are key for designing conflict-sensitive climate interventions.
- Climate interventions, including finance mechanisms, often exacerbate inequalities because they do not address the root causes of existing conflicts.
- While conflict can be negative, it can also be a key driver of change. Natural resource competition can be transformed to strengthen social-ecological resilience, help mitigate conflict and promote cooperation.

Towards Inclusive Climate Change Interventions (TICCI)

The TICCI project has looked at enhancing people's adaptive capacity to deal with climate change, particularly among small-scale farmers and pastoralists in the dryland regions of Kenya, Ghana and Burkina Faso. The project has analysed to what extent existing sets of interventions have helped local groups to make farming systems more resilient and how it has supported people to better deal with unexpected events and extreme weather conditions (Netherlands Organisation for Scientific Research, 2018c). The following findings and recommendations are the culmination of the TICCI project's five years of research within the CCMCC programme.

Findings (Netherlands Organisation for Scientific Research, 2018c, p. 3):

- Many adaptation interventions assume homogeneity within communities. This invariably strengthens the social capital of elites at the expense of those without it.
- By changing local natural resource patterns, even 'successful' climate change interventions risk inciting new local conflicts or deepening existing lines of conflict and contestation.
- In African drylands, adaptation interventions generally target crop farmers, ignoring important and fragile relational dynamics governing the sharing of natural resources between competing farmer and pastoralist groups. This results in a breakdown of social capital between groups.
- Adaptation interventions do not form an entirely new entity in rural development in African drylands, and continue to target (usually sedentary) beneficiary groups such as farmers, communities, women, youth, etc.
- Adaptation interventions often struggle to internalise the dynamics of multi-user landscapes: even where interventions may target multiple community groups, the groups are targeted in isolation. Not taking account of pastoralists in these multi-user landscapes undermines the effectiveness of that programme.

Key recommendations (Netherlands Organisation for Scientific Research, 2018c, p. 3):

- For interventions relating to the governance of land and water to be conflict-sensitive, landscapes (with an emphasis on their social dimensions including the wider context and root causes) should replace communities as points of departure.
- Assess landscapes in terms of multiple-user groups and competing claims and incorporate a social landscape approach.[10]
- Crop-based adaptations that succeed in raising income levels require relational systems for managing natural resources shared between multiple stakeholders. Without the implementation of such interventions, the risk of conflict is increased.
- Design intervention mechanisms for monitoring spillovers (in time and space).
- While conflict can be a detrimental, negative and destructive power, it can also be a key driver of change. Climate variability sometimes goes hand in hand with conflict situations (e.g. pastoralists versus farmers), but it can also be a reason for solidarity and new types of collaboration.

Conflict and natural resources

The following insights are from working on climate interventions in conflict-prone settings (Netherlands Organisation for Scientific Research, 2018d, p. 2):

- Government-steered climate interventions related to land (bio-fuel production), water (such as hydropower) and forests (REDD+ and community-based forestry) are often blind to local disputes over scarce natural resources and inconsistent with local initiatives.
- Insecurity in land tenure is a root cause of substantial share of the conflict cases studied.
- Consultation processes are susceptible to elite capture due to access. Some stakeholders are excluded due to distances and time needed to travel to meetings and technical language and procedures employed that may not be widely understood.
- Elites generally benefit from climate policies and interventions. Elites are better equipped to respond to changes resulting from climate change policies and other interventions, which offers opportunities to capture or modify natural and physical resources more easily.
- Material injustice and perceived exclusion and discrimination contribute to resource conflicts.
- There is need for understanding of power dynamics and local economies, as resource-based conflicts are often related to other conflicts.
- Existing formats to address conflicts need to be changed; there is need for long-term and multi-stakeholder engagement, based on a recognition of the needs, interests and rights of vulnerable groups.

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[10] "The landscape approach recognises that social relations within landscapes cannot be separated from changes in land use. Used as an analytical lens, the TICCI project was better able to understand the potential for climate change policy and practice to start or exacerbate conflict." (Netherlands Organisation for Scientific Research, 2018c, p. 2).

- Resource-based conflicts need resource-based solutions, making use of existing tools and instruments (such as Environmental Impact Assessment, and Free, Prior and Informed Consent)

Gender considerations

The following recommendations were made by the CCMCC consortia to enhance conflict-sensitiveness of natural resource policies and climate initiatives around gender (Netherlands Organisation for Scientific Research, 2018a, p. 11; 2018d):

- Men and women experience conflict differently and approach its resolution in distinct ways. Women are more likely to take a collaborative approach, while men often have a more conflictual approach.
- Gender and other forms of social differentiation should be considered more critically and centrally at all stages of projects and policies related to natural resources and climate change.
- Programme design must view women not as isolated beneficiary groups but as co-actors operating within the larger frameworks. During beneficiary selection, categories of women need to be considered, particularly marginalised groups.
- Leadership capacity needs to be developed for women and structural changes adopted to give opportunities for these women in decision-making.
- Long-term investment and commitment is needed to empower the marginalised groups.
- At organisational level, it is necessary to change the culture, structure, behaviour and attitudes to ensure that it achieves the set goals on equity, equality and empowerment. Gender sensitiveness should be a specific focus in technical curricula.
- There is a need to develop champions for ensuring voices of women are expressed and heard by exposing stories of marginalised women in wider forums.
- Donors need to put more pressure on governments, to ensure that participation quotas in decision-making forums on climate change are effective and meaningful.
- Donors should collaborate and coordinate with each other before formulating projects to avoid duplication of similar unsuccessful types of projects, and build on successful ones that have mainstreamed gender considerations effectively.

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Acknowledgements

Suggested citation

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