



**CONFLICT, CLIMATE
AND CONSERVATION**



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Acknowledgements

This report was written and edited by Chris Loughran and Camille Wallen, and designed by Helen Broadbridge. We are grateful to contributions and support from Sam Cohen, James Cowan, Ty Loft, David Meen, Paul McCann, Hannah Peck, Christopher Pym, Jane Strangways and Jonathan Vasey.



INTRODUCTION



The COP26 summit in Glasgow saw world leaders come together to battle the global environment crisis. They agreed plans aiming to reduce the planet's warming to 1.5 degrees, cut carbon emissions to net zero by 2050, adapt to save and restore ecosystems, and secure the finance to do it.

Despite disagreement, progress was made. Significantly, there is now a common understanding of the interconnected nature of climate change and biodiversity. But a key issue that is still missing is the understanding of how they relate to a third global emergency: conflict.

Despite COVID lockdowns, grounded aeroplanes and UN Secretary General Guterres's call for a global ceasefire, conflict, climate change and the irreversible loss of our planet's biodiversity all continued unabated during the pandemic.

"14 of the 25 countries most vulnerable to climate change are in conflict"¹

Resource scarcity has long been recognised as a threat multiplier of conflict and fragility. In all, 40 per cent of internal armed conflicts in the last 60 years have been related to natural resources. That is set to increase as the impacts of climate change are seen in water scarcity, desertification, population movements and food insecurity.

Meanwhile, the cost of conflict is also felt through its environmental impact. As many as 80 per cent of all major armed conflicts in the second half of the 20th Century took place directly in biodiversity hotspots that sustain around half the world's plants and rare species of animals.²

Five weeks before the COP26 summit, the UN Human Rights Council unanimously affirmed the human right to a safe, clean, healthy and sustainable environment. This will remain an aspiration unless governments acknowledge that conflict and planetary harm drive each other and develop integrated policies to break vicious cycles of violence and destruction.

The question now is what policies and actions will turn vicious cycles of violence and destruction into virtuous circles of sustainability and stability.



PLANETARY EMERGENCY



ENDLESS WARS

Biodiversity loss and climate change are both driven by human economic activities. They mutually reinforce each other and, unless they are both addressed together, neither will be resolved. The UN Climate Change Conference (COP26) in Glasgow and next year's UN Biodiversity Conference (COP15) in Kunming will set out the foundations to address these two challenges in concert.

Global average temperatures have already increased by 1° Celsius since pre-industrial levels. The Paris Agreement set a commitment to not exceed 1.5° warming, however countries are not on track to meet their targets and prevent further warming. 1.5° will have negative effects but the difference between 1.5° and 2° is stark.

This half a degree difference would see the rate of species loss increase by up to four times, taking with it a significant proportion of the world's pollinators and reducing habitable environments for many endangered mammals. Extreme weather events will hit the most vulnerable areas particularly hard, worsened by rising sea levels. Water and food insecurity will be exacerbated by heat waves, droughts, and floods and are already increasing the risk of conflict in the Middle East and North Africa.

Climate change poses an additional strain to ecosystems already at threat. An eighth of the world's animal and plant species face extinction in the next few decades unless significant action is taken.³ Conflict adds a third dimension to this emergency. Conflict exacerbates pressure on finite resources and prevents environmental degradation from being monitored and prevented. 2020 saw a sharp increase in deforestation in most conflict-affected countries.

Key facts

- 50 per cent more people would be exposed to water stress at 2°C change compared to 1.5°C⁴
- 10 per cent of the world's livestock and 5 per cent of the world's maize crop would be lost at 2°C change⁵
- Arctic ice free summers are 10 times more likely at 2°C⁶
- 1 million species of animals and plants are at risk of extinction in the coming decades⁷
- Deforestation across all conflict-affected countries in 2020 emitted nearly four times the UK's total CO₂ emissions for the same year⁸

According to the World Bank, violent conflict has increased after decades of relative decline, with deaths in war, displacement and military spending all having surged since 2000. Meanwhile, we have entered what David Milliband has termed an 'age of impunity', where war is characterised by human rights violations and where famine and sexual violence are used as weapons of war.

Wars are more protracted than ever, rarely concluding in peace agreements and instead flaring up in perpetual cycles of violence and destruction to the natural and built environment.

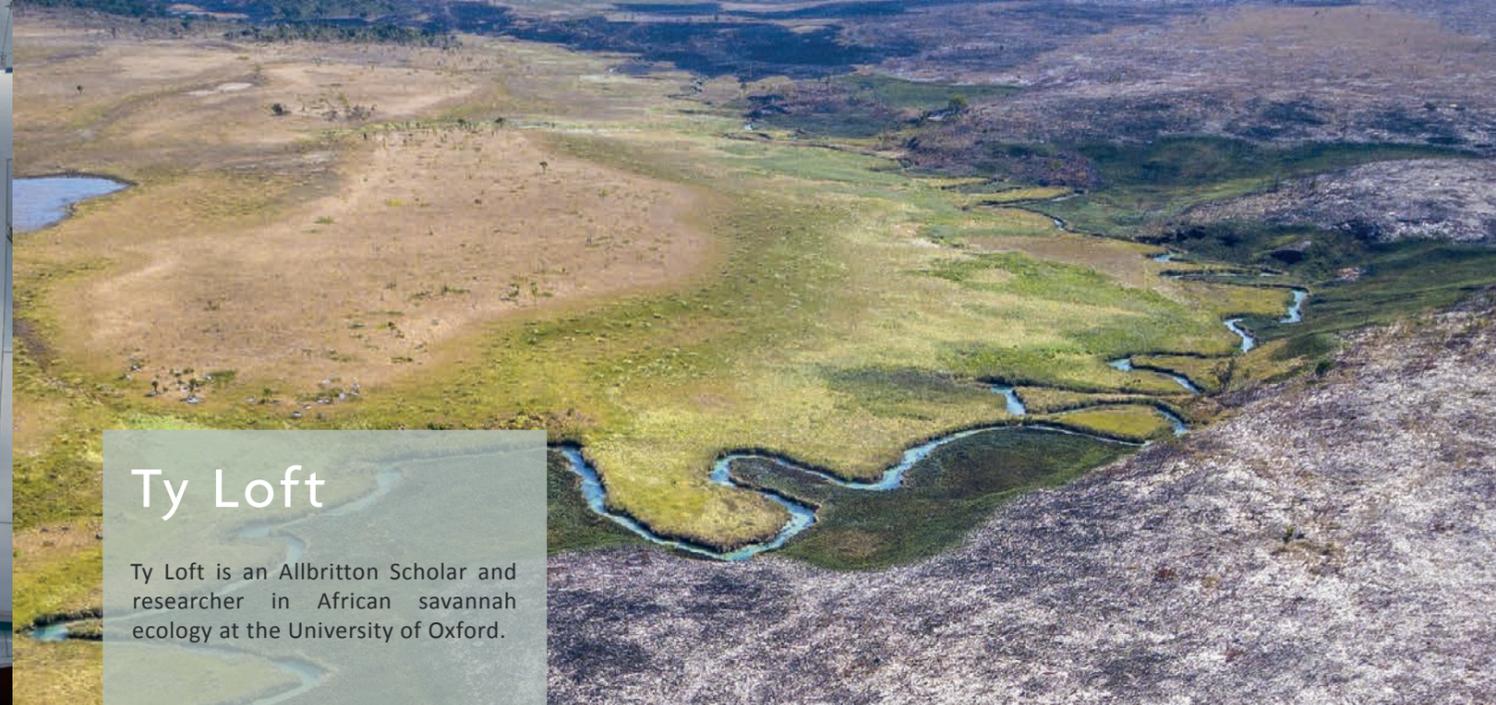
Despite a new arms race in cyber and artificial intelligence, the way most contemporary conflict is waged remains far less sophisticated. Small arms and improvised explosive devices remain the weapons of choice of the non-state armed groups and state-sponsored militia who characterise most modern conflict.

Trends in international intervention have also changed in a way that perpetuates cycles of violence. Analysis by the International Institute for Strategic Studies shows that 2020 saw a ten-year peak in levels of conflict intervention.⁹ This is not because of a return of the western interventionism in Iraq and Afghanistan, rather it reflects the international strategies of non-western states which are increasingly acting to shape conflicts according to their own strategic agendas.

The result is vast ungoverned space, with economies driven by the illicit trade in arms, narcotics, minerals, endangered species and people. And this in turn perpetuates poverty, poor governance and heightened conflict over resources, trade and supply chain security.

Key facts

- The global economic cost of conflict is estimated to be over \$14.8 trillion dollars¹⁰
- 75 per cent of all land environments and 66 per cent of all marine environments have been 'severely altered' to date by human actions¹¹
- By 2030, the World Bank projects that 80 per cent of the world's extreme poor will live in fragile and conflict affected states¹²
- The 19 countries with the highest number of ecological threats are among the world's 40 least peaceful countries including Afghanistan, Syria, Iraq, Chad, India and Pakistan¹³
- According to War Child, 420 million girls and boys are living in conflict zones¹⁴



Ty Loft

Ty Loft is an Allbritton Scholar and researcher in African savannah ecology at the University of Oxford.

THE OKAVANGO

The Angolan Civil War ended in 2002, yet the presence of landmines stands in the way of development and prosperity across the country. In the headwaters of the Okavango, landmines make large areas a lethal habitat for both animals and local people.

Landmines drive impoverished communities to poaching and logging activities that lead to biodiversity loss and threaten the sustainability of one of the largest carbon sinks on the planet.

The Angolan government is spending \$60 million to clear minefields in two national parks. HALO aims to match this and, with support from foundations, philanthropists and corporations, to clear landmines from the entire watershed that feeds the Okavango Delta.

Making the area safe from landmines not only protects the region's vital biodiversity but will also help Angola to develop a conservation-based tourism economy that provides sustainable jobs.

Demining the Okavango headwaters could benefit over half a million people in Cuando-Cubango Province alone. In the short-term, landmine clearance has the potential to be a significant employer of over 1,200 women and men. Crucially, the area being demined is part of the Kavango-Zambezi Trans-Frontier Conservation Area. The KAZA, as it is known, is Africa's great wild space where Angola, Botswana, Namibia, Zambia and Zimbabwe converge.

It is a stronghold for lions, leopards and cheetahs and half of Africa's elephant population. With the mines gone many of those elephants can migrate to Angola. At the heart of the KAZA is the World Heritage Site of the Okavango Delta. The Delta is fed by headwaters upstream and outside of the KAZA in the far southeast of Angola. The success of the KAZA and protection of the Okavango is of fundamental importance to the development of southern Africa.

SAVANNAH ECOSYSTEMS

Angola is a country of savannas, ancient and dynamic ecosystems that evolved and spread eight million years ago. The savanna woodlands that cover much of Angola's central plateau may resemble forests, but they function in fundamentally different ways. For forests, deforestation drives biodiversity loss and removes carbon sinks. In savannas, 'woody encroachment'—the expansion of a few non-diverse tree species into species-rich grasslands—threatens the ecosystem. Large mammals, particularly elephants, play a significant role in maintaining equilibrium as they knock over trees, creating a more open, grassy landscape.

Meanwhile, savannas are also home to thousands of 'pyrophilic' species, fire-loving organisms that require burning to survive and reproduce. In normal circumstances, natural fires play an important role in preventing woody encroachment. But a history of war has altered the way Angola's ecosystems function.

Wartime hunting nearly eliminated the large mammals that serve as ecosystem engineers, while landmines on national borders stand in the way of elephant migration routes. The displacement and resettlement of millions of refugees also changed fire regimes and patterns of agriculture and resource use.

The deliberate fires, set to drive game to natural barriers like rivers for bush meat by impoverished rural communities, degrade the savanna ecosystem. Rising CO₂ and conservation efforts that attempt to keep landscapes stable also inadvertently threaten many species that are found nowhere else.

'Because most carbon in savannas is stored below ground, rather than in trees, large-scale land use change can contribute to climate change even without visible loss of forest cover.'

Post-conflict moments are opportunities for environmental peacebuilding. They are moments to strengthen environmental laws, found new protected areas and bolster sustainable development strategies. Strategies that neglect ecological complexity can ultimately threaten biodiversity and undermine resilience.

Good peacebuilding and national development strategies must be rooted in ecology so that environmental and social programmes are mutually reinforcing. Only then will healthy ecosystems and recovering communities exist in equilibrium.



Sam Cohen: Cool Earth

Sam Cohen is Chair of Cool Earth, an NGO working with rainforest communities to halt deforestation and its impact on climate change.

MOUNTING PRESSURES

Over the next thirty years, the global population is projected to reach ten billion, with 80 per cent of the world's population living in countries ranking in the bottom half of the Global Peace Index.¹⁵ Meanwhile, 12 of the 20 countries which, according to the ND-GAIN Country Index, are the most vulnerable and least ready to adapt to climate change are also sites of armed conflict.¹⁶

If left unchecked, the prognosis is bleak. By 2040, a total of 5.4 billion people are likely to live in the 59 countries experiencing high or extreme water stress, including India and China.¹⁷ Meanwhile, the Ecological Threat Register estimates that the global demand for food will increase by 50 per cent and half of the global population is likely to suffer from food insecurity, an increase from 1.5 billion people today.¹⁸

Environmental degradation puts pressure on limited resources and is already driving mass internal migration, placing further stress on communities and regions. Building resilient and secure communities is essential to prevent escalation of tensions and fragility, and this must include restoration of land ecosystems.

Candlelight

In Somaliland, an autonomous region of Somalia, trees have been cut for firewood on an unprecedented scale, accelerating soil loss and land degradation. The system of managed reserves of range-land for animals to graze in times of drought has collapsed, leaving families vulnerable to climatic shocks.

HALO is working with Candlelight, a local environmental NGO, to train local people on proven climate risk mitigation techniques on land HALO has cleared of landmines. This includes digging soil bunds to catch rainwater to allow for the re-greening of cleared land and reseeded the safe land with native grasses to reduce soil degradation.

Candlelight also works with communities to establish school and community tree nurseries and trains women in beekeeping and honey production.

EQUATORIAL RAINFORESTS

Tropical forests have the highest carbon density of all forest types due to their capacity for vast carbon sequestration. Deforestation releases as much carbon into the atmosphere as the global transport sector, contributing to more than 12 per cent of all CO₂ emissions and destroys the best carbon capture and storage technology we have. There is a significant overlap between deforestation and countries that are fragile, in conflict, or recovering from war.

Keeping rainforest standing is an immediate action that provides a simple solution to reduce carbon emissions. It provides safe, long-term carbon storage, while also providing an invaluable source of water, oxygen, medicinal plants, biodiversity and culture for the planet. Therefore, protecting rainforest is one of the most effective and economical actions we can take to tackle climate breakdown.

Research shows that rainforest lands held by indigenous peoples and local communities are healthier, store more carbon and have higher levels of biodiversity. But these communities live in a dynamic environment increasingly experiencing social inequality, economic, political marginalisation and environmental threats to themselves and their forested lands. They are also disproportionately affected by climate change.

Cool Earth's mission is to radically reduce the contribution rainforest destruction makes to the climate crisis. Our work with rainforest communities isn't dictated by us but led by people that live there: village leaders, local organisations and indigenous led NGOs.

Providing support and cash directly to people that have lived in rainforests for generations gives choice and greater opportunity for those people to survive and thrive. In this way, working with people allows them to stay living in their forested lands, maintain their relationship with the forest, and contribute to conserving rainforests and their role as a critical carbon sink.



CREATING VIRTUOUS CIRCLES

When it comes to climate change, people usually think of CO₂ and melting ice caps. Meanwhile, conflict is typically associated with destruction, displacement and human suffering. But the planetary emergency affects us all, and 20 per cent of the planet's countries are in conflict. We can no longer view conflict and the planetary emergency as separate threats with separate policy responses. Bold leadership is needed in four areas:

New Economics: Conventional economics frames approaches to climate, conservation or conflict as a financial cost. This negative narrative around financial burden ignores the fact that the cost of the status quo is greater. Cost needs to be considered not just as fiscal expenditure, but in terms of social and environmental return and the opportunity cost of inaction.

Cultural Change: Large swathes of the extractive energy sector have embraced adaptation, recognising their own existential crisis as well as the planet's. Leaders and policy makers must embrace a similar transformation culture. Economic models and foreign policy can no longer be based on exponential growth, but must instead be framed through investment in, and return on, sustainable value creation. This means embracing and promoting sustainable finance models that respect our planetary boundaries.

Strategy: Government policy makers must achieve greater levels of integration in their response to interconnected global crises. All international capability must be combined, from development partnerships to defence, diplomacy, trade, engaging the private sector and incentivising change in capital markets to promote sustainability.

Policy: Conflict response must ensure it doesn't exacerbate the planetary emergency. Environment response must also prioritise areas that are at higher risk of violence and conflict. And states need to breakdown age-old silos between development aid, trade and the private sector, embracing more equitable, sustainable and shared partnerships.

When it comes to addressing conflict and the planetary crisis, the cost of inaction is far greater than the cost of action. There is, literally, everything to lose.

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- Pg.2 - Elephant - Kyle Gordon: National Geographic Okavango Wilderness Project | www.natgeo.org/okavango
Pg.6 - Elephant bones - Chris Boyes: National Geographic Okavango Wilderness Project | www.natgeo.org/okavango
Pg.6 - Notebook - James Kydd: National Geographic Okavango Wilderness Project | www.natgeo.org/okavango



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The HALO Trust (USA), Inc. is a 501(c)(3) not-for-profit organization
US Federal Tax ID Number 52-2158152
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