



SCIENCE AND
CONSERVATION EVENTS

CONSERVATION AND WAR: ENVIRONMENTAL IMPACTS OF ARMED CONFLICTS

DATE

Tuesday 19 December
2023

TIME

6pm – 7:30pm

LOCATION

Huxley Lecture Theatre,
ZSL

Free to attend

Registration required



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AGENDA

Dr Susan Canney

Mali Elephant Project

The role of communities in nature conservation during conflict – safeguarding Mali's elephants

Dr Henrike Schulte to Bühne

Institute of Zoology, ZSL

Environmental degradation caused by conflict and lessons for restoration – insights from Tigray's community forests

Doug Weir

Conflict and Environment Observatory

The impact of Russia's invasion of Ukraine on Ukraine's protected area network

Professor Karen Hulme

University of Essex

International steps to protect the environment in relationship to armed conflict

Chaired by **Professor Sarah Durant**

Institute of Zoology, ZSL

ABSTRACTS

The role of communities in nature conservation during conflict – learning from the experiences of communities safeguarding Mali’s elephants

Dr Susan Canney, Mali Elephant Project

This presentation will outline the development of a community engagement and natural resource governance (NRG) model that has protected a remnant population of iconic “desert-adapted” elephants over an area of the northern Sahel the size of Switzerland. This work has continued throughout the lawlessness, conflict and jihadist insurgency that has afflicted the area since 2012; and despite the elephant range lying astride trans-Saharan trafficking routes. Not only have the elephants survived so far, but the development of an NRG system operating across scales - village, commune and inter-commune - has brought improved livelihoods and social cohesion.

Six years of ecological studies and stakeholder engagement to understand the key features of the social-ecological system provided the foundation for co-developing a practical implementation mechanism with local communities. This “elephant-centred” community-based natural resource management (CBNRM) resulted in systems of sustainable natural resource management (NRM) that protected key elephant habitat, prevented over-exploitation (particularly by distant commercial interests), improved NR availability, and restored environmental and social resilience.

These systems were based on traditional practices but implemented in a way that was inclusive and representative of all ethnic groups, transparent and equitable. They have provided the basis for subsequent poaching prevention (supporting government armed enforcement), the creation of a new 42,000km² protected area, and mediating human-elephant coexistence.

Since 2011, the project worked with the government in the designation (2021) of a new protected area covering the whole of the elephant range based on a biosphere reserve model whose zonation is written into the community NR management agreements. It enables local people to prevent NR degradation by outsiders, supported by government rangers.

Fundamental to all these aspects has been providing local youth with occupations in NRM, protection and restoration; including elephant protection. Their rewards are the benefits generated by CBNRM and local prestige.

Susan has worked on a variety of nature conservation projects across Africa, Asia and Europe, and as a policy research officer for the UK Government’s independent adviser on sustainable development at the Green College Centre for Environmental Policy & Understanding. She has worked in central Mali since 2003, directing the Mali Elephant Project since 2006 to develop an integrated model of human-elephant co-existence. This has endured despite lawlessness, conflict and insurgency thanks to a systemic perspective and collaborative approach that seeks to find sustainable solutions to making space for nature while meeting human needs.

Environmental degradation caused by conflict and lessons for restoration – insights from Tigray’s community forests

**Dr Henrike Schulte to Bühne,
Institute of Zoology**

During the 21st century, Tigray (a state in North Ethiopia) underwent a remarkable landscape transformation: local communities created grazing exclosures, terraced steep slopes, and built dams and ponds, to increase vegetation cover, reduce soil erosion, and increase water retention. This was part of a wider strategy to increase agricultural productivity and food security in this dry, landlocked region. However, the successes of this restoration have become threatened during the civil war, which started in November 2020.

Among the devastating humanitarian impacts, including famine-like conditions, were severe fuel shortages caused by a blockade. This prompted concerns that people may have had to turn to local timber wood as fuel, potentially reversing the vegetation gains of the previous decades. We used satellite remote sensing data to map areas of potential deforestation in Tigray during the war, showing that ca. 930 km² of forest and other woody vegetation may have been affected. However, in other areas, vegetation recovery fortunately continues. In this talk, I will show why other factors (such as drought) cannot explain the changes in vegetation that have occurred in Tigray during the war, and I will draw on anecdotal evidence to discuss why some areas may be more affected by deforestation during the conflict than others. Looking into the future, environmental recovery will be a crucial part of building peace in Tigray, to protect natural resources and livelihoods and boost climate change resilience.

Henrike is a postdoctoral research associate at the Institute of Zoology. She uses satellite imagery to investigate how people change whole landscapes, especially through climate change

and land use changes such as deforestation. She has previously worked as a Researcher for the Conflict and Environment Observatory, where she undertook the work she is presenting at this event.



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Protecting protected areas in conflict, the case of Ukraine

Doug Weir, Conflict and Environment Observatory

The environmental dimensions of armed conflicts are more visible than ever before, catalysing attention on the extent to which ecologically important areas can be better protected. Using examples from Ukraine, Doug will provide insights into how high intensity international armed conflicts can impact protected areas in countries with relatively well developed conservation infrastructure, and what this could mean for future efforts to protect nature in conflict-affected areas.

Doug has undertaken research and advocacy on the polluting legacy of armed conflicts and military activities since 2005. After many years working on conflict pollution and the toxic remnants of war, he established the Conflict and Environment Observatory to monitor and raise

awareness of the environmental and derived humanitarian consequences of conflicts. He has contributed to a wide range of domestic, regional and international initiatives on conflict and the environment, including the legal framework protecting the environment in relation to armed conflicts, and the environmental costs of the war in Ukraine.

International legal steps to protect the environment in relation to armed conflict

Professor Karen Hulme, University of Essex

War is inherently destructive of nature and the environment. There are clear impacts on biodiversity, for example, through the direct targeting during armed conflict of environmental resources, such as forests and other plant cover, and the consequent destruction and fragmentation of habitats. Even when the environment is not the direct target of an attack, it may suffer 'collateral damage', resulting in the contamination of rivers, soils and the air, for example, by dangerous chemicals. Conservation activities are often impeded and decades of progress in species protection can be lost as wild populations

scatter, or are killed or poached. Even low-tech weapons, such as guns and machetes can lead to threats to endangered species. There are many examples of devastating conflict impacts, for example, on populations of hippo, rhinos, elephants, buffalo and mountain gorillas. So, what legal steps have states taken, therefore, to try to negate or alleviate the impacts of armed conflict on the natural world?

In this presentation, Karen will discuss the international law that addresses the environmental impacts of armed conflict, how far those obligations go, and what gaps remain. In particular, Karen will analyse what the law says about conflict-affected nature reserves and other protected areas and their species. Newly adopted Principles in 2022, by the UN International Law Commission, have certainly reinvigorated the legal discussions in this area, with many states contributing to lengthy debate within the United Nations machinery. Karen will also look at the scope to ensure that environmental restoration and nature recovery becomes embedded in post conflict peace-building processes.

Karen specialises in the legal protection of the environment in relation to armed conflict. She researches on international humanitarian law, environmental human rights, environmental security, post-conflict obligations and transitional justice, the legality of specific weapons, as well as climate change, biodiversity/nature protection, oceans and protected areas.



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EVENT FORMAT

- This event will take place in the Huxley Lecture Theatre and will be filmed and published on our Science and Conservation YouTube channel (zsl.org/IOZYouTube). Please be aware, by attending you consent to being recorded during the Q&A session.
- Seats are allocated on a first-come, first-served basis.
- Before attending, please read our Code of Conduct found [here](#).
- The event will run from 6-7:30pm
- It will consist of short introductions from the speakers, followed by a Q&A and panel sessions.
- To submit a question to a speaker prior to the event, please send it to scientific.events@zsl.org. Please be aware we may not be able to answer all questions.
- There is no charge for this event, but registration is required.

COMING UP...

Celebrating 10 Years of Garden Wildlife Health at ZSL

23 January 2024, 6-7:30pm

In person; Huxley Lecture Theatre, ZSL

Hear from speakers from ZSL, RSPB, British Trust for Ornithology and Froglife as they discuss the benefits and lessons learned from running the collaborative Garden Wildlife Health project.

Marking the 10-year anniversary of the project, this event will highlight its key findings from the last decade, including multi-project collaborative research, and will also discuss lessons learned and potential future focus areas.

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