



Green surveillance: the social implications of harnessing local communities for conservation law enforcement in Namibia

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ABSTRACT

In response to the social injustice and counterproductivity attributed to militarised conservation, anti-poaching efforts increasingly focus on 'inclusivity' and surveillance. This shift can be explained with the emergence of ontopower, a new form of environmental power that focuses on anticipatory and pre-emptive actions to avoid the virtual, future destruction of nature. This article argues that conservation's novel combination of inclusivity, surveillance, and ontopower produces a particular mode of conservation governance which I call 'green surveillance'. Green surveillance captures the open-ended use of military and criminal intelligence approaches to the collection of universal information on environmental crime which target local communities in the pursuit of conservation security. Drawing on ethnographic fieldwork, the article examines what green surveillance looks like in north-west Namibia, where local people are being 'harnessed' for conservation law enforcement. By showing how local people experience green surveillance, the article responds to calls to investigate the social implications of community-focused surveillance efforts employed as part of militarised conservation. The analysis reveals that green surveillance can have severe negative social implications for rural communities, such as local instrumentalisation, exploitation of precarious livelihoods, physical and slow violence, social exclusion, breakdown in trust and social cohesion, and false reporting; all contributing to social conflict.

1. Introduction

Since the onset of the most recent wave of wildlife crime in Southern Africa in the early 2010s, the dominant response to combat the illegal-hunting of iconic species like rhino and elephant has been the militarisation of conservation. Over the last decade, associated processes have been extensively analysed as 'green militarisation' (Lunstrum, 2014) or 'war by conservation' (Duffy, 2014). Special issues on 'green security' (Kelly and Ybarra, 2016) and 'green wars' (Büscher and Fletcher, 2018) have provided important theorisations and case studies about the changing geographies of conservation and their novel configurations of power and injustice, including some of their ecological and social implications. Importantly, this political-ecology-led critique has established unequivocally that militarised conservation is "fundamentally unjust" for the people living in and around protected areas (Duffy et al., 2019: 67).

Due to the counterproductivity of militarised conservation in responding to the biodiversity and poaching crises, conservation has

been undergoing two connected shifts in terms of how wildlife crime is governed; one focused on 'inclusivity' and the other on surveillance. First, in line with 'new' conservation perspectives that emphasise a closer, capitalist integration of people and nature (Büscher and Fletcher, 2020), there is now a renewed impetus on 'people-centred' conservation efforts that are employed alongside, or as part of, militarised approaches. The International Union for the Conservation of Nature (IUCN) has long called for a 'Beyond Enforcement' or 'Communities as First Line of Defence' framework, which is theorised to offer more 'inclusive', locally-acceptable, and sustainable pathways to combating wildlife crime (Biggs et al., 2017; Cooney et al., 2017). Conservation agencies across Southern Africa are now trying to revive and revamp community projects, or create new ones, to integrate local people into conservation law enforcement by using approaches that are simultaneously 'inclusive' and (para-)militarised.¹ These approaches have been variously analysed as 'inclusive anti-poaching' (Massé et al., 2017), 'inclusive policing' (Sjöstedt et al., 2022), 'intelligence-led conservation' (Moreto, 2015), community-supported wildlife crime law enforcement

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¹ For examples of projects combining top-down and bottom-up actions see the Community Rhino Ranger programme in Namibia (Muntifering et al., 2015), the Black Mambas female anti-poaching project in South Africa (Danoff-Burg and Ocañas, 2022), or the Akashinga in Zimbabwe (Koot and Veenbos, 2023).

(Anagnostou et al., 2020), and ‘community-based conservation surveillance’ (Schneider et al., 2025). Collectively, these studies demonstrate that militarised conservation’s novel ‘inclusivity’ has often been limited to harnessing Indigenous Peoples and Local Communities (IPLCs) as an extension to conservation law enforcement, rather than empowering IPLCs and promoting their priorities to render conservation genuinely more ‘people-centred’ and equitable, as envisaged by ‘new’, convivial, and demilitarised conservation regimes (Büscher and Fletcher, 2020; Lunstrum et al., 2025).

The renewed integration of local communities for supposedly ‘inclusive’ responses to wildlife crime goes hand in hand with a second shift in conservation governance towards surveillance and intelligence (Büscher, 2018; Fish and Richardson, 2022). Surveillance is now considered to be “the preferred method [...] of global conservation” (Adams, 2019). So far, research on the changing geographies of conservation at the intersection of coercive conservation and surveillance has focused largely on the social impacts of recent technological advances, e.g. algorithms, AI, drones, camera-traps etc (Sandbrook et al., 2021, 2018; Simlai and Sandbrook, 2021). While these studies offer extremely important insights, the current focus on surveillance and intelligence *technologies* must not obscure the renewed and simultaneous push for increased ‘traditional’, i.e. *human-human*, conservation surveillance and its social consequences, especially in community-based conservation contexts.

Recent scholarship has called for investigations specifically into the *local experiences* of militarised conservation (Duffy et al., 2019) and the social impacts of both surveillance technologies (Sandbrook et al., 2018) and traditional conservation surveillance (Büscher, 2018). This article aims to respond to these calls by contributing an ethnographic analysis of the local experiences of conservation surveillance in north-west Namibia. Theoretically, I draw on Büscher’s (2018) framing of biodiversity conservation as ‘ontopowerful’ which captures the increasing proliferation of *anticipatory* and *pre-emptive* actions in anti-poaching as conservation is becoming more open-ended and all-encompassing in response to the indeterminate threat environment posed by poaching. I further develop this framing by showing how conservation is combining inclusivity and surveillance to integrate local people into conservation law enforcement and with what effects for IPLCs. I analytically capture this ontopowerful mode of conservation governance at the intersection of militarised and community-based conservation as ‘green surveillance’ which I will further outline in section 3.

Following a brief description of methods, the article begins with an account of ontopowerful environmental governance in north-west Namibia and, specifically, what green surveillance looks like and in what ways it might be considered to become ontopowerful. In section 4, the article considers the consequences of green surveillance for the people it seeks to harness for conservation law enforcement. How do local people experience green surveillance? How do surveillance and intelligence operations affect social relations in remote village communities? Furthermore, what does it mean when conservation becomes all-encompassing and open-ended? Or as Büscher (2018: 165) asks: “What exactly does it mean that ‘every *potential* action that could possibly lead to or support *future* poaching’ becomes a legitimate target”? As Massumi’s (2015: 40) theorisation would suggest, does life on communal land, in or near poaching hotspots, truly become “unlivable”?

2. Methods

This article is based on long-term ethnographic fieldwork conducted in north-west Namibia between April 2018 and March 2019 (see Fig. 1). To understand how communal area residents experience conservation surveillance, I immersed myself both among the rangers, police officers, wildlife crime investigators, and private contractors conducting surveillance and intelligence operations, as well as the local communities targeted by them. Drawing on Millar (2014) and Van Manen (1997), I

used a phenomenologically inspired ethnographic approach focusing on the ordinary, everyday, social experiences and practices of conservation surveillance to gain authentic and trustworthy insights into people’s lived reality.

For six months, I immersed myself among those carrying out surveillance and intelligence operations. I participated in the day-to-day activities at the main field station for anti-poaching in north-west Namibia, jointly run by a Namibian conservation NGO, the *Rhino Conservation Trust (RCT)*,² and the *Namibian Police (NAMPOL)*. I also participated in the anti-poaching efforts of a second Namibian NGO, *Integrating Conservation with Development in Namibia (ICDN)*, cf. Sullivan, 2003). Above all, my combination of participant observation and ‘observant participation’ (Seim, 2024) entailed joining various teams on anti-poaching patrols; 24/7 non-stop participation by trekking through the bush on foot. Through this close participation I was able to build intimate trust relationships with rangers and police officers which inform the insights gained about their experiences, perspectives, and practices in relation to conservation surveillance. Moreover, I regularly joined the NGO’s specialised intelligence and investigation’s unit, observing activities like managing informants, questioning suspects, searching for concealed firearms, and tracking suspected poachers.

For the latter six months of fieldwork, I immersed myself among the communal-area residents subjected to conservation surveillance. Fieldwork was concentrated on several small villages across *Welwitschia*,³ *Mopane*, *Witgat*, and *Camelthorn* conservancies. The selected villages are all key targets of conservation surveillance as they are within the core of the north-west rhino range. In the villages, observant participation primarily took the form of assisting people with whatever they were doing on a given day: cultivating gardens, mending kraals, fixing donkey carts and, most of the time, herding livestock or hanging out near shops and shebeens. The active involvement in the everyday life of community members enabled the development of trust relationships which facilitated the rich and candid information elicited through informal conversations and interviews. Fieldwork among potentially oppositional groups of conservation authorities and local communities meant I had to carefully negotiate levels of closeness and distance, emotionality, access, and trust, especially since getting (too) close to one group could negatively affect the possibility to achieve the same with another. A deeper reflection on researcher positionality is included in the [supplementary material](#).

As part of the fieldwork, I conducted 81 semi-structured interviews: 48 with communal area residents with no links to conservation law enforcement, 22 with rangers or intelligence officers (who are also members of local communities), and 11 with senior conservationists and wildlife crime investigators (4 of whom are also communal area residents). To negotiate access and build trust, I selected interview participants through a combination of the Snowball Sampling Method (SSM), purposive sampling, and quota sampling (Cohen and Arieli, 2011; Norman, 2009). Before conducting interviews, I often invested several days, sometimes even months, to build trust relationships. With the support of a local field assistant, interviews were conducted in whatever language participants felt most comfortable; mostly *otjiHerero*, *Khoe-khoegowab*, *Afrikaans*, and *English*. Interviews lasted one and a half hours on average. Questions were primarily broad and open-ended to elicit participants’ own ideas, rather than imposing concepts: e.g. “Tell me what you think about reporting” (cf. Millar, 2014: 61). Based on what participants felt was pertinent, we returned to *their* ideas, asking follow-up questions and probing for the deeper, experiential meanings of the accounts given. The full interview guide is available as [supplementary material](#).

I manually transcribed all interviews in collaboration with the field

² The names used for partner NGOs are pseudonyms to protect organisational identities.

³ All conservancy names are pseudonyms.

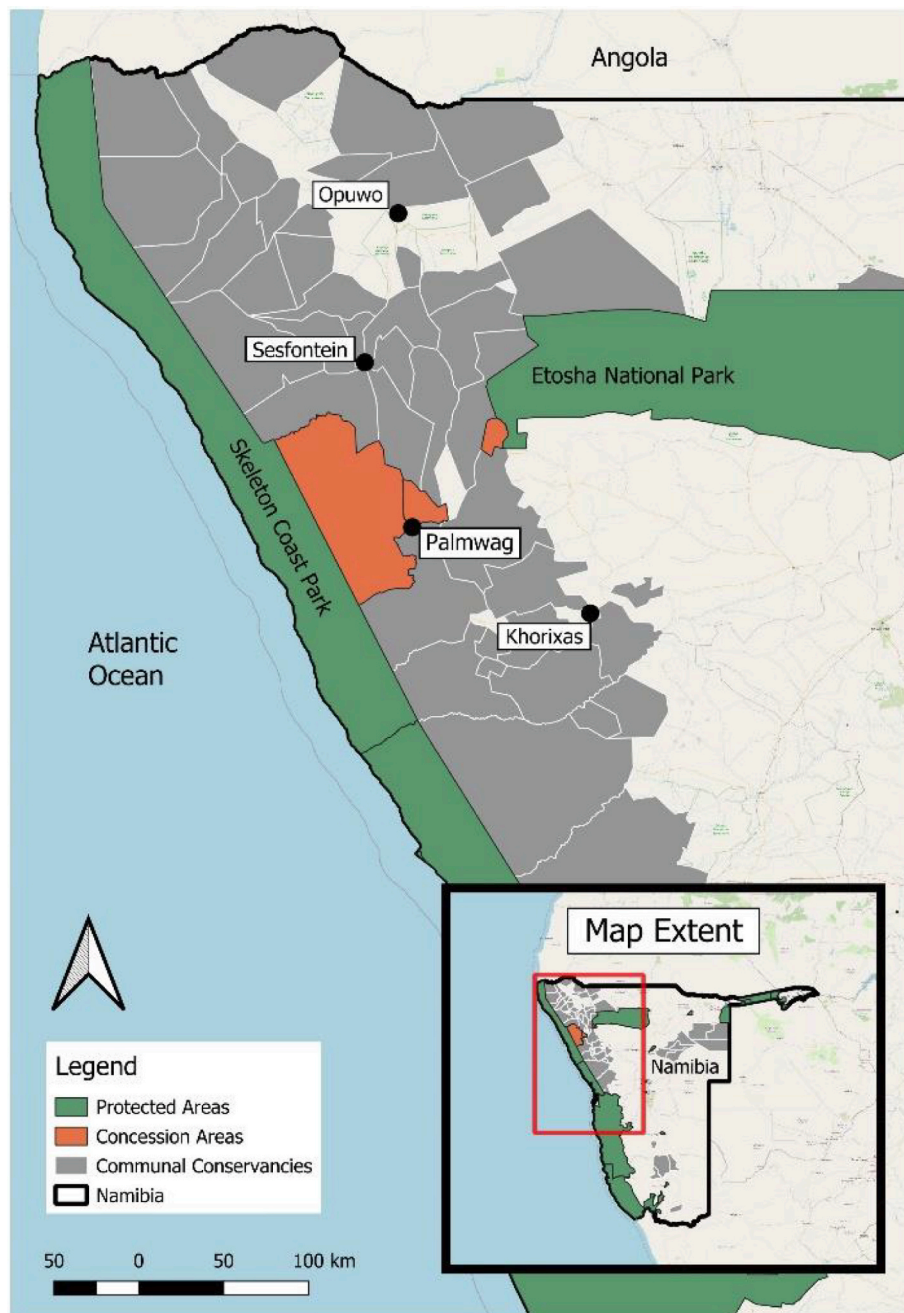


Fig. 1. Map of study area in Namibia's Kunene region. (Source: J Muntifering (personal communication 2024)).

assistant. We would listen to the recordings together, with the assistant translating verbally, while I typed up the transcripts and probed revised translations for linguistic nuances and meaning. It took on average one hour to transcribe 15 min of interview material. I then coded and analysed all interview transcripts in NVivo. This allowed the identification of themes that represent how local people experience conservation surveillance. The research has been reviewed and approved by the Research Ethics Committee of the College of Arts and Social Sciences at the University of Aberdeen and by Namibia's National Commission on Research, Science and Technology (NCRST).

3. Ontopowerful green surveillance in north-west Namibia

In Namibia's Kunene region, many communal-area residents lead

semi-pastoralist lifestyles across the rugged highlands and Mopane savanna between the Skeleton Coast National Park and Etosha National Park. Cattle and goats are their bank and livelihood. A severe drought has been affecting large parts of the region since 2012 with a chronic lack of clean water and grazing (Namibia [Rangelands](#), 2026). At the same time, a new wave of rhino poaching has hit Namibia. In Kunene, after an almost 20 year period of zero poaching, 38 rhinos were illegally hunted between 2012 and 2016 (RCT strategic report 2023). Across the country, 99 rhinos were poached in 2015, 94 in 2022, and 83 in 2024 (Government of the Republic of Namibia, 2025). As a result, conservation was propelled into a state of crisis, as a senior wildlife crime investigator described:

"[W]e Namibians, all the law enforcement organisations and people were caught with their pants down; and not with their pants down to their

knees, I would really say: caught with their pants right down to the ankle!" (Ed,⁴ white,⁵ male, 46–60yrs)

The sudden nature and extent of the poaching crisis directly inform how the geographies of conservation are changing in Namibia. Specifically, conservation had to quickly adapt to a new status quo in which wildlife is potentially always under threat. "Rhinos are dying everywhere," the same wildlife crime investigator had warned me at the beginning of my fieldwork (Fieldnotes 14/04/2018). Right now, a 'poaching party' may be tracking a rhino nearby. Or it may not. The next poaching incident is just a question of time, but there is radical uncertainty about when, where, and how it might happen.

Radical uncertainty means that rhinos and other high-value species can never be truly safe. Following [Massumi \(2015: 26\)](#), [Büscher \(2018\)](#) argues that conservation's field of application has broadened and become more open-ended because it now needs to act on a nonstandard environment, where poaching represents an ever-present, indiscriminate threat with an "anywhere–anytime potential". He further explains the shift towards surveillance and intelligence with the theorised emergence of what [Massumi \(2015\)](#) calls 'ontopower', a new form of environmental power which increasingly intertwines with biopower. While biopower is the dominant mode of conducting environmental governance in terms of the neoliberal optimisation of human and non-human life, ontopower seeks to avoid the virtual, future destruction of nature. Ontopower is a particularly useful lens for this study as it shows that (neoliberal) environmentality might be increasingly driven by emotion and affect rather than reason and rationality. According to [Anderson \(2010: 777\)](#), the result of the "problematization of the future as indeterminate or uncertain" is "an extraordinary proliferation of anticipatory action." Stopping an event which may or may not be about to happen requires a solution to the when, where, and how problem. According to [Goede and Randalls \(2009: 867\)](#), the power and policy response to radical uncertainty is not "an abandonment of calculative techniques in favour of, for example, a political-philosophical recognition of the fragility of modern life" but "what [Aradau and Munster \(2012: 91\)](#) call 'an insatiable quest for knowledge' in the form of, for example, 'profiling populations, surveillance intelligence,... catastrophe management, prevention, etc.'" The 'solution' to radical uncertainty then is to seek near universal knowledge about the threat. This means that those who wield environmental (onto-) power in north-west Namibia, primarily the Government and conservation NGOs, increasingly focus on *anticipatory* and *pre-emptive* measures.

As a consequence, communal-area residents have become prime targets to be recruited as informants by the Ministry of Environment, Forestry and Tourism (MEFT), NAMPOL, various conservation NGOs, and poaching syndicates. They are highly valued as the 'eyes and ears' of conservation law enforcement and poaching syndicates alike, harnessed for the unique information they might be able to provide on rhino movements and any illegal or suspicious activity in communal areas. For conservationists – eager to get 'intel' out of 'the community' – the holy grail is to receive pre-emptive information to be able to stop poaching before it happens; to save a rhino before it is too late. The primary strategy to elicit this type of information from communities focuses on increasing top-down surveillance and intelligence capacities enabled through a proliferation of paramilitary ranger-police patrols, specialised intelligence officers, informant networks and reward payment systems. A second strategy is based on elaborate social marketing campaigns that aim to create a "positive rhino social identity" ([McCulloch, 2019](#)), theorised to translate into community support for wildlife protection, through the staging of spectacles ([Debord, 2014](#); [Igoe, 2010](#)), such as traditional ceremonies, music concerts, and football tournaments. The

social engineering of particular, desired local identities and behaviours can be seen as a 'soft' approach as it aims to promote community buy-in somewhat 'organically' from the bottom-up. However, due to the perceived urgency of the poaching problem, conservation cannot wait for communities' organic or intrinsically-motivated provision of information on wildlife crime, reverting back to the primary strategy of top-down surveillance and economic incentivisation. Under these community-centric approaches, the processes and practices of militarised conservation and CBNRM uniquely converge, producing what I call 'green surveillance': the indeterminate, open-ended use of temporally-uncoupled and yet spatially focused military and criminal intelligence approaches to the collection of universal information on environmental crime which target and integrate local communities in the pursuit of conservation security.

Green surveillance should be clearly distinguished from related concepts. For example, 'inclusive anti-poaching' ([Massé et al., 2017](#)) and 'inclusive policing' ([Sjöstedt et al., 2022](#)) focus only broadly on including local communities in conservation law enforcement, either with emancipatory goals or simply as an avenue for enhancing citizen involvement. 'Intelligence-led conservation' ([Moreto, 2015](#)) is described as an "all-inclusive approach" that targets information from diverse sources, including community-based knowledge and community relations, but is supposed to achieve this solely via criminal intelligence rather than military intelligence or technology. While such a clear distinction would be desirable, the *para-military* nature of most ranger and police forces in Southern Africa and the associated blurring of boundaries between criminal and military approaches means that it is both empirically and theoretically misleading. 'Community-based conservation surveillance' ([Schneider et al., 2025](#)) problematises the combination of militarised and community-based conservation, as well as conservation's increased focus on anticipatory and pre-emptive measures, however it lacks a clear definition and theoretical foundation. Green surveillance offers both. It sets itself apart from related concepts by capturing how the affective-anticipatory logic of ontopower merges militarised and community-based approaches as biodiversity conservation risks shifting towards all-encompassing, limitless surveillance regimes. To be clear, green surveillance is not 'inclusive' in a participatory or emancipatory sense; and it is not focused on criminal intelligence alone. Green surveillance is *total*. In the remainder of this section, I will outline what shape green surveillance takes in north-west Namibia and consider how it merges militarised and community-based forms of wildlife conservation in novel, 'ontopowerful' ways.

At the national level, the quest for universal knowledge about poachers was strengthened through several actions that shape the contours of ontopowerful green surveillance in Namibia. First, the Namibian Defence Force (NDF) and NAMPOL were deployed to Etosha and Bwabwata national parks. Second, in 2017, the environment ministry established a new anti-poaching unit and a specialised Intelligence and Investigation Unit (IIU). A year later, in 2018, the Government launched Operation Blue Rhino, a formal collaboration between the IIU and the Protected Resources Division (PRD) of NAMPOL, which combines the best officers from both units in a special operations team charged with cracking down on notorious wildlife crime syndicates. Within the first few months of its inception, the so-called Blue Rhino Task Team (BRTT) made a significant number of arrests and confiscated large amounts of contraband, quickly gaining a reputation for their precision and incorruptibility (informal conversations; [Smit, 2018](#)). The expansion of law enforcement and intelligence capacities was further complemented with an updated penal code which provides the legal backdrop to any surveillance activities conducted by conservation agencies and their incentivisation of reporting behaviours among local communities. The 2017 Nature Conservation Amendment Act significantly upped the stakes for informants and poachers alike, increasing the penalties for rhino poaching to a maximum fine of N\$50 million (US\$3.4 million) and imprisonment for up to 40 years for repeat offenders ([LAC, 2017](#)).

On Kunene's communal land, green surveillance's focus on

⁴ All names are pseudonyms to protect participants' identities.

⁵ Where revealing a participant's specific ethnic group might undermine anonymity, broader descriptors like 'black' or 'white' are used.

anticipatory and pre-emptive measures means that conservation NGOs now aim for “24/7/365 [anti-poaching] coverage” (RCT strategic report 2018). To achieve this, the RCT modified and intensified its approaches by emulating prior extensions of wildlife policing from State authorities to rural communities, i.e. the Community Game Guard (CGG) system (see Sullivan, 2002). For example, between 2012 and 2018, it increased monitoring and anti-poaching patrols by 1,200 per cent through the establishment of the Community Rhino Ranger (CRR) programme – which effectively tripled its field force – as well as a partnership for joint-patrolling with NAMPOL (RCT strategic report 2023; McCulloch, 2019). However, as highlighted in the RCT’s strategic report, this was not enough: “Monitoring rhino was no longer a sufficient deterrent. People movements had to be monitored and intelligence efforts required boosting.” To enhance these capacities, the RCT hired a seasoned wildlife crime investigator who formed an “intelligence unit”⁶ within the NGO employing local people with military backgrounds and experience in insurgency warfare during the South African Border War. As local community members, these officers quickly developed extensive informant networks. Over the course of two years, the RCT, one of Namibia’s most celebrated conservation NGOs, had effectively extended its mandate to include formal and informal intelligence-gathering to combat rhino poaching with paramilitary support from NAMPOL and other specialised criminal and military intelligence outfits, including intelligence sharing with the Blue Rhino Task Team (BRTT) and the NDF (interviews).

As a result of these adaptations, conservation’s ontopowerful intervention space, what Massumi (2015) calls the ‘prototerritory’, has fundamentally expanded. It arguably becomes all-encompassing as it targets “all those actions that may potentially aid the future materialisation of the threat” (Büscher, 2018: 158). To achieve the impossible and overcome radical uncertainty, that is, to anticipate and pre-empt poaching all the time, Büscher argues (2018) that ontopowerful conservation must ultimately ‘become the poacher’. Rangers and police officers “must ‘sense’ where and when the next poaching attack will strike” (2018: 165). In seeking to ‘become the poacher’, Büscher (2018: 165) argues, conservation is turning into a “‘war of affect and perception’” with unpredictable consequences.

Building on Büscher’s (2018) theorisation, I contend that ontopowerful conservation does not stop at ‘becoming the poacher’, especially in the context of surveillance efforts aimed at pre-empting threats anywhere and anytime. I argue that ontopowerful green surveillance reaches further, aiming to ‘become the community’. To become the poacher would be to confine what is limitless. But there are no boundaries to the prototerritory. Especially in Namibia’s north-west, hot pursuits of suspected poachers are an exception. Opportunities to become the poacher are, therefore, relatively rare. But ontopowerful green surveillance seeks to anticipate and pre-empt all the time, as a senior NGO coordinator affirms: “We have to be active. We need to know anything. We have to know every little thing for us to be able to detect all mistakes, all problems, all poaching, all everything” (Hango, male, ovaHerero, 30–45 yrs). As a result, an even better option “not only to perceive potential, but to perceive it before the enemy perceives your perceiving it” (Massumi, 2015: 235), is to become the community. In the best-case scenario, targeting the open communities should be much easier than targeting poachers operating underground. Ontopowerful green surveillance does not target only the 5 per cent when it can target the 95 per cent (plus the 5 per cent) (informal conversations). This means that green surveillance no longer focuses on criminals and lets the wider community be. Its ‘insatiable quest for knowledge’ makes it reach further, extending the ‘war on poaching’ wholesale to local communities by aiming to penetrate the heart of rural social relations. That is what I mean by becoming the community.

⁶ The term ‘intelligence unit’ was used by an RCT trustee in a 2017 newsletter reporting on the NGO’s novel “intelligence operations”.

To become the community, ontopowerful conservation complements traditional CBNRM approaches, such as decentralisation of natural resource management and social engagement, with top-down, militarised surveillance strategies reminiscent of community-centric insurgency warfare (cf. Gustafson et al., 2018; Massé et al., 2018; Verweijen and Marijnen, 2016), as explained by the chair of the RCT’s Board of Trustees:

*“[The] military approach was brought in because people had no other choice, or they did not want to think creatively [...]. So, it was an easier way to deal with these type of issues [poaching]. And also remember, a lot of people who are conservationists come from a military background in South Africa and Namibia. Remember that! So, any ideas that come from their table, it’s always military, military. [...] It’s not... they have really over the years rehabilitated. They are really good people. They love conservation. But when you bring up something that is sometimes very complex, the first thought is always, *arggh*, let’s do it in a military way. And I think that is apparently how soldiers think.” (Malika, black, female, 46–60yrs)*

Despite a legacy of colonial and militaristic mindsets in Namibian conservation (see Ellis, 1994; Reardon, 1986; Rizzo, 2012), the reality of green surveillance is often silenced and obscured through a hegemonic CBNRM discourse that maintains conservation is locally-driven, bottom-up, and Indigenous, as highlighted by another RCT trustee:

“[W]e think it is important that we try and avoid that path [militarisation] in order to try and keep the community sense, that RCT is of the community. It is a strong heritage and really important that this is seen as a wholly, indigenous, and home-rooted, and not some foreign government from central office in Windhoek that has imposed this thing [anti-poaching], that sense that it is of the, for the people and by the people, and to try and engineer that it is increased perhaps.” (Peter, white, male, 46–60yrs)

Despite such rhetoric, militarised strategies, technologies, and partnerships are increasingly deployed through CBNRM. In other words, conservation is using the language of CBNRM while at the same time drawing communities into surveillance and law enforcement. The relationship between green surveillance and CBNRM demonstrates the difference between CBNRM as an ideal, as practiced by institutions, and as experienced by ordinary community members. While CBNRM is supposed to enhance community ownership and control over natural resources, in practice, this goal is often undermined as the Government and NGOs restrict community rights and retain significant powers. As a result, community members might experience CBNRM as unjust, disempowering, or even neo-colonial (Schnegg and Kiaka, 2018; Schneider, 2024). Processes of green surveillance, such as the universal monitoring of local communities through patrols, clandestine informant networks, and aerial surveillance have become a fact of everyday conservation practice in Namibia, but what does this mean for the goals of CBNRM and how communities experience it? While the ecological impacts of green surveillance in terms of providing actionable intelligence that helps to prevent the illegal-hunting of threatened wildlife are extremely opaque and limited, the social implications for the local communities being targeted by surveillance and intelligence operations are not yet understood. To begin to fill this knowledge gap, I will now turn to how local people experience their integration into conservation law enforcement through processes of green surveillance.

4. The social implications of green surveillance

IPLCs in north-west Namibia are complex, heterogenous, and internally differentiated collectives. Consequently, local experiences of green surveillance are varied. In general, IPLCs both support and resist green surveillance, at times even simultaneously, as discussed elsewhere (Schneider et al., 2025). Community members, rangers, and senior conservation practitioners might also understand green surveillance

differently: senior conservation practitioners might incentivise surveillance activities *and* be deeply concerned about social implications; some rangers readily accept their new responsibilities, while others strictly reject the notion of monitoring their own communities; and most community members might be opposed to surveillance, while some see it as morally right or welcome it for an improved sense of security (Schneider et al., 2025). Despite this contestation and nuance around green surveillance, the analysis generated five key themes that capture how IPLCs most commonly experience the social implications of green surveillance. Out of the interviews, there were 911 references to the broader theme of *Green Surveillance*, 405 of which spoke directly to the social implications of green surveillance. The five themes, their relative strengths or frequencies, and additional, illustrative references are listed in Table 1. To summarise, first, many communal area residents feel like they are being instrumentalised as a first line of defence for a cause that is not necessarily a priority to them (cf. Massé et al., 2017), while having to come to terms with drastic changes to their everyday lives and social relations. Second, local instrumentalisation can be partly enabled by an exploitation of precarious livelihoods. Third, some local people lament a decline in social cohesion as distrust and suspicion among neighbours are rising, fuelling pre-existing social cleavages and ultimately social conflict with violent expressions through social exclusion, attacks with witchcraft, and false reporting. While these social implications of green surveillance were identified in all four selected conservancies, they were

most dominant in particular villages proximate to rhino poaching hotspots and access routes with heightened exposure to conservation law enforcement. In addition, male community members who are primarily livestock herders or farmers in precarious livelihood positions, not embedded in the local conservation and tourism economy, were most likely to express concern about green surveillance. On the other hand, community members employed in conservancies or lodges with a more secure livelihood tended to be more supportive and less concerned about new surveillance regimes. I will now provide the empirical flesh of these local experiences to demonstrate the social implications of green surveillance.

4.1. Local instrumentalisation: communities as the first line of defence

Many of the community members I interviewed live close to poaching hotspots in remote areas of their conservancies. Their homesteads are often in close proximity to small paths which poachers use as access routes into core rhino habitat. More than others, local people living at these strategic locations are regular targets to be recruited as informants by conservation law enforcement. One of these potential informers, Mauja, shares a story about an encounter with a conservationist trying to convince her family to report wildlife crime:

“M: [W]hen I was living in my previous home, at those trees over there, the white man came and pasted a paper on my door. When I asked him

Table 1
The social implications of green surveillance.

Social implications identified by study participants	Number of references across the interviews	Illustrative references (additional to the ones provided in the manuscript text)
Local instrumentalisation	61	■ “We are forced [to report].” (Denso, male, ovaHerero, farmer, 30–45 yrs) ■ “They were constantly troubling me with their questions and things. Whenever they found tracks in the bush, they would ask me: Did you not see people who were passing there? Did you not see a car pass there? Did you not see something that was killed there?” (Matheus, male, ovaHerero, farmer, over 60 yrs) ■ “Nothing, it’s nothing! Every morning we should be walking around and search the [rhino] tracks and follow. [...] But sitting, sitting [in the village; doing surveillance] ... it’s not good for me! [...] We are the rhino rangers, not the people rangers.” (Hosen, male, Nami-Daman, ranger, 30–45 yrs)
Exploitation of precarious livelihoods	70	■ “Some people want to be recruited. That is why they are reporting. They are told that if you report you will be employed.” (Kautjipo, male, ovaHimba, farmer, under 30 yrs) ■ “It is only looking for bread that bring us [rangers] here [anti-poaching].” (Hennie, male, Riemvasmaaker, ranger, under 30 yrs) ■ “They will always provide that information: Young people that are not doing anything, that are sitting there and drinking alcohol. Those guys are the best people [informants] ever, I am telling you.” (Hango, male, ovaHerero, NGO coordinator, 30–45 yrs)
Fear, suspicion, and breakdown of trust	151	■ “By God, we are afraid of those guys [spies] [...]. Even now they might be on the top of those high mountains watching us. We feel that we are being watched all the time.” (Janette, female, Nami-Daman, pensioner, over 60 yrs) ■ “They are even watching me, whether I am still at my home, whether I went to [nearby village], or what I am up to ... Like the way your car came here now: they would want to know what your car was doing here at my place.” (Kokuwa, male, ovaHimba, farmer, 30–45 yrs) ■ “There are cell phones now, man. People pretend they are going for a shit, but then they climb on the mountain and report who has meat or whose dogs are barking [illegally hunting] what side.” (Justus, male, Nami-Daman, farmer, 30–45 yrs)
Social exclusion, social sanctions, and breakdown of social cohesion	97	■ “It is good to report but there is the potential that it creates a hate relationship between me and the person I have reported.” (Ndjsiro, male, ovaHerero, farmer, 30–45 yrs) ■ “If I report a Herero, then all the Hereros paint their eyes red. Then we start killing each other.” (Ernst, male, Nami-Daman, shop owner, 46–60 yrs) ■ “You squeal or you snitch and somebody hears about it and that and talks about it, the person and the people that are there will go to the witchdoctor [...] And then there is immediately that threat of death. They are afraid and then they won’t talk.” (Ed, male, white, wildlife crime investigator, 46–60 yrs)
False reporting	26	■ “One day, the people of [village] reported that they had heard seven shots fired in the mountains close to them. The Police went out and slept in those mountains for two days. They didn’t even find a single track. Nothing. What truth was there?” (Pinias, male, ovaHerero, farmer, over 60 yrs) ■ “The spies are only spreading those lies [that the ovaHimba are responsible for rhino poaching] because they don’t want us to settle here. The people here don’t want others to settle in certain places or to have more livestock [than them]. That’s why they try to falsely implicate people in things they didn’t do. (Maerenguavi, male, ovaHimba, pastoralist and cultural tourism worker, 30–45 yrs) ■ “I think there is also a lower level of information gathering that takes place on a much more ad-hoc level that really is just gossip, you know. And it’s dangerous because obviously it’s like a telephone game, it can turn into something completely different, which might also be fuelling some of these false accusations is that by the time it does get reported to a law enforcement officer, [chuckles] it could have changed completely from what originally actually happened.” (James, male, white, senior NGO coordinator, 46–60 yrs)
Total	405	

what the paper was about, he told me that it was to inform people to report if they have seen someone who has hunted a rhino. [...] I told him: 'Eh, eh, you will just come back to haunt the one who reported that rhino.' I also asked him what would happen to my son if the poachers saw him in the bush? The white man told me that my child should just hide in the bush. But I protested that the poachers would just kill my child. Those people will shoot and kill my son to escape! Then I told him: 'So, you bring these papers to push us right in front of the mouth of the firearm! You are telling people to report and die! Is that what you do?'

[silence]

Now, if I report people from that home who hunted a springbok and others from that home over there who picked up springbok scraps left behind by the cheetah, will I still be regarded as a good person in this village [her eyes are wide open, challenging me with a question that is only rhetorical to her]?

PI: *Ehm, [hesitating] no.*

M: *Ohh... Ok.*" (Mauja, female, ovaHerero, farmer, over 60 yrs)

The described encounter between a white conservationist and a black, Indigenous farmer points towards a dual or hybrid environmentality of 'conservation' and 'community' with partially divergent norms and expectations (see Schneider, 2024; Schneider et al., 2025). The local woman feels like she has a choice between supporting conservation by reporting, or preserving community cohesion by remaining silent. Following Appadurai (2002) and Ortner (2016), the interplay of disciplining forces from top-down environmental power and bottom-up communal power create a 'community of fear', in which violence is the backdrop of both conservation and community cohesion (cf. Neumann, 2001). Although conservation is somewhat tangential to the farmer in the excerpt above, the visiting conservationist commands and expects her to report suspicious activities. In her account, he does not understand her – nor does he try to – when he dismisses her fears of being harassed and interrogated as the suspect of an investigation or of her son being 'pushed' into the line of fire. The conservation-related threats of social and physical violence are common to her. They only enrage her a little as they form part of a habitus of violence, which, internalised through a history of colonial and apartheid relations, structures social interactions in coercive ways and reproduces cultural divisions, such as government/white/conservation versus community/black/farming (e.g. Friedman, 2015). Top-down, environmental power alone determines neither the farmer's habitus of violence nor her conduct. But the communal disciplinary power is much more intimate, conditioning rural social relations (Schneider et al., 2025). The community is her everyday social context, her social security when lions stray into the village, when she is ill, or when she needs someone to watch her house while going to a nearby village for a day. Communal area residents who threaten to report others for illegal-hunting risk being shunned, banished, and even bewitched. Disregarding the social contract and betraying the communal bond by reporting, she could turn into an outsider, at best, or be poisoned through 'witchcraft', at worst.

Confronted with this farmer's story and her concern about being instrumentalised as a first line of defence, a trustee of the RCT replies:

"I don't see that you have any option. If you want the community to value and look after your rhinos, they've got to play that role [reporting; law enforcement support]. Yes. [...] You know, you can't, if you have, what's that expression... evil grows where good men fail to take action. If the community don't take action, they will lose their rhinos." (Bill, white, male, over 60 yrs)

To avoid portraying this as a case of a white conservationist failing to understand the realities of a black Indigenous farmer's life, it must be emphasised that such ostensibly sober assessments are found among conservationists across ethnic divides. The discrepancy between the farmer's problematisation of reporting and the trustee's apparent pragmatism are fundamentally diverging interpretations of the extent of community ownership over wildlife, e.g. "their rhinos", and the benefits

accrued from its protection. Conservationists know the narrative of CBNRM and the theory behind it. Both make sense to them. For Indigenous NGO staff, who earn a decent salary from conservation, ownership and benefits are tangible. CBNRM is a story of empowerment. But ordinary residents' social reality looks different. As outlined elsewhere (Schneider, 2024) community members often do not feel like they own wildlife or receive benefits from its protection. Conservancies may be captured. The ovaHerero farmer would not care much about rhinos if it was not for the constant pressure applied by conservation. As a result, she experiences her integration into green surveillance as coercive. She feels her family is instrumentalised and protests against her son being dragged into a violent conflict that is not of their choosing. Due to divergent experiences of the realities of CBNRM and a lack of understanding of rural social relations, conservation actors might fail to appreciate the social implications of incentivising reporting behaviours within rural communities.

4.2. Exploitation of precarious local livelihoods

The recruitment for informant networks through often opaque and informal reward payment systems which aim to bait local people with promises of money and employment that are too good to be true (Schneider et al., 2025) can also be interpreted as an exploitation of communities' precarious livelihoods and their particular social, political and economic circumstances. Over 64 per cent of the population in Kunene is considered multidimensionally poor (National Statistics Agency, 2021: 29). In practical terms, this means that 65 per cent of the population are outside the labour force, 64 per cent have no toilet facilities, only 34 per cent have electricity and 14 per cent have access to the internet (Namibia Statistics Agency, 2023). Living in one of the most socially differentiated and polarised societies in the world, many Kunene residents feel disenfranchised and marginalised (Friedman, 2015; Sakaria, 2015). In some communal conservancies, members experience a lack of distributional, recognition,⁷ and procedural justice (Schneegg and Kiaka, 2018). Their pastoralist lifestyles further offer no safety nets against the impacts of climate change, e.g. severe and recurrent droughts (Inman et al., 2020; National Planning Commission, 2015). This has been particularly evident in the north-west, which has faced drought conditions for over 12 years, leading to significant losses in both livestock and wildlife and increasing human wildlife conflict (MEFT and NASCO, 2024). The following excerpt by a senior NGO coordinator should be considered against this context of precarious local livelihoods characterised by poverty, inequality, and injustice. It demonstrates how conservation NGOs might exploit these conditions to incentivise communities to report information on poaching:

"I told them: 'no, I am not in power of employing anybody, I am just coordinating whoever is employed by the conservancies, yeah, but be a good person, come on our side, be helpful, provide information to me, I will give you a little bit something. And whenever also if there is an opportunity, I might also suggest that to the community to hire you because you are useful to this. Yeah, so don't just sit and do nothing. If poachers are coming to poach, we never know when you will be hired. So, if you want, one day, to be employed, yeah, by the conservancies or by [RCT], or by [ICDN], change today. Start helping today. If you see anybody you don't know, that is passing by here, inform us. If you hear any story about somebody coming to poach, inform us. At least, for that I can give you a ten dollar. That won't keep you alive a while, I mean, for a long time, but

⁷ 'Recognition (in) justice' accounts for people's different epistemological and ontological worldviews. It specifically refers to policies and practices that acknowledge and even promote such worldviews, while avoiding to interfere or alter them (Martin et al., 2016). In Namibia's communal conservancies, recognition justice would acknowledge alternative, intrinsic local perspectives and values towards nature that might conflict with dominant neoliberal environmentalities (Martin et al., 2013; Sullivan, 2006).

at least it's something. [...] [W]e are paying them for the information they are providing, and who will say no to money? [...] You choose where you will survive, whether people love you or hate you. Money, money, money is money. It's all about money.“ (Hango, male, ovaHerero, 30–45 yrs)

The statements by the NGO coordinator illustrate three points. First, a ‘reward’ of 10 Namibian dollars, equivalent to 60 cents in USD (!), cannot be considered meaningful compensation for the sharing of critical information on wildlife crime, especially as it might carry severe risks for the informant, as shown throughout [section 4](#). If the coordinator’s reference to 10 Namibian dollars is not meant literally, it suggests a deprecatory attitude towards the sensitivity of information sharing on rhino poaching between a conservation official and vulnerable community informants. If meant literally, it demonstrates a case of severe exploitation of communities’ precarious livelihoods and multi-dimensional poverty, as do his promises of employment which are extremely unlikely to be fulfilled (cf. [Schneider et al., 2025](#)). Second, the coordinator fails to understand the complexity of both cooperation and resistance to conservation, i.e. in terms of reporting or withholding information on poaching, respectively. By suggesting that people are only driven by greed, he ignores that non-reporting, or involvement in poaching, can also be “a form of social and political protest” ([Hübschle, 2017: 3](#)), which is not only motivated by poverty as material deprivation but by poverty as a lack of power or voice ([Duffy, 2016](#)). In contrast to findings by [Sjöstedt et al. \(2022\)](#), financial incentives are a key driver of reporting behaviours in Namibia, at least partly due to the neoliberal disciplining of CBNRM, as well as past colonial conservation practices ([Schneider et al., 2025](#); [Schneider, 2024](#); cf. [Anagnostou et al., 2020](#)). Third, the coordinator is one of the individuals in the north-west who have jumped on the intelligence bandwagon, enticing villagers with opaque and sometimes even fictional rewards, i.e. employment, to establish informal, self-authorised informant networks. To be clear, the coordinator has no institutional mandate to conduct intelligence operations. The value of such self-authorised, informal intelligence gathering is questionable, while its community impacts are unpredictable. Above all, it raises the question of how appropriate it is for individuals to play sheriff by means of surveillance and intelligence, where power works through local agencies, especially marginalised communal-area residents?⁸

4.3. Fear, suspicion, and breakdown of trust

The universal ‘harnessing’ of local communities for green surveillance via a combination of incentives, marketing, and coercion, can have profound effects on rural social relations and everyday village life. [Sections 4.3, 4.4 and 4.5](#) all highlight the potential of social conflict in communities as a result of surveillance and intelligence activities, characterised by a breakdown in trust relationship, a breakdown in social cohesion, and the emergence of false reporting, respectively. These negative social impacts can be framed as forms of ‘silent violence’ ([Watts, 1986](#)) or slow violence ([Nixon, 2011](#)) which tend to be less spectacular and instantaneous than the illicit and overt violence usually associated with militarised conservation. Slow violence can be imagined as “creeping” or “bleeding through” spaces and social fabrics, “impacting those communities the most who are already experiencing long histories of structural inequality” ([Pain and Cahill, 2022: 362](#)). Following [Witter and Satterfield \(2019\)](#), I propose slow violence as one possible, complementary lens to analyse how green surveillance impacts the everyday lives and livelihoods of the “chronically liminal” communities subjected to it, while situating this violence in the intersectional politics of disposability and the particular historical, postcolonial, and

racialised contexts in Namibia that enable it (cf. [Pain and Cahill, 2022](#); [McKittrick, 2011](#)). Paying attention to slow violence helps reveal the “processes that gradually wear down, weaken, or destroy social worlds”, while “elud[ing] blame and responsibility for the wearing down and for the consequences that follow” ([Witter and Satterfield, 2019: 278](#)). I will now demonstrate how green surveillance gradually wears down social relations in remote village communities in north-west Namibia.

For communal area residents, a key issue with the surveillance and intelligence operations of conservation agencies are the hidden activities of informants who are locally called “spies” and perceived to act fundamentally dishonestly. Local people often told me that they mistrusted their neighbours as they could never be sure who was “spying” for whom. “I don’t trust anyone here”, an ovaHerero farmer complained, after pointing at several houses to indicate that he is living surrounded by “spies” collecting intelligence either for NAMPOL, conservation NGOs, or poaching syndicates (FN: 06/11/2018). The feeling of being constantly monitored by one’s neighbours is further aggravated by the more overt monitoring of increased ranger patrols and aerial surveillance. Conservation agencies openly acknowledge that they use low-flying planes as their “eye in the sky” for anti-poaching, making “a special effort to fly over all villages and settlements to alert everyone to the aircraft’s presence” ([Brain, 2021](#)). While the special fly-overs are rationalised as a form of deterrence, the psychological stress they might cause among local communities is not considered. The argument that surveillance can undermine trust between neighbours in close-knit rural communities is supported by sociocultural theorists like [Giddens \(1990\)](#), [Putnam \(1993\)](#), and [Uslaner \(2013\)](#), who understand trust as a routinised behaviour, a part of social capital, or a norm, respectively, that is ultimately socialised and originates in people’s everyday lives, close relations, and personal networks ([Björklund, 2021](#)). If trust is dependent on the experiences and social interactions people have in their everyday encounters in the village community, among relatives, friends, and neighbours, then the insertion of surveillance into that context through local informants, ‘spies’, and reward systems may certainly destroy trust from below (cf. [Lyon, 2003; 2018](#); [Ali, 2016](#); [Duck, 2017](#)).

A group of ovaHimba pastoralists and cultural tourism workers provide more insight into the kind of actions conservation coerces them into and how this affects their everyday life:

“Maerenguavi (male, 30–45 yrs): They tell us to report when we see a stranger who comes to us. We are supposed to carefully check the movements of such a person.

Uaendavi (female, 30–45 yrs): We must also report [...] when we see someone going in a certain direction into the bush.

Maerenguavi: We must check and see whether that person is coming from a nearby place and what his behaviour is like, whether that person is moving at night or looks thirsty, and then report that information.

Uaendavi: And you must tell them what direction the person took going into the bush so that they can follow up to see what that person is up to. Because there is a lot of killing of rhinos in this area.

Uaningapara (female, under 30 yrs): I wanted to add that they also warned us not to keep bags of strangers when they ask us to quickly take care of them while they go elsewhere. [...] And when those people [conservation law enforcement] come, they will find the bag with you. You will become the accused. That means you will be going to prison.

Uaendavi: A prison you will never be released from.”

By linking military and criminal intelligence strategies with CBNRM, ontopowerful green surveillance pervades rural social relations and governs people’s everyday conduct of life. An environment of suspicion and distrust is created in which strangers, and neighbours alike, are constantly screened to determine whether their behaviours are ‘normal’ or irregular, whether they are ‘out-of-place’ or not ([Büscher and Ramutsindela, 2016](#)). It is questionable whether this shift of responsibility for law enforcement from Government and NGOs to local communities can be considered a form of empowerment, as long as communities do not own or receive only limited benefits from their

⁸ For a detailed discussion of how community members in north-west Namibia understand reporting and related promises of financial rewards and employment, please see [Schneider et al. \(2025\)](#).

protection of wildlife, while carrying significant risks with little to no protection of their own lives and livelihoods (cf. Massé et al., 2017). Finally, if social trust is a norm it is also closely related to power and control (Knights et al., 2001). Local compliance with norms requiring trust, such as non-reporting and reciprocity, might be the basis for social inclusion, while noncompliance with such norms, e.g. by reporting your neighbour, might justify exclusion (Björklund, 2021), as the following section will show.

4.4. Social exclusion, social sanctions, and breakdown of social cohesion

It seems paradoxical that conservation is trying to 'become the community' without sufficient consideration of the rural social relations it aims to harness for law enforcement. Importantly, conservation seems to have failed to consider what it actually means for local people to spy and report on their own communities. In fact, many community members in north-west Namibia regard reporting of illegal-hunting as an immoral and illegitimate behaviour (Schneider et al., 2025). People often resist and reject reporting as they prioritise maintaining social cohesion within their communities, which includes respect for local norms and practices that might be incommensurate with conservation, such as hunting of small game and sharing of meat. They might further choose to withhold information to preserve trust relationships and to avoid becoming the target of community retribution (Schneider et al., 2025). Local people are acutely aware of the risks reporting poses to rural social relations:

"It can obviously create tensions and conflict among neighbours. We are very careful about those things. Sometimes we don't report and just leave it. Reporting can bring conflicts." (Lisel, female, Riemvasmaaker, pensioner, over 60 yrs)

Particularly in villages close to poaching hotspots, the integration of local agencies into para-military and criminal intelligence approaches has created an environment of suspicion and distrust which risks eroding social cohesion. Without basic trust and a sense of community, there will be no coherence, no observing of rules, and CBNRM will become effectively impossible (cf. Ostrom, 1990: 43). For one of the first community game guards in the area, there is no doubt about the outcome of indiscriminate community self-surveillance: *"The spies will cause war. There will be war"* (Uzunganisa, male, ovaHerero, 46–60 yrs). Another local villager who used to work in reconnaissance during the South African Border War and is now the team leader of an informant network within the RCT's intelligence unit, describes how his current job has made him an outcast within his own community:

"K: This work is difficult, perhaps because I am working inside the country and among my people. But the work in the past [bush war] was outside the country and the goal was to push back other people. [...] For example, my in-laws are not coming to my house. [...] Some people don't like what I am doing."

PI: But why do you think your in-laws are avoiding you like that?

K: Ha, maybe they have a problem with the way we protect wildlife [surveillance]. I don't want to say much because these discussions relate to my in-laws... [implicating them]. Some of my in-laws are working in Government, they are nature people [MEFT; RCT]. Some of them are not even visiting or talking to me anymore."

PI: And how does that make you feel that they are shutting you out like that?

K: No, I just stay on my own and keep working."

PI: But doesn't it make you upset, angry, or sad?

K: Eh, eh. It doesn't make me sad. I was deep in Angola with big firearms. No-one dares to come to my place. And I won't go to theirs." (Kautjipo, male, ovaHerero, 46–60 yrs)

With social conflict comes a risk to be socially excluded. In communal areas, this might include losing access to communally owned resources, such as water and grazing land. In addition to the

potential loss of community support and livelihood, there is an ever-present threat to life itself: *"Some people will go and kill you with witchcraft if you report them,"* an ovaHimba farmer warned me (Kaizembi, male, under 30 yrs). Among the communities, people widely believe in the power of witchcraft and it is common knowledge that many rhino poachers visit shamans or witchdoctors before and after hunts to energetically clear their path and improve their odds. Over a period of several successful hunts and numerous visits, poachers and witchdoctors are likely to build intimate relationships. A witchdoctor's reputation and income are directly related to the success of 'his poachers'. Therefore, witchdoctors may have a keen interest in promoting non-reporting behaviours among the local community through discipline and an occasional show of force. In a prominent case that went through the national press (Grobler, 2014), it is alleged that an RCT ranger who wanted to speak out about collusion in rhino poaching, was poisoned to death. Only very few local people were willing to talk about this in a formal interview, unlike this farmer who is also an informant for the RCT:

"We know what caused the death of [name of ranger]. Us black people know that he was killed through a spell⁹ to silence him because he started talking to people." (Kavesina, male, ovaHimba, pastoralist, 46–60 yrs)

4.5. False reporting

The breakdown of social cohesion¹⁰ is further fuelled by the emergence of false reporting, where people are being set up, implicated wrongly, or crimes are fabricated altogether. This might be partially explained with the poor communication of reward payment systems which are often not clearly understood by local communities and even senior conservation practitioners (Interviews). Promises of large rewards of up to NAD 1,000,000 are transmitted either in the form of misleading posters and flyers (see Schneider et al., 2025), or as stories orally passed on from one person to another, with the potential for significant embellishment and distortion along the way. No doubt, reward payments are well intentioned instruments, but there is a lack of understanding about how they are received locally and with what social implications, as described by this pensioner-farmer:

"[I]f you look carefully, these people [spies] started making up stories of crimes because they heard that if you report someone you will be given money, like NAD 10,000. That's why these people are making up all kinds of fake stories now. When you hear a story of someone who has been reported for poaching that story usually turns out to be fake." (Philippus, male, Nami-Daman, over 60 yrs)

Another farmer further explains how informants, locally called 'spies', are seen as disingenuous and inherently deceptive:

"[The spies] are maybe told to protect in a dishonest, crooked way [okunjokere = cheating]. [...] they will implicate you in crimes to get paid because they are getting paid for reporting. [...] This is normal around here. It happens all the time. [...] I despise it. I hate the spies." (Sebastian, male, ovaHimba, under 30 yrs)

When local people report wildlife crime, their information often appears to be poor or even false (informal conversations). While reporting can significantly inhibit poaching losses by averting the illegal-hunting of rhinos, pre-emptive arrests rarely lead to successful prosecutions as evidence is often circumstantial. Less than seven per cent of all suspects arrested for rhino crimes between 2015 and 2024 had been convicted by early 2025, underlining inadequacies in case

⁹ In Otjiherero, *okutetisa* means 'to kill someone suddenly through a spell' (cf. okurova = to bewitch).

¹⁰ For an in-depth analysis of intra-community social conflict and lack of social cohesion in a particular Kunene conservancy see Pellis (2011) and Pellis et al. (2015).

preparation and systematic judicial challenges (Government of the Republic of Namibia, 2025). Remittances of significant reward payments to community members are also rare (informal conversations). Importantly, false reporting and non-reporting should not be misunderstood as some kind of mischievous scheme by rural communities to obstruct conservation law enforcement, as has been suggested by conservation officials. Instead, false reporting could also be interpreted as an opportune, everyday act of ‘brokered’ resistance (Scott and James, 1985; Tilly, 2004) that “blur[s] the contours between subsistence and ‘improvement’, or between economic opportunism and political grievance” (Cavanagh and Benjaminsen, 2015: 735; Holmes, 2007). In other words, local people might employ (false) reporting as a means to secure benefits and improve their odds relative to others in an effort to “wor[k] the system [...] to their minimum disadvantage” (Hobsbawm, 1973, cited in Cavanagh and Benjaminsen, 2015: 728). Seen against this background, the self-surveillance of local communities through the recruitment and incentivisation of their own membership can be seen as extremely insensitive and inappropriate considering local community relations characterised by strong communal cohesion and everyday, opportune struggles for upward social mobility of neopatrimonial kinship networks in the context of severe socio-economic precarity, as discussed in section 4.3.

5. Conclusion

With the revival of militarised conservation in north-west Namibia in a context that is otherwise explicitly *community-based*, green surveillance is emerging as a novel, ontopowerful form of environmental governance which aims to integrate IPLCs into conservation law enforcement by penetrating the heart of rural social relations. Despite some conservationists’ best intentions to move beyond militarisation and towards ‘inclusivity’, and perhaps even towards ‘demilitarised conservation’ (Lunstrum et al., 2025), green surveillance seems to enable, legitimise, and extend militarised conservation by anchoring it within CBNRM, targeting rural communities through monitoring, incentives, and coercion to try to turn them into agents of conservation security that report suspicious activities to authorities.

This paper offered a first glimpse into the local experiences of green surveillance, especially its traditional, non-technological, and human–human dimensions, to shine a light on the ‘first-line-of-defence’ of rural communities where militarised conservation is reconfigured to become more ‘inclusive’. It specifically analysed how local people experience green surveillance to sensitise policymakers and practitioners to potential social implications, such as local instrumentalisation and exploitation, as well as unprecedented, post-apartheid social conflict in the form of a potential breakdown of trust and social cohesion in rural communities, further fuelled by false reporting.

The social implications of green surveillance raise a serious question: Where should conservation draw the line? Above all, conservation organisations should prioritise positive relationships with local communities, the most critical “change agents” in wildlife crime (Hübschle and Shearing, 2018). Participation in processes of green surveillance should be abandoned where it is counter-productive to community-conservation relations. If reporting is seen as an immoral and illegitimate behaviour among communities that might be punished with severe social exclusion and physical violence, the ethicality of harnessing such communities for green surveillance needs to be carefully considered in relation to different local contexts. At a minimum, conservation organisations should follow strict safeguarding protocols to protect IPLCs from negative social impacts. Prior to the implementation of any surveillance or intelligence activities, this should include risk screening and community engagement, e.g. asking representatives of communal conservancies and Traditional Authorities for permission and allowing them to place conditions. Conservation organisations should further establish safe, confidential, and accessible grievance mechanisms, as well as enhancing accountability and oversight through independent

evaluations. Furthermore, if the quality of information provided by communities is limited, then even the effectiveness of green surveillance in terms of obtaining actionable intelligence is questionable. Overall, the costs and benefits of surveillance and intelligence operations that aim to integrate IPLCs as the eyes and ears of conservation law enforcement need to be reconsidered. This calculation must entail a critical reflection of the particular values that conservation practitioners and law enforcement officers might place on the life of a black rhino versus that of a black farmer, reflecting the racialised dimensions of wildlife conservation and especially anti-poaching in post-apartheid Namibia (cf. Büscher and Ramutsindela, 2016; Hübschle, 2017; Lunstrum, 2014; Witter and Satterfield, 2019). When conservation organisations take on security- and crime-related community surveillance tasks, “above and beyond their mandates”, they must not evade accountability just because they are operating in an environment characterised by limited state capacity and visibility (Friedman, 2015).

While this article has critiqued the emergence of green surveillance in north-west Namibia for its social implications, this should not be misunderstood as a blanket condemnation of the conservation NGOs which have been complicit in green surveillance. The picture is more nuanced. It is important to highlight that resistance to green surveillance does not only originate from within the community but that many practitioners – many of whom have lived through the country’s militarised liberation struggle – are highly sceptical of the *para-military* and ontopowerful surveillance turn of conservation. For example, according to the RCT’s chair, the NGO only developed its intelligence capacities reluctantly, partly due to the perceived urgency of the poaching problem and a lack of relevant skills, expertise, and resources within the Namibian Government. The NGO is thus portrayed as having “stepped up” and “assisted” the Police in filling a capacity gap at a critical time. The chair repeatedly stressed that “we don’t feel comfortable with it [...] but we don’t have a choice at the moment” (Malika, black, female, 46–60yrs).

In addition, both RCT and ICDN not only supported this research from its inception and were crucial partners in facilitating fieldwork, but many staff members and trustees were extremely receptive to my emergent findings. In response, the RCT has adapted their operations. Notably, there is anecdotal evidence suggesting the intelligence and investigation unit has been discontinued; a clear signal that the NGO has overreached at the height of the poaching crisis and might have decided to refocus on ecologically-focused rhino monitoring. This would suggest that green surveillance might have peaked in north-west Namibia between 2014 and 2024. Nevertheless, it is not clear to what extent the RCT has entirely discontinued or merely shifted its intelligence capacities. In their 2023 strategic plan, the NGO states that it needs to consider “whether management of informer networks is [RCT’s] remit.” It then continues that intelligence gathering is both “a necessary component” of its work and one that “they should look to shift” to the relevant Namibian law enforcement agencies. At the same time, the NGO seems to continue efforts to create a new “platform for the exchange of information” with rural communities, while increasing its aerial surveillance and monitoring of communities by light aircraft. Going forward, it remains to be seen where Namibian conservation NGOs position themselves on the spectrum between militarised and community-based conservation. The associated blurring of boundaries is worrisome though, and especially the integration of IPLCs into militarised conservation through projects and programmes that are ostensibly community-based.

Echoing calls by Massé et al. (2017) and Schneider et al. (2025), any anti-poaching efforts that aim to be ‘inclusive’ should focus on transferring ownership and control to communities, even if that might entail uncomfortable compromises. The militarisation of rural communities under the cloak of CBNRM must be strictly averted, as this might harm and undermine the very communities on which sustainable, locally acceptable wildlife conservation depends, both in Namibia and elsewhere.

Declaration of competing interest

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.geoforum.2026.104880>.

Data availability

The data that has been used is confidential.

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