Impact case study (REF3)

Institution: Brunel University London

Unit of Assessment: 19 Politics and International Studies

Title of case study: Improving Animal Conservation in Africa through Intelligence

Period when the underpinning research was undertaken: 2014 - 2018

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Kristian Gustafson	Reader - Intelligence and Security Studies	03/2007 - current

Period when the claimed impact occurred: 2014 - 2020

Is this case study continued from a case study submitted in 2014? N

1. Summary of the impact (indicative maximum 100 words)

Dr Gustafson's research focused on the use of nation-state-like intelligence architectures and procedures to improve intelligence sharing between national parks and protected areas, and the use of improved Intelligence Preparation of the Environment (IPE) procedures within parks, to help preserve threatened High Value Species (HVS) from poaching. Prior to the research, coordination and sharing between parks was poor, and UK development aid misdirected. Elephant, and especially rhino, were being lost from protected areas at a catastrophic rate (extirpation or extinction within the decade). Since its dissemination, NGO African Parks Network (AP) and other parks, have rolled-out an intelligence architecture in 15 parks in 9 African countries (Benin, Central African Republic, Chad, Congo, Democratic Republic of Congo, Malawi, Mozambique, Rwanda, Zambia). This has increased poaching arrests by 200%, and reduced poaching to 0 in some parks, all supported by new multi-agency-coordinated UK Aid approaching GBP1,000,000.

2. Underpinning research (indicative maximum 500 words)

Poaching of HVS in African protected areas has attracted significant attention, both in research and funding, for decades, but little of this has contributed materially to stemming the destruction of parks and their animals. The initial research for this began as a graduate student project at Brunel University led by Messrs. Townsend and Sandström, and supervised by Dr Gustafson (then Senior Lecturer), which attracted funding from the Prince of Wales Charitable Foundation, to better understand the problem and explore better solutions. Their interaction with AP, a major conservation NGO, resulted in an invitation for Dr Gustafson (based on his previous 2014-Impact-related research with HMG on intelligence doctrine) to examine how intelligence-led approaches more common in national militaries could assist AP in reducing the catastrophic loss of rhino and elephant in their parks.

After a period of data collection and research in Johannesburg with AP, Dr Gustafson produced a strategy for AP to improve their training and build an architecture for management of information between parks. What was presented to AP (see **S5.2**) argued they could improve conservation by building (a) park-level intelligence officers, (b) a central analytical hub to share information and intelligence across African parks, and (c) an ethical and legal framework to guide intelligence activities.

Encouraged by their successes rolling out this strategy, Dr Gustafson, Townsend and Sandström continued their research on understanding the nature of poaching as a crime, and how current intelligence techniques could be adapted to the Conservation sector. Interviews were conducted in parks across Africa, seeking common factors and identifying best-practice. Significant effort was placed on understanding the nature of poaching as a crime; who conducted it, how it was organised, and how the act of killing HVS and removing the illegal ivory was actually carried out.

Key Findings:

F1.   **Poaching as a crime is unlike most other organised crime**; solutions which work in counter-narcotics or to counter arms- or people-smuggling (the usual models) are unlikely to succeed. The single point of failure in the poaching crime chain is the specialised shooter. Targeting the professional poacher offers the greatest chance to disrupt poaching in the longer term.

F2.   **Saving HVS is a matter of securing an asset which conservationists and governments already own**: the threatened animals, which exist almost without exception within parks and protected areas, already having been extirpated from 'the wild'.

F3.   **Intelligence coordination between parks was essential** to identify the specialist poachers and their routes of entry to parks, in order to prevent poaching and successfully prosecute. Poachers often enter parks in large numbers by motorbike and with assault rifles, which makes it difficult for rangers to capture them quickly.

F4.   **The most important step in stopping the act of poaching was the skill and training of the local African park rangers.** Technological or capital-intensive counter-poaching approaches, often favoured by foreign donors, were unsustainable and frequently counter-productive. UK Government inter-ministerial coordination could significantly improve pan-African counter-poaching outcomes if they focused on park ranger training.

F5.   **Embrace local residents and incorporate them in the conservation plan**. Making parks and protected areas important in the well-being and livelihoods of indigenous park residents was key to building the intelligence picture necessary to identify poachers.

3. References to the research (indicative maximum of six references)
Outputs:

Ref 1. Kristian Gustafson, Touko Sandström & Luke Townsend (2018) "The Bush War to Save the Rhino: Improving Counter-poaching Through Intelligence", *Small Wars & Insurgencies,* 29:2, 269-290, https://doi.org/10.1080/09592318.2018.1435220

Ref 2. Kristian Gustafson, "African Parks: Intelligence Development Plan", Nov 2015. Commercial Confidential with Africa Parks. (see **S5.2**)

Ref 3. Ministerial Briefing, Luke Townsend and Kristian Gustafson, "Planning for the protection and development of protected areas – a cross Whitehall approach." Delivered to Rt. Hon Michael Gove (Sec. State for DEFRA) and Hon. Harriet Baldwin (Min. Defence Procurement), 01 Aug 2018.

Key Research Contracts:

Gustafson, Kristian (Principal Investigator). African Parks Network, 2015. "Intelligence Strategy for African Parks", Amount Awarded: GBP15,000

Townsend, Luke & Sandström, Touko. Prince of Wales Charitable Foundation (PWCF), 2014. "Intelligence in Counter-Poaching", Amount Awarded: GBP10,000

Townsend, Luke & Sandström, Touko. PWCF & Tusk, 2015. "Counter-Poaching Coordination Trial", Amount Awarded: GBP32,000

Townsend, Luke & Sandström, Touko. MoD & DEFRA, 2016. "Counter-Poaching Coordination", Amount Awarded: GBP500,000 from Global Challenge Fund (C-IWT)

4. Details of the impact (indicative maximum 750 words)

The Foreign and Commonwealth Office acknowledges that illegal wildlife trade (IWT) is now the fourth most lucrative transnational crime, worth USD20,000,000,000, equivalent to GBP15,336,000,000 (11-2020), per year. It jeopardises not only rhinos, elephants, lions (the "High Value Species" or HVS), and other animals but also international security, national sovereignties, and local communities.

A kg of rhino horn is worth approximately USD60,000, equivalent to GBP46,008 (11-2020), on the Asian black market, which is more than the price of gold which comes to about USD47,000, equivalent to GBP36,039 (11-2020), per kg. The high price contributes to IWT being a highly organised crime: rhino horns are in such a demand that international criminal gangs supply poachers with high-tech equipment and reward them for killing rhinos. However, the reality of this tends to be overshadowed by an outdated perception of poaching which often still puts poor locals struggling to feed their families in the centre, branded as potential poachers instead of potential allies. This distorted sense of poaching is one of the reasons why conservation efforts in Africa have shown poor results for so long. Conservation efforts in Africa were often fractured. Aid (here specifically UK government aid) was often misdirected and uncoordinated. Intelligence was not being used to support ranger patrolling as the prevailing zeitgeist was one of animal husbandry and "soft" conservation, or focused on ivory trafficking—a focus led by a poor understanding of poaching as a crime (**F1**). And these tactics were failing: predictions derived in the initial research suggested no remaining wild rhino in as little as 10 years' time.

This research has demonstrated (**F3, F4**) how national and defence intelligence methodologies can be employed to coordinate park counter-poaching efforts, effectively direct ranger patrols, all to achieve measurable positive outcomes in the protection of HVS. As **S5.2** described it, AP would now try to "pre-empt access to protected areas by poachers and rely on an intelligence-led deployment strategy and a formalised approach to intelligence in the parks." It has provided the framework by which parks can "harden" themselves against poaching gangs, while urging the parks' conservation teams to engage more meaningfully with local park inhabitants (**F5, S5.3**). Subsequently, it has caused HMG to unify and focus its conservation aid funding around these African-led reforms (**Ref 2, S5.1**). As **S5.3** states, "as a result of the research done by Dr. Kristian Gustafson [et al]…the UK government have also changed the way they approach the conservation problem and the way they engage as HMG with the NGO sector and supported governments in Africa." In detail, the impact can be broken down to the following headings:

Adopting an Intelligence-Driven Approach to Counter-Poaching: prompted by initial findings (**Ref 1: F1-F4**) from Townsend, Sandström and Dr Gustafson, African Parks was the first major conservation NGO to adopt an inter-park intelligence framework across its 15 protected areas across 9 African countries (Benin, Central African Republic, Chad, Congo, Democratic Republic

of Congo, Malawi, Mozambique, Rwanda, Zambia) (**S5.2**). This includes a shared open-source IT framework for sharing information, and the appointment and training of local African rangers as Park Intelligence Officers—this has helped to identify poaching specialists before they enter protected areas. Leading up to and following on from R3, the parks have sought to develop the combat tracking skills of its rangers. As **S5.2** notes, the doctrine developed by Dr Gustafson and colleagues "forms the foundation of all tracking taught in African Parks protected areas today." Based around thorough Intelligence Preparation of the Environment (IPE) and via long-range patrolling (**S5.1, S5.4, S5.5**), parks across the areas managed by AP or aided by HMG have brought in intelligence-led combat tracking as the principal tool to counter-poaching. HM Forces have changed the way they train rangers, moving from a static training system to one of partnered long-range patrolling. (**S5.1, S5.4, S5.5, S5.7**)

Reduction in Poaching Events: the intelligence-led (or "evidenced-based" in its external communications) approach argued for in **F3** has contributed to a decline in poaching events in all parks where it has been rolled out (**S5.3, S5.7**). While this has happened for a number of reasons which are perhaps difficult to disentangle, the intelligence-led approach has certainly contributed, as it expanded the effectiveness of the operational structures of the parks and helped shape their systematic mitigation of poaching events. As **S5.3** suggests, "African Parks, Frankfurt Zoological Society, and the Wildlife Conservation Society, have all invested heavily in building intelligence and combat-tracking capacity in their parks, and the record low numbers of poached animals is a result that speaks for itself." Parks such as Majete in Malawi, North Luangwa in Zambia, and Gonarezhou in Zimbabwe have adopted this approach, and have not lost a rhino between 2018 and 2019. (**S5.3, S5.4**) Elephant poaching in Garamba is down by 95% in the last 3 years. (**S5.7**)

Increase in Arrests for Poaching: as noted by **S5.1**, AP have seen a 200% increase in poaching detentions and arrests since rolling out the intelligence-led counter-poaching programme argued for in **F1, F3-4**. Previously CP efforts were often pointed at the park residents/neighbours who are employed as porters, but **F1** "has led to a more efficient 'stream-lining' of efforts within the Counter-Trafficking community." (**S5.3**)

Community Development within Parks: having suggested a new model for poaching syndicates focusing on the shooter rather than local porters, the research has led to a refocus on building healthier and more sustainable relationships with park residents across Africa (**F2, F4**). Rather than viewing them as potential poachers, parks are now more likely to see local residents as a key warning mechanism, alerting parks to the arrival of specialist poachers (**S5.3**). HMG has likewise changed its approach to focus DFiD counter-poaching funds in communities around parks, helping to underline to locals the importance of HVS and the protected areas to their livelihood and well-being (**S5.1, S5.4**). Rather than viewing the park residents as "20,000 potential poachers" (**S5.3**) parks can now, with the assistance of DfID and HMG, "assist with community-based projects on the perimeter of the park." (**S5.1**)

Job Creation and Economic Value: as Africa Parks notes (**S5.8**) their effort is to build "a local constituency for conservation in local communities that understand and experience benefit from it", which reflect one of our main findings (**F5**). When AP rolled out the new conservation strategy in Akagera NP, the return of 50% of its wildlife was met with booming tourism which now funds 90% of its conservation. This funding boom has allowed the creation of 1,500 jobs (full time with AP) since 2015, with USD11,300,000, equivalent to GBP8,663,710 (11-2020), in salaries being paid out to local staff (up from USD3,400,000, equivalent to GBP2,607,120 (11-2020)). Another 2,600 are taken on in temporary jobs. Beyond this, the strategy of "capacitating" locals has seen local wildlife guides and sustainable food production such as beekeeping flourish, bringing money into the local economy rather than to outside suppliers. (**S5.7**)

British Government Inter-Departmental Coordination on Counter-Poaching Aid: according to **S5.1**, The UK government have […] changed the way they approach the conservation problem and the way they engage as HMG with the NGO sector and supported government in Africa." The initial success of the counter-poaching programmes suggested by the research have caused HMG to offer several very large grants to AP, Tusk, and other charities within southern Africa to develop their intelligence-led combat-tracking approach twinned with a community-development mission. **F2** and **F3** have highlighted the need to focus on the parks and the surrounding areas and to provide their support in a unified manner. A ministerial briefing developed by Dr Gustafson and Townsend and briefed by the latter to ministers from DEFRA and the MoD led to GBP500,000 of funding for inter-park intelligence coordination, as well as redirecting DfID funding for community development on park boundaries, for a total of some GBP900,000. (**S5.1, S5.4, S5.5.**) Perhaps more significant in this is the result of the Ministerial Brief in convincing DEFRA, DfID, FCO and the MoD to coordinate across Whitehall to ensure funding was directed at a single plan—a significant change from past behaviours, and one which has contributed significantly to conservation outcomes (**S5.1**). **S5.1** notes that by "switching focus to intelligence-led tracking operations, it has helped the MoD secure funding for this activity for the next five years at least" as "DEFRA's preferred partner."

5. Sources to corroborate the impact (indicative maximum of 10 references)

S5.1. Letter, UK Defence Attaché at HM Embassy Harare, 8 April 2019

S5.2. Letter, Head of Law Enforcement, African Parks Network, 20 May 2019.

S5.3. Letter, Africa Representative, The Wildcat Foundation, 04 June 2019

S5.4. News Item, *The Telegraph*, "Former British intelligence specialists training network of spies to save Rhinos and Elephants", 12 January 2019, https://www.telegraph.co.uk/news/2019/01/12/former-british-intelligence-specialists-training-network-spies/

S5.5. Press Release, *Forces Network*, "UK Military to Develop Anti-Poaching Force With £900k Of New Funding", 11 October 2018, https://www.forces.net/news/uk-military-develop-anti-poaching-force-ps900k-new-funding

S5.6. Press Release, UK Army, "Soldiers to train more park rangers in Malawi to help tackle illegal poaching", 19 Feb 2018, https://www.army.mod.uk/news-and-events/news/2018/02/soldiers-to-train-more-park-rangers-in-malawi-to-help-tackle-illegal-poaching/

S5.7. African Parks 5-Year Impact Report, "An Overview of Key Achievements and Impact Between 2015-2019, Johannesburg, Feb 2020.