CMF CLIMATE MAINSTREAMING FACILITY

The Organised Crime and Climate Change Nexus

Improving Climate and ICF Mainstreaming in FCDO's SOC Portfolio

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UKaid from the British people

Paul Watkiss Associates

SOUTH SOUTH NORTH
TOWARDS CLIMATE RESILIENCE

Acronyms

ASM	Artisanal and Small-scale Mining
BEIS	Business, Energy and Industrial Strategy
CIB	Climate Indicator Bank
CIEP	Counter Illicit Economies Programme
CSSF	Conflict, Stability and Security Fund
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DFAT	Australian Department for Foreign Affairs and Trade
DFID	Department for International Development (merged into FCDO in 2020)
DSIT	Department for Science, Innovation and Technology
EU	European Union
EMPACT	European Multidisciplinary Platform Against Criminal Threats
FCDO	Foreign, Commonwealth and Development Office
FGMC	Forest Governance, Markets and Climate
GI-TOC	Global Initiative Against Transnational Organised Crime
HIV	Human Immunodeficiency Virus
HMG	His Majesty's Government (Government of the United Kingdom)
ICF	International Climate Finance
IRR	Integrated Review Refresh
IDP	Internally Displaced Person
ISIS/ ISIS-K	Islamic State of Iraq and Syria / Islamic State – Khorasan Province
IUU	Illegal, Unreported and Unregulated Fishing
IWT	Illegal Wildlife Trade
JFU	Joint Funds Unit
KPI	Key Performance Indicator

MRSA	Methicillin-Resistant *Staphylococcus aureus*
OCG	Organised Crime Group
ODA	Official Development Assistance
OECD	The Organisation for Economic Co-operation and Development
SARS	Severe Acute Respiratory Syndrome
SOC	Serious and Organised Crime
SOCnet	Serious Organised Crime Policy Network
TEFOS	Territorios Forestales Sostenibles (Forests, Communities & Sustainable Growth)
UKISF	UK Integrated Security Fund
UN	United Nations
UN SDG	United Nations Sustainable Development Goal
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene

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Summary

There is a growing understanding of the relationship between climate change and serious and organised crime (SOC). On the one hand, climate change is a driver of crime owing to its impact on social control and its ability to create new opportunities for criminal actors.[1] Its effects put pressure on local economies and communities, which leads to instability and facilitates the creation of new illicit markets.[2] On the other hand, criminal activity exacerbates climate change as it often involves practices damaging to the environment, while simultaneously frustrating the ability of societies to withstand and respond to the impacts of climate change because of the degradation of governance and the decreased resilience of local and Indigenous communities.[3]

The relationship between SOC and climate change can be grouped into three categories, namely: criminal activities that directly impact climate change; those that do so indirectly; and those that facilitate other crime types with direct or indirect impacts. See Figure 1.

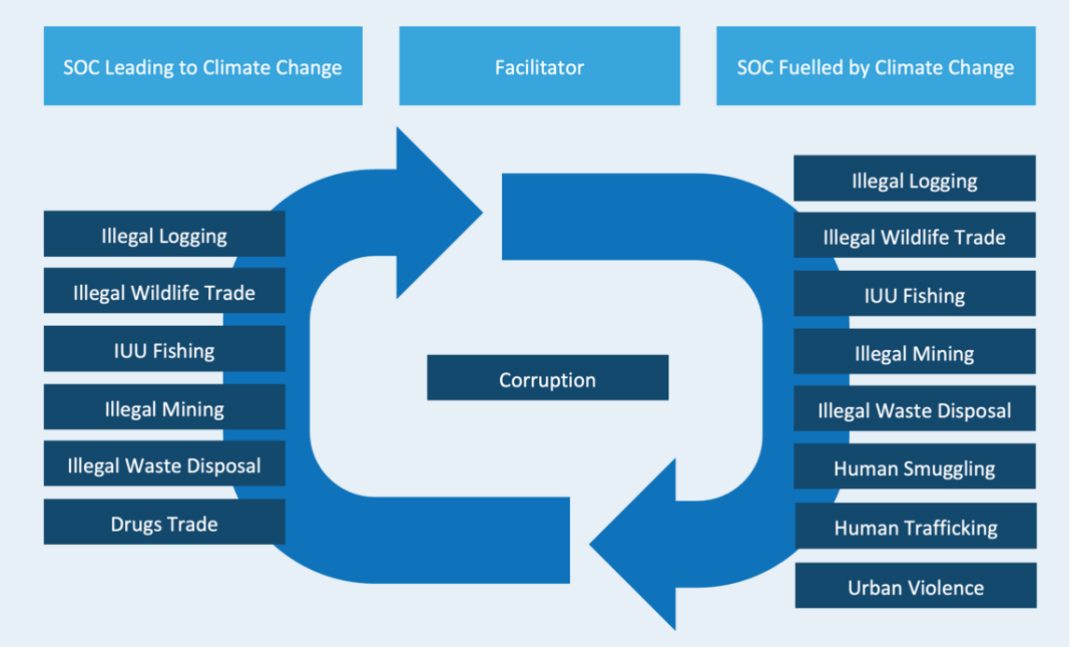

Figure 1: The SOC–climate change nexus

Crime types classed as having a direct impact predominantly affect the environment and include illegal logging and deforestation; the illegal wildlife trade; illegal, unreported and unregulated (IUU) fishing; illegal mining; the illegal waste trade, and the drugs trade. These crimes contribute to climate change because they cause loss of forests and the release of sequestered carbon, ecosystem damage, biodiversity loss and the release of pollution into the natural environment. The impacts of climate change and the loss of traditional livelihoods such as farming and fishing can push more people into participating in these forms of crime, which further fuels their impact

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on climate change.

Crimes classed as having an indirect impact on climate change create an increased risk of climate change because they facilitate other forms of harm that impact the climate. These crimes include the smuggling and trafficking of humans, along with the proliferation of gangs and urban violence. These crime types are predominantly human-centric in nature and can impact climate change through increased demand on natural resources and the increasing pressure on urban centres.

The final type of criminal activity in the nexus are those that do not in themselves increase the risk of climate change but do facilitate other illicit/illegal activities that enable climate change. These predominantly fall under the umbrella of corruption or money laundering, and include bribery, extortion, abuse of discretion, document fraud, use of front companies, agency capture and elite protection. They are an integral part of the criminal ecosystem and act as a means of facilitating criminal activities, sometimes alongside threats of violence, while simultaneously disguising criminal enterprises and protecting them from law enforcement action.

The challenges faced in the global response to climate change will intensify owing both to the increased frequency and severity of climate-related events, coupled with responses aimed at controlling them. This will create new opportunities for SOC and will compound existing challenges. The erosion of democratic values and the rise of authoritarianism currently taking place in various countries are evidence of its effects, and are likely to decrease resilience against SOC. Continued growth in the global population increases the risks of poverty, internal and external migration and armed conflicts, all of which fuel criminal activities, such as human smuggling, illegal resource extraction and urban violence. Population growth also places continued pressure on food and water, both of which are at risk because of drought and extreme weather events. There have already been incidents where water has been weaponised at the expense of local populations. Coupled with the challenges associated with the transition to green energy, changes in illicit flows and the increasing risk of zoonosis, there is a need for a coordinated global effort to adapt policies, strengthen institutions and foster cooperation.

In its efforts to mitigate the risk of climate change and reduce its effects, the UK Government has committed to spending £11.6 billion through its International Climate Finance[4] (ICF) facility. The four government departments primarily responsible for spending this commitment are the Foreign, Commonwealth and Development Office (FCDO), the Department of Energy Security and Net Zero (DESNZ), the Department for Science, Innovation and Technology (DIST) and the Department for Environment, Food and Rural Affairs (Defra).

The nexus between climate change and organised crime demonstrates how SOC programming activities can both directly and indirectly mitigate environmental harms and therefore climate change, thus making such expenditure ICF eligible. Programming to date has not always accounted for the relationship between SOC and climate change, highlighting the need for a better understanding of the relationship between these two phenomena. This need was made more pertinent after budget cuts across the government estate following the Covid-19 pandemic, which placed pressure on ICF-spending departments to better identify where SOC programming activities contribute to climate change mitigation measures, so that relevant spend is accurately

reported as ICF spend within projects.

Whether or not a programme, or activities within a programme, are eligible to be classed as ICF spend depends on the extent in which such programmes/activities respond to the causes and impacts of climate change. A suite of Key Performance Indicators (KPIs) has been developed for use by programme managers to measure the effectiveness of climate change programming. It is important to note that these KPIs are designed to standardise reporting across all programming, and do not in themselves determine ICF eligibility.

However, despite an understanding that better alignment is needed to bring together climate change and SOC programming, this has not translated into policy thinking or strategic direction. This means that across HMG, only a limited number of programmes exist that integrate SOC and climate change, focussing on illegal logging and deforestation. There is therefore a need to better integrate SOC and climate change programming to ensure accurate identification and reporting of ICF-eligible spend while also encouraging the development of programming that addresses the climate-security nexus and mitigates the risk that SOC poses to climate change programming in fragile states. To help achieve this, this report makes six recommendations:

- Climate-specific indicators and associated methodologies should be developed and integrated into SOC policy and programme development where the crime types fall within the SOC–climate change nexus.
- Priority should be given to SOC programming in regions vulnerable to climate change.
- Increase the number of government departments responsible for delivering the ICF portfolio to include security-focussed departments.
- Use SOCnet and UKISF expertise to develop and incubate climate change programmes that intersect with SOC, then transfer these to non-security focussed departments.
- Build an awareness within programme development teams of the relationship between climate change and crime types that directly affect climate change to increase integration between SOC and climate change.
- Develop a government-wide strategy on climate security that integrates the SOC-climate change nexus.

1. Introduction

Tackling climate change, environmental damage and biodiversity loss remains the UK's first thematic priority,[5] with action on climate and nature recognised as being integral to both the UK and global security.[6] In May 2022, the G7 acknowledged the existence of a vicious cycle connecting the impacts of climate change with increased risks to peace and security.[7] Climate change is known to increase the likelihood of food and water scarcity, pandemics, conflict and instability, displacement of people, economic shocks, supply chain vulnerability and reversals in development goals.[8] It is therefore increasingly being viewed as a threat multiplier.[9]

There is also a growing understanding of a relationship of mutual causality between climate change and SOC. On the one hand, climate change is a driver of crime owing to its impact on social control and its ability to create new opportunities for criminal actors.[10] Its effects put pressure on local economies and communities, which leads to instability while also facilitating the creation of new illicit markets.[11] On the other hand, criminal activity exacerbates climate change, as it often involves practices damaging to the environment, while simultaneously frustrating the ability of societies to withstand and respond to the impacts of climate change. This is partly because of the degradation of governance and the decreased resilience of local and Indigenous communities.[12]

Although climate change and biodiversity loss are caused primarily by entirely lawful means,[13] as the climate situation deteriorates, the opportunities for criminal actors and illicit economies will increase, further fuelling the impacts of climate change. Unfortunately, as highlighted at the Sharm el-Sheikh Climate Change Conference in Egypt in 2022, regions vulnerable to climate change tend to also have high levels of organised criminality, such as South East Asia and Africa.[14] This may be seen when comparing nations vulnerable to climate change, as reported by the Intergovernmental Panel on Climate Change,[15] and nations with high levels of organised criminal actors, as seen in the Global Organized Crime Index. The overlap of the two groups of countries is shown in Figure 2 below.[16] The combination of high organised crime levels and high vulnerability to climate change presents considerable challenges to the development of effective long-term climate change interventions, largely due to the conflict between the aims of the criminal actors and those working to mitigate the effects of climate change.

Conflicts between the two groups has created inherent risks to programming because of the likelihood of organised criminal groups operating within focus regions. Such risks include increased violence, the emergence of new forms of criminality and illicit markets, the convergence of existing illicit flows, the influence of malign state actors, inadvertent support for authoritarian regimes, and the displacement of individuals from the licit to the illicit economy. Furthermore, measures designed to mitigate the effects of climate change are also vulnerable to abuse, such as corruption, carbon credit fraud and environmental tax fraud, along with the prospect of criminal or other malign actors gaining access to international donor funding.

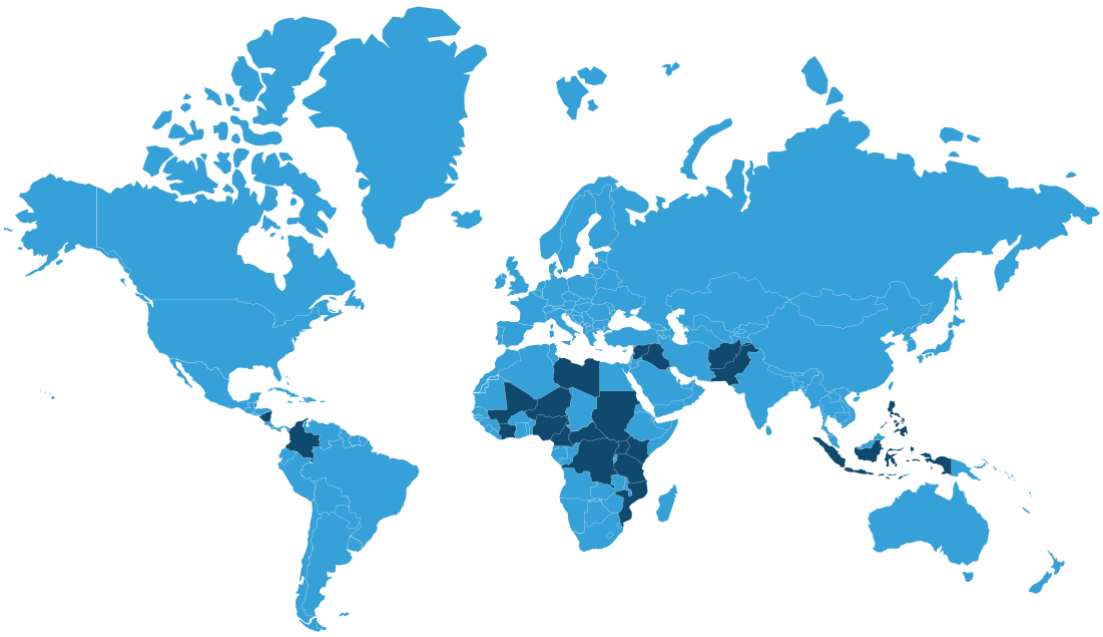

Figure 2: Countries vulnerable to climate change that also have high levels of organised crime

There is therefore a need for a more holistic approach that better aligns climate change and SOC programming to address the factors driving conflict, criminality and environmental degradation. Such an approach, referred to collectively as climate security, can be seen in the FCDO, which has integrated climate and environmental considerations into its operations.[17] The central SOC team within the FCDO commissioned the Global Initiative Against Transnational Organised Crime (GI-TOC), via the Climate Mainstreaming Facility hosted by SouthSouthNorth, to produce a report aimed at assisting relevant staff to be better able to identify opportunities to effectively mainstream climate change into SOC policy and programming approaches.

To achieve this, the first part of this report provides an overview of the nexus between climate change and SOC by outlining the relationship between different crime types and climate change. The second part explores potential future threats from organised crime groups associated with the impact of climate change and the global response. The third part discusses the UK government's current SOC and climate programming nexus to help identify future opportunities. A set of recommendations is provided at the end of the report that are designed to better mainstream SOC and climate programming and to identify opportunities for how SOC programming can contribute to climate mitigation. The inclusion of these recommendations may help to ensure that ICF is crime sensitive.

Establishing a direct causal link between a specific criminal activity and climate change is challenging owing to the numerous stressors involved and the fact that some consequences are indirect and not yet apparent.[18] This is due in part to the impacts of environmental crime often being diffuse and transnational, taking years to emerge. As a result, the crime is often underestimated, especially when the victims are not even cognisant of the harm.[19] This difficulty

is amplified by the scarcity of reliable data sets and reporting about SOC globally, a result of lack of consensus on the definition of organised crime and the ways in which it may be reliably measured over time.[20] Although there is an ongoing effort to develop a systematic approach to gauge organised crime globally with the Global Organised Crime Index (OC Index),[21] challenges pertaining to definitions and measurements remain. Organised crime is transnational and constantly changing. The lack of quantifiable data creates challenges for policy development in relation to SOC in general, even before the links with climate change are explored. Despite these difficulties, as the effects of climate change take hold, evidence for the connection between climate change and criminal activity is likely to become increasingly apparent.

For example, in Nigeria, rising food insecurity caused by the effects of heavy rains, the abnormal onset and cessation of rainfall, rising temperatures and alterations in relative humidity have forced pastoralists to move south in search of grazing land, provoking conflict between farmers and herders and the destruction of settlements and communities.[22] This has led some herders to resort to the use of firearms to commit crimes such as cattle rustling, kidnapping, armed robbery and rape, leading to a worsening security situation in the country.[23]

In Bangladesh, with its low elevation, high population density and fragile infrastructure, extreme weather events have seriously degraded traditional economic activities such as fishing and agriculture, causing coastal communities to migrate inland, mostly to urban areas. This climate-driven migration coupled with extreme poverty is causing new illicit markets to emerge while driving increased tension and conflict. Lack of local governance, poor urban management and existing ethno-religious tensions are further compounding this problem and driving domestic fragility.[24] The ongoing Somali Civil War between the Somali security forces and the militant group Al-Shabaab, coupled with clan-related conflicts over dwindling resources, demonstrates the devastating impact national and regional insecurity can have on a country struggling with extreme weather events and high levels of internal migration.[25]

It is important to recognise that although climate change is a global issue, it is intensively felt at the local level. The impacts do not manifest evenly, with the greatest risks being concentrated in regions already facing political instability, social marginalisation and vulnerability.[26] As a result, there is no one-size-fits-all for climate security programming, as experiences differ among regions, countries and individual communities. A holistic approach is therefore necessary. The interplays between the different crime types and climate change are explained below, with a basic introduction to the issues involved. Practical experience on the ground is susceptible to a variety of factors, underlining the need for a diversity of approaches.

2. Methodology

This report is the result of a combination of desk research and semi-structured interviews. The desk research involved a review of government reports, civil society research, academic papers, journalistic articles and supranational and international law enforcement reports. Because of government security classifications, not all internal documents were accessible for this study.

The semi-structured interviews were conducted between July and September 2023 and focussed on officials from government departments and law enforcement agencies involved in SOC programming, responses to organised crime and corruption. As the report is concerned with FCDO programming, interviewees were predominantly from the UK government. However, officials from other donor countries and organisations were also consulted to ascertain their current climate change programmes that relates to tackling SOC. The limited time available for the study restricted the number of project countries consulted.

3. SOC and Climate Change Linkages

As mentioned above, determining the impact of crime on climate change and vice versa is complex owing to the numerous stressors that obfuscate causality between a particular crime and the climate. This means that any attempt to determine causality will need to be qualitative in nature, rather than quantitative.[27] However, our understanding of the drivers of climate change and the harm caused by organised crime makes it relatively straightforward to determine how criminal acts contribute to such harm.

This section gives an introduction on the ways in which different crime types can drive climate change and how the impacts of climate change affect criminality. The different crime types are split into three categories: those where the relationship between the crime type and climate change is direct, those where it is indirect, and those where the crime facilitates other crime types that directly or indirectly affect climate change.

Gender, Climate Change and SOC

Women are more susceptible to the effects of climate change than men, mainly because of their gendered roles within domestic and employment settings, as well as their legal rights in many jurisdictions which restrict their ability to own land and thus their control over natural resources. For example, women are responsible for 70–80% of household food production in sub-Saharan Africa, 65% in Asia, and 45% in Latin America and the Caribbean, but are believed to own only 10% of land globally. As climate change is expected to reduce crop yields and food production in some regions, particularly the tropics, this is a particular threat to women's livelihoods. Furthermore, as women are already disproportionately affected by poverty, with 70% of the 1.3 billion people estimated to be living in poverty being women, there is an increased risk of violence against women owing to the direct link between poverty and vulnerability.

The scarcity of resources such as drinking water and fuel as a result of climate-linked events will disproportionality affect women owing to the increased domestic burden and hardship, along with women's reduced ability to provide self-protection. For example, in Peru the scarcity of drinking water forces women and girls to seek new

sources deep inside jungles, which increases their risk of sexual violence from illegal loggers operating in those areas. Slow-onset events will probably see access to land and natural resources diminish, affecting women's informal rights to resources and their livelihoods. This can push them to migrate internally to urban peripheries, migration camps or neighbouring countries. According to UN Environment, 80% of people displaced by climate change are women. Women are susceptible to human traffickers, and can also become involved in gangs, where they are often excluded from leadership positions and perform low-paying, high-risks tasks. These make them vulnerable to detection by law enforcement and to legal consequences such as incarceration.

The loss of arable land caused by drought or flooding can push women towards the illicit economy, including the drugs trade, with crops such as the coca plant believed to be hardy enough to survive the increased temperatures resulting from climate change. Although the number of men incarcerated is greater than the number of women, the number of women behind bars is growing at an alarming rate. Currently, over 60% of prisoners in Argentina, Brazil, Costa Rica, and Peru are there for drug-related offences. This is particularly problematic, as many of the imprisoned are women who live in poverty and are the primary caregivers for dependant persons.

Although women experience vulnerabilities and cope with natural disasters differently than men, it is important to note that the experiences of women are not homogenous. Women experience the impacts of climate change and SOC differently, depending on a variety of factors, such as their location, education, race, wealth and source of livelihood. Therefore, any future programming focussed on climate change and SOC needs to be context specific and avoid 'gender-blind' assumptions to avoid inadvertently negatively affecting women.

3.1. Direct Relationship

The crime types described below predominantly affect the environment and therefore create an increased risk of climate change as a direct result of their activities. There is now widely shared consensus, supported by data from law enforcement investigations, that there is an organised crime arrangement behind most environmental crime schemes.[28] Such crimes include illegal logging and deforestation, the illegal wildlife trade, IUU fishing, illegal mining and the illegal waste trade. The drugs trade is also included in this section owing to the pollution associated with the production process.

3.1.1. Illegal Logging and Deforestation

Forests play an essential role in mitigating climate change by absorbing and sequestering carbon dioxide[29] from the atmosphere, with an estimated 2.6 billion tonnes absorbed by forests every year.[30] This is believed to account for one-third of the carbon-dioxide released from the burning of fossil fuels. They are therefore commonly regarded as carbon sinks. However, despite renewed commitments of states to halt deforestation by 2030, forests are threatened by a range of interrelated illegal activities that often occur in tandem with legal forestry activities.[31]

Forestry crimes are among the most lucrative sectors of environmental crime and are perpetrated globally.[32] It is estimated that in some tropical forest areas, illegal logging accounts for between 50% and 90% of all forestry activities, causing extensive damage to the natural environment.[33] There is therefore a direct link between forestry crimes, such as illegal logging and deforestation, and climate change.

Illegal logging and deforestation not only reduce the capacity of forests to extract carbon from the atmosphere but facilitate the release of sequestered carbon into the atmosphere, therefore creating a two-pronged effect. Furthermore, illegal logging and deforestation, with no sustainability considerations, leads to the destruction of forest ecosystems, which reduces their resilience, making them more vulnerable to climate change.

As the local effects of climate change take hold, a variety of socioeconomic factors continue to drive illegal logging and deforestation. The growth of climate-linked migration (discussed below) creates increased demand for building materials, including timber, which cannot be met through licit sources. This creates opportunities for new illicit markets to emerge to meet increasing demand, which often involve the destruction of protected forests. Damage to a forest's ecosystem from illegal activities affects local communities and Indigenous peoples who play an important role as stewards of the forests. Such communities manage over a quarter of the earth's surface but preserve 80% of the remaining biodiversity.[34] Their loss of income from climate change can lead them to seek alternative livelihoods, leaving the forest vulnerable to criminal actors. Alternatively, they may themselves turn to an illicit economy as an alternative source of income.

3.1.2. Illegal Wildlife Trade

The connection between the illegal wildlife trade and climate change is under researched and not well understood.[35] However, there is a growing consensus that the illegal wildlife trade has cascading impacts on ecosystem functions owing to its role in biodiversity loss. The loss of functional diversity reduces the resilience of ecosystems, which over time become less reliable as carbon stores.[36] It is difficult to put a quantitative value to the harm from a particular trade because of the vast number of species in existence and the complex relationship they have with their ecosystems. Yet the harm that the illegal wildlife trade has on the climate is not insignificant.

For example, elephants have irreplaceable and interdependent relationships with many others in

their ecosystems and their absence would lead to further species loss, potentially triggering regional biodiversity collapse.[37] Another example are pangolins, which play an important role in ecosystems as insectivores that keep the populations of ants and termites under control.[38] The depletion of pangolin populations risks increasing the vulnerability of bio-diverse forests and heightening the risk of failure from future shocks.

The illegal wildlife trade operates in an illicit economy with global supply chains that rely on corruption and, in some instances, extreme violence. There is no regard for conservation, environmental regulations or the welfare of the species involved outside of their financial value. Coupled with ineffective regulation, monitoring and enforcement, the trade can be regarded as a low-risk and high-reward business that has the potential to be highly lucrative for those involved. For those operating at the lower end of the trade, such as harvesters or certain types of intermediaries,[39] the trade can provide either their primary income or an additional income to help maintain their livelihoods.[40]

As the effects of climate change increase, there will be increased vulnerability among local communities and Indigenous peoples owing to the loss of livelihoods from the licit economy; for example, from crop failures and increasing mercury levels in shellfish.[41] This can result in food shortages, leading to increased poaching of protected species for sustenance. Second, the loss of income and the lack of opportunity caused by the failure of farming and fishing industries can force people to rely on the illicit economy for their livelihoods, which in biodiverse-rich areas is likely to be the illegal wildlife trade. Finally, as with forestry crimes above, where the effects of climate change destroy livelihoods, there is a risk that Indigenous peoples abandon their land, leaving it vulnerable to criminal actors.

Outside of biodiversity loss and ecosystem damage, the illegal wildlife trade also increases the risk of zoonosis, which will be compounded by climate change. The movement of animals and their parts with no regard for legislation and regulations dramatically increases the risk of zoonosis, which is believed to account for 75% of emerging infectious diseases. This is due in part to the poor animal welfare standards associated with the illegal wildlife trade and the close proximity between humans and animal species. Such zoonotic risks are seen with the illegal donkey skin trade, which has only emerged in the last decade owing to growing demand from China, which consumes between 2.4 and 4.8 million hides per year.[42] Recent research has revealed instances of African horse sickness and MRSA found in donkey skins in a slaughterhouse in Kenya.[43]

The lack of sanitary inspections, quality controls and good hygiene endemic to the illegal wildlife trade can facilitate the transmission of zoonotic pathogens to hunters, sellers and consumers. Indeed, the consumption and trade of bushmeat has been linked to viral disease outbreaks such as Ebola, HIV-1, monkey pox and SARS.[44] As land use changes and ecosystems fragment as a result of climate change, there is a risk of new pathogens evolving that can make the jump from animals to humans.[45] Rising temperatures and the migration of animals into human populations will facilitate the spread of zoonotic diseases, increasing the number of humans exposed.

3.1.3. Illegal, Unreported and Unregulated Fishing

IUU fishing is a broad term that encompasses activities ranging from small-scale, near-shore activities to industrial-scale, long-distance operations.[46] It is one of the greatest threats to the oceans owing to the damage caused to marine ecosystems and biodiversity. Because of their size and mass, oceans have the highest capacity of carbon sequestration. They can absorb a third of anthropogenic carbon dioxide, which they sequester either in the water or on the seabed, often for long periods of time.[47] Oceans also absorb 90% of the heat created by global warming and produce 50% of the world's oxygen.[48] Because of this, anything that disrupts ocean ecosystems diminishes their capacity to help regulate the climate.[49] As IUU fishing equates to approximately 11% to 19% of reported global fisheries production,[50] it poses a serious and direct threat to ocean ecosystems and therefore the climate.

The IUU fishing industry often involves illegal and destructive fishing practices, such as bottom trawling and dynamite fishing, which damages coral reefs, seagrass beds and seabed environments. Such damage may serve to release carbon stores and/or reduce the ability of the oceans to sequester carbon. Furthermore, owing to the unregulated nature of IUU fishing, illegal fishing vessels tend to avoid port visits and inspections and are therefore more likely to fail to comply with engine emission standards designed to limit the contribution of the fishing sector to climate change.

As the fishing industry overall is dependent on the maritime environment to remain financially viable, any alterations to this environment can have significant consequences to individual fishers. Since 1850, the global sea surface temperature is estimated to have increased by 0.9 degrees Celsius, with 0.6 degrees Celsius of that occurring within the last four decades.[51] Such temperature rises can have profound effects on global climate, such as increased heavy rain and snow and the shifting of storm stacks, potentially contributing to drought in some areas.[52] Such increased unpredictability of weather patterns and increased risks of natural disasters impact fishing assets and the ability to fish. This reduces fishing sector incomes, thereby increasing incentives for fishers to engage in illegal fishing practices.[53] Likewise, warming oceans result in shifting distribution of fish stocks that may challenge existing enforcement frameworks and create new opportunities for IUU fishing.

On the human front, the loss of livelihoods owing to climate change leads to reduced opportunities, which can push individuals to seek work on illegal fishing vessels. In more extreme cases, increased levels of poverty increase human vulnerability and there is therefore a higher likelihood of individuals being susceptible to forced labour and human trafficking (see Section 3.2.2) on IUU fishing boats.

3.1.4. Illegal Mining

Illegal mining can range from artisanal and small-scale mining (ASM) on the one hand, to large scale and organised mining on the other, controlled by criminal syndicates. Such mining

operations are conducted without state permission, usually without the necessary land rights, mining licenses or other necessary permits. This lack of regulatory oversight results in the extensive use of harmful mining practices, at the expense of workers, the surrounding environment and the climate.[54]

There are two principle environmental impacts from illegal mining. The first concerns the destruction of the physical landscape from deforestation (described in Section 3.1.1) and soil erosion. As with deforestation, soil erosion results in the release of carbon dioxide into the atmosphere because of the displacement of soil and the organic carbon within it.[55] The second result is pollution from the leakage of harmful chemicals from slagheaps, or from the use of mercury in ASM operations, both of which poison the soil and waterways. This pollution impacts fish stocks, drinking water, farmland and forests, which in turn harms biodiversity and increases the vulnerability of ecosystems.

Illegal mining is closely linked to the emerging challenges (described below) associated with SOC and climate change. The main emerging challenge is increased demand for critical minerals, such as lithium and cobalt, as countries transition towards green energy. High levels of demand and competition between countries will create opportunities for new illicit markets to emerge, primarily in countries with poor regulation and governance. One example is the growth of illegal sandmining[56] from riverbanks or the seabed to meet the increased demand for building materials for new settlements so as to accommodate those displaced by climate-related events. Second, because of the importance of critical minerals to economic growth during the transition, there is also a risk of malign state actors using the services of organised crime groups to help meet their needs.

As demand for critical minerals increases, deposits previously considered uneconomical to mine are becoming attractive owing to surging prices on international markets.[57] Risks of organised criminal activity and corruption will grow alongside these price increases. Countries that are of especially high risk can be determined by comparing criminality scores[58] with the presence of critical mineral deposits.[59] These countries are Brazil, South Africa, China, Mexico, Peru, Indonesia, Vietnam and India. Furthermore, where critical mineral deposits sit within fragile states or conflict zones, such as Afghanistan, Colombia, the Democratic Republic of Congo, Zimbabwe and Myanmar, they regularly provide sources of finance for armed groups linked to human rights abuse, conflict and terrorism.[60]

As the effects of climate change take hold, with increased temperatures, extreme weather and rising sea levels, there will be pressures on traditional livelihoods that local communities and Indigenous peoples depend on, such as agriculture and transhumance. This increases the risk of people turning towards the illicit economy, such as ASM, for income. Such effects are already being felt in Ghana, where farmers are using their land for gold mining instead of agriculture.[61] Where the government seeks to control natural resources and illicit markets, there is a risk that they inadvertently fuel participation in criminality and extremism. This can be seen in the Afghan province of Takhar in the northeast of the country. Here, efforts by the Taliban-controlled government in Kabul to control ASM mines so as to increase tax revenues have pushed a large number of miners and their families into extreme poverty.[62] This has increased the risk of recruitment by extremist organisations operating in the country, such as ISIS-K, or participation in other illegal industries, such as the cultivation of opium for

the drug trade.

3.1.5. Illegal Waste Trade

Unlike the previous crime types, which are centred on the extraction of natural resources, the illegal waste trade is concerned with the illegal sale and treatment of waste at the expense of the natural environment. Such treatment of waste incudes its illegal disposal, incineration and recycling. The illicit flows predominantly move from the Global North to the Global South, usually to countries with poor governance and enforcement, and inadequate processing facilities.[63] It is a highly organised crime that relies on corruption, fraud, money laundering and front companies to help facilitate the illegal movement of waste.[64] An estimated one third of the waste generated globally is mismanaged, with open dumping of waste accounting for about 31% of waste globally, a number that rises to around 93% in some lower-income countries, such as Madagascar, Mozambique, Togo and Tajikistan.[65]

As waste that is exported illegally does not follow safe waste management practices, it often ends up in illegal landfills, indiscriminately dumped in the natural environment or burned in the open. These practices are extremely hazardous to the local environment: methene emissions from landfills, caused by anaerobic decay, are estimated to account for around 3% of global greenhouse gas emissions.[66] Alongside the release of greenhouse gases and pollutants into the atmosphere, illegally dumped waste also pollutes and damages ecosystems because of chemicals leaching into the soil and waterways.

As with both illegal logging and illegal sand mining, the movement of people as part of climate-linked migration can create pressures on existing human population centres. The increased volume of waste being produced as a result can overpower utility services, therefore creating opportunities for criminal actors to enter licit markets to help meet demand, but at the expense of regulations and the environment.

3.1.6. Drugs Trade

The final crime type that directly impacts climate change is the drugs trade, owing to the waste generated during the production process, but also owing to deforestation to clear land for certain drug industries. The environmental impact of drug production has long been known, with studies in the 1990s raising awareness of the damaging effects of cocaine production in Latin America.[67] Most of the chemical waste produced is reactive, explosive, flammable, corrosive and/or toxic, and so poses significant environmental risks,[68] especially since it is often dumped on land, buried underground or discharged into waterways.[69]

As with other crime types described above, specifically illegal logging and deforestation, the act of clearing forests to make way for drug production directly impacts climate change from the loss of capacity to extract carbon from the atmosphere, along with the release of sequestered carbon. Deforestation also results in biodiversity loss and damage to the ecosystem, which can reduce the

capacity of remaining forests to extract the levels of carbon necessary to control climate change. Such biodiversity loss and ecosystem damage are further compounded by the pollution of soil and waterways as a result of the waste generated during the production process.

As drug production is by its nature a clandestine activity, the volume of waste produced is underreported and almost certainly underestimated, making it difficult for the harm to be quantitatively determined. However, to give an idea of the quantities involved, it is estimated that between 2012 and 2021, 1 600 tonnes of toxic waste from synthetic drug factories on the Mexican coast were dumped into the area surrounding the Gulf of California/Sea of Cortez.[70]

A third way that the drug trade impacts climate change relates to the extremely high levels of energy required for indoor cannabis cultivation, with the average cultivation facility estimated to produce 4 600 kilogrammes of carbon dioxide emissions per kilogramme of finished product.[71] However, as the global economy transitions from fossil fuels to green energy, this link between drug production and climate change will probably diminish.

It is unclear what impacts global warming will have on the cultivation of plant-based drug crops such as opium, coca and cannabis. These crops are fairly resilient to harsh environments and thus easier to grow than the majority of legal crops. It is therefore possible that increasing temperatures will have little direct impact on drug crop yields, especially where a reliable water source is maintained. However, in instances of severe and prolonged drought, it is likely that plant-based drug crops will fail, with the drought making the area inhospitable for human populations because of food and water scarcity. This will push growers to seek either alternative cultivation sites or alternative sources of income. Where such shifts do occur, they will bring a swathe of security challenges for countries as supply chains shift, placing pressures on law enforcement agencies, while internal and external migration can lead to increased violence and urban unrest, as described below.

The socioeconomic impacts of climate change will probably be drivers of the drugs trade as people turn to the illicit economy as an alternative to the licit economy. The loss of traditional industries and the destruction of natural environments creates opportunities for criminal organisations to expand while also pushing individuals into the illicit economy as a means of survival or as a way of supplementing a declining income.[72] This can be seen in Guinea Bissau, where those affected by climate change look towards expanding criminal organisations as an alternative source of income.[73] However, in addition to increasing involvement in the production or transportation of drugs, the negative impacts of climate change on societies may push people towards drug use as a coping mechanism. Reasons for this might include lack of opportunities, the onset of stress and depression, or the generally increased use of drugs in society. This will create an increased demand for drugs, thus fuelling the industry.

3.2. Indirect Relationships

The crime types described below create an increased risk of climate change that is not a direct result of a particular criminal activity, but rather a result of other harms they cause, which in turn

affect the climate. These crimes include the smuggling and trafficking of humans, along with the proliferation of gangs and urban violence. These crimes are predominantly human-centric in nature and are often, though by no means exclusively, linked to the harms associated with environmental crime and the impact of climate change, as described above. All of the crime types described below both indirectly affect climate change and are themselves exacerbated by climate change.

3.2.1. Human Smuggling

As the impacts of climate change start to become more apparent through rising temperatures, less predictable rainfall and extreme weather events, coupled with a decline in food and water security, there is expected to be a substantial increase in the number of people forced to leave their homes. This is commonly referred to as 'climate migration', although it is difficult to determine the precise number of people migrating as the term 'climate migrant' is not a formally recognised distinct legal category.[74] This makes it difficult to distinguish climate-related migration from other types of migration, with other push factors including population growth, poverty, poor governance, human insecurity and conflict. Despite this, the Institute for Economics and Peace estimates that by 2025, 1.2 billion people will be displaced internally (internally displaced persons, or IDPs) or will migrate to another country (climate refugees) because of climate change and natural disasters.[75]

There is little doubt that internal and external migration levels will place considerable pressures on governments. Although it is important to note that not all migration is associated with SOC, the increase in absolute numbers of people migrating externally will fuel demand for the services of human smugglers and give rise to new markets and routes. However, because of its complexity, it is simply not possible to generate a reliable estimate of the magnitude of global human smuggling,[76] although it is known to play a major role in facilitating the movement of people from one country to another. This lack of data makes it difficult for countries or the international community to respond adequately to the needs of climate IDPs and refugees who live in precarious conditions. This, in turn, increases their vulnerability to crime, both as victims and as active participants. As people's first step is predominantly to migrate internally, there is a high probability that the countries in question will experience increased instability and community tensions, which can drive these countries to encourage external migration to relieve pressure on internal services.

Furthermore, the growth in human population creates increased demand for natural resources such as water, timber and sand, which the licit economy is unable to meet. This creates new opportunities for illicit markets. It also places pressure on municipal services, which can lead to such services being overwhelmed, risking waste and untreated sewage being dumped illegally and poisoning soil and waterways.

3.2.2. Human Trafficking

As with human smuggling, human traffickers target individuals, families and groups who, because of a variety of factors, are vulnerable to exploitation by criminal groups. Where there have been sudden-onset disasters, such as extreme weather events, which force people to displace in search of safety and an income, there may be a sharp rise in human trafficking in the affected region, or the creation of new trafficking hotspots.[77] A similar scenario may be seen with slow-onset events, such as sea-level rise, coastal erosion or unpredictable rainfall. These events lead communities engaged in natural resource-based livelihoods to migrate to establish alternative sources of income. Traffickers are likely to recruit climate migrants in affected areas, but also in their destinations, such as urban slums or refugee camps, where migrants have minimal bargaining power to assert their rights. This makes them easy targets for exploitation.[78]

As a means of survival, affected families or individuals have themselves participated in human trafficking or colluded with traffickers to earn money. They have also resorted to prostitution or facilitated the sexual abuse of children. There have also been instances where increased desperation caused by debt and poverty have pushed men into selling their wives or female relatives,[79] or caused parents to sell their children[80] to help cope with the losses associated with a changing climate.

Regular destinations for trafficked individuals are environmentally damaging industries such as mining, illegal logging or IUU fishing. Such industries are frequently underpinned by migrant workers in forced labour situations who are the victims of trafficking. In South East Asia, for example, the palm oil industry is heavily dependent on coercive labour practices, exemplifying the link between forced labour and modern slavery with deforestation.[81]

Lastly, there is an increased risk that trafficked persons may become involved in armed conflict or recruited into extremist organisations because of existing vulnerabilities or deception and fraud. Although armed conflict and terrorism should not be classified as organised crime owing to different drivers and motivations, they do have a direct impact on the security situation on the ground. The lack of security caused by insurgency and terrorism can weaken governance over natural resources, leaving them vulnerable to exploitation by criminal groups.

3.2.3. Urban Violence and Gangs

Populations that migrate because of climate-related events mostly remain close to home, moving internally or across the border to a neighbouring country. [82] Their destination is predominantly urban centres, where they seek employment in less climate-sensitive industries than agriculture and fishing. Urban areas also tend to provide better services than rural ones, such as education and healthcare.[83] Although urbanisation is driven by many factors in addition to climate change, there is increasing evidence that as climate impacts worsen, urban migration is increasing.[84] The UN estimates that the percentage of urban residents globally will increase from 50% in 2009 to 68% in 2050.[85]

As climate-linked rural-to-urban migration intensifies, there will be increasing pressure on urban infrastructure, public services and housing. The high demand for housing can be exploited by

criminal groups, as seen in Brazil and Italy, where Mafia-style gangs occupied environmentally protected land and illegally built new urban communities.[86] These pressures can also lead to tensions between newly arrived migrants and long-term residents. Where there is a lack of governance and/or the presence of gangs, this tension can spill over into chronic violence and criminality in the form of extortion, assaults and murders.[87] Informal settlements on urban peripheries can become a nurturing environment for gangs, which, owing to a lack of employment opportunities and the risk of violence, can push newly arrived migrants towards participation in pre-existing gangs or the creation of new gangs. The intensification of gang activities places pressure on urban and national governments, causing conservation and environmental protection to become lower political priorities in the face of increasing security challenges.

3.3. Facilitators

The final type of criminal activity in the SOC–climate change nexus are those that do not in themselves increase the risk of climate change but do facilitate other illicit/illegal activities that enable climate change. These crime types primarily fall under the umbrella of corruption or money laundering, and include bribery, extortion, abuse of discretion, document fraud, use of front companies, agency capture and elite protection, amongst others. They are an integral part of the criminal ecosystem and act as a means of facilitating criminal activities, sometimes alongside threats of violence, while simultaneously disguising criminal enterprises and protecting them from law enforcement action.[88]

Besides facilitating crimes that directly and indirectly exacerbate climate change, corruption can also undermine the political and economic stability of a country. They deprive the public sector of the economic resources necessary for stability, development and enforcement,[89] and they weaken government and regulatory agencies. In worst case scenarios, corruption can include regulatory, elite or state capture, where interested parties, including criminal actors, gain control of a state's institutions or government using corrupt practices. A similar outcome is also possible where there are gaps in local governance structures that become filled by criminal actors or armed groups. Contributing to a phenomenon known as 'criminal governance', the groups involved usually impose minimum rules and restrictions on local populations, while sometimes providing local services at a price.[90]

As the state is often the manager of environmental resources, such as forests, fish and mineral deposits, the weakening of government regulation and oversight can significantly undermine efforts to protect the environment and mitigate climate change. Corruption therefore acts as a facilitator for crimes that affect the climate and undermines a state's resilience to these crime types and their resulting socioeconomic, political and climate impacts. Furthermore, the perception of corruption within governance and enforcement structures undermines trust in institutions, perpetuating a sense of unfairness, which in turn can reduce the public's willingness to comply with regulations.

Corruption and SOC have a symbiotic relationship, with corruption providing the means by which

SOC can function while SOC provides the financial and social incentives for individuals to engage in corrupt activities.[91] This is particularly true for crimes that affect the environment, which are highly lucrative, with deep and pervasive links to corruption, enabling criminal networks to commit and conceal their crimes while simultaneously protecting them from enforcement action.[92] There is therefore a genuine threat that poorly implemented climate change and/or development projects are targeted by corrupt actors, since the money involved justifies the associated risk. This can undermine the projects targeted and affect governance dynamics, thereby threatening national security and stability.

The existence of licit markets for environmental commodities, along with the patchwork of global legislation, has led to the emergence of grey markets, where traders use document fraud to enable the movement of illegal/illicit products and to launder them into legal supply chains. This can be seen at a large scale with illegal logging, sand mining and the illegal waste trade, all of which are highly corruption dependent because of the difficulty of extracting, hiding or transporting the products discreetly.[93] This overlap means that enforcement responses have started to tackle SOC and corruption alongside each other to ensure maximum effectiveness. This approach can be seen in the European Union's (EU's) security initiative EMPACT,[94] its flagship instrument for operational cooperation against organised crime within the EU. EMPACT addresses the illegal wildlife trade and the illegal trade in timber by combatting corruption in the forms of document fraud and money laundering.[95]

Human traffickers and human smugglers also depend on corruption to facilitate their crimes, allowing them to move humans across borders undetected or without being reported. This can involve the use of fraudulently obtained or produced documents, such as passports or visas, or bribery, in an effort to persuade immigration officials or border guards to turn a blind eye to missing documents or instances of criminality. The nature of human smuggling and human trafficking means that the criminal actors rely on systematic corruption to ensure invisibility and impunity.

4. Emerging Challenges

The increasing frequency and severity of climate-related events, coupled with the responses aimed at controlling them, will create new opportunities for SOC to flourish as criminal organisations and illicit economies adapt to their new environment, taking on new forms in the process. This will compound existing challenges, such as latent political tensions and economic stresses, which are becoming more prominent following the end of the Covid-19 pandemic. In an increasingly fractured world, these emerging challenges are expected to place considerable pressures on governments, especially those that are unprepared or have limited capacity to adapt to the changing threat landscape.

This section identifies these challenges by introducing a selection of scenarios that are either already emerging or just over the horizon, with the aim of assisting with the development of policy designed to mitigate potential future impacts. The issues explored range from global tensions such as democratic backsliding and population growth, to those concerned with emerging technology and economic transitions. The impact of such threats manifests in different ways, depending on the country in question and the state's relationship with the population. Nevertheless, these emerging challenges are likely to place considerable strain on countries' resources and capacity to respond effectively.

4.1. Geopolitics, Governance and Societal Breakdown

According to a 2023 study by the V-Dem Institute, the advances made in global levels of democracy over the past 35 years have been wiped out.[96] Across the globe, freedom of expression is deteriorating, government censorship of the media and repression of civil society are both worsening, and the quality of elections is declining. Furthermore, there have been distinct authoritarian impulses in some well-established democracies, such as the United States under President Donald Trump and Brazil under President Jair Bolsonaro. Incidentally, both leaders backtracked on their countries' climate commitments. Since the most drastic changes have been happening in the past decade, it appears unlikely that there will be any abatement in democratic backsliding in the immediate future.

This is a cause of concern for those responding to the threats of SOC, as countries categorised as full democracies exhibit higher levels of resilience to organised crime than authoritarian regimes.[97] Indeed, there is emerging evidence showing that although democracies remain better placed to withstand the threat of organised crime, there has been a decline in the correlation between regime type and resilience.[98]

Coupled with this is the risk of criminal governance emerging in countries with a weak, corrupt or absent state, as seen in Latin America, where criminal organisations have stepped in to provide municipal services and security to local communities. This undermines the legitimacy of the state

in question and can lead to criminal governance being seen as the preferred form of government. Therefore, as countries struggle to meet the challenges in the decades ahead, such as climate change, incidents of criminal governance could become more profuse and dispersed.

Democratic backsliding and the rise of autocratic drifts in democratic countries can also undermine efforts to address the impacts of climate change. Weakened institutions and regulatory frameworks are vulnerable to criminal capture which, when it occurs, weakens a state's capacity to protect the environment through regulation and enforcement. This detrioration can also undermine efforts to mitigate climate change and respond to sudden-onset events such as extreme weather. Where such events do occur, they create opportunities for criminal actors and illicit economies to emerge in order to meet the needs of the affected population. Organised criminal groups can effectively usurp the role of official agencies in providing resources such as food and water.

At the international level, political shifts and economic challenges have had a direct impact on the dynamics of organised crime in an increasingly fractured world characterised by growing barriers, larger inequalities, rising instabilities and major geopolitical changes. This has brought about political crises and conflicts, in which illicit markets flourish as organised crime exploits countries' vulnerabilities. This can be seen with the Russian invasion of Ukraine in 2022 which, owing to the significant disruption brought about by the conflict, has led to a transformation of the highly sophisticated and entrenched organised crime landscapes in both countries.[99] This ability of illicit economies and organised crime groups to adapt to changing landscapes creates considerable challenges for law enforcement agencies, which are less able to flex to meet the new reality. As the world continues to become more fractured, there will be new opportunities for criminal actors and illicit economies, to which national law enforcement and the international community will be unable to respond effectively.

Indeed, the growth in geopolitical tensions, the rise of protectionism, unilateral sanctions and economic and military coercion have led to a decline in multilateral cooperation.[100] There is an emerging belief within the international community that current multilateral frameworks are no longer fit for purpose, no longer serve countries' national interests, have become overly complex, and are financially draining.[101] There is therefore the risk of countries retreating from multilateral fora in preference for bilateral or unilateral approaches without much consideration for the long-term consequences.[102] This can undermine global efforts to mitigate the impact of organised crime and climate change.

There is also a risk associated with the limited resources and capacity of governments to respond to the magnitude of threats facing them. Where a country is facing serious security challenges such as conflict, political instability or economic crisis, national resources tend to be reallocated from less immediate issues, such as the environment and climate change, to the challenges at hand. There is therefore a risk that efforts to respond to climate change, such as honouring the commitments made in the Paris Climate Agreement, are undermined by the increasing frequency and severity of crises that consume government resources and capacity. Ironically, one such crisis is natural disasters, which are expected to become more regular and more damaging as the climate warms.

The challenges associated with governance also extend to the local level, where the effects of climate are felt first owing to the dependence of local communities and Indigenous peoples on the environment and its resources. Climate change exacerbates the challenges already faced by these groups, including marginalisation, loss of land, human rights violations and unemployment.[103] Coupled with climate change's direct threats, such as resource scarcity, there is an increased risk of societal breakdown as the pressures become too much to bear. The detrimental impact of such societal breakdown can be significant since traditional knowledge and heritage plays an important role in sustainable ecosystem management. In addition, Indigenous communities have always defended their local environments against external threats such as illegal logging or illegal mining. As the pressures on local communities increase as a result of climate change, there is a risk that these communities become less resilient to criminality and, as a result, the surrounding environment becomes more vulnerable to exploitation.

Finally, in addition to the loss of knowledge, societal breakdown of local and Indigenous communities would probably reduce their ability to advocate for the protection of their environments. This will reduce regional and multilateral awareness of the importance of local environments to the global climate and the particular challenges being faced. These include the effects of climate change in general and a number of specific external factors, such as the occurrence of industrial logging and mining taking place without the necessary environmental protection, along with the role of organised crime in these activities.

4.2. Population Growth and Migration

In 2022, the global population officially reached eight billion people, up from seven billion 12 years earlier.[104] Although growth is expected to slow, with estimates being that it will take 15 years to reach nine billion in 2037, such increases could still place substantial socioeconomic and political pressures on developing countries. Population growth will have negative consequences for both climate change and SOC unless adequate mitigations are put in place.

Almost all of this population growth has occurred in Africa and Asia,[105] both of which experience high levels of organised criminality and are highly vulnerable to the impacts of climate change. This can best be seen in Nigeria, which is classed as highly vulnerable to climate change[106] and, according to the 2023 Organised Crime Index, has the sixth highest criminality score globally, and the second highest in the African continent.[107] Furthermore, Nigeria's population is expected to double in 29 years' time, so that by 2052, the population will have increased to 440 million, up from 224 million in 2023.[108]

Such population increases in vulnerable regions of the world will place significant pressures on the states involved. The limited natural resources available for people to meet their basic needs from the land, coupled with the lack of employment opportunities to allow people to earn a living, increases the risk of people and families being pushed into extreme poverty. As a result, people are likely to migrate internally or externally seeking alternative sources of income to maintain their livelihoods and further push up the number of people migrating globally. Indeed, in 2022 there were over 100 million refugees and internally displaced people, which was 13 million higher than

in 2021.[109]

Climate change will further compound this problem, causing reduced viability of crops as a result of extreme weather, leading to increased demand coupled with decreasing supply. This has the potential of creating a situation akin to a Malthusian trap, with increased criminality, violence and conflict. Such crime types are likely to include human smuggling and human trafficking, illegal extraction of sand and felling of timber for building materials, increased violence in urban centres, such as gang activity, a result, in part, of population stresses, and armed conflict over control over increasingly scarce resources. Both the illegal extraction of sand and the felling of timber will directly contribute to climate change owing to their impacts on the environment and ecosystems, creating a vicious cycle.

Furthermore, there is increasing evidence of a direct link between environmental pressures and gender-based violence.[110] The degradation of nature, increased competition over scarce resources and the prevalence of environmental crime can all exacerbate violence against women, which in turn is detrimental to livelihoods, human rights, conservation and sustainable development.[111] As the global population grows, the resulting resource scarcity, conflicts and displacement will deepen existing inequalities, which in turn will lead to individuals turning to gender-based violence as a way of reinforcing privileges and control over natural resources. Such violence increases after environmental disasters, either in the form of domestic violence, as seen in Zimbabwe after cyclone Idai struck in 2019, and in Bangladesh, following cyclone Roanu in 2016. Violence is also prevalent in disaster shelters and refugee camps where overcrowding and unsafe conditions increase the risk for women. Since it is expected that the number of refugees will increase as a result of climate change, it is likely that gender-based violence will rise too, especially if unsafe and irregular routes are used where human traffickers disproportionately target woman, children and other vulnerable groups.[112]

4.3. Food and Water Security

Closely linked to population growth and migration is food and water security, both of which are directly threatened by the effects of climate change and are targets for organised criminal groups. Increased weather variability leads to floods and droughts, causing deterioration in soil quality or desertification, which in turn places stress on water and food security.

Climate and crime-related food insecurity can be seen in Kédougou in southeastern Senegal, one of the four countries most vulnerable to climate change,[113] where the impacts of climate change and its intersection with illicit economies is highly visible. Rising temperatures have led to diminished crop yields,[114] leading to food scarcity, which has driven local communities living in the peripheries of the Niokolo-Koba Park into increasing reliance on illicit activities to sustain their livelihoods. Food scarcity has also increased the region's vulnerability to incursions by armed groups from neighbouring Mali who are believed to be interested in the gold deposits in Kédougou.

Increasing water scarcity can undermine a state's legitimacy, as seen in the Maghreb region in

Northwest Africa, where climate change, population growth, urbanisation and mismanagement is leading to water scarcity and heightened social protest and discontent.[115] This challenge is likely to continue owing to rising demand from growing populations and the drive by governments to grow their economies. Both lead to the creation of water-intensive industries. Therefore, in the face of dwindling supply, governments are now faced with the need to balance the competing priorities of protecting water supplies, on the one hand, and growing their economies and creating employment opportunities, on the other.

Food and water scarcity can therefore create significant challenges in the future that have the potential to undermine governments and increase the reliance on illicit economies, either as a source of food, as with poaching, or as an alternative source of income, as with illegal logging, mining or the drugs trade. In addition to individuals moving from the licit into the illicit economy, there is the threat of criminal actors exploiting licit industries, such as water supply, as an alternative source of revenue. The concept of 'water theft' is a controversial one, with competing schools of thought about whether water is a human right or a commodity to be traded.[116]

However, the criminal capture of water sources and supply poses direct threats to populations and governments. It reduces public access to safe drinking water as supplies are diverted to those with the means to pay, and undermines the sustainability of water resources as a result of over-extraction.[117] Criminal capture of water supplies can also pose a direct threat to the legitimacy of national and/or local governments because of decreasing public access to safe drinking water and lack of water available for farming, leading to food shortages. In addition, as limited resources are directed away from industry, there is a concomitant contraction of industrial and commercial sectors, creating greater unemployment and reducing the government's tax revenue. This in turn places further pressures on municipal services. All of this can lead to growing discontent and a tendency for people to lean towards alternative and potentially authoritarian forms of government. As there is a correlation between the level of corruption within a state and water security, a shift towards authoritarianism will probably lead to increased challenges in water supply.

Moreover, water can be weaponised by political and non-state actors seeking control over territories through the manipulation of the water supply. This can happen in three main ways: contamination, flooding and constriction.[118] This was seen in 2014, when ISIS diverted the flow of the Fallujah Dam to flood surrounding villages with the aim of preventing the Iraqi army from advancing.[119] Water deprivation can also be used by armed groups and extremist organisations as a way of recruiting fighters and gaining control over territory following the destruction of water supplies. Again, such an approach was favoured by ISIS which, after a successful attack following the destruction of water systems, would monopolise building materials and remaining water supplies to create political legitimacy.[120]

There is a considerable risk of water being weaponised in future local conflicts, especially since there is a correlation between countries facing water scarcity and those suffering from instability, as seen in the Maghreb and the Middle East. As access to water continues to decline owing to the effects of global warming and population growth, competition over water resources will increase and risk undermining democratic progress in many of the regions affected.

4.4. Clean Energy Transition and Technological Advances

With the majority of countries aiming to achieve net zero by 2050,[121] the transition towards green energy is gathering pace. As a result, it is becoming increasingly clear that new illicit markets are emerging to exploit the growing demand for critical minerals that fuel the green transition, and that criminal groups are involved in the illicit disposal of redundant technology. These challenges are only going to increase as more countries transition away from fossil fuels, and will present significant challenges for geopolitics, energy security and the environment. Furthermore, criminal actors are benefiting from the increasing interconnectedness of the world facilitated by growing access to technology, such as the internet, smart phones and money transfer services. These are being used to extend the reach of criminal markets while simultaneously making them more secure.

Owing to delays in extracting critical minerals after the discovery of a deposit, by the end of the 2020s it is expected that demand will exceed supply, leading to increased prices, which in turn will increase the attractiveness of critical mineral supply chains to organised criminality.[122] Currently there does not appear to be significant criminality reducing the flow of critical minerals from mines to buyers. However, as the price of such minerals increases and minerals are diverted to be sold in illicit markets, it is likely that the reliability of supply chains will decrease. The resulting supply shocks may cause companies to withdraw from the markets, which in turn impacts global supply.

The concentration of critical mineral deposits in certain countries makes global supply chains vulnerable to monopolisation. For example, in the Democratic Republic of Congo there are 14 cobalt mines accounting for over 60% of global production, eight of which are owned by China, which also owns 80% of the world's cobalt chemical refining capacity.[123] Owing to the essential role cobalt plays in the green energy transition, the concentration of the majority of cobalt deposits in the control of a small number of states makes the global supply vulnerable to rising geopolitical tensions.

Furthermore, depending on their country of registration and whether or not they are state owned, certain companies might have what could be described as an unfair advantage during the tendering process. This is due to their ability to be more flexible when it comes to human rights and environmental protections, along with their willingness to participate in bribery or engage with criminal organisations. It is becoming increasingly likely that such approaches are directed from the state level and are designed to gain control of deposits and supply chains. This makes it increasingly difficult for other companies, especially those that are obliged to adhere to such standards, to compete fairly, therefore reducing the access of their destination markets to certain minerals. As competition for control and access to such minerals increases, such tactics are likely to proliferate at the expense of human rights and the environment.

Countries are also faced with the challenge of how to extract and recycle critical minerals from green technologies, such as solar panels and batteries, when such products come to the end of their useful life. The disposal of such technology in landfill is hazardous to the environment because of the risk of chemicals leaching out over time, such as lithium from batteries. Also, since

the critical minerals are not recycled, more needs to be extracted through mining. As the green transition progresses, there will be increasing stress on public waste management systems, many of which will not have the capacity or suitable processes to extract the necessary minerals or to dispose of such technology safely. As around one third of waste is believed to be mismanaged currently because of unscrupulous and criminal actors, there is a high chance that more criminal organisations will enter the illegal waste trade as demand for waste disposal increases.

Advances in technology are also enabling criminal markets while making them more secure. This can best be seen in the illegal wildlife trade, where sellers are moving from physical to virtual markets hosted on popular social media sites and e-commerce platforms.[124] The use of online platforms on the surface web is evidence of weaknesses in the enforcement regime, either through lack of self-regulation by internet platforms or through enforcement agencies that lack the capacity, priority or mandate to monitor such cyber-enabled crimes. Such online markets allow criminals to engage in anonymised advertising, recruiting, networking and communicating with far-flung physical locations where there is demand for their products. As access to the internet grows, potential markets for the online illegal wildlife trade will grow alongside it, fuelling the organised harvesting of wildlife to meet demand. This, in turn, causes further damage to the environment.

Finally, technological advances are making criminal networks more secure. Money transfer services, mobile phone access and encrypted messaging services allow for efficient communication and payment between the different points on an illicit supply chain, reducing the need for certain middlemen. The lack of capacity within law enforcement agencies to get ahead of such technological advances leaves them at a disadvantage and unable to effectively respond.

4.5. State Threats and Security

Illicit economies are also vulnerable to the effects of climate change and therefore need to adapt to rising temperatures, extreme weather events and other associated challenges, such as water scarcity and the decline in arable land. This will create new security challenges for states and enforcement agencies owing to changing source countries, shifting supply chains, the emergence of new markets and increased risk of zoonosis.

As described above, it is difficult to predict the impact climate change will have on the cultivation of traditional drug crops because of their hardiness in relation to licit crops. However, they are vulnerable to other stressors such as severe drought and cultivation sites becoming inhospitable to humans. There is therefore the risk that current sites become unsustainable and displace into countries with appropriate climate and natural resources. The risk of source countries shifting is also present with the illegal wildlife trade where habitat loss, water scarcity and rising temperatures may force animals to migrate to neighbouring countries or regions in search of food and liveable conditions. This causes the poachers to follow suit.

The change in source countries will probably bring about a change in transit countries, both of which will result in new security challenges for the governments and enforcement agencies in

those countries. Many will lack the necessary capacity or apparatus to respond. There is also the risk of low resilience in such countries to the threats of organised crime, especially where the source and transit countries are also responding to high levels of migration. This is particularly the case since the relevant pull factors, namely arable land and less extreme temperatures, are the same for climate-induced migration and illicit markets seeking appropriate cultivation sites.

Furthermore, before any displacement takes place, it is likely that there will be a considerable increase in violence as competing criminal groups fight for control over an ever-decreasing amount of arable land suitable for the cultivation of traditional crops. It is possible that such violence will continue in the new source countries as criminal groups battle to establish control of production sites, supply routes and convergence hubs.

In addition to pushing drug cultivation into alternative countries where traditional drug crops can be grown, there is the possibility that criminal groups will move away from traditional crops in favour of synthetic drugs. This will also see the source countries shift. Since synthetic drug production is not reliant on the cultivation of natural crops, but instead on the sourcing of the requisite precursor chemicals, production can take place closer to the destination markets, such as Europe.

Finally, the combined pressures of shifting animal populations, climate-induced human migration and increased stress on urban centres have the potential to create a situation where humans are living in increasingly close contact with animal populations in unsanitary conditions. This creates a significant risk of zoonosis. Such emergent diseases, including Ebola and Middle East Respiratory Syndrome, are classified as High Consequence Infectious Diseases with high case mortality, and may or may not have appropriate treatments.[125]

5. SOC and ICF in Programme Development

The number of observable impacts of the effects of climate change and the prevalence of organised crime across the globe are increasing, reinforcing the need to better integrate SOC programming into the ICF portfolio. It is important to note that the ICF facility is not a centralised fund to which country offices and central departments apply for financing to support climate change programming. Instead, the UK's ICF commitment forms part of the general budget of the four government departments responsible for delivering the ICF portfolio, namely:

- Foreign, Commonwealth & Development Office (FCDO)
- Department for Energy Security and Net Zero (DESNZ)
- Department for Science, Innovation and Technology (DSIT)
- Department for Environment, Food & Rural Affairs (Defra)

In 2019, the UK's ICF commitment was doubled from £5.6 billion to £11.6 billion for financial years 2021/22 to 2025/26. However, in response to the impact of the Covid-19 pandemic on the UK's public finances and economy, the aid budget was reduced in November 2020 from 0.7% to 0.5% of gross national income. As ICF comes from the Official Development Assistance (ODA) budget, this has put considerable pressure on departments to achieve their commitment to spend the agreed amount on climate finance. To help HMG achieve its commitment of ICF spend, there is a need to better understand the nexus between climate change and SOC programming so that ICF-eligible spend is identified and recorded.

As the linkages between climate change and SOC are very broad, with multiple direct and indirect relationships depending on the crime type, there are a variety of ways to integrate climate change into SOC programming and to ensure that climate programming is crime sensitive. This section discusses the UK Government's ICF facility in some detail. It covers the Key Performance Indicators (KPIs) used to measure the effectiveness of interventions, existing programmes mainstreaming SOC and climate change, and opportunities to better integrate ICF into future SOC programmes.

5.1. Overview of Climate Spend Indicators

There are currently 15 ICF KPI indicators used by the UK Government to measure the performance of UK aid programmes that have climate change adaptation or mitigation as an objective. The ICF portfolio results framework is split among 11 core indicators (Table 1) and four technical assistance indicators (Table 2). These KPIs do not themselves determine whether a programme is eligible for ICF, but rather act as a standardised means of reporting internationally and publishing

results. Whether or not a SOC programme is eligible to be classed as ICF depends on the extent to which it responds to the causes and impacts of climate change.

These KPIs are supplemented by the Climate Indicator Bank, which was developed by the Department for International Development (DFID) before its amalgamation into what is now the FCDO.

5.1.1. ICF KPI Framework

These indicators do not attempt to capture the full benefits of ICF programmes, as individual programmes have context-specific aims that are not necessarily covered by the KPIs. For example, some programmes integrate climate as part of a broader development project, so not all their aims feed into the ICF KPIs, while others have indirect impacts that are hard to aggregate across the ICF portfolio. Instead, these KPIs are intended to guide programme teams, delivery partners and analysts in designing and managing programme monitoring for ICF results. They provide some flexibility to accommodate the range of ICF programmes, while introducing standard definitions and approaches

Table 1: Current ICF KPI Indicators

ICF KPI	Indicator
1	Number of people supported to better adapt to the effects of climate change
2	Number of people and social institutions with improved access to clean energy
4	Number of people whose resilience has been improved
6	Tonnes of greenhouse gas emissions reduced or avoided
7	Installed capacity of green energy
8	Ecosystem loss avoided
10	Value of ecosystem services generated or protected
11	Public finance mobilised for climate change purposes
12	Private finance mobilised for climate change purposes
15	Extent to which ICF intervention is likely to lead to transformational change

ICF KPI	Indicator
17	Area under sustainable management practices

Of these indicators, the following six may be relevant to programmes as part of the SOC portfolio. The descriptions of the indicators are from the ICF KPI methodology notes.

KPI 1: Number of people supported to better adapt to the effects of climate change. This KPI counts the number of direct and indirect beneficiaries in ICF adaptation programmes. Adaptation activities give people resources, tools or skills to better cope with changing, unpredictable and extreme weather. Examples include supporting farmers to grow crops that can adapt to changing weather conditions; improving irrigation systems and preserving water catchments in areas facing increased drought risk; and ensuring that social protection mechanisms are in place to enable people to quickly recover from weather-related shocks.

KPI 4: Number of people whose resilience has been improved as a result of ICF. This KPI measures the number of people with improved climate resilience as a result of ICF programming. Resilience in this context refers to protection from both climate shocks and more long-term changes in temperature and weather. It is not a measure of absolute resilience. KPI 4 allows programmes to define their own relevant indicators of resilience, against which improvements can be tracked.

KPI 6: Tonnes of greenhouse gases reduced or avoided (tCO_2e). This indicator reports on the tonnes of greenhouse gasses reduced or avoided estimated relative to the assumed business as usual emissions trajectory, and will reflect abatement results directly attributable to ICF mitigation and forestry projects over the lifetime of the projects. This indicator covers all sectors of the economy, including changes in net emissions from all ecosystem and land/sea use change types.

KPI 8: Annual difference in areas of ecosystem coverage. This indicator measures the difference in area of ecosystem resulting from an ICF project, relative to the counterfactual of what would have happened in the absence of the intervention. This indicator assesses the area where ecosystem loss has been avoided as a result of intervention. It also assesses if the condition of the habitat maintained is a functioning state and not degraded.

KPI 15: Extent to which an ICF intervention is likely to lead to transformational change. This indicator tracks evidence demonstrating the likelihood that ICF activities are being transformational or contributing to wider transformations. ICF will have greater impact if it encourages others to replicate and scale up successful activities in the longer term, and if it facilitates substantive institutional and policy change towards low carbon and climate resilience.

KPI 17: Area under sustainable management practices. This KPI monitors the total area (land, sea, freshwater) under sustainable management practices as a result of ICF. Unsustainable use threatens the benefits people receive from natural resources, including biodiversity and ecosystem services. Sustainable management practices aim to support, maintain and/or enhance the functions and services provided by a healthy ecosystem.

5.1.2. ICF Technical Assistance KPIs

Technical assistance forms an important part of HMG's ICF programming, both through specific technical assistance programmes and as one component of broader programmes alongside financial policy support, capital investment or other interventions. However, results from technical assistance can be challenging or even impossible to isolate. The UK Government therefore developed technical assistance KPIs to support the measurement of ICF technical assistance contributions and results.

Table 2: Technical Assistance KPIs

ICF KPI	Indicator
1	Countries supported by ICF technical assistance
2	Individuals and organisations supported by ICF technical assistance
3	Climate policies informed by ICF technical assistance
5	Emission reductions or avoided/supported by ICF technical assistance

Of these four indicators, KPI 5 is probably the most relevant to programmes within the SOC portfolio. According to the ICF Technical Assistance KPI methodology notes, KPI 5 …

> … reports the net change in greenhouse gas emissions measured in tCO2e, estimated relative to an assumed business as usual emissions trajectory. The indicator should include emission reductions arising from any investment, initiative or project (including mitigation and forestry emission abatement) supported by ICF technical assistance over the lifetime of the project.

5.1.3. The Climate Indicator Bank

The Climate Indicator Bank (CIB) is an indicator database to help programme managers monitor climate benefits within ICF programmes. It is a comprehensive bank of indicators used in existing ICF and other major climate-funded programmes. Version 3.1 of the CIB encompassed 128 indicators. These indicators cover four main categories, namely nutrition and health; livelihoods; infrastructure/public works; and water, sanitation and hygiene (WASH).

Table 3 lists three examples from the CIB where there are potential synergies with environmental crime programming.

Table 3: Crime Sensitive CIB Indicators

#	Indicator
033	# of people in geographic area(s) of xx project/programme with increased (non-) monetary benefits from forests, as a result of xx project/programme [with disaggregation by gender, disability, age, geographic location when applicable]
104	# of forest-dependent people with improved livelihoods in geographic area(s) of xx project/programme, as a result of xx project/programme [with disaggregation by gender, disability, age, geographic location when applicable]
1379	% of households having more secure access to livelihood assets despite climate-related shocks [with disaggregation by gender, disability, income level, age, geographic location when applicable]

5.1.4. Identifying ICF-eligible Spend in the SOC Portfolio

The manner in which spending is assigned to the ICF means that it is not a 'zero-sum game' where spend identified as being ICF eligible comes at the detriment of other spending commitments, such as SOC. Instead, departmental spending can be assigned to both the ICF and another area simultaneously. Indeed, it is even possible in theory to develop a programme that is both 100% SOC and 100% ICF. This is an important principle of the ICF, as it avoids a situation where SOC programming is diminished for the sake of climate change programming or vice versa.

However, to be deemed ICF eligible, a SOC programme (or an element thereof) must effectively demonstrate how it will positively impact climate change while avoiding possible accusations of 'greenwashing'. For programming involving non-environmental crimes, such as those with an indirect relationship with climate change, the selection of suitable KPIs can prove difficult owing to the limitations of existing indicators. Even though these indicators are not intended to capture all ICF-eligible programmes, but rather to help guide their development, there is still likely to be a need to rely either on alternatives or on the development of custom indicators that better account for the linkages between SOC and climate change. Either way, the identification/creation of suitable indicators, along with the development of methodologies on their use to help with the design of programmes, will be necessary to better identify areas of ICF-eligible spend in the SOC portfolio.

These programmes can be funded through both the FCDO's ODA budget or through the UKISF, which is funded by the Integrated Security Fund Unit within the Cabinet Office, programmes for which are administered by different government departments, including the FCDO. The UKISF

replaced the CSSF in April 2024 and comprises of both ODA and non-ODA funding sources. Integration of SOC into Climate Change Programming.

The correlation between climate fragility and high criminality means there is an inherent risk in climate change programming. This is due to money entering fragile political systems with poor governance structures, high levels of corruption or other forms of organised crime. In order for activities to mitigate climate change, achieve maximum effectiveness and reduce the risk of unintended consequences, there is a need to integrate SOC considerations into such programmes. There are two potential benefits from such integration. The first is reducing the risk of adverse side-effects, in that SOC-related security risks can be identified in ways that go beyond routine due diligence during the programme development stage. The second is mitigating these risks through programming activities, thus increasing the effectiveness of the programme in addressing climate change.

By improving awareness of the SOC-associated risks within a programme, it is possible to develop effective mitigation measures and protections, increasing the impact and sustainability of a programme. As most ICF-eligible programmes are designed from the point of view of climate change and largely developed outside of security-focussed departments, there is not the necessary expertise available to analyse the political situation on the ground in relation to SOC and governance. Adequate mitigation measures are therefore not developed to account for the complex interplay between national and sub-national governance or the associated socioeconomic challenges.

As such, SOC activities will be predominantly concerned with ensuring the effectiveness of programming activities designed to mitigate climate change, and may therefore indirectly contribute to ensuring that no environmental harm is done. It is possible that such SOC interventions may themselves become ICF eligible.

5.2. Mainstreaming SOC and Climate Change

The integration of ICF-eligible SOC activities into climate change programming is not only an important step to ensure that HMG ICF spend is accurately identified and reported, it also has a positive impact on programming, from both a SOC and ICF perspective, as described above. Table 4 summarises the benefits that such integration has on programming outcomes.

Table 4: Integrating SOC and Climate Change

Integration Method	Benefits
Identifying/integrating ICF-eligible spend in SOC programmes	Accurately identify ICF-eligible spend where it exists in SOC programming to ensure accurate reporting.
Integrating SOC into relevant ICF-eligible climate programmes	Help identify and mitigate SOC-related risks in countries/regions of high criminality.

SOC's role as a threat multiplier in relation to climate change means that there is a need to expand the criteria for ICF to include SOC programming. Without this, the joint risk of the ICF being unable to both address the climate–security nexus and avoid any unintended consequences will remain. Although it is understandable why high-risk programming for crime types with an indirect relationship to climate change (such as those related to urban violence and corruption) are unattractive, departments should be more willing to design and implement programming related to direct crime types such as the illegal timber trade and the illegal wildlife trade. Not only will this directly address issues fuelling climate change, the reduction in opportunities for criminal actors is likely to increase the impact and sustainability of climate change programming.

Given that climate change is a difficult concept to pin down in the security context,[126] research should be conducted into the direct and indirect interplay between SOC and climate change to fill the gaps in the quantitative evidence base. The resulting increase in knowledge will support the future strategic and policy case for funding into crime types beyond deforestation and other environmental crimes. As SOC can have serious financial implications, such a proactive approach will cost less than a reactive one that does not address the root causes.

A portion of funding available through the UKISF could be used to help bridge this knowledge gap through efforts towards establishing a quantitative baseline of the SOC–climate change nexus. This will improve the integration of SOC into climate programming and vice versa, and require the SOC–climate change nexus to be considered during the programme design stage. A similar approach is already used for gender and human rights considerations across HMG. In addition, the Australian Department Foreign Affairs and Trade (DFAT) is working on developing such a policy to better integrate climate across a variety of challenges.[127]

6. Conclusions

This paper has shown the relationship between climate change and SOC and the many ways in which criminal actors can undermine efforts by the global community to address the challenges associated with climate change. As the effects of climate change continue to be felt through extreme weather events and rising global temperatures, these challenges will get worse. Populations are already struggling to adapt to new challenges such as the decline of traditional industries, pushing them to migrate in search of alternative livelihoods.

These effects are compounded by emerging challenges caused, in part, by efforts aimed at mitigating climate change, but also as a result of geopolitics, increasing resource scarcity and emerging security challenges. In order to address both the SOC–climate change nexus and emerging challenges, the UK government needs to bring together the climate and security spheres for a better policy and programming response. Although efforts have already been made in this regard, the importance of this area should not be underestimated. The recommendations given below aim at strengthening the response to ensure that efforts to mitigate the effects of climate change are not undermined by SOC, and that SOC does not profit off the back of climate change.

7. Recommendations

The recommendations developed on the basis of this research are aimed at improving the UK government's understanding of the threats posed by the SOC–climate change nexus and improving its capacity to respond effectively. They are informed by responses from interviewees and are built on what has worked in the past and what has not.

- **Climate specific indicators and associated methodologies should be developed and integrated into SOC policy and programme development where the crime types fall within the SOC–climate change nexus.** The vicious cycle connecting SOC and climate change means that one should not be considered without the other. Therefore, the requirement to include all relevant indicators will ensure the accurate identification of ICF-eligible spend within SOC programming.
- **Priority should be given to SOC programming in regions vulnerable to climate change.** This will make programmes act as a force multiplier, as the reduction in criminal activity will in turn reduce the impact of such activity on the environment. In regions with existing climate change programming that lacks a SOC element,

consideration should be given to programming that mitigates the threat of SOC on such climate programmes.

- **Use SOCnet and UKISF expertise to develop and incubate climate change programmes that intersect with SOC, then transfer these to non-security focussed departments.** Such programming would address problems that might otherwise fall through the gap between security and climate change priorities, and also contribute to the delivery of the HMG ICF target.
- **Build an awareness within programme development teams of the relationship between climate change and crime types that directly affect climate change, in order to increase integration between SOC and climate change programmes.** The relationship between SOC and climate change means that programmes addressing these in tandem are likely to be more effective than programmes that address only one aspect. Expanding the criteria will reduce the risks and unintended consequences caused by the presence of organised crime groups in the target countries/regions.
- **Develop a government-wide strategy on climate security that integrates the SOC–climate change nexus.** This will help to ensure that SOC and climate change are prioritised and tackled in conjunction with one another.

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