



WHEN RISING TEMPERATURES DON'T LEAD TO RISING TEMPERS

CLIMATE AND INSECURITY IN NIGER

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Working paper



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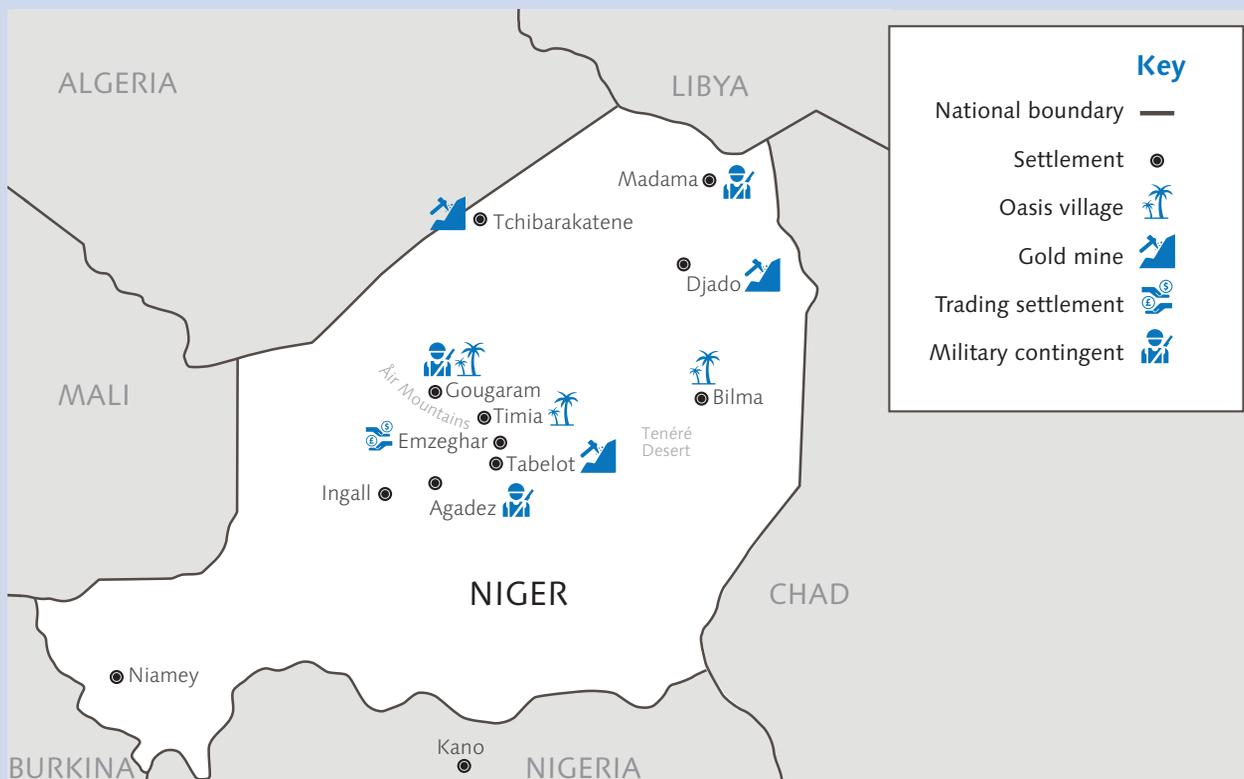
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Acronyms

- EU:** European Union
- IPCC:** Intergovernmental Panel on Climate Change
- ISGS:** Islamic State in Greater Sahel
- JNIM:** Jama'a Nusrat ul-Islam wa al-Muslimin
- UNCCD:** United Nations Convention to Combat Desertification
- UNODC:** United Nations Office on Drugs and Crime
- NSAGs:** Non-State Armed Groups
- UN:** United Nations

Places cited in study.



Executive summary

In this report, we explore the complex and tangled links between climate variability/change and the proliferation of armed networks operating in northern Niger. We do this by examining the factors influencing livelihood choices among 29 smugglers of people, arms, drugs and gold working across Niger. We chose to focus on these smugglers because they are now invariably armed and operate in coordinated networks. To understand how factors may be changing over time, we also interviewed smugglers' fathers. We analysed whether extreme weather events and climate variability influenced livelihood choices, but also paid attention to how changes in the political and economic context impinged on their life trajectories.

The latest thinking on the link between climate change and conflict is that climate variability and change act as intermediary sources of risk and as 'threat multipliers'. Rather than acting as a direct driver of conflict, climate conditions interact with existing socioeconomic and environmental conditions to increase the probability of conflict in some situations. In an influential report commissioned by the Group of Seven (G7), a series of compound climate-fragility risks were identified that have the potential to exacerbate fragility. These included livelihood insecurity, and extreme weather events and disasters. In this report, we examine whether the presence of both livelihood insecurity and extreme weather events has increased the probability of the emergence of armed networks in northern Niger. Our study aims to address the growing need to build an evidence base on climate change, livelihood insecurity and recruitment into armed networks.

Based on the life history data, we find that, rather than being a recent trend, a major shift out of pastoralism occurred during the smugglers' fathers' generation. Partly influenced by the

droughts during the 1970s and 1980s, but also by the changing economy, these men began divesting from livestock and investing in small-irrigated gardens. There were also new employment opportunities at local uranium mines, on construction sites in Algeria and Libya and in small-scale services for the growing urban centres of Agadez and Arlit. Smugglers' grandfathers predominantly worked as pastoralists but their sons' response to increasing livelihood insecurity in the face of a prolonged drought was not to join armed networks. Rather, they responded to these pressures by increasingly investing in garden plots and seeking new forms of employment.

The life history data also shows that most smugglers were attracted to the smuggling industry, not out of desperation to escape desertification and resource scarcity, but because of the potential to earn substantially more than what they were earning as day-labourers at the mines, or as gardeners, mechanics or motorcyclists. A people smuggler could earn 100 times more than a day labourer at the uranium mines, and seven times more than a driver for a Chinese oil company. All the smugglers we interviewed were earning at least £2,000 per month. In Niger, the annual per capita income is £383. The risks were high but smugglers were willing to take them for the financial rewards, at least until they could earn enough money to buy a house and a plot of land. This is not a story of young people turning to illicit activities due to rural to urban migration from regions affected by desertification and resource scarcity. It is a story about choosing livelihoods that make the most sense economically to meet life goals. Indeed, many smugglers invested their profits in irrigated gardens in the river beds and oases around Agadez and dreamed of retiring from smuggling to manage a garden.

To explain the increase in armed networks operating across northern Niger and Mali, we need to understand the economic

and political factors influencing decisions that traders operating in this region make. Trade routes between North and Sub-Saharan Africa have always been lucrative but there has been a massive increase in the value of goods traded over the past 20 years. During the 19th and early 20th centuries, trade was dominated by indigenously produced goods such as salt, dates, livestock and millet. In the 1960s and 1970s, a robust trade in subsidised food products and plastic goods developed from the industrialising economies of Algeria and Libya. Due to sanctions imposed on Libya in the 1980s, demand for contraband cigarettes increased. In the 2000s, as the demand for cocaine increased in Europe and former Eastern Bloc countries, a number of traders in West Africa responded by switching to from cigarettes to cocaine. The transition to trading in illegal drugs has resulted in Nigerien smuggling networks being linked to international criminal networks. As the value of the cargo increased, banditry also became increasingly lucrative, with smugglers arming themselves to protect their trade. The proliferation of armed smuggling networks intensified with the collapse of Gadhafi's regime and an increase in the flow of weapons, with most initially transported to Mali but over the past few years, Nigerien smugglers have begun to invest in them to protect their valuable cargo.

In 2015, the Nigerien government banned the transport of foreigners north of Agadez, under pressure from the European Union (EU). This meant that people smugglers, who had been operating at the softer end of the smuggling business, now needed to link with more professional criminal networks to allow continued access to smuggling routes. The increase in the use of arms has therefore been an outcome of policies outlawing trade in certain goods (cocaine and migrants) or limited supply in formal markets (gold and arms), thereby increasing demand through informal channels that can flourish in a region that

is difficult for the Nigerien state to secure. These economic and political factors occur against a backdrop of state collusion in smuggling, making it difficult to produce a coordinated response to the increase in armed networks.

Our study shows how, rather than climate change being a dominant driving factor behind the proliferation of armed networks in one region, global politics interact with trading practices and corruptible state officials in northern Niger to produce a political economy that incentivises young people to become smugglers. In the near future, threats such as global financial instability, market volatility, increasing support for protectionism and rising nationalism are likely to have a much greater impact on the proliferation of armed groups in northern Niger than climate variability and change. A strategic intervention to address insecurity in northern Niger would account for global political and economic threats, and identify ways in which those threats can be managed to promote sustainable livelihoods that don't need to be armed protection: global financial stability, market volatility and climate change intersect and need to be treated as part of a complex system.

An overemphasis on the contribution of climate variability and change to the rise in armed networks matters for several reasons. First, it results in programmes that work to support people to adapt to climate change, in the name of addressing insecurity. We already see this happening with major stabilisation programmes in northern Niger that are financed by the United Nations (UN) and the EU and include climate change adaptation components. Second, the focus on climate change shifts attention away from the influence of national and international actors in shaping an illicit economy that requires armed protection, along with links to both international criminal gangs and to officials in the Nigerien state who enable trade to happen. Such discourses

depoliticise the dynamics of rising insecurity and national and international culpability. The depoliticisation of rising insecurity means that Western agencies can appear to be investing to address the causes of rising insecurity while maintaining friendly relations with the Nigerien government and the parts of their own governments involved in reproducing the military security complex. Third, assuming that climate change will increase insecurity is used to justify a securitised response to climate change. In the Sahel, this includes governments justifying an increased foreign military presence across the region in anticipation of increased climate-related insecurity and increased involvement of the military in humanitarian and development activities linked to a growing climate challenge. Climate change poses challenges in the Sahel – and in some situations, conflict makes people more vulnerable to its effects by disrupting markets and limiting both their movement and their livelihood options. It is critical to use appropriate approaches to address these genuine risks. However, the securitisation of these challenges may hamper rather than help design the right interventions. Finally, the assumption that young men and women living in the Sahel will be more likely to turn to criminal activity when climate-sensitive livelihoods become increasingly insecure risks criminalising a whole generation of West Africans. The findings from this study indicate that, when faced with increased insecurity in pastoralism, young men in the 1970s and 1980s did not turn to criminal activity. *The question we need to ask is not why so many young people are turning to criminal activity today in northern Niger but why this is so much more profitable than most other professions available to young people.* By shifting our attention to the political economy of the smuggling industry, we can begin to design economic opportunity interventions that can contribute to managing the proliferation of armed networks.



1. INTRODUCTION

IMAGE: A DISUSED GHETTO IN AGADEZ, WHERE MIGRANTS USED TO STAY BEFORE EMBARKING ON THEIR JOURNEY ACROSS THE SAHARA, TAKEN BY AOIFE MCCULLOUGH

1.1 The climate-conflict-security debate

A brief overview of the discourse

State-based armed conflict, non-state armed conflict and one-sided violence against civilians are complex phenomena driven by multiple factors. The linking of environmental pressures with types of conflict, particularly armed struggles over natural resources and environmental degradation, emerged as a scientific and policy concern some thirty years ago (Homer-Dixon, 1994). In parallel, the natural hazards and disasters community began exploring the links between natural disasters and both community-level conflicts and civil wars (Dynes and Quarantelli, 1971).

Initially, research was dominated by empirical studies that tried to test whether climate variability and change¹ could be directly linked with increases in conflict, with preliminary enquiries demonstrating that it is difficult to make direct links, as conflict arises in the face of multiple drivers beyond 'just' environmental and climate change (for an overview see Detges, 2017; Selby, 2014; Forsyth and Schomerus, 2013; Scheffran et al., 2012). More recently, there has been a shift towards understanding climate variability and change as intermediary sources of risk and as threat multipliers. Rather than acting as a direct driver of conflict, climate conditions interact with existing socioeconomic and political conditions, to increase the probability of conflict in some situations (see Gilmore, 2017; Feitelson and Tubi, 2017; Busby, 2018).

This change in thinking is perhaps best illustrated by the *New Climate for Peace* report commissioned by the Group of Seven (G7) in 2015. The G7 is composed of representatives from seven of the most 'advanced' economies, designated by the International Monetary Fund. In this report, climate change is described as 'a global threat to security in the 21st century' (Rüttinger et al., 2015). As climate change stresses the world's economic and social systems, with institutions and governments unable to manage such stress or absorb shocks, there is a risk that the instability of states and societies may increase.

The report identifies seven 'compound climate-fragility risks' that could emerge when climate change interacts with other social, economic and environmental pressures (Rüttinger et al., 2015).

1 At the time of writing, the reviews of knowledge on links between conflict and climate change acknowledge numerous challenges in both attribution and comparisons between studies. For example, some have featured inappropriate and non-robust climate analysis. There has also been also lack of agreement on definitions of conflict and how to standardise sensitivity analysis between climate variables and conflict indicators.

These seven situations where multiple pressures and threats interact have the potential to increase the risk (probability) of fragility. The seven compound climate-fragility risks are:

1. Increased local resource competition
2. Livelihood insecurity and migration
3. Extreme weather events and disasters
4. Volatile food prices and provision
5. Transboundary water management
6. Sea-level rise and coastal degradation
7. The unintended effects of climate policies.

It is the second of these climate-fragility risks that is of interest this study. Here, Rüttinger et al. argue that where individuals depend on climate-sensitive livelihoods such as agriculture and pastoralism, and where there is a lack of legal alternative livelihoods, individuals could become increasingly involved in criminal activities (ibid: 26). Of particular concern are young, men, who are identified as vulnerable to 'criminal activities' such as drug trafficking and armed groups (ibid: 28).

The climate-conflict-security debate in the Sahel

Insecurity has risen over the last 10 years in the Sahel (Armed Conflict Location & Event Data Project (ACLED, 2019) and as researchers and policy-makers search for reasons to explain the sudden increase, climate change may seem like a strong candidate. Mean temperatures and the number of extreme heat events are increasing (for more details on the evidence of climate change in the Sahel, see Text Box 1). In a region where 77% of the population relies on climate sensitive livelihoods,

rising temperatures are likely to negatively impact their crop yields, increasing their food insecurity in the absence of support measures like crop insurance, irrigation, access to financing and good natural resource governance. A number of recent studies strongly argue for a link between climate and insecurity in the Sahel, with some suggesting that climate change serves to directly aggravate insecurity and fragility.

For example, a report by the think tank Adelphi, financed by the German Foreign Office, explores the links between climate and non-state armed groups (NSAGs), including both criminal networks and insurgent forces in the Lake Chad region. Echoing arguments within the *New Climate for Peace* report, the study argues that climate variability and change should not be seen as a direct cause in the growth of non-state armed groups, but through their interaction with other drivers of fragility, 'contribute[s] to creating an environment where NSAGs can thrive' (Nett and Rüttinger, 2018: 55). The authors use the decreasing water levels in Lake Chad as evidence of climate change and, in this way, link reported increased competition over resources as a result of the lake retreating with climate change. In fact, in another report, it has been argued that the shrinking lake created additional fertile ground for cultivation (Magrin and Perouse de Montclos, 2018). The water levels in Lake also fluctuate massively over decades (Vivekananda et al. 2019; Margin and Perouse de Montclos, 2018). In another more recent report on the interaction between climate change and conflict in Lake Chad (financed by the United Nations Development Programme and the Foreign Offices of Germany and the Netherlands), Vivekananda et al. (2019) conclude that climate change plays a role through 'undermin[ing] already fragile economies and livelihoods' (ibid: 13). In this report, the authors use a conflict analysis to identify the drivers of conflict and then analyse

how climate change impacts would interact with those drivers of conflict. This is a useful approach to assess conflict-related risks and develop scenario planning but does not provide empirical evidence of the role that climate-related impacts play in driving the conflict.

In a report commissioned by the World Bank, Alda (2014) attempts to empirically demonstrate a link between 'climate change related events' in the Sahel and the onset of conflict in the following year. Alda defines drought as a climate change related event and runs regressions to check whether it increases the likelihood of a conflict event. Yet, as will be discussed in Box 1, not all droughts in the Sahel are influenced by climate change. Alda reports some evidence of a link using probit regression analysis, but is not able to replicate this when using a structural equation model. Despite inconclusive findings, Alda predicts that young people faced with decreasing natural resources as a result of climate change may find themselves attracted to the 'illicit sector', particularly those who migrate to urban areas (Alda, 2014: 16). The report states that there is already evidence to suggest unemployed young people have been a target for armed groups such as al-Qaeda in the Islamic Maghreb and, in a region where trafficking is prominent, those who are unable to find 'formal means of employment...will likely find themselves increasingly recruited by organised crime groups' (ibid: 16).

Benjaminsen et al. (2012) sought to empirically test the theory that droughts lead to increased conflicts between pastoralists and herders. The researchers used weather data and the number of land disputes filed in court over the 1990s and 2000s in central Mali to examine whether droughts led to an increase in land disputes. Even when the time taken to bring a case to court was adjusted for, they did not find any significant correlation. It is, of course, possible that only a limited number of people

would consider filing their land dispute in court, meaning this study does not prove that droughts do not play a role in increases in land disputes. In considering how climate variability may contribute to increased tensions between farmers and pastoralists, it is important to look at the wider socioeconomic and political dynamics. For example, in central Mali, Walch (2017) highlights that, while increased climate 'unpredictability' is reducing water and grazing lands, traditional mechanisms that work to resolve land and access disputes are on the decline. As a result of the state using traditional customary systems to favour certain communities, these forms of governance have lost legitimacy (Walch, 2018: 18).

Two studies have used spatial analysis to attempt to demonstrate a link between the impacts of climate change and conflict in the Sahel. A United Nations Convention to Combat Desertification (UNCCD) report from 2014 uses analysis of countries that are experiencing desertification along with the number of terrorist attacks to argue that terrorist attacks have been more frequent in countries experiencing desertification. By including northeast Nigeria in the Sahel, the report shows an elevated number of terrorist attacks for the region. However, in-depth analysis of the causes of the violence in the Boko Haram crisis dismisses desertification as a significant factor (Magrin and Perouse de Montclos, 2018). In another study that used spatial analysis, this time commissioned by the Organisation for Economic Co-operation and Development (OECD), regressions were run on climate change, measured by rainfall variability, and security events (Hissler, 2010). However, the study's definition of what constitutes a security event is so broad (it includes food insecurity and health crisis) that that it arguably begins to lose analytical meaning. Even with this broad definition, Hissler only finds statistically weak correlations between rainfall variability and security events.

Many of these studies do not employ robust climate analysis. As detailed in text Box 1, the Sahel has a naturally harsh climate characterised by heat extremes and dry spells. A drought, on its own, is not necessarily caused by or attributable to climate change. In an arid and naturally extreme region such as the Sahel, effective socioeconomic and agricultural droughts, respectively, can occur without any changes to rainfall, simply because many people are living in an area and this means there are more drawing down water supplies than the region can support. More broadly, there is a lack of attribution studies testing the extent to which climate change has played a role in a particular drought. Thus, while many researchers and policy-makers argue that climate change contributes to increased insecurity in the Sahel, there is very little empirical evidence supporting this argument.

1.2 Aims of this study

In the Sahel, there are several different conflict dynamics, some of which overlap. Across northern Mali and Niger, there has been a proliferation of armed networks, mainly involved in smuggling drugs, arms, people and gold. Some of these networks have links with jihadist groups (Lacher, 2012). Across central Mali, northern Burkina Faso and northern Nigeria, there are increasing outbreaks of conflict between pastoralist and farmer groups (International Crisis Group (ICG), 2016; 2017; 2018;). These conflicts are escalated by the involvement of proxy government militia groups and jihadist groups, with some taking the view that French forces and their allies (Barkhane), the G5 Sahel forces and the UN mission in Mali (MINUSMA) are either working to manage the conflict or are themselves, further aggravating the situation (ICG, 2019a; 2019b). In northeast Nigeria and around Lake Chad, the Boko Haram crisis features a different set of conflict actors, where the violence is mostly

driven by fighting between Boko Haram/ Islamic State in West Africa Province and the Nigerian state/Multinational Joint Task Force.

The study behind this report focused on the proliferation of armed smuggling networks in Niger. We aimed to gather qualitative data in a specific case study context to check whether the argument that climate change and variability is contributing to the proliferation of armed criminal networks across the Sahel can be substantiated there. We were interested in addressing two important concerns:

1. There is a need for greater understanding of the interplay between climate variability and change, livelihood security and 'illicit' forms of livelihood. We will provide qualitative data that can be used to enrich a debate that has been dominated by quantitative data (Detges, 2017). Through collecting qualitative data, we can gain more insights into the nuances of the relationship between a changing climate and people's decisions to join armed groups.
2. Secondly, the narrative that climate change presents a security threat to the Sahel also has implications in terms of policy. We have already seen a number of development initiatives that aim to prevent young people engaging in 'illicit' activities through mitigating the effects of climate change (e.g. the UNCCD Sustainability, Stability and Security initiative). Without empirical evidence to demonstrate that climate change increases the risk of conflict breaking out, we may be misdiagnosing the factors incentivising young people to join armed networks in the Sahel.

Our study interrogated the assumption that climate variability and change is contributing, in direct or indirect ways, to the proliferation of armed networks in the Sahel. We used life history

interviews with 29 smugglers of arms, drugs, people and gold in northern Niger to gather data. We based our approach on an understanding that the decision to become a smuggler is a livelihood decision, examining how extreme weather events influence livelihood decisions and looking at the factors incentivising young people to quit climate sensitive livelihoods, with a particular focus on pastoralism. As the climate in the Sahel is one of extremes, extreme weather events are not necessarily indicative of climate change. Droughts are periodic and can last decades in the Sahel (see text Box 1 for more details). However, as some climate models project increasing frequency of extreme weather events, it is useful to examine how people have reacted to extreme weather events over the last 50 years and whether their reactions/methods of adapting can be linked to the current proliferation of armed smuggling networks. To do this, we carried out interviews with 16 fathers of smugglers to understand the factors that influenced their choice of livelihood. The research took place in Agadez and the surrounding villages, Emzaghar, Tabelot mine and Ingall in February and March 2019 (for more details on the method, see Annex 1).



2. ARMED SMUGGLING NETWORKS IN NORTHERN NIGER

IMAGE: STREET
IN AGADEZ,
TAKEN BY AOIFE
MCCULLOUGH

Smuggling has been a feature of the economy in northern Niger for the past 70 years. However in the late 1990s, smuggling networks started arming themselves and became increasingly linked with transnational criminal networks and occasionally connected with violent extremist groups such as al-Qaeda in the Islamic Maghreb and Movement for Oneness and Jihad in West Africa (Lacher, 2012). There has been a notable increase in armed banditry in northern Niger (Pellerin, 2017). The latest Small Arms Survey notes that Niger used to mostly serve as a transit country for weapons. Over the past five years, there has been an increase in demand for weapons within Niger. Arms seized have included explosives and small arms, along with light weapons and associated ammunition, such as mortar rounds and machine guns (Tessières, 2018).

Drug traffickers tend to be the most heavily armed, carrying machine guns, while people smugglers are more likely to carry AK rifles (ibid.). The gold rush that started in early 2014 generated further levels of violence targeting the increased movements of cash and gold between the main gold-extraction sites and major towns (Pellerin, 2018; Tessières, 2018). In 2016, the majority of armed attacks on convoys were on roads linking the main gold mines (Tessières, 2018).

The smugglers we interviewed were involved in people, drugs, arms, fuel and gold smuggling. Smugglers usually engage in a mix of activities. For example, in 2014, a convoy of six pickups transporting three tons of ammunition from Libya to Mali was targeted by operation Barkhane, the French-led counter insurgency operation across the Sahel (with a focus on Mali), in northern Niger. One of the drivers, although not formerly a member of any group, trafficked drugs and provided logistical support to violent extremist groups including couriers vehicles and flash drives (Tessières, 2018). Most people smugglers now combine people smuggling with tramadol smuggling. Tramadol is an opioid manufactured in Nigeria and smuggled through Niger to Libya where there is a high demand for opioids.

Smugglers range in the degree to which they are connected to the 'harder' end of criminal activity. As Brachet (2018) notes, the networks smugglers are connected to are not necessarily transnational organised crime networks but rather loose groupings that allow different sub-groups of drivers and intermediaries to operate their business. In 2015, the Nigerien government introduced new legislation criminalising the transport of foreigners north of Agadez (Loi No 2015-36), effectively banning people smuggling. As a result, people smugglers, who had generally previously operated towards the 'softer' end of smuggling, now needed a more complex network of contacts in order to facilitate

their route. These resulting networks include connections with the Nigerien police, the gendarmerie and customs, as well as with harder criminal networks. Those high up in such networks, otherwise known as *les patrons* have connections with the judiciary and with politicians.

Even when smugglers are operating as part of a network, they do not enjoy full protection. Members of the police force, gendarmerie and judiciary are posted at another location, exposing smugglers to new officers who have not been integrated into their patronage system. European police forces are also putting pressure on Nigerien forces to make arrests. During the field research, five smugglers were arrested outside of Agadez. More recently, a *patron*, who goes by the name of Abdallah Malohiya, was arrested as a result of a combined investigation by European and Nigerien police forces.²

Box 1: The difficulty in detecting the influence of climate change in Sahelian droughts

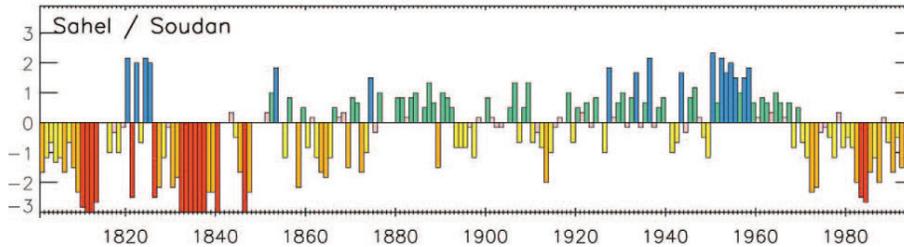
In studies that attempt to demonstrate the link between climate change and conflict, extreme weather events, such as droughts and floods, are often used as proxies for climate change. However, as we discuss below, the normal climate in the Sahel is one of extremes – of heat and rainfall scarcity and variability – and long-term direct observation data that spans a minimum of 30 years (but preferably longer), to robustly analyse trends in both climate normals and extremes is missing for some areas. As such, what one study defines as a 'drought' may fall within the natural variability of the Sahel. Furthermore, studies that have failed to employ vigorous climate

² www.dw.com/en/malohiya-the-unknown-smuggler-from-niger/a-48483492. Accessed 26.04.19.

analysis or account for decadal variability, as discussed below, may inappropriately ascribe relationships between climate and conflict. Niger is characterised by desert and semi-arid lands, where rainfall is normally scarce and erratic, with high temperatures and high evapotranspiration. It lies at the edge of the large-scale West African Monsoon system that brings the majority of annual rainfall across the semi-arid and arid Sahel region (countries surrounding the Gulf of Guinea to roughly 18°N bordering the Sahara Desert) between June and September. The monsoon is characterised by high natural interannual, interdecadal and spatial rainfall variability; some places in the Sahel might receive good rains while other areas are dry in the same year (Agnew, 1998; Nicholson et al., 2012). Hulme (2001: 19) notes 'there is no such thing as 'normal' rainfall in the Sahel. What matters is the ... spectrum of rainfall variability in space and time'. Simultaneously, the region is very hot, with mean daily minimums ranging from 11.5°C in January to 33.6°C in June and mean daily maximums from 28°C (January) to 41.2°C in May. Together, the high temperatures and variable rainfall create the fragile semi-arid grassland and savannah ecosystems that give way to the Sahara Desert. High natural rainfall variability and temperatures, coupled with competition over natural resources, contribute to environmental degradation and water scarcity.

Monsoon rainfall in the Sahel is strongly linked with ocean-atmospheric relationships. Precipitation analysis indicates that decadal drought patterns tend to repeat in 30 to 50-year cycles linked to multi-decadal cycles in sea temperatures in the Atlantic Ocean and Indian Ocean. This occurs with year-to-year variability in monsoon rains, which is related, among other climate factors, to the El Niño Southern Oscillation and the position of the Intertropical Convergence Zone (Nicholson, 2013; Giannini et al., 2008). The monsoon winds and moisture content weaken as they flow further inland from the Bay of Guinea, bringing less and more erratic rainfall to areas bordering and into the south Sahara, such as northern Niger.

Figure 1: Reconstructed Sahel/Sudan average annual rainfall anomalies from station data, European explorer records and oral traditions of various Sahelian peoples over the last 200 years. The y-axis shows anomaly departures from mean annual rainfall over the period 1800-2000



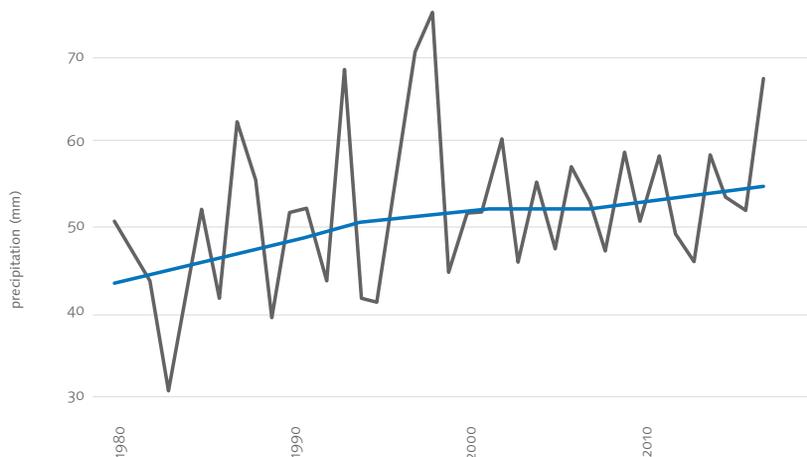
Source: Nicholson et al. 2012: 1277. Figure reproduced with permission

Rainfall amounts across Niger during the monsoon range from 500–600 mm/year in the south – lying between roughly 12°N to 14°N – and decrease to 100–200 mm/year north to approximately 18° latitude, where amounts dwindle further to less than 100 mm/year in far northern Niger (Nicholson, 2013; Funk et al., 2012; Larrasoño et al., 2013). Spatial rainfall variability also increases with latitude, with the possibility of no rainfall for some areas of northern Niger, even while others in the country are receiving 'normal to excess' amounts in any given year.

The severe multi-decadal drought spanning the early 1970s to late 1980s throughout regions of west Africa contributed to significant famine, loss of lives and livelihoods across multiple countries already stressed with geopolitical transitions and volatility (Hulme, 2001; Dai et al., 2004). The severity and duration of the droughts have raised questions as to whether their magnitudes were unprecedented, what might be expected for rainfall over the next few decades, and what role climate change has played and will play in future water security, livelihoods and socio-political stability in Niger.

A review of two centuries of climate records from European explorers, spanning the early 1800s to the present day, along with the oral traditions of various Sahelian peoples (Nicholson et al., 2012; 2018) and lake sediments from West Africa, reveal that such multi-decadal droughts have occurred regularly throughout the last 3,000 years (Shanahan et al., 2009); the recent multi-decadal drought is actually a relatively frequent event in the historical record (Paeth et al., 2017). The period of 1800-1850 saw a prolonged and severe drought of a greater magnitude than the most recent dry period (Figure 1). Paleoclimate records indicate that the region has actually experienced severe droughts lasting multiple centuries, with one enduring from ~1400 to 1750 (Shanahan et al., 2009): extreme rainfall variability across space and time is the norm for the region. This means present-day droughts must be considered to be partially within this natural variability and a climate change signal in precipitation maybe difficult to untangle for multiple decades.

Figure 2: Annual precipitation variability (black line) and statistically significant increasing trend (blue line, p-value = 0.047) over 1981-2018 using area-averaged CHIRPS rainfall data (Funk et al., 2015) for northern Niger (north of 16°N). Annual totals have increased by approximately 10mm over the past few years when compared with the early 1980s



Source: the authors

Monsoon rains have been increasing since the late 1990s for the eastern Sahelian regions north of 12.5°N, including Niger, but have not recovered to match the rainfall amounts seen in the 1950s (Odoulami and Akinsanola, 2018; Paeth et al., 2017). The increases in average monsoon rainfall have been unevenly distributed across Niger, with the southern crop-growing regions receiving about 8% less rainfall between 2000 and 2009 than the 1920 to 1969 average (Funk et al., 2012). Areas of Niger north of 16°N have also experienced slightly increasing annual rainfall amounts. This has been largely due to a recently stronger monsoon (see Figure 2) though not to the extent seen in the early 1900s. However, these recent trends should not be expected to continue indefinitely in the future. Monsoon rainfall will continue to be highly variable.

Available precipitation data also shows that some areas of the Sahel have had fewer days of rain, with the amounts concentrated in shorter events, which can contribute to flooding. The intense rainstorm around Niamey on 26 August, 2017 dropped ~100mm of rain in a day and contributed to injuries as well as infrastructure destruction and damage, for example. However, detecting whether these recent monsoon precipitation increases are part of a statistically significant long-term trend is challenging due to poor observational records and challenges in rainfall reanalysis datasets (e.g. from the European Centre for Medium-Range Weather Forecasts (ECMWF), the Climatic Research Unit (CRU) and the Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS)). Poor spatial coverage of weather stations, including an overall reduction in their number across Niger since 2005 (Funk et al., 2015) challenges efforts to track extremes in monsoon rains, though satellite-derived datasets are helping to fill some of the ground-based observation gaps.

There is still some uncertainty about how the West African Monsoon might evolve under different climate change scenarios and the extent to which recent variations have been influenced by them

(Hoegh-Guldberg et al., 2018; Paxian et al., 2016; Paeth et al., 2017; Nikulin et al., 2018). It is known that the Atlantic Ocean is warming and that this process is highly influenced by climate change, but what long-term implications this will have for the West African Monsoon are not well known. Some climate models suggest the Sahel may experience a drier monsoon – contributing to more agricultural, hydrological and socioeconomic drought, partly due to a possible increase in the ocean conditions known to lead to a weak or failed monsoon. Other models suggest that climate change might shift ocean conditions to be more conducive towards a strengthening of the monsoon rainfall (Giannini et al., 2008; Paxian et al., 2016; Nikulin et al., 2018). There is also uncertainty regarding how the nature of rain events within the monsoon might change. This includes the question of whether the trend of fewer rainy days but more intense rain events seen in some areas might continue into the future. There are also still large discrepancies in what the climate models project for shifts in rainfall extremes, depending on which method is used for estimation (Badr et al., 2016; Vizy et al., 2013; Akinsanola and Zhou, 2018; Diedhiou et al., 2018).

Mean annual temperatures across most of Niger have increased by 0.6 to 0.8°C since 1990 (Funk et al., 2012), which is consistent with observed mean global warming of 0.87°C (IPCC, 2018). Heatwaves specific to northern Niger are difficult to access due to a lack of area-observation temperature data. However, for the Sahel as a whole, heatwaves – particularly those between March and July – became warmer during the 1950–2012 period and the spatial extent of the Sahel experiencing them increased. However, they did not become more frequent or last longer (Barbier et al., 2018). For example, night-time temperatures during heatwaves (March to July) have warmed by about 0.5°C/decade, while daytime heatwave temperatures have warmed by 0.3°C/decade over the Sahel as a whole – though there are stark spatial differences. The changes in the nature of Sahelian spring

heatwaves became stronger after approximately 1990 (Oueslati et al., 2017). Many of the past few years, such as from 2010 onward, have seen record-breaking hot temperature anomalies globally, not just in Niger or the Sahel. (One exception to this was 2017, when Niger was 'cooler' than normal.) Mean temperatures are expected to increase between 3°C and 6°C by 2100 (World Bank, 2019), with large rises in the number of hot days and nights and heatwaves expected (Hoegh-Guldberg et al., 2018). There is a potential for greater spatial and temporal monsoon rainfall variability due to climate change imposed on natural variability. Coupled with the warmer temperatures, these will enhance evaporation and soil moisture loss, contributing to water security issues and agricultural droughts. Many of the crops grown across the Sahel, such as maize, sorghum and cocoa, are particularly sensitive to extreme temperatures. Along with this, crop yield reductions are likely to occur, even without accounting for uncertainties in rainfall (Hoegh-Guldberg et al., 2018).

This overview of climate data for the Sahel shows how difficult it is to demonstrate a link between climate change and rising insecurity. However, following the example of others (Adelphi and WEF), our study adopted the broader category of climate that includes climate variability and climate change. When gathering the life histories, we focused on how extreme weather events, such as droughts and flooding, influenced people's livelihood choices. These extreme weather events may represent the extreme climate variability characteristic of the Sahel, but but as under some climate change projections they are likely to increase in frequency, intensity and duration, it is worth examining how people have responded and continue to respond through their livelihood strategies.



3. ANALYSIS OF LIFE HISTORIES

IMAGE: ONE OF
THE RESEARCHERS
AT TABELOT
GOLDSITE, TAKEN
BY DJIBRILLA
MOHAMED
BOTTO

3.1 Demographic characteristics of smugglers

The sample was dominated by Tuareg people, although there were also small numbers of Tubus, Hausa and Arabs. The Kel Ewey were the most represented Tuareg confederation. This was to be expected as the Kel Ewey have a long history in trade. Confederations traditionally based around Kidal in Mali, such as Ifoghas, were also represented in the sample, demonstrating links between Nigerian based smugglers and those in Mali. Former slave owning and enslaved Tuareg sub-tribes were represented in the sample, indicating that smuggling cuts across social class within ethnic groups.

The age of smugglers ranged from 23 to 41, with a median age of 29. Approximately 50% of the sample grew up in urban centres such as Agadez, Arlit and Iferouane, while others grew up in villages in the Air Mountains or in the major oases of the Tenere desert (Bilma and Kawar). This finding contradicts the idea that rural migrants to urban areas are more vulnerable to engaging in illicit activities (e.g. from Alda, 2014). We found that those who grew up in urban areas were mostly the sons of labourers at the uranium mines, tradespeople (electricians and welders), office assistants, livestock traders and marabouts. Those who grew up in rural areas were sons of farmers who predominantly engaged in a mix of agriculture and tending small herds of goats. Three smugglers in the overall sample had fathers who engaged in full time pastoralism including camels. Those who grew up in Bilma and Kawar had fathers who traded in salt, dates, clothes, shoes and fabric.

Contrary to the widespread perception that poverty drives young men to join armed groups, the majority of smugglers came from families who were categorised as 'medium wealthy'. In our sample, there were also smugglers who came from wealthy families. Interestingly, one of the families categorised as wealthy were still engaged in pastoralism. There were also a number of smugglers from poorer families. Some of these engaged in mix of agriculture and small-scale livestock breeding but more were working in low-skilled and poorly paid jobs in services at the uranium mines.

Most of the sampled smugglers had a primary education, with many completing at least two years at secondary level. Two of the smugglers had university degrees. The smugglers' level of education was much higher than that of their fathers', most of whom had only attended local Qur'anic schools.

Several studies describes smugglers as Tuareg ex-rebels (e.g. Brachet, 2012). In this sample, a minority of smugglers were ex-rebels, while some had participated in the Libyan uprising. But most smugglers had not participated in either the Tuareg rebellion nor the Libyan uprising. It is possible that, initially, smugglers – in particular people smugglers – were mostly ex-rebels, but as young men saw how profitable the profession was, over the last decade, ex-rebels fast became a minority among smugglers.

3.2 The shift out of pastoralism

Using the data from the life histories of smugglers and their fathers, we were able to examine shifts in livelihoods across three generations. The data shows a significant shift out of pastoralism between the grandfathers' and the fathers' generations. During the grandfathers' generation, roughly spanning 1955 to 1985,³ over 50% of the sample engaged in pastoralism or a mix of pastoralism/spiritual activities/trade. There were some traders among the smugglers' grandfathers who traded in livestock, millet, sorghum, wheat and maize in exchange for dates, salt and natron. Others engaged in agriculture in the oasis gardens in the Aïr Mountains, growing wheat, maize, tomatoes and onions. This sample indicates that during the grandfathers' generation, pastoralism was the main productive activity in northern Niger.

By the father's generation, roughly spanning 1975 to 2009, only one interviewee remained in pastoralism at the end of his working life. A common strategy used by smugglers' fathers was

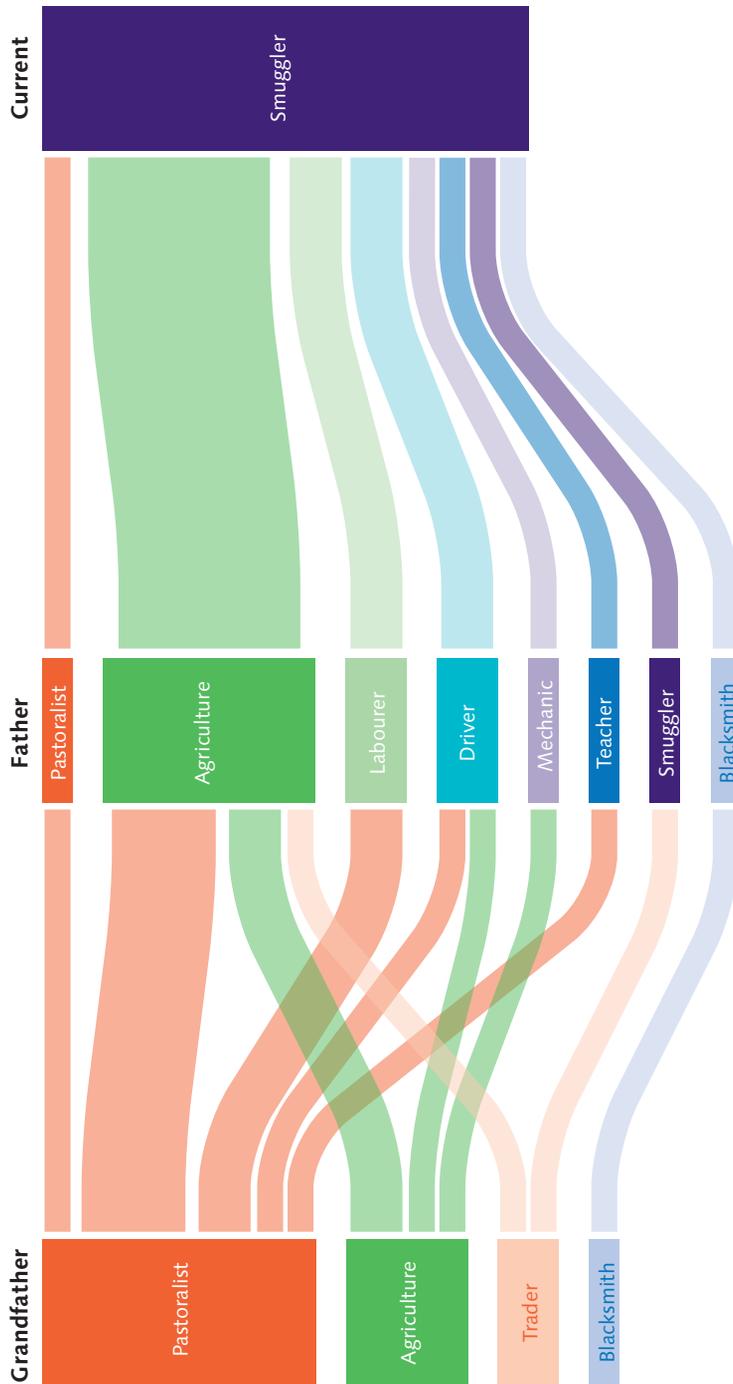
³ The timeframe was calculated by using the father's age to estimate the average 30 years of productive labour from age 20 to age 50 of the grandfathers', fathers' and average 24 years of the smugglers' generation.

to diversify into agriculture. Thus, instead of investing in replenishing herds, smugglers' fathers invested in cultivating new plots of land along riverbeds in oases. At that time, families either bought land from entrepreneurs who invested in wells or were allocated small plots of land by their chiefs. Capital was required to invest in oxen, ploughs, seeds and water pumps. The family normally provided the capital needed. However, the profitability of the oasis gardens was not that high, transport was limited and it was difficult to take produce to markets. Those with gardens closer to Agadez or Arlit were able to benefit from the growing urban population at those centres, where people were working in state administrative offices and in uranium mines and had higher incomes for purchasing food.

Box 2: Uranium mines in northern Niger

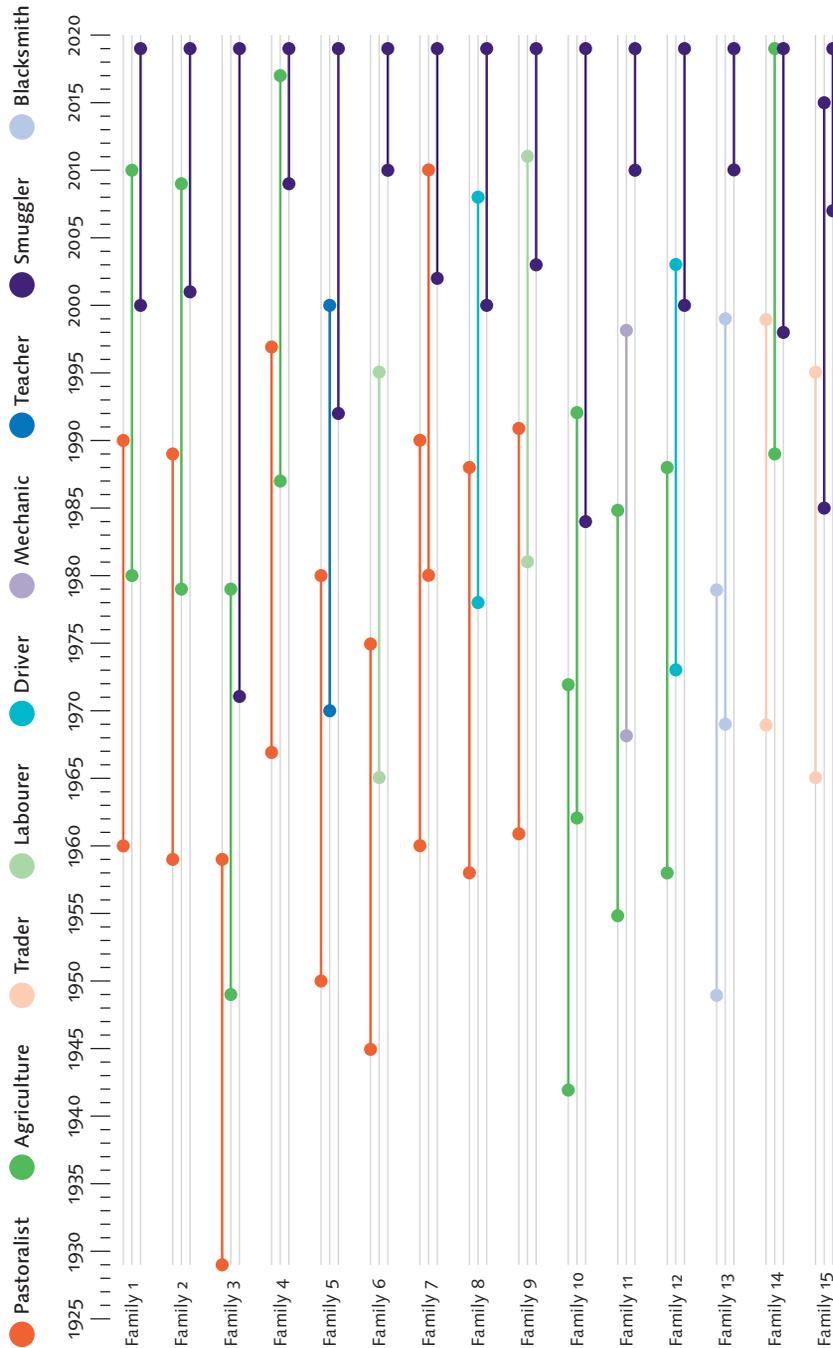
Uranium mines were first opened at two sites near Arlit in northern Niger in the early 1970s. A French company AREVA owns the license for the two mines SOMAIR (Société des Mines de l'Air) and COMINAK (Compagnie minière d'Akokan), which have produced approximately 3,500 tons of yellow cake, or uranium concentrate a year, used to fire nuclear power plants in France (Reuters, 2017). SOMAIR is the sixth largest uranium mine in the world (Winde et al. 2017) while COMINAK is the largest underground uranium mine in the world. In 2007, a smaller third mine, SOMINA (Société des Mines d'Azelik), opened in Ingal. A group of Chinese companies led by the China International Uranium Corporation (SinoUranium) own the license. In 2009, AREVA opened up the Imouraren mining site, 80km southwest of Arlit. This was forecast to be the second largest producer of uranium worldwide and Africa's largest open pit mine. However, with the fall in the price of uranium following the 2008 global

Figure 3: Changing livelihoods across three generations in northern Niger



Source: Life history interviews

Figure 4: Changing livelihoods across the generations with approximate dates of working life for smugglers, their fathers and grandfathers



Source: Life history interviews

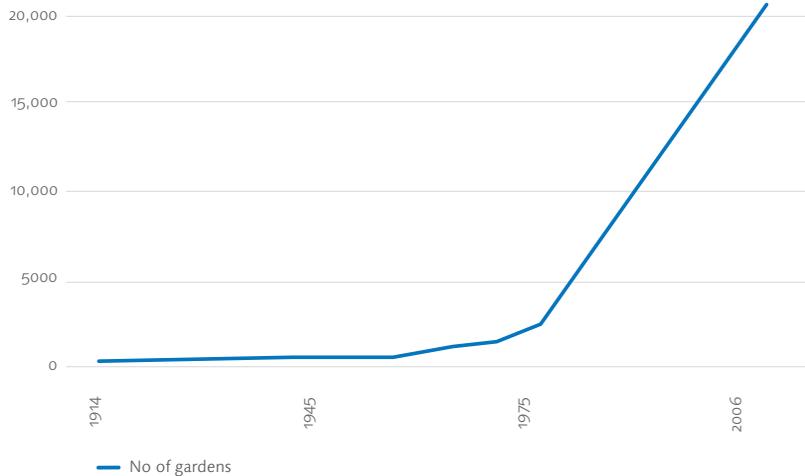
recession, work at Imouraren has been suspended.⁴ The combined production from SOMAIR, COMINAK and SOMINA amounts to about 8% of the world's uranium (Winde et al., 2017). However, although large amounts of uranium are mined at Arlit and Ingall, overall production is only 1.6% of national gross national product (GDP) (ibid.). Although it is difficult to get exact estimates, COMINAK employs 1200 employees, including eight expatriates, 130 technicians, 730 skilled workers and 300 subcontractors, while SOMAIR employs approximately 1000 (Economist Intelligence Unit, 2015).

Our interviews revealed that the shift away from agriculture and pastoralism into jobs in service provision, along with wage labour at the uranium mines, happened over the course of the fathers' working lives. Whereas almost 70% of the sample started out in agriculture or pastoralism, only 30% were still engaged in agriculture or pastoralism by the end of their working lives. Some worked as wage labourers in the mines or in service provision in urban areas (drivers or tailors), while others migrated to Libya for gardening work. Of note is that those able to save from their new jobs often invested their savings in a garden for retirement. Although they left agriculture to earn more, the fathers we interviewed still considered investing in land a worthwhile investment. Even today, there is quite a difference between what an agrarian labourer earns working in another person's garden and their own land plot. On average, a labourer working in the oasis gardens in Agadez earns CFA200,000 – CFA300,000 for the onion season (five months). A landowner can earn up to CFA2 million for the same season. Thus, investing savings in oasis gardens can be a good retirement strategy. Indeed, the number of irrigated gardens in the Air Mountains has significantly

4 www.wise-uranium.org/uoافر.html#SARAYAEAST

increased over the last 20 years (see figure 5). Thus, while there has been a shift from pastoralism, the numbers of people engaged in agriculture – either full or part time – does not seem to be decreasing. More research is needed to understand the dynamics of the increase in irrigated gardens in the Air Mountains.

Figure 5: Number of oasis gardens, Air Mountains, 1914–2018

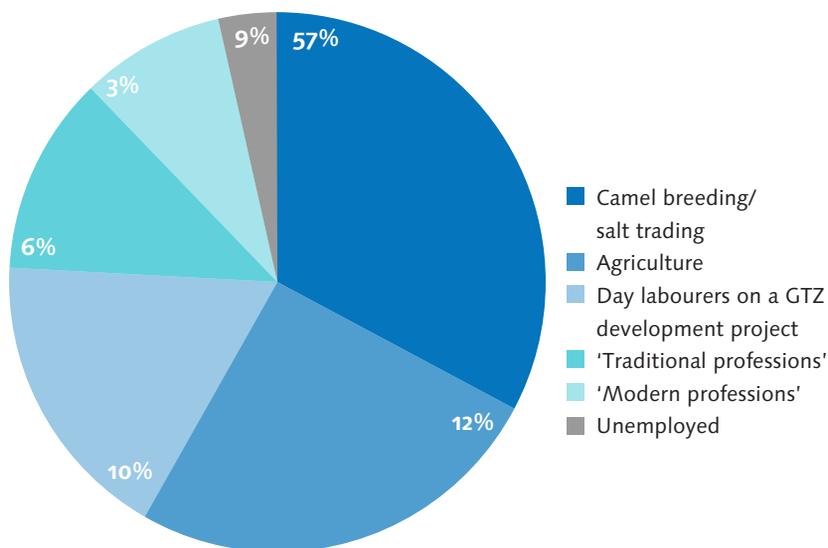


Sources: Spittler, 1993 (for data from 1914–1983), interview with Ahmed Ouha, President of Chambre Regionale d'Agriculture d'Agadez (RECA), 2 March, 2019, Agadez

Based on his detailed ethnography of the oasis village of Timia in the Air Mountains, Spittler's breakdown of the livelihoods practiced by the family heads in 1985 gives us an idea of the degree to which the Nigerien Tuareg people were already diversifying out of pastoralism. This supports our findings from the life history interviews (Figure 6). In Spittler's sample, 33% were still engaged in camel breeding and salt trading, while 26% were working full time in agriculture and 9% were working in what were termed as 'modern professions' such as teachers, health care workers and miners. It is interesting to note that only one family head

was working in the uranium mines and only six had migrated to Algeria, Libya and Nigeria. A German-funded development project was a much bigger employer of people than the mines.

Figure 6: Breakdown of livelihoods practiced by family heads in 1985 in the oasis village of Timia, Aïr Mountains. N = 377



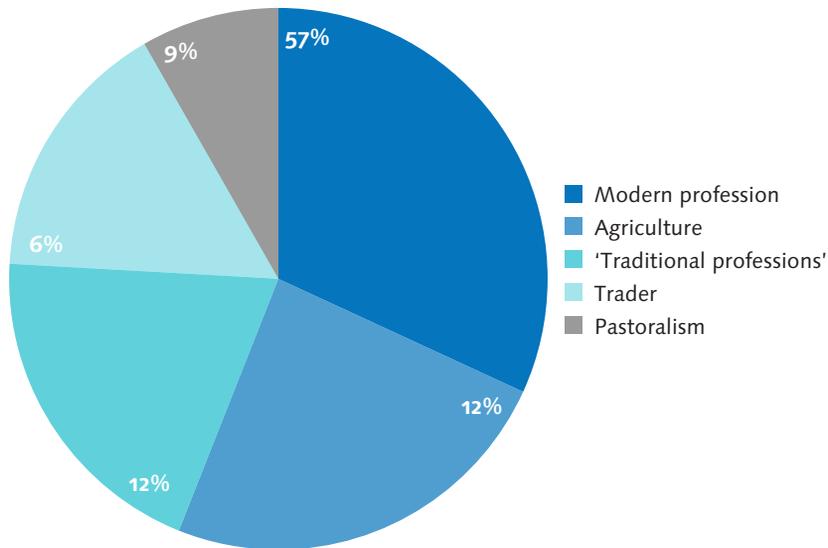
Source: Spittler, 1989

*Note: 'Traditional professions' included blacksmiths, marabouts, jewelers etc
'Modern professions' included teachers, administrators, miners and drivers

Looking at the larger sample of 25 smugglers, we can compare the spread of professions of their fathers compared with the spread of professions that Spittler documented in Timia in 1985. As the median age of smugglers was 29, we can estimate that in 1985, most of their fathers were just at the beginning of their working lives. In the sample of smugglers' fathers, we note a higher proportion engaging in modern professions (wage labourers, tradespeople, office assistants at uranium mines and bureaucrats) and a lower proportion engaging in pastoralism, compared with the sample from Timia. The sample of smugglers includes men who grew up in both urban and rural

areas. Thus, it is not surprising that these men are more likely to be sons of tradespeople, office assistants and bureaucrats. This comparison once again highlights that the move into smuggling is not one out of pastoralism due to the effects of climate variability or change. Rather, it stems from a mix of urban and rural young men responding to a fast-changing economy.

Figure 7: Spread of professions among smugglers' fathers. N = 25



Source: Spittler, 1989

*Note: The terms 'modern professions' and 'traditional professions' are drawn from Spittler's categorisations to allow comparisons. 'Modern professions' included teachers, administrators, miners, drivers. 'Traditional professions' included blacksmiths, marabouts, jewelers etc

3.3 Livelihood decision making across generations

Our interviews revealed discernible changes in the way that smugglers and their fathers made decisions about their livelihood activity. Almost everyone in the smugglers' fathers' generation started their working-life by doing what their own

fathers had done. Smugglers' fathers said their decisions to engage in agriculture or pastoralism were influenced by their heritage and everyone in their village doing the same thing. For example, in response to the question about why he decided to engage in agriculture one of our interviewees, Ibrahim*,⁵ answered:

"Like father, like son. Such is the reproduction of society."

Ibrahim sought advice from his parents but his engagement in agriculture felt more like an inheritance, rather than a livelihood decision.

There was also a sense of limited exposure to other possibilities. Smugglers' fathers were less likely to leave their village to gain a secondary education and, as a result, had fewer options. Fathers talked about engaging in agriculture because that was the only thing they knew how to do. Those who grew up in rural villages felt that they didn't have the necessary networks to enable them to obtain jobs in other areas. One way of for smugglers' fathers to build up a network was to initially work with their fathers. Djibril* was born in Goûgaram, but his family had to leave during the Tuareg rebellion in the 1990s as the Nigerien army killed their livestock. They moved south towards Tahoua where Djibril felt obliged to support his father in tending to his livestock. However, he also admitted that he didn't have any other choices:

"I didn't have any other choice but to help my father and learn how to rub shoulders and have an active life."

In contrast, through attending secondary school in the towns of Agadez and Arlit, smugglers were much more likely to have their own diverse networks by the time they sought employment.

⁵ These are not the real names of the interviewees.

Although most smugglers' fathers had initially engaged in the same livelihood as their fathers, many changed direction some years later. This was especially common among those who started in agriculture. For example, Moussa* began by tending the garden belonging to his family. He then decided to train as a mechanic, specialising in motor pumps. Moussa commented that he made this change to increase his earnings as he couldn't cover all his expenses and those of his family with just a gardening income. In terms of Moussa's decision to invest time in learning how to be a mechanic, his uncle was already a mechanic and so offered to train him. This meant that while Moussa was diversifying away from what his father had done, his decision about what livelihood activity to engage in was still influenced by the skills and knowledge in his family.

While some went to Libya for several years and worked in gardens there, there were more examples of fathers leaving agriculture by using their family connections to members based at the mines in Arlit. Through these connections, smugglers' fathers had opportunities to learn to drive, learn a trade or work as day labourers at the sites.

Others followed what their fathers had done but adjusted their activities to a changing economy. Mohammed's* father, a Toubou based in Dirkou, had traded in salt, dates and natron in exchange for millet, maize and sorghum with Tuareg pastoralists from the Air Mountains. Mohammed started out by continuing in this trade but then thought of a new idea:

One fine day, an idea to construct a life for myself came into my head. The activity was still in trading but to trade in luxury goods, such as rugs, mattresses and 'Arab couches' that were being produced in Libya. I sold these goods to traders who came from Agadez and Arlit.

Mohammed was reacting to a newly urbanised population, many of whom were either working at the uranium mines at Arlit or in government offices in Agadez. These people often wanted to buy furniture for their new mudbrick and cement houses. Mohammed was able to invest in building up some stock with seed funding from his father. In contrast, only 30% of smugglers began their career by doing what their father had done. Most of those who started out by following their fathers' paths had grown up in villages and were uneducated. There were some smugglers who grew up in urban areas and described following in their fathers' footsteps, with the only difference being that their fathers were guides in the desert for tourists, whereas they were guides for migrants. Those who were born in villages, but moved to towns to access secondary education did not return to their villages to engage in pastoralism or agriculture. Instead, they used their education to find jobs in growing sectors of the urban economy in northern Niger, such as in money exchange, car sales and, ultimately, gold and people smuggling.

Through either growing up in urban areas or moving to urban areas to access secondary school education, smugglers were exposed to a much wider range of possibilities and a more diverse network of contacts that were not necessarily confined to family connections. Hamidou* started out driving a waste collection truck in Arlit, a job that his father arranged for him. However, he experienced a lot of shame and discrimination while working as a waste collector so when he heard about an advertisement for a job as a driver in a security company, he applied straight away. Through his job at the security company, he met a Tuareg who was involved in people smuggling. Through this contact, he was able to start working as a people smuggler.

In Agadez, foreigners from across West Africa were setting themselves up as *coxeurs*: intermediaries between migrants

and smugglers, often providing accommodation while migrants saved up money for their journey and arranging money transfers from migrant families to smugglers. This influx of foreigners with a much wider network across West Africa opened up new opportunities for young male Nigeriens. Hamissou*, the son of a bureaucrat was introduced to an Ivorian who needed a house to accommodate migrants. By arranging a house for the Ivorian, Hamissou saw an opportunity to lease properties to foreigners and eventually established his own business running 'ghettos'.

Smugglers' friends were much more likely to influence their livelihood decisions than their fathers. Many smugglers described seeing how well their friends were doing as smugglers and asked them to integrate them into their networks.

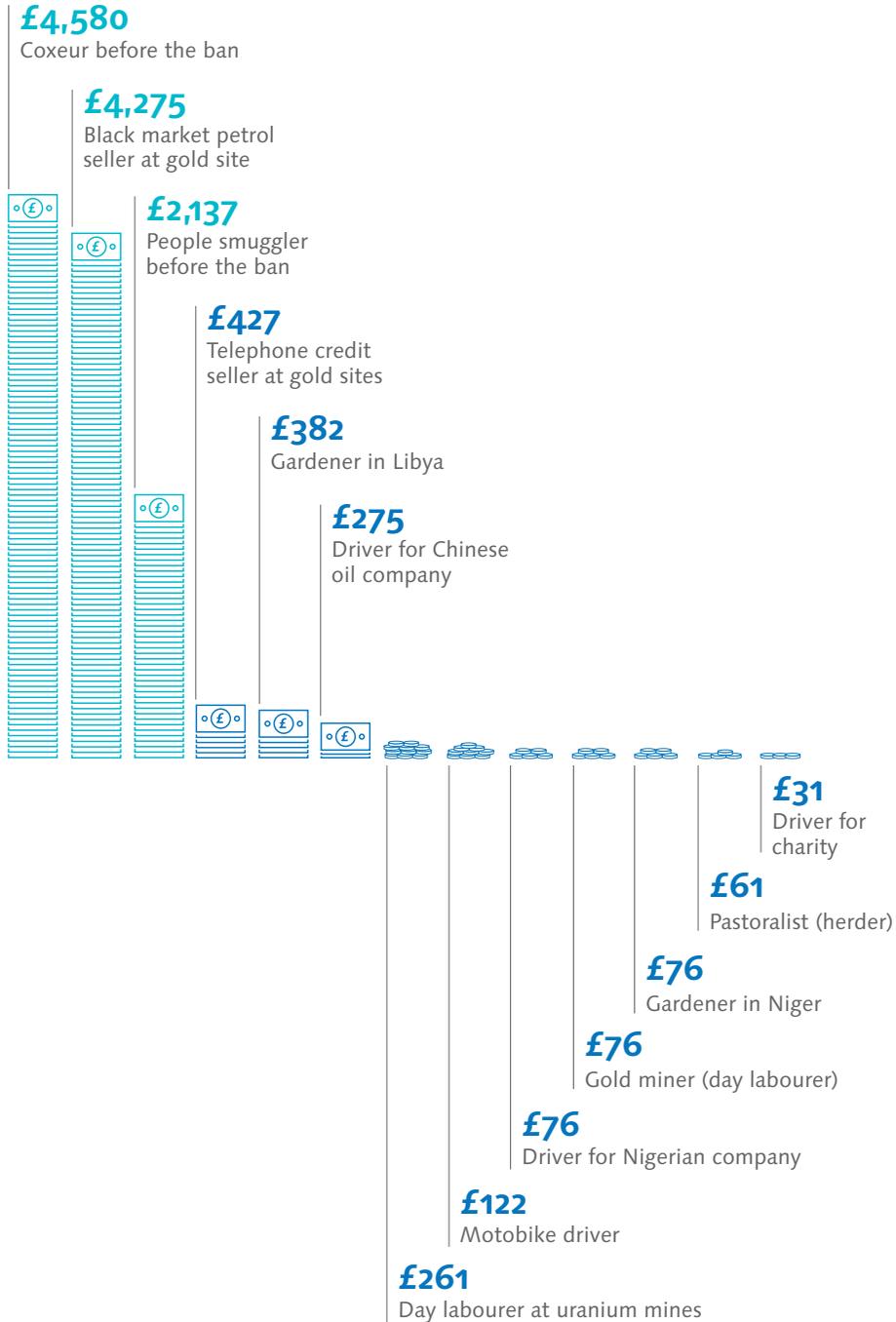
The fluidity of networks and ease with which young men were able to gain access to work in smuggling through relatively loose networks contrasted with the widespread perception that an office job, especially one in the bureaucracy, requires the right connections (McCullough, Schomerus, and Harouna 2017). Often, the journey to becoming a smuggler was preceded by a short period of, described by the interviewee as, 'building up' his network. For some interviewees, this took place through spending time in Libya; for others, it involved working as a motorcyclist in Agadez, running messages for coxeurs or working as a mechanic for smugglers.

3.4 Smuggling is a livelihood of first resort

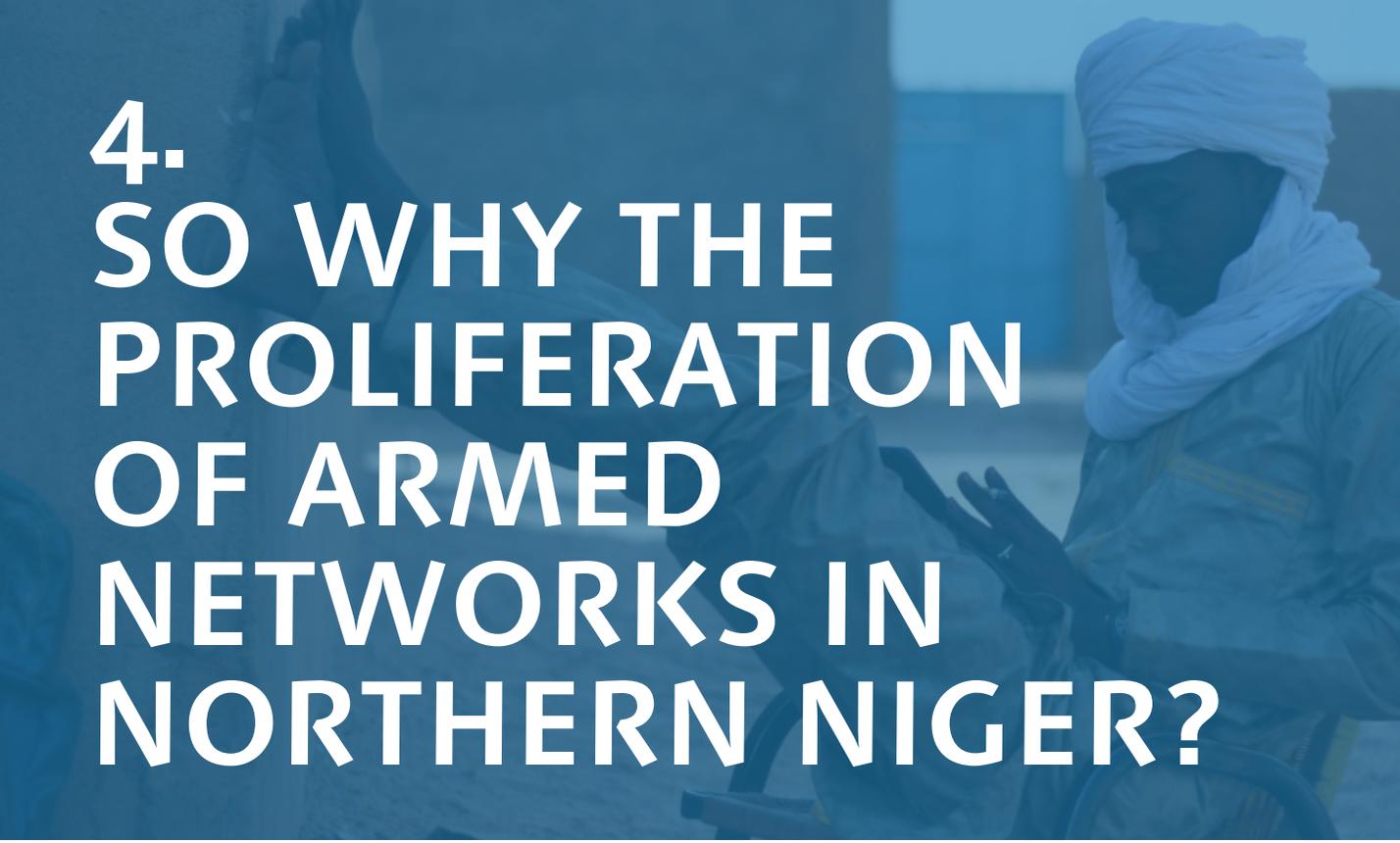
The common narrative around young African men joining armed groups is that poverty drives them to join such groups as a last resort. Our life history interviews with smugglers in northern Niger revealed the extent to which smuggling is perceived as a good profession to be involved in, despite the risks. The incomes that can be earned through smuggling far outstrip the incomes that can be earned from other professions. Even jobs with non-governmental organisations (NGOs) or with foreign oil companies pale in comparison to what can be earned through smuggling (see figure 8). When describing the conditions of work, smugglers acknowledged the risks but found the benefits outweighed the risks. They described their work conditions to us as 'very reasonable' or 'impeccable'.

For some of the smugglers we interviewed, the job was a high octane profession with high risks that they were willing to engage in for several years to save money, build a house and have some capital to set themselves up in another business. Interestingly, some were investing their profits in land in oases so they could get back into agriculture when they retired from smuggling. As mentioned previously, there is a large difference between what a labourer earns working in agriculture and what the land owner can make. Thus, while some smugglers started in agriculture and then progressed onto smuggling due to not earning enough, it was still worthwhile to them to invest their savings in land. This contradicts Alda's argument (2014) that rural youth, facing depleted natural resources, are migrating to urban areas and becoming involved in illicit activities. In fact, both urban and rural youth are engaging in illicit activities and many of those rural youth are investing their profits in agricultural land so they can return to rural areas when they are older.

Figure 8: Average monthly earnings across a range of professions in northern Niger



Source: Life history interviews and key-informant interviews



4. SO WHY THE PROLIFERATION OF ARMED NETWORKS IN NORTHERN NIGER?

IMAGE: AN
EX-SMUGGLER
IN AGADEZ,
TAKEN BY AOIFE
MCCULLOUGH

Change in the type of goods traded

Trade routes between North and Sub-Saharan Africa have always been lucrative but there has been a massive increase in the value of goods traded over the past 20 years. During the 19th and early 20th centuries, trade was dominated by indigenously produced goods such as salt, dates, livestock and millet. Before colonisation disrupted trade routes, skins, ivory, ostrich feathers and slaves were transported from Kano across the Sahara and into Libya (Mortimore, 1972). The 1960s and 1970s saw the development of a robust trade in subsidised food products and plastic goods from the industrialising economies of Algeria and Libya. Trade was disrupted by the Tuareg rebellions in Niger and Mali between 1991 and 1995, and suffered further following the April 1992 embargo between Libya and the international community

in the fallout over the Lockerbie bombing. While formalised trade decreased, a huge contraband trade in cigarettes developed as cigarettes imported in Cotonou were smuggled into Libya to meet demands for international brands (Grégoire and Pellerin, 2019).

By the end of the 1990s, trucks carrying cigarettes also started transporting hashish from Morocco (ibid.). Demand for cocaine increased in Europe and the former Soviet Union countries in the 2000s (United Nations Office on Drugs and Crime (UNODC), 2010) and a number of Sahelian traders responded by switching from cigarettes and hashish to cocaine. It is estimated that at this time, 15% of all cocaine produced worldwide passed through the Sahel (Julien, 2011). The flow of cocaine and hashish through the Sahel was enabled by state officials across Mali, Niger, Algeria and Libya (Grégoire and Pellerin, 2019). This transition to trading in illegal drugs resulted in Nigerien smuggling networks being linked to international criminal networks. Meanwhile, the value of the cargo meant that banditry became increasingly lucrative requiring smugglers to arm themselves. The proliferation of armed smuggling networks intensified with the collapse of Gadhafi's regime and an increase in the trade in weapons. Most weapons were initially transported to Mali but Nigerien smugglers began to invest in weapons to protect their valuable cargo.

The outbreak of the Libyan civil war and subsequent overthrow of Gadhafi had a significant impact on trade. At first Niger benefitted, as the dinar devalued, it was able to cheaply import trucks, cars, equipment and manufactured goods. On the export side, however, trade was depressed. There was a drop in the flow of livestock and the cigarette business was badly squeezed as Libyans lost purchasing power. Drug traffic continued but on alternative routes, due to operations of the French and Nigerien armies controlling the Niger/Libyan border. Trade with Algeria initially increased to compensate for the decreased

demand for livestock from Libya but in an effort to control border activities, Algeria closed the Niger/Algerian border for all but one day every two weeks (ibid.). In the initial years following the collapse of Libya, there was a brisk arms trade between Libya and Niger, with most of this destined for Mali. Libya continues to be a source for illicit weapons in Niger, including converted blank-firing handguns. However, trafficking from there has declined since 2014 due to the depletion of Gadhafi's stockpiles, renewed demand in Libya due to intensification of conflict there, and increased levels of surveillance and counteraction in Niger with the deployment of Operation Barkhane (Tessières 2018).

These fluctuations in flows of goods and in price make trade a highly risky venture. The increasing control of main border crossing creates incentives for traders to consider alternative routes, even for prosaic items such as domestic goods and household consumables. However, using alternative routes requires being armed to protect against *coupeurs de route* ('bandits').

So while the transition from trading indigenously produced consumables and household good to drugs has resulted in trading in much higher value goods and a need for armed convoys, the counter reaction of national and international security agencies has also resulted in even traders specialising in food and household goods taking alternative, more dangerous routes and needing arms to protect themselves on those routes when travelling them.

Change in migration law

The 1970s and 1980s witnessed an increase in the flow of migrants from across the Sahel, including from Nigeria, Mali, Ghana etc., who sought work in Algeria and Libya. This was partly due to droughts in combination with the other

socioeconomic and political factors. The majority of these migrants did not engage in illicit activity when they reached Agadez. Rather, they sought out truckers who would take them to Libya and Algeria to work on construction sites and in oasis gardens (Brachet, 2012). Following UN sanctions for the Lockerbie bombing, Qaddafi sought to attract support from African states by speaking publicly in favour of African immigration to Libya (ibid.). Algeria fluctuated in its position on the legality or illegality of African migrants. In the late 1980s, for example, the state began to clamp down on illegal migration (Bredeloup 1995).

Despite these risks, demand for transport through Niger to Libya and Algeria continued to grow. During the rebellion in the 1990s, transport became more difficult, with all vehicles travelling north of Agadez requiring a military convoy. Brachet argues that rather than putting a stop to Saharan travel, the rebellion marked the establishment of transportation networks and an institutionalisation of the role of the Nigerien state agents in the Saharan migration system. By the end of the 1990s, roughly 100,000 migrants from sub-Saharan Africa travelled via Agadez to Libya and Algeria each year. Eighty to 90% returned home after a few months or years, while the other 10 to 20% tried to enter Europe (Brachet, 2009).

Until 2010, as part of a deal struck with the EU, the Libyan government policed the flow of sub-Saharan migrants through Libya. When Libya collapsed, the route to Europe suddenly seemed unimpeded. By 2016, an estimated 330,000 migrants were passing through Agadez to travel onwards to either Algeria or Libya.⁶ However, in 2015, under pressure from the EU, the Nigerien government passed the migrant ban

⁶ Statistical Report: Niger, November 2016, IOM, Geneva, 2016, <https://drive.google.com/file/d/0B3CEVcVlpFpXORVdwSSo2QIZ3S1E/view>. Accessed 27.05.19.

(Loi-No 2015-036) that outlawed the transport of foreigners north of Agadez. This law has resulted in a decrease in the number of migrants passing through northern Niger but people smuggling remains a significant economy, providing a steady source of income for young men still willing to take the risk. As this activity continues to be an extremely lucrative business, links between smuggling networks and the political elite remain, with the networks becoming more professional (Molenaar, 2016). Thus, in 2015, the transport of people into Libya and Algeria – which had been carried out openly and in relatively large numbers since the 1980s – was now a criminal activity. Those who wanted to continue with their livelihood widened their links with different elements in the state to ensure that they were able to get past the initial checkpoints outside Agadez and then armed themselves during the journey on alternative routes between Emzaghar and the Libyan border. Other people smugglers have refocused their activities on trading tramadol produced in Nigeria and sold in Libya but also increasingly in demand in Niger (Micallef, Horsley and Bish, 2019).

Gold rush in northern Niger

Since 2014, northern Niger has been experiencing a gold rush in artisanal gold-digging. The gold was initially discovered in Djado, east of Agadez, and Tchibarakaten, north of Agadez. Before the Djado site was closed by the government in 2017, there were 11,000 miners operating and a reported 70 tons of gold extracted (Pellerin, 2017).⁷ Four thousand miners continue to operate at Tchibarakaten (ibid.). Meanwhile, a new site has opened up at Tabelot. International actors are involved in both

⁷ These figures should be taken as estimates only, as numbers vary according to season and, as Pellerin notes, are based on anecdotal evidence.

the extraction and trade of gold, including defectors from the Chadian army unit based in Kidal as part of the UN mission in Mali, and Sudanese, Malian and Burkinoise miners (ibid.). Large Libyan business networks are involved in processing and trading the gold on the international market. Nigerien authorities have deported hundreds of Chadian and Sudanese and their presence may have been one of the reasons for closing the Djado site. Armed banditry has increased in Agadez since the discovery of gold at Djado and Tchibarakaten and both Tessières (2018) and Pellerin (2017) attribute this increase in banditry to the increasing numbers of convoys transporting gold from the mines to processing sites in Libya or Agadez.

Pastoralism is on the decline but climate variability is not the only driver of the decline

As droughts are a normal part of the Sahelian climate, Tuareg pastoralists have developed strategies to adapt to dry periods. Among the Kel Ewey Tuareg, who traditionally live in the oasis villages in the Aïr Mountains, camels and donkeys were moved down towards Kano in northern Nigeria between November and April. This allowed the Kel Ewey to provide fodder for their camels during the dry season and buy millet to bring back to their villages. In Kano, the Tuareg sold salt and dates in exchange for millet (Spittler, 1993; Mortimore, 1972). In 1913, in response to what colonial officials described as a 'disastrous drought' (Zinder archives, 1914), Tuaregs from the Aïr Mountains travelled 150km further south from Kano to find grain to buy. By travelling further south, they were able to find sorghum instead of millet but lost many camels to tropical diseases (Spittler, 1993).

As early as the 1920s, the Tuareg started diversifying into small-scale agriculture, growing wheat, maize and vegetables

in oases, although this activity tended to be carried out by lower class Tuareg (Mortimore, 1972). This change was a response to the combination of a sedentarisation policy by French colonials and an adjustment to a changing economy. Indeed, in response to a Tuareg revolt against the French in Agadez in 1917, the French expelled the Tuareg and decimated their camel herds. The military administration that followed the revolt provided incentives to agriculture and plantations and emphasised the value of a sedentary society (ibid.).

Following independence, the new Nigerien government failed to support pastoralist livelihoods. In 1954 and then again in 1961, Diori's administration tried to curtail Tuareg movement south by designating the north a pastoral zone and setting limits to the areas where pastoralists could freely graze their animals. Diori's administration also introduced a tax on the sale of livestock that reduced pastoralists' income (Spittler, 1993). Meanwhile development programmes launched by the state with international funding provided support for farmers while neglecting pastoralists (ibid.). This combination of factors meant that the impact of the droughts of 1973–1974 were particularly harsh. Although investment in oasis gardens had lessened the impacts of droughts over the preceding decades, the wells dried up during 1973. Because the animals remained in Nigeria throughout the year, fewer animals were available to work the water pumps in the oasis gardens in Niger. Many gardens were subsequently abandoned in 1974 (ibid.).

The droughts of 1981 and 1985 decimated the camel herds of Tuareg pastoralists. However, the scale of animal mortality was not necessarily due to the length or severity of the drought but a combination of economic and resource management factors (Spittler, 1993). With the upsurge in garden cultivation in the Air Mountains, there was an increase in the number of oxen

bred to pull ploughs and work water pumps, placing stress on the ecological carrying capacity of the area. The oxen were fed fodder from trees that were normally used to feed camels. As the drought continued, there was increasingly less fodder to fatten the camels in time for the journey across the Ténéré desert to buy salt. In a normal year, about 2000 camels would be taken to Bilma to load up with salt before travelling south to Nigeria to trade the salt for millet. By 1984, most pastoralists had lost two-thirds of their camel herd and only 50 camels travelled to Bilma (ibid.). This meant that the Tuareg pastoralists had extremely small amounts of salt to trade for millet, reducing their ability to restock their grain houses.

The droughts of the early 1980s were widespread across the Sahel, forcing up the price of millet and sorghum further south in Nigeria. This meant that even if the Tuareg travelled further south, as they had done during previous droughts, their small cargo of salt bought reduced quantities of grain. Thus, while the increase in garden cultivation had contributed to households' coping mechanisms during droughts in the 1920s and 1940s, the increase eventually reached a tipping point where the number of oxen consuming wild fodder started to weaken supplies for the camels. This set off a chain of negative impacts when pastoralists were not able to sufficiently fatten their camels during years of drought. One of their strategies to cope with climate extremes had ultimately made their particular mode of transhumance more difficult. As cheaper imported salt became more widely available, with an urbanising population increasing demand for vegetables, it made sense to divest from camels and invest in land and water pumps.

During the 1990s, there was a withdrawal of state support for pastoralists as part of structural readjustment. Combined with a massive devaluation of the CFA franc in 1994,

this served a further shock to the industry. The shift out of pastoralism was reflected in the rapid increase in population of Agadez between 1982 and 2003. In 1982, Agadez was a small town of 33,000 people. By 2003, it had tripled in size to a population of 161,988 (Chaibou, 2005).

Those who continued to practice pastoralism faced increased restrictions on their movements. The privatisation of land and water sources, along with a hardening of borders throughout the 1970s, 1980s and 1990s, hampered the mobility of pastoralists (Marty and Bonnet, 2006; Thebaud et al., 2018), which in turn impacted on their ability to cope with naturally high rainfall variability in the harsh hot and arid environment.

High temperatures and periodic droughts have led to the ecosystem in the Sahel becoming fragile. Water resources are naturally scarce and it's very easy to overuse and deplete groundwater resources. The areas southwest of the Aïr Mountains in northern Niger are underlain by the Iullemeden Aquifer System (IAS) (Hearns, 2009; Moulla et al., 2011). The IAS is a large system containing multiple aquifers and providing water supplies to many of the main population areas in Algeria, Mali, Benin, Niger and Nigeria (ibid.). There are basement and igneous aquifers to the east of the IAS, covering our study area and underlying the Aïr Mountains. These are not easily recharged, as rainwater has difficulty infiltrating rock (Upton et al., 2018). The Iullemeden Basin is also mineral rich, including the significant uranium deposits that support mining. However, while mining has historically offered economic alternatives, it also presents direct competition to pastoralists and agriculturalists, as well as towns, for groundwater resources. Mining operations are water-intensive. In 40 years of operation, it is estimated that a total of 270 billion litres of water have been used in the uranium mines around Arlit alone (Dixon, 2010). Water

extractions are exceeding aquifer recharge rates in the IAS and aquifer levels have dropped in many locations (Hearns, 2009). Follow-up studies are planned to further quantify groundwater availability and the sustainability of current pumping practices (GroFutures, 2019). These will also support future assessments about water security in the face of changing demographics, urbanisation, shifting economies and climate change.

The manufacture of the armed smuggler in northern Niger

Dry spells, droughts and hot temperatures are normal features of the semi-arid and arid climates in the Sahel. People living in northern Niger coped with this natural variability during the first half of the 20th century by engaging in transhumance, allowing them to move their herds further south in times of prolonged drought. As the economy started to change in 1960s, Tuareg pastoralists became increasingly monetised and diversified into other professions, travelling to Libya and Algeria to work on construction sites and large-scale agriculture projects.

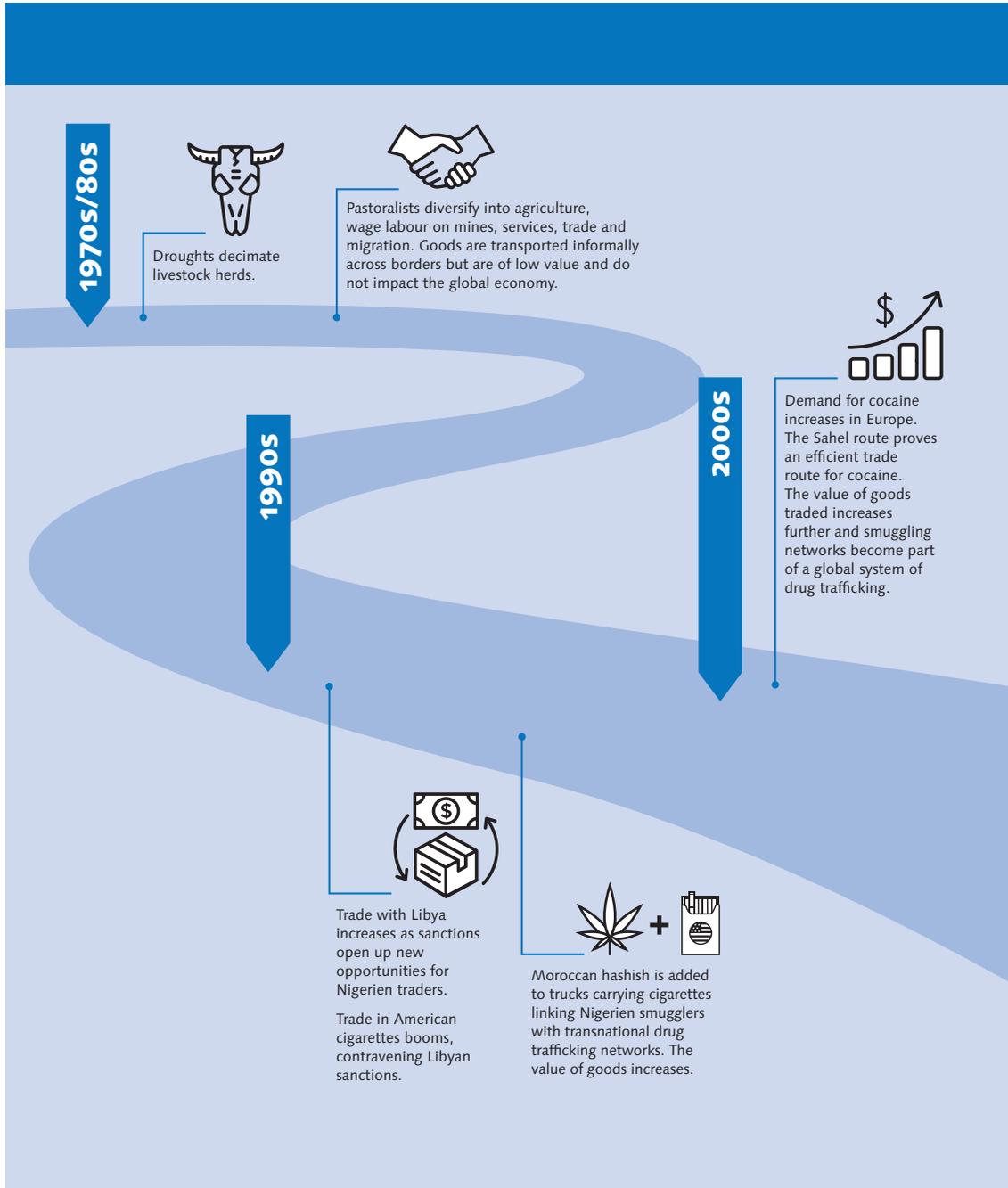
The opening of the uranium mines in the 1970s created a significant number of jobs, both at the mines themselves and in the services developed to cater to mine employees. Tuareg pastoralists, for the most part uneducated, worked as day labourers, office assistants and in services. At the same time, many Tuareg pastoralists invested their savings in irrigated gardens, to limit their exposure to drought, while securing a source of food. Thus, the big shift out of pastoralism happened during a very different time, during smugglers' fathers' generation, although it continues today. When the major shift out of pastoralism happened, young Nigerien men did not join armed networks or indeed terrorist groups. They adapted to and continue to adapt to a changing economy, in which smuggling to markets such as Europe is lucrative.

The main growth areas in the economy today, offering the best returns on investment, are in drugs, arms, gold and people smuggling. Through these goods, young Nigeriens can connect to a global market and benefit from regional and global prices. The line between trade and smuggling in the border areas has always been blurred, as custom duties have never been uniformly applied to all goods (Brachet, 2012). However, the goods traded are deemed illegal globally. This raises the stakes. The combined illegality and profitability of smuggling now requires greater protection and more complex networks to ensure that goods reach their destination. Whereas before, customs officers have taken a small bribe on smuggled pasta, semolina and mattresses, bribes are now required by the police, the gendarmerie and even within the judiciary. While banditry has always been a risk for smugglers operating across the Sahel, the value of the goods now being transported has drawn more young people into either armed smuggling networks or banditry.

In 2015, people smuggling became illegal. This now means that most of the profitable forms of trade are deemed illegal, both nationally and internationally. It can be argued that the increasing insecurity across Mali, northern Niger and Libya creates a vicious circle where the only trade that can survive the increased costs of protection and multiple bribes is illicit goods. As Raineri (2010) notes, the increase in insecurity in Niger has proved detrimental to less profitable trafficking and increased the incentives to get involved in this area.

The increase in young people joining armed networks is a function of the securitised trade economy that has developed in the Sahel, rather than the shift out of pastoralism. Brachet (2012) has argued that the category of 'people smugglers' has been manufactured through a change in legislation, making what was once an openly performed activity become an underground

Figure 9: Factors influencing the increase of armed networks in northern Niger since the 1970s



Source: the authors



The benefits of attacking convoys carrying cocaine increases. Convoys start carrying arms for protection.



The overthrow of Gaddafi shifts control of smuggling routes. Trade in arms from Libya to Mali increases, supplying the armed uprising and subsequent low level insurgency against the Malian state and Barkhane.



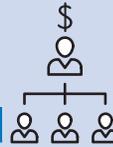
The flow of migrants through northern Niger increases as Libya becomes a difficult but possible route to Europe. Migrant smugglers carry arms to protect against attacks.

2014



Gold is discovered at two sites in northern Niger. Banditry and the sales of weapons increases.

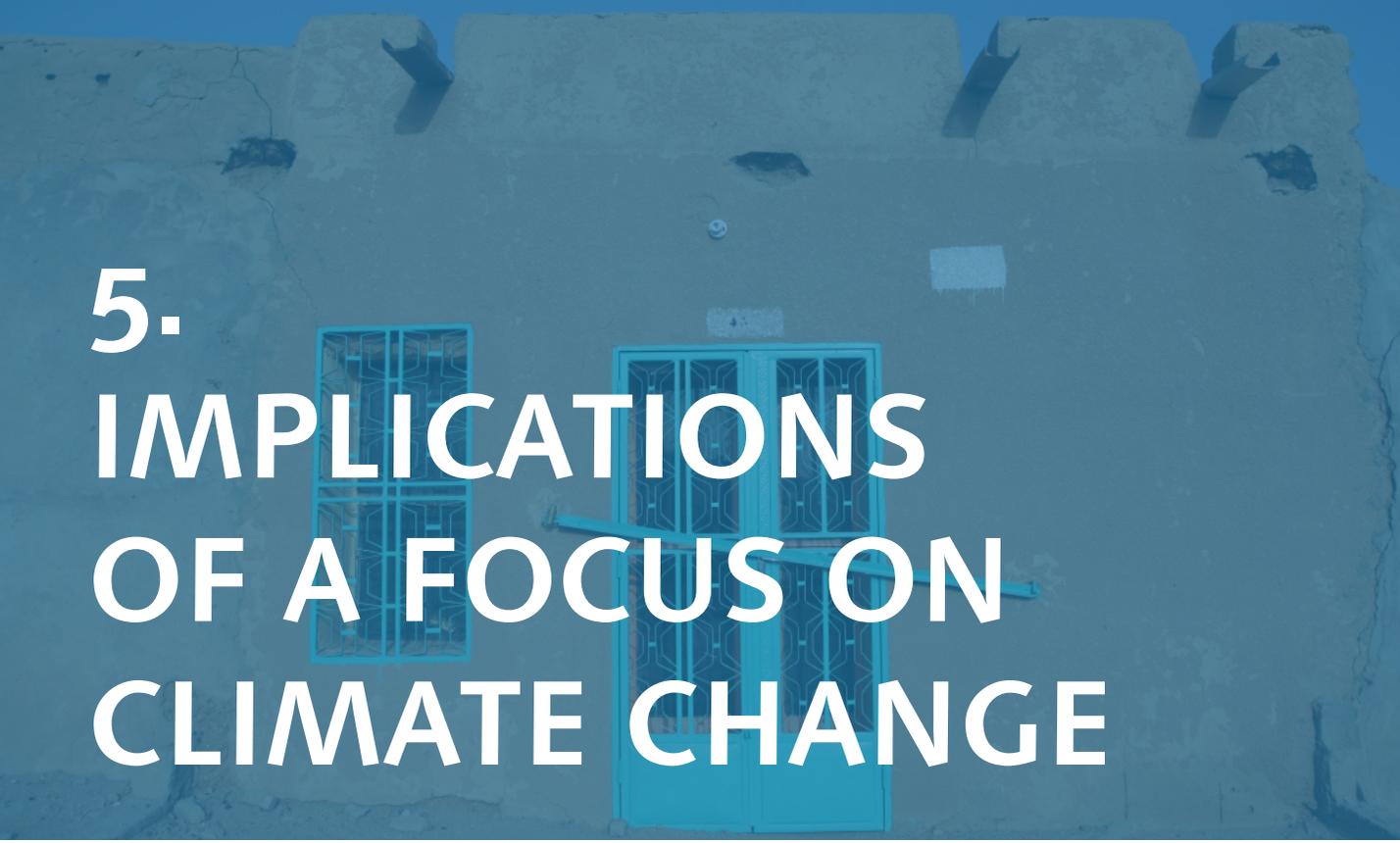
2019



The most profitable enterprises in northern Niger are in smuggling goods in demand by the global economy. Increasing numbers of young men join these networks to earn a steady income. Networks are becoming increasingly hierarchical with those at the top earning huge profits.

criminal one. It could equally be argued that the increase in armed networks across northern Niger is manufactured through a combination of banning migrant transport and the failure to legalise the drugs industry, creating a highly profitable supply chain that works best when state officials are corruptible and a controlled arms industry, in turn, creates demand for smuggled weapons. Rising temperatures across the Sahel and high rainfall variability may make farming and pastoralism more difficult, but climate factors alone do not create the conditions for armed networks to proliferate.

The profitability of trade in migrants, drugs and arms is attractive and there were several examples of young men in our study who had decided to quit pastoralism to join an armed network. But these men did not perceive the difficulties in pastoralism related to extreme climate events as the reason why they decided to join an armed network. Rather, it was the extreme advantages that joining an armed network afforded them. These men could access a globalised market through trading in drugs, arms and migrants. Livelihoods based on local or regional economies cannot compete in scannot compete against such globalisation. Even in the absence of rising temperatures in the Sahel, it is likely there would be a shift out of pastoralism and agriculture in favour of the opportunities in international trade and other more lucrative livelihoods.



5. IMPLICATIONS OF A FOCUS ON CLIMATE CHANGE

IMAGE: HOUSE
IN AGADEZ,
TAKEN BY AOIFE
MCCULLOUGH

Based on analysis of the life histories of armed smugglers operating in northern Niger, we find that political economy factors play a greater role in incentivising young people to join armed networks than the effects of climate variability and change. The overemphasis on the contribution of climate factors to the rise in armed networks matters for several reasons. First it results in programmes that work to assist populations in adapting to climate change in the name of addressing insecurity. While supporting populations to cope with the effects of climate change is worthwhile, we argue that these initiatives will have a limited effect on the numbers of young people joining armed networks. Second, the focus on climate change may shift attention away from the influence of national and international actors in shaping and facilitating an illicit economy that requires armed protection.

The discourse linking climate change to rising insecurity depoliticises the complex dynamics that lead to the conditions where armed networks can operate. The depoliticisation of rising insecurity means that Western agencies can appear to be investing to address the causes of rising insecurity while maintaining friendly relations with the Nigerien government and the parts of their own governments involved in reproducing these conditions. Finally, the idea that young African men resort to violence when they face livelihood insecurity – partly affected by climate variability and change – risks criminalising a whole generation of Africans. We examine each of these implications in more detail in this section.

5.1 Policies and programmes

In this subsection, we examine examples of major UN- and EU-funded stabilisation programmes in the Sahel to illustrate in more detail why the overemphasis on the contribution of climate change to the rise in armed networks matters. In 2013, the United Nations Security Council adopted the UN Integrated Strategy for the Sahel, which aims to address the region's political, security and developmental challenges in a holistic manner. In preparation for the strategy, the United Nations Secretary-General produced a situation report on the Sahel, making links between individual vulnerability connected to climate change, negative coping strategies and the recruitment of young people into armed groups. The report argues that '[p]overty and destitution are also among the underlying reasons why children from the region are associated with armed groups, as demonstrated by reports of cross-border recruitment of children from Burkina Faso and Niger by armed groups in Mali...' (United Nations Secretary-General, 2013: 4). Building on this diagnosis, the United Nations Office on Drugs and Crime (UNDOC) released a document outlining its contribution to the

UN Integrated Strategy for the Sahel. Within the document it contextualises the 'interconnected challenges' facing the region, again by listing climate change as a contributing factor (UNDOC, 2013: 1). In addition, it states that along with other factors such as an absence of state authority, corruption, availability of arms, the 'collapse of the traditional pastoral economy' has 'created the ideal environment for illicit trafficking' (UNDOC, n.d.).

The UN Integrated Strategy for the Sahel has since been updated with the *UN Support Plan for the Sahel* in 2018. Its areas of priority include climate action and, separately, women and youth employment. While these are two separate priority areas, the strategy does warn that a 'demographic bulge combined with climate change could worsen the phenomenon of violence and conflict' (UN, 2018: 6). As part of the strategy, it therefore includes the promotion of employment opportunities for young people, 'through innovation training, technological innovation, skills and entrepreneurship development' (ibid: 14).

Individual UN agencies also make the connection between environmental conditions, youth employment and stability within the Sahel. The UNCCD launched its Sustainability, Stability and Security initiative (also known as 3S), which aims to increase stability by improving youth employment opportunities through land restoration projects that aim to tackle what it describes as the 'root causes of instability in Africa', such as migration, conflict and environmental degradation (UNCDD, n.d.). The strategy warns that young people, particularly in rural areas, are '[t]rapped on degraded land, in a cycle of increasing desperation, frustration and social exclusion, at risk of exposure to extremist activity and conflict' (UNCDD, 2018: 1). The strategy warns that extremist groups are able to 'capitalise' on a 'sense of hopelessness' by offering 'lucrative opportunities as part

of their recruitment campaigns' (UNCDD, 2018: 5). Niger is a signatory to the project and Agadez has been selected as the pilot project for the 3S initiative. This is titled *Restoring degraded lands to create jobs for migrant reintegration in west Africa and prevent radicalization*. The stated aims of the project include the creation 470 jobs for 'unemployed youths, returning migrants and former smugglers' (UNCDD, 2018: 10).

The EU has also designed a series of interventions in the Sahel based on the understanding that climate change contributes to rising levels of insecurity. In framing the region's challenges within the its *Strategy for Security and Development for the Sahel*, the EU states that the Sahel 'faces simultaneously the challenges of extreme poverty, the effects of climate change, frequent food crises, rapid population growth, fragile governance, corruption, unresolved internal tensions, the risk of violent extremism and radicalisation, illicit trafficking and terrorist-linked security threats' (EU, 2011: 1). The strategy lists what it refers to as 'four complementary lines of action', where its highlighted areas of action are placed under 'Development, good governance and internal conflict resolution'. One such action point is 'to mitigate the impact of climate change effects' (EU, 2011: 7).

Finally, one of the more recent and high-profile international interventions, the *Alliance Sahel*, was launched in 2018. This programme has been designed as the development wing of the G5 Sahel initiative. Along with the EU, it includes a consortium of donor governments, international financial institutions and the United Nations Development Programme. In its evaluation of the challenges facing the region, it notes that factors such as extremism, a lack of economic, education, employment opportunities and climate change all contribute to instability within the Sahel (The Alliance Sahel, n.d.).

A press release highlights that, as well as addressing issues such as governance and youth employment, climate change mitigation can aid the stabilisation of the region (The Alliance Sahel, 2018). Both climate change and youth employment are identified as two of the six priority areas for the initiative. Regarding the latter, entry points include both support for 'mechanisms' that encourage job creation, education and training directed towards market requirements (The Alliance Sahel, n.d.). For example, one project in the Lake Chad region aims to build 'economic recovery and reinforce resilience to climate and social cohesion'. It includes the creation of job opportunities through 'supporting agricultural micro business and apprenticeships' and additional areas such as natural resource management (The Alliance Sahel, 2018). By trying to help people back into the 'traditional' livelihoods of agriculture and livestock rather than moving them into 21st century jobs, such initiatives fail to understand the political economy of northern Niger. Furthermore, as agriculture is further automated and fewer people are needed to do physical labour, such programmes run the risk of perpetuating inequalities by not assisting such populations in technological and capacity building 'leapfrogging'.

This is not to say that climate variability and change are not playing a role in multiplying existing socioeconomic and environmental pressures that contribute to conflict in the Sahel. However, as seen in northern Niger, climate change is not the most important factor contributing to the rise of armed networks. Currently, poorly nuanced climate change arguments downplay the other concurrent drivers of insecurity.

While vulnerability to climate change is increased by many of the same sources of risk that contribute to fragility (such as unstable governments, corruption and lack of accountability), explaining everything in terms of climate change means that less attention is paid to the sources of risk that existed prior to – and separate from – climate change.

5.2 The depoliticisation of rising insecurity in the Sahel

The concern that a focus on climate change depoliticises conflict analysis and subsequent responses has been raised before. Scholars warned of these risks when narratives linking the conflict in Darfur with climate change were used by Bashir's administration to justify a focus on addressing environmental degradation in Darfur (Verhoeven, 2011). Narratives linking climate change with rising conflict form part of the 'anti-politics' machine, whereby 'impersonal forces' – such as climate change – replace political actors in the 'political economy of African development' (Hartmann, 2014: 760). Climate security narratives may also act to serve Western security ambitions on the continent. The linking of climate change to security threats works to justify both increased involvement of the US military in decision-making related to international development and humanitarian aid, and the increasing presence of US forces on the African continent (ibid: 773–775). In a recent interview, Lieutenant Gen Thomas Waldhauser, Commander of the United States Africa Command (AFRICOM), stated that 'climate and environmental challenges on the continent really do start to contribute to security challenges' and that '[s]ome of the groups in the northern Mali-Niger area there, they leverage these challenges to recruit...' (Cerre, 2019). Furthermore, think tanks linked to the US military have promoted the narrative that insecurity in the Sahel can be attributed to climate change (Verhoeven, 2014: 801).

As was the case in Sudan, governments in the Sahel can instrumentalise environmental narratives that help them stay in power while suppressing opposition by using anti-terrorism measures. Since the 2012 crises in Mali, there have been increasing

links made between 'global warming, desertification and environmental migration with extremism and Tuareg rebellions' (ibid.). This has included the Malian government. In 2013, referring to the *Great Green Wall* initiative targeting desertification in the region – through employment – Mali's Director for Forestry claimed to offer a 'solution' in the fight against extremism (Haines, 2013). Policy recommendations flowing from this diagnosis, where international actors work alongside the Malian government to 'rationalise natural resource management', are reminiscent of the agricultural policies of the past: promoting private ownership of land and encroachment on pastoralist livestock corridors, and policies that favoured southern elites at the expense of northern communities (Verhoeven, 2014: 801). Verhoeven (2014) argues that such new policies were not unique to Mali, 'but part of a broader transformation of the political economy of the Sahel...' (ibid.).

Indeed, the authors of the Adelphi report studying the relationship between climate change and non-state armed actors warn of a possibility that the increased use of the narrative that climate change drives conflict could also serve as a means to distract from national governments' inability to address the conflict in the Lake Chad region (Nett and Rüttinger, 2015: 19). We would go further than this and argue that the focus on climate change as a primary or principle driver of conflict distracts from international agencies' and governments' unwillingness to engage in the more difficult task of addressing the structural drivers of conflict, including their own roles.

The poor state of governance and uneven economic development in Niger is linked to a legacy of colonialism and ongoing resource exploitation, where Western governments and corporations are happy to support the status quo provided the resources continue to flow. Conversely, Western governments have to be seen to be doing something to stem the tide of immigration, drugs

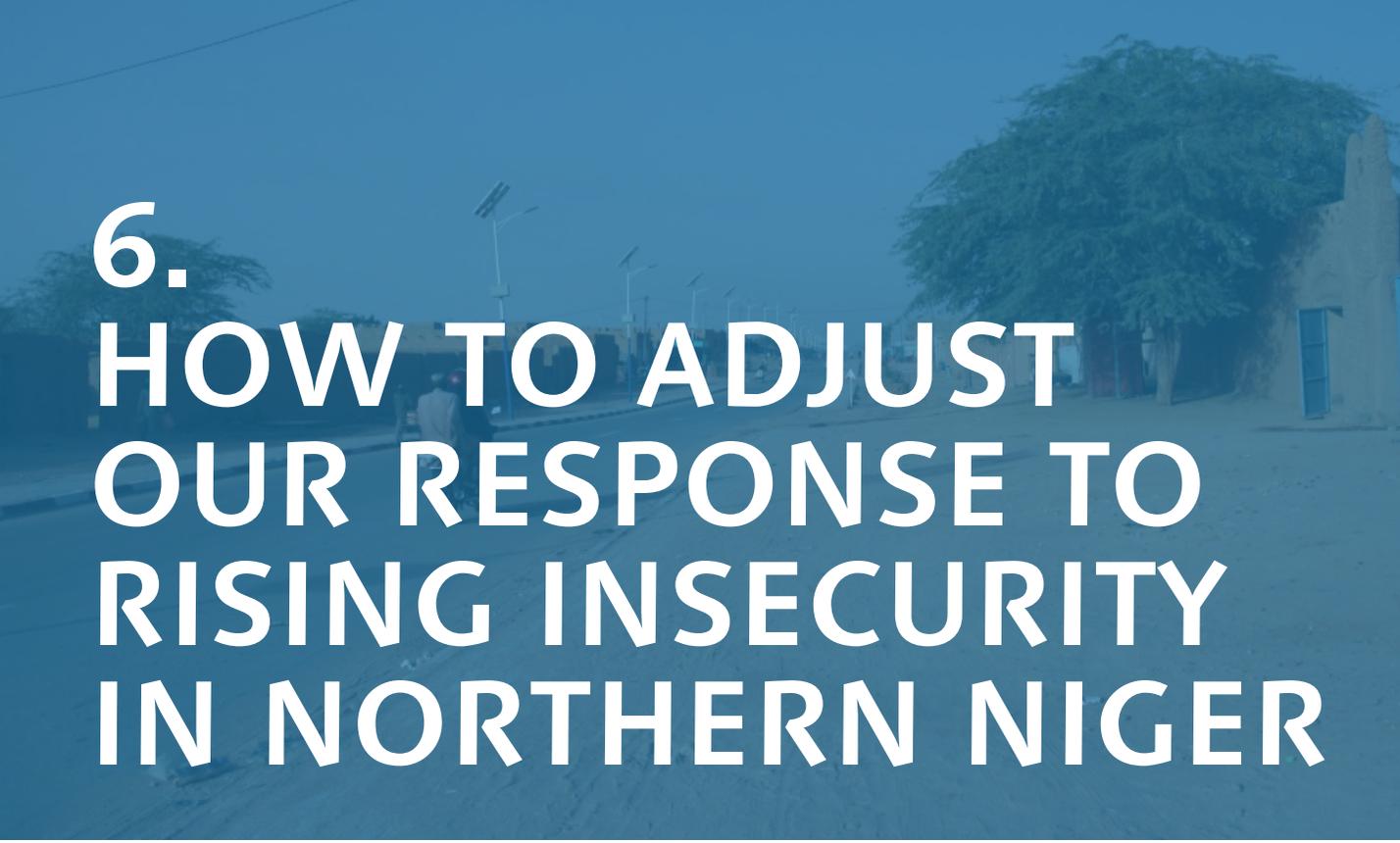
and contraband into the EU, but won't recognise their role or legacy in enabling the problems. In this respect, climate is being politicised as a convenient scapegoat because the 'blame' is more global and abstract.

5.3 The criminalisation of African men

Despite the incredible profits to be earned in smuggling, only a portion of young men in northern Niger engage. There are equally large numbers of young men affected by Sahelian weather extremes who seek to make a living for themselves by gaining work in the bureaucracy, setting up boutiques and restaurants in Agadez, or training to be mechanics or welders. The life histories of our interviewees illustrate the range of livelihoods that smugglers engaged in before they started smuggling. Smuggling is the most profitable profession available but not all young men pursue it as a career.

There is a strong 'Malthusian logic' underpinning current commentary on the links between climate change and conflict in Africa (Hartmann, 2014). By viewing the growing population in Africa as a 'powder keg ... [with members] set even more violently against each other by climate change', young Africans living the Sahel become a 'strategic threat' legitimising security responses by both domestic or international actors.

This narrative contributes to the idea that young Sahelian men are incapable of resisting the lure of illicit activity when faced with economic hardship. For example, Haugueland warns that in areas like northern Mali, a combination of 'unemployment, droughts and social stagnation are rampant' and 'jihadist groups can easily recruit from a pool of dissatisfied young men seeking status, money and power' (2017: 6).



6. HOW TO ADJUST OUR RESPONSE TO RISING INSECURITY IN NORTHERN NIGER

IMAGE: STREET
IN AGADEZ,
TAKEN BY AOIFE
MCCULLOUGH

Through our analysis of the political and economic trends leading to the proliferation of armed groups in northern Niger, we show that climate variability and change is one threat among many that policy-makers need to consider. While people in northern Niger have historically reacted to climate extremes in a harsh arid environment by changing their livelihoods and diversifying their investments, livelihood choices are also made in response to a rapidly changing economy, changes in national regulations and oscillating geopolitical relations.

To be clear, climate change is a big threat and presents many risks. Globally, climate extremes are increasing in frequency and seasons are shifting; in particular, rainfall in the monsoon regions is becoming more variable and difficult to predict (IPCC, 2014 and 2018). Some conflict-climate studies have

attributed extreme weather events across the Sahel to climate change. Regardless of whether the data exists to support these claims, the lack of adequate social protection, structural weaknesses and socioeconomic development challenges increase people's vulnerabilities and exposure to climate-related shocks and stresses. With the help of funding from international donors, the Nigerien state has invested in a comprehensive early warning system for droughts and crop failures, but is less prepared for the more complex climate change risks related to shifting seasons. Furthermore, climate-related risks – including food and water insecurity, health, and environmental degradation – will continue to grow in the future. This is not only due to climate change, but also due to increasing population, urbanisation, resource pressures, and lack of pollution and environmental management controls.

However, when assessing the rising insecurity in northern Niger, our analysis indicates that the threats of financial instability in the West and rising support for protectionist and nationalist policies, together with an escalation in the ongoing war on drugs, are likely to have a greater impact on rising insecurity in northern Niger than increasing climate variability or change, at least over the near-term. After the financial crisis in 2008, the price of gold increased dramatically. While this has stabilised, it remains at an all-time high, making the opportunistic (and unregulated) mining of gold in underdeveloped mines in Djado and Tchintabaraden worthwhile. Until either the price of gold drops or the Nigerien state posts a dedicated police force to these mines, miners will continue to invest in arms to protect their investments.

Migration and people smuggling is another area of economic activity strongly influenced by international policies and politics. As European governments seek to react to the increasing influence of populist political parties, they need to be able to demonstrate a tough position on illegal immigration.

By putting pressure on the Nigerien government to ban the transport of foreigners north of Agadez, the EU effectively made the livelihoods of hundreds of people transporters illegal. As long as this law remains in place, transporters will continue to expand their links with criminal networks so they can continue to facilitate the transport of migrants across West Africa to North Africa and Europe. Finally, as long as the international war on drugs continues, the route through the Sahara will remain a viable option. It is virtually impossible to police all routes through the desert and the high profits mean those involved in drug trafficking are willing to travel via riskier and more difficult routes.

These threats can lead to a number of risks – social, economic and political – in an environment where state officials are prone to capture, government accountability is limited, education levels are low and the economy is undiversified.

We argue that instead of engaging in single hazard risk analysis, where single climate-related hazards such as drought are identified as the principle risk driver, we need to engage in a multi-hazard risk analysis that explicitly acknowledges the interactions between multiple threats, including economic and financial instability and geopolitical volatility. These threats to livelihoods in northern Niger are transboundary and occur simultaneously, contributing to societal and economic transitions.

Policies and programmes for development – with aims such as reducing poverty; improving food, water and energy security; and promoting sustainable and equitable use of resources – need to be 'risk-informed'. This entails acknowledging that there are multiple threats and factors inclusive of and beyond climate variability and change that act together to present risks to achieving development outcomes. Development initiatives need to take a risk-informed approach to considering,

not only these external sources of risks, but how particular policies or programmes could increase inequalities and vulnerabilities – indeed create risks – if not undertaken resiliently or sustainably. Crucially, they also need act on such knowledge and examine changes and trends in technologies and economies that may render some livelihoods obsolete. For instance, agriculture is becoming increasingly globally mechanised and now requires fewer people.

Development programmes that focus solely on helping traditional livestock or agriculturally-based livelihoods to be resilient to climate change are ignoring the risk that they may be locking some populations into low-remunerative livelihoods rather than providing the skills to deal with digital transformations, thus furthering economic divides between countries. Risk-informed development enables people – and the systems they depend on – to be resilient in the face of multiple shocks and stressors, rather than locked into preparing for an unguaranteed single future. Risk-informed development is about increasing people's options in the face of all types of change, not reducing them. Such an approach aims to help them achieve sustainable livelihoods and economies, which in turn helps create more equitable societies.

Using a risk-informed approach to address rising insecurity in northern Niger would involve:

- considering ways to formalise trade without negatively affecting traders who already respect the law
- addressing corruption in the security forces and state collusion at the highest levels in trafficking
- tackling the incredible wage differential between working in uranium mines run by international companies and smuggling.

A risk informed approach to rising insecurity in northern Niger would involve acknowledging the complex political economy of trafficking and the role it played in the deals that the government made with rebel leaders during the 2007/2008 uprising. As Raineri (2019) argues, preserving a delicate balance between different elites' access to trafficking routes is a key strategy that the Nigerien government uses to stabilise northern Niger. Similarly addressing corruption in the security services would involve recognising that the bribes earned by officials from smuggling represent a crucial income flow that the Nigerien security forces would not be able to operate without (Tinti and Westcott, 2016). In the context of armed networks in northern Niger, we find that initiatives to address the impact of climate variability and change may be worthwhile but they are unlikely to have a significant effect on the numbers of young people joining these networks.

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Annex 1: Method

We carried out a literature review across a collection of topic areas, including insecurity in the Sahel and evidence of climate change there, also looking at the evolution of economic and political dynamics in northern Niger and how this has impacted livelihoods over the last 50 years.

Based on the literature review, we developed an interview guide for conducting life histories. The interview guide focused on exploring socioeconomic indicators during an interviewees' childhoods, such as living conditions, parental level of education and major shocks, along with the factors influencing his livelihood choices during his life.

We carried out interviews with 25 smugglers and 16 smugglers' fathers in February and March 2019. Our initial intention was to interview 25 of the latter but it was surprisingly difficult to track down this group, as many were living in hard to reach villages, were travelling at the time of the research or had died.

Three members of our research team were Nigerien and one was Irish. One of our Nigerien researchers had been a former people smuggler. To sample smugglers, we used his knowledge of the smuggling networks in the villages around Agadez. The team then travelled to Emzagar and Tabelot to carry out interviews with smugglers working in conjunction with both the migrant and gold mining industry. Finally, one of the researchers travelled to Ingall to sample smugglers operating across the Niger/Mali border, dealing in arms and drugs. One of the smugglers we interviewed was a *coupeur du route* (bandit).

The interviews were carried out in either Tamashek, Hausa or local Arabic. Interview notes were typed up in French and shared with the team leader. The data was coded using MaxQDA with key demographic indicators recorded in Excel. All data was anonymised.

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ABOUT BRACED

BRACED aims to build the resilience of more than 5 million vulnerable people against climate extremes and disasters. It does so through a three-year, UK Government funded programme, which supports 108 organisations, working in 15 consortiums, across 13 countries in East Africa, the Sahel and Southeast Asia. Uniquely, BRACED also has a Knowledge Manager consortium.

The Knowledge Manager consortium is led by the Overseas Development Institute and includes the Red Cross Red Crescent Climate Centre, the Asian Disaster Preparedness Centre, ENDA Energie, ITAD, and the Thomson Reuters Foundation.

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