Corrupting conservation: Assessing how corruption impacts ranger work

Mike Belecky, Global Policy Lead, WWF Tigers Alive
William Moreto, Associate Professor, Department of Criminal Justice, University of Central Florida
Rob Parry-Jones, Head, Wildlife Crime Initiative, WWF International

Key takeaways

» Rangers can be both perpetrators and victims of corruption. They face a diversity of incentives to engage in corruption, including economic (e.g., low or delayed renumeration); organizational (e.g., orders to engage in corruption from superiors); and social (e.g., selective enforcement of rules for different communities).

» Problems like delays in public expenditures, resulting in late salary payments, can incentivize corruption and be used to justify it. Corruption in this sense is a “functional problem-solver.”

» The often-weak governance systems in which rangers work also create corruption risks, from lack of clear internal oversight or procedures to weakness in the broader policy framework or judicial system. In contexts of institutionalized corruption, it is extremely difficult to remain honest.

» Both internal and external systemic factors play a considerable role in creating situational sources of corruption risks and pressures to engage in corruption. Understanding both is necessary to strengthen initiatives to build ranger capacity and address corruption risks.

The challenge

The entire wildlife value chain is reported to be rife with corruption, which can have devastating effects on conservation, nearby communities, and rangers themselves. Public perception that rangers profit from corrupt activities can undermine the integrity of future generations of rangers. In turn, this erodes trust and undermines any potential for developing trust between rangers and communities.

What does corruption look like in the context of rangers? What drives and facilitates corruption among rangers? What did a global ranger survey reveal and what does the literature reveal about the prevalence of corruption and corruption risk among rangers?

Portrayals of wildlife rangers often present a polarized picture. On one side is the brave hero saving wildlife from villainous poachers (see this article, for example); on the other is the crooked paramilitary linked to corruption and human rights violations (see this article, for example). However, this dichotomy is unhelpful; rangers can be both perpetrators and victims of corrupt acts (Dutta 2020). For example, rangers can be directly involved in obtaining bribes from suspects, and they may also face huge risks.
if defective equipment has been procured for them through corrupt practices for personal gain. Understanding the social, organizational, and political landscape within which rangers work can help break down this unhelpful dichotomy and address the complex ways that corruption affects the conservation of wildlife and other natural resources, as well as the people involved (Moreto et al. 2015).

Regardless of those portrayals, rangers have an indispensable role in protecting the natural and cultural heritage and shared resources of their countries and contributing to mitigating climate change, maintaining vital ecosystem services, and upholding the rule of law.1 Rangers come in many forms and play different roles in diverse contexts. Rangers may be employed by the state or the private sector, with work encompassing elements of law enforcement, security, conservation, protection of species or cultural heritage, fire services, research, education, and community engagement. In some cases, programs help establish local people, including Indigenous Peoples, as rangers or caretakers with some of the functions of rangers.

This brief examines the issue of ranger corruption, drawing on data from a recent global study led by WWF and the University of Central Florida - *Life on the Frontline* - as well as other available literature.2 Specifically, this brief examines:

» the types of corruption associated with rangers and factors that increase corruption risk.
» perceptions of corruption, both among rangers themselves and other groups like the communities that live in the landscapes where rangers work.
» the importance of understanding and addressing ranger corruption within a broader context of human rights and good governance.

From this, we draw some recommendations for different actors responsible for addressing corruption within natural resource governance.

---

2 *Life on the Frontline* (WWF 2019) surveyed 7,110 public-sector patrol rangers in hundreds of sites across 25 countries between 2016-2019. It also surveyed more than 3,000 local community members living near sites where rangers are active.
3 For example, documented instances include the theft of confiscated ivory to sell on illegally (Moreto et al. 2015), accepting bribes from and colluding with poachers (e.g., Somerville 2016; Milliken & Shaw 2012; Banks et al. 2007; EIA 2014), and direct involvement in poaching for personal gain (Leader-Williams et al. 2009; Moreto et al. 2015).

---

**Key definitions**

**Corruption:** The abuse of entrusted power for private gain, including both economic enrichment and political advantage.

**Compassionate corruption:** Overlooking misconduct or rule breaking, or otherwise being unwillingness to punish someone or to perform one’s duty, due to social ties to or a sense of pity for the perpetrator.

**Institutionalized corruption:** A situation in which corruption pervades so many branches and bodies of government and society that it becomes the norm, and efforts to enforce laws or prosecute crimes become additional opportunities for corruption. This is also known as systemic corruption.

---

**Rangers and corruption: Defining the issues**

Corruption occurs along the entire wildlife crime value chain, with impacts and involvement of diverse actors such as rangers, park administrators, police, customs inspectors, prosecutors, judges, private actors and so forth (Williams et al. 2016; UNODC, 2020; van Uhm & Moreto 2018). Although there is no legally agreed definition of corruption, one UN expert body helpfully described it as “the dishonest misuse or abuse of a position of power to secure undue personal gain or advantage, or to secure undue gain or advantage for a third party” (UN 2014).

But corruption is only one form of ranger deviance. Other types include misconduct (e.g., drinking on the job) and criminality (e.g., direct involvement in the illegal hunting of wildlife species) (see Moreto et al. 2015; OECD 2019). Certain scenarios may entail multiple forms of ranger deviance, and corrupt actions can facilitate negative and illegal behaviors.3 However, not all negative and illegal behaviors are
necessarily corrupt actions. For the purposes of this brief, we focus our attention specifically on corruption.

Explaining corruption: Drivers and facilitators

Economic motivations are often cited as the main factor behind ranger corruption (Duffy 2014), with rangers even referred to as “money hungry” in some cases (EIA 2014, Moreto et al. 2015: 372). However, a purely economic perspective, or one focused solely on individual actors, is insufficient to understand all forms of corruption. For example, rangers themselves may be affected by corrupt practices within their own organizations, or those of other wildlife management or law enforcement authorities.

To understand corruption, the specific corrupt act and actor must be considered alongside the corruption risks and opportunities resulting from weaknesses within the system. For example, a park ranger accepting a bribe would constitute corruption, while a situation where a park ranger works alone in a remote area with little oversight presents a corruption risk (UNODC 2020). Many rangers work in contexts with weak governance and institutions, along with high levels of social and economic inequality (Duffy 2014, Fynn and Kolawole 2020). In this socio-political landscape, corruption risk is high, although this certainly does not preclude the potential for corrupt activities in other more “developed” settings. See Box 1 for additional examples.

In this section, we examine the factors that may increase the likelihood of and opportunities for corruption among rangers. It is useful to examine both the drivers that motivate rangers to engage in corruption, as well as the socio-economic, political, cultural, and organizational facilitators that make corruption more likely to occur. In reality, the difference is not always clear-cut; drivers and facilitators often overlap and reinforce each other (Kassa et al. 2019).

Given that in many protected areas around the world, rangers perform similar functions to frontline law enforcement personnel, we draw largely from the existing literature on police deviance to guide and contextualize our assessment. However, we note that such a comparison should be viewed cautiously given that a) the ranger profession varies considerably in terms of resources, responsibilities, and organizational structure, and b) rangers may not have official law enforcement capacities and may still need to coordinate with local police. Moreover, the majority of research examining police deviance has originated from studies examining urban police, while little research has explored forms of rural police deviance. With this in mind, we feel that the empirically and conceptually robust police deviance literature can still be applicable and useful in framing and understanding ranger corruption.

Box 1: Sources of corruption risk

Possible sources of corruption risk include internal factors such as lack of oversight, unclear or undocumented processes, and the organizational and occupational culture and working environment. External factors, such as weak legislative and policy frameworks, social pressures in rural communities, and cynicism, also contribute to corruption risk (UNODC 2020).

4 The focus in the literature on rangers who work in areas of weak governance may to some extent reflect the fact that many of the world’s most biodiverse countries and iconic species’ ranges overlap with areas of weak governance.

5 Analysts vary in how they categorize “drivers” and “facilitators.” For example, some of the elements viewed as “facilitators” in Kassa’s approach, such as social norms and expectations could be categorized as motivating “drivers.” Legal and institutional arrangements (e.g., weak accountability mechanisms, poor transparency, or complex bureaucratic processes) are considered by some analysts as facilitating factors. See for example Vian 2008.
Financial incentives as a key driver

The average monthly pay for rangers across the 25 countries included in the global ranger survey was USD345. By comparison, the average police salary in those same countries was far higher, at USD866 per month (WWF 2019). Low-income earners are often forced to live month-to-month, dedicating the vast majority of their salary toward food and important bills (e.g., rent, education expenses, etc.). Unexpected events - like a major health expense, natural disaster or a family member losing their job – could force a ranger to choose between the well-being of their family and upholding their duties. Where rangers are paid less than other sectors such as the police or judiciary, it is plausible that some rangers may even feel they “deserve” the bribe.

Late payments of a ranger’s salary can further undermine their financial security, which might create an incentive for corrupt activity, especially given rangers’ close proximity to high-value wildlife or forest products (Smith et al. 2003; Smith & Walpole 2005). For example, rangers have been documented paying school fees and other bills with money collected through bribes in Uganda (Moreto et al. 2015).6

Some may even be on the lookout for opportunities to take advantage of a ranger’s financial insecurity. Human resources departments can leak information about financially-challenged rangers, making them vulnerable targets for bribery (R. De Kock, Southern African Wildlife College, personal communication). Furthermore, the lack of organizational facilitation and infrastructure (e.g., equipment, equipment maintenance and fuel) may require rangers to pay out of pocket in order to effectively perform their duties. In such situations, corruption acts as a functional “problem-solver,” but it also results in moral and practical ambiguity and reinforces the resilience of corruption as a social institution (Boamah and Williams 2019).

It is therefore particularly alarming that roughly one-third (32.8 percent) of rangers surveyed in Life on the Frontline said they had been paid late at least once within the previous year. A majority (55 percent) of rangers surveyed believed they were not paid a fair wage, with nearly one-third of African and South Asian rangers “strongly agreeing” that they were paid unfairly (note that survey categories included both “agree” and “strongly agree”). By contrast, only 5.9 percent of Southeast Asian rangers felt this way. Perceived unfairness may potentially result in resentment, which in turn could create corruption risk, in addition to further negative impacts such as reduced effort or investment in their work.

Contextual facilitators of ranger corruption

Social and political context, along with location, also influence corruption vulnerabilities. Rangers are entrusted with great responsibility and with considerable power, often including the legal authority to bear arms and to use coercive force. They may work in remote locations at the edge of law enforcement’s reach, sometimes in the midst of conflict and in areas where Indigenous Peoples and local communities (IPLCs) have been displaced and disenfranchised (Fynn and Kolawole 2020). In such cases, resentment and hostility can build against rangers as state actors or representatives of the government (Duffy et al. 2019). Other factors can also deepen animosity towards rangers, for example where they are required to answer to communities regarding loss of life or crop damage arising from human-wildlife conflict, but where state policies and mechanisms are inadequate to provide appropriate compensation (Moreto 2019; Parry-Jones and Moreto, forthcoming).

These social pressures - including personal loyalties, the wish to maintain cordial relationships, or the desire and need to build functional relationships with community members - may incentivize

---

6 Although from another sector, surveys from Cambodia show a similar issue, suggesting that delays in budgetary allocations to schools incentivized school employees to seek or accept illegal payments from parents of pupils (Baker and Milne 2019).
rangers to accept bribes or tolerate illegal behavior by community members (UNODC 2020). This is sometimes referred to as “compassionate” or “altruistic” corruption. Punishing local people for collecting resources on which they have traditionally depended can cause resentment and conflict between rangers and villagers, influencing the immediate and long-term protection of resources through impacts on social capital and cohesion (Robinson et al. 2010; Moreto et al. 2015). In situations where mortal danger is very real, the importance of gaining social legitimacy is understandable, and enables the “illegal” collection of resources to be seen in a different light. Rangers may also face a “loyalty dilemma,” finding it challenging to enforce regulations in communities where they live when strict enforcement would limit incomes of neighbors or family members (de la Torre-Castro 2006).

Unfortunately, the *Life on the Frontline* survey provided little information on community members’ perceptions of rangers. In one study of such perceptions in Myanmar and the Philippines, roughly one in ten local people noted they had neither heard of nor witnessed park rangers engaging in corruption. In Myanmar, more than four in five community members believed rangers would not accept either monetary or non-monetary bribes. Just over half thought rangers would report colleagues involved in corruption or misconduct or would be punished if they were caught accepting a bribe or gift (WWF 2019).

**Institutionalized corruption** at higher levels may also undermine ranger morale and send signals that corruption has few or minor consequences. In some examples, institutionalized corruption has resulted in officials being punished for trying to avoid participating in corrupt acts, thus exerting pressure on people to conform to systematized corrupt behavior (World Bank 2015). In other cases, rangers may commit corrupt acts on the orders of their superiors or other public authorities, including high-ranking government officials. A study of fisheries in South Africa noted that corruption in the judiciary can make writing fines useless because they disappear due to bribery among clerks and judges in the enforcement chain (Sundstrom 2015).

Similarly, forest guards may have little incentive to pursue more serious offences when conviction rates are low (Robinson et al. 2010). If the judiciary is weak, even strong laws and regulations do little to enhance good management, but merely provide more opportunities for corruption (Damania 2002). Ultimately, this results in the development of moral and legal cynicism that, in turn, promotes an environment where rangers’ own indiscretions are normalized, neutralized, or minimized. The end result is a normative context where illegal behavior and wrongdoing “becomes an acceptable way of life” and is accepted, “if not expected,” due to family ties and traditions (Moreto et al. 2015: 362 and 375). Box 2 elaborates on the incentives created by systemic corruption.

The belief that there are few consequences for poaching likely makes it easier for rangers to justify turning a blind eye to poaching or release apprehended criminals in exchange for a bribe. In the *Life on the Frontline* survey, roughly 60 percent of rangers globally agreed that the individuals they arrest are treated too lightly by both prosecutors and judges. A similar proportion believed that wildlife criminals are not worried about the punishment they might receive if they are caught, and almost two-thirds believed that people with money and power can “get away with anything” (WWF 2019).

**Intraorganizational dynamics in ranger workplaces** may also serve as facilitators for corruption. Examples include inadequate training and supervision, as well as a lack of operational infrastructure or equipment and poor morale. Existing training typically focuses on physical patrol activities and risks, without sufficiently attention to ranger ethics and duties to the public. Distance between ranger outposts and headquarters can be a significant factor, with rangers stationed in distant outposts being more likely to

---

7 This is examined further in the TNRC Brief *Natural resources, human rights, and corruption: what are the connections?* (forthcoming).
become poachers themselves (Moreto et al. 2015). As rangers travel in groups, corruption among rangers depends on a high level of cooperation and secrecy between those stationed together; rangers who have newly joined a unit may face considerable pressure to engage in corruption practiced by other members.

One concerning finding from the Life on the Frontline survey is that three out of five rangers said they would worry about their safety if they were to report a fellow ranger for taking a bribe or participating in other corrupt and illegal activity. Despite this high risk, the vast majority of rangers agreed that they would report their colleagues if necessary (88.1 percent). For the most part, rangers believed their colleagues would be equally scrupulous, as shown in Figure 1.8

Interestingly, the results for these questions varied by survey region. Only 73.3 percent of respondents in Latin America believed their colleagues would report corruption among fellow rangers, below the global average of 82.9 percent. Perhaps linked to this, 37.5 percent of Latin American rangers believed their organization had an inadequate response for reprimanding rangers - roughly twice the global average.

### Moving forward with a systemic perspective

Addressing corruption among rangers cannot be divorced from the broader governance landscape. Focusing only on individual “rotten apples” misses the broader systemic and organizational issues that increase corruption risk across the entire landscape of ranger activity. However, there are specific actions that can be undertaken within the ranger workforce, such as professionalization of rangers (Appleton et al. 2020), which in turn is likely to influence the

---

8 These numbers may not reflect the reality, since they are self-reported. Cultural sensitivities around the topic of corruption, or concerns that there may be consequences if they admitted that they or their co-workers would not report corruption (in spite of the strong privacy protections that were communicated to survey takers), likely play a role.
wider landscape and to some degree insulate the rangers from the contextual factors listed above. Professionalised training is part of the right to work in just and favourable conditions (UN ICESR, art.7) and is also addressed in the Framework Principles on Human Rights and the Environment, developed by an independent expert, known as a Special Rapporteur. Guidance for implementation of Framework Principle 12 specifically notes that training programmes for law enforcement and judicial officers should be undertaken and that effective steps should be implemented to prevent corruption from undermining environmental laws (UN, 2018).

The first set of recommendations applies to institutions and bodies that directly employ rangers. The second applies to other allied organizations, regarding ways they can support rangers and ranger employer institutions. The recommendations appear here in brief; additional details for each can be found in the Annex.

Recommendations for ranger employer institutions

» Analyze which parts of rangers’ work are most at risk of corruption and the degree to which each of the identified risks can be addressed within the specific (administrative, institutional, etc.) context.9

» Establish effective complaints mechanisms so that community members and rangers can report incidents of corruption without fear of repercussion or retaliation. These mechanisms should be accessible according to the local context, and available through a variety of channels (e.g., in person, written, phone, internet). These mechanisms would help communities trust rangers and empower rangers to report corruption, even among their peers. However, there are risks to such mechanisms, and they are not appropriate for every context.10

» Establish an independent investigation or oversight body that can protect whistleblowers and bolster community and ranger trust in the investigations’ integrity, even in systems with institutionalized corruption. Such a body will also give rangers an important opportunity to defend themselves against accusations. As with complaints mechanisms, however, there are important considerations to ensure the body does not exacerbate corruption risks or the dangers that rangers already suspect should they report a concern.11 For example, members of the body will need to be diverse, and screened for possible conflicts of interest.

10 For resources, see Transparency International’s Complaint Mechanisms Reference Guide.
11 This body does not need to be an official “anti-corruption agency;” the exact form will depend on the context. However, the guidance in Transparency International’s How to Make Anti-Corruption Agencies Accountable and Independent would still be relevant.

![Table: Response rates, globally and by region, to the question “Rangers would report their fellow rangers if they witnessed them accepting a bribe or other corrupt and illegal activity.”](image-url)
Establish multi-agency or multi-stakeholder task teams, which have been shown to reduce corruption through increased operational transparency (Carlson et al. 2015). This may help address the problem of cultures of silence within insular units.

Implement strong selection criteria and background checks, while ensuring strong privacy protections to prevent staff records from becoming a tool for extortion. Such checks should include any previous ethics complaints and known connections to illegality generally and illegal wildlife trade specifically. This will help ensure potential rangers are interested in the position for the right reasons.

Adopt and institute codes of ethics and conduct, as well as training on ranger integrity and the full legal rights of the people they will encounter. This should supplement the standard tactical, environmental, and legal training, and both the codes and the training should be transparent and co-created with others (such as human rights bodies and local communities) to maximize their effectiveness and legitimacy. The Universal Rangers Support Alliance have created such Codes of Conduct for reference.

Adopt and implement ranger well-being plans to improve morale and reduce ranger perceptions that corruption or dereliction of duty would be justified. Not all changes need be based on increasing spending on salaries and equipment; programs that focus on ranger mental health, or their ability to see family more often, may also improve ranger well-being.

Utilize situational crime prevention measures, which increase the risk and effort of a corrupt act, while reducing the rewards. As one example, clearly posting fine amounts with mandatory on-the-record payment channels is one way to reduce extortion risks.

Avoid just displacing or reassigning problem rangers. This recommendation reflects a notable shift in the handling of problem employees by police agencies, where the practice of reassigning corrupt officers or “bad apples” to other locations has increasingly fallen out of favor. Rather, appropriate processes for reprimand or dismissal in cases of corruption are required.

Explore technological anti-corruption tools. This could include ranger tracking to identify any rangers who were near an incident (like poaching) and to investigate potential collusion in the act. Additional changes, like providing instructions to patrol leaders shortly before deployment, may be required, and implementers should openly engage rangers in the introduction of such technologies to avoid pushback.

Actively and openly include ranger unions and associations in any anti-corruption measure. The above changes will depend on ranger buy-in and awareness, which such engagement can increase.

Recommendations for conservation organizations, donors, human rights institutions, and anti-corruption agencies

Undertake context-specific analysis of where corruption risks lie in ranger work. Collaborate with the ranger organizations or related agencies, such as the police, to do so.

Support a rights-based, integrated approach to environmental crimes and corruption, through active partnerships with human rights mechanisms at local, national, regional, and international levels.

Establish policies and guidelines that explicitly tie decisions on ranger funding and technical support to the quality of anti-corruption measures (like the above) put in place.

Identify a roster of qualified experts who can assist ranger employers and their overseeing ministries in implementing successful changes under each category of recommendation above.

---

12 See Moreto and Pires (2018) for more information.
13 For good practices on ranger patrol technologies, see smartconservationtools.org
14 For example, the Universal Rangers Support Alliance could provide guidance regarding an Ethics Code of Conduct. A podcast from TNRC discusses related issues.
References


UN. (2014) Seventh annual report of the Subcommittee on Prevention of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. CAT/C/52/2, 20 March 2014.


Annex: Detailed Recommendations

Recommendations for ranger employer institutions

1. Undertake analysis of where corruption risks are most likely to lie and the degree to which each of the identified risks can be addressed. This is likely to vary to some degree based on the national or regional context (cultural, economic, etc.), and other factors such as oversight mechanisms and institutional processes and structure. Resources include “Corruption self-assessment tools for the public sector,” which provides links to a number of self-assessment tools for the public sector, who employ the vast majority of rangers; and “Scaling Back Corruption: A Guide for Addressing Corruption for Wildlife Management Authorities,” which discusses corruption risk assessments in some detail, as well as preventative measures to address many of those risks.

2. Establish effective complaints mechanisms so that community members and rangers can report incidents of corruption without fear of repercussion or retaliation. In order for such a mechanism to be successful, it needs to be completely anonymous, confidential, and readily accessible. The user should be able to provide information via multiple platforms, including in person, on paper, over the phone, or online. Widespread efforts should be made to communicate the means through which one can make such complaints (see the next point on an independent investigation body), including television, radio, print, posters, web-based, and community forum messaging.

3. Establish an independent investigation or oversight body. Accountability and transparency are important components that may help prevent or reduce ranger corruption. A distinct, independent, and accountable entity that focuses on receiving and confirming cases of ranger corruption may help minimize skewed or biased internal investigations, while bolstering community trust in such investigations. Importantly, the existence of such a body would also help provide rangers who are wrongly accused with an avenue to provide their own evidence, statements, and other relevant case information. Such a body would likely need to be established as a separate overseeing entity in order to avoid conflicts of interest, and should include stakeholders within and beyond the governing agency responsible for the protected area. For example, a civilian review board comprised of community members and religious or tribal leaders may be developed to avoid the impression that conclusions are reached arbitrarily or within a ‘black box’. Those establishing such review boards should include means for the identification and exclusion of individuals with conflicts of interest, or those are in a position to exert undue political influence in support of their own economic interests, or that of their associates.

Furthermore, the level at which a given investigations body should be given a mandate to cover will likely depend on the local context. Local, regional, or national bodies may be deemed most effective or independent depending on the conditions, or based on the nature of the investigations or charges (Prenzler & Ronken 2001). In countries where national-level anti-corruption agencies or commissions already operate, ranger agencies should explore their potential for (and interest in) overseeing such cases, or alternatively, providing guidance on context appropriate means for doing so fairly and effectively.

4. Establish multi-agency task teams and bodies. Multi-agency coordination bodies or multi-organizational patrols could help increase transparency and reduce corruption risk. Such inter-agency patrol units (e.g. rangers, police, security agencies, local community organization and/or NGO) have been shown to reduce corruption through increased operational transparency (Carlson et al. 2015).
5. **Implement strong ranger staff selection criteria.** These should be characterized by extensive background checks on those applying for ranger positions, which might include looking into previous criminal charges, as well as censure or ethical complaints in past employment. Investigation of applicants' possible connections with known criminal entities should also be prioritized, particularly those with involvement in areas relevant to the work (e.g., wildlife poaching and trade). Furthermore, departments that maintain records on ranger employees should be monitored to ensure that they are not passing on sensitive information regarding those staff (e.g. a human resources department passing along information on rangers with financial difficulties, who may be vulnerable targets for bribery).

6. **Training on ranger integrity and ethics, and adoption of codes of ethics.** In many settings, ranger training largely consists of ensuring that frontline personnel are prepared for arduous patrol activities, dangerous wildlife and illegal hunters they may encounter, and that they are familiar with the relevant protected area laws and regulations. The introduction of and increased emphasis on training that explicitly focuses on ranger ethics and legal duties to the general public may help establish and reinforce a workplace environment and climate of integrity, while also emboldening potential whistle-blowers. National human rights institutions and where possible, anti-corruption agencies, should be involved in both the development and delivery of such training – as should other actors where appropriate. This may include specialized civil society organizations, parliamentarians and international organizations. A better understanding of communities' rights and how local communities perceive negative ranger misconduct or corruption should also be accounted for in these trainings, which will require outreach efforts prior to finalizing these trainings. Codes of conduct that comprehensively cover the ethical duties of a ranger should be introduced. All rangers should have to sign these codes, and face significant disciplinary measures for any violation of that code. Furthermore, clear workplace procedures directing how rangers should proceed in a wide variety of possible scenarios (e.g. blackmail attempts, observed illegality by colleagues, etc.) should be produced, discussed and shared with employees. The [Universal Rangers Support Alliance](https://universalrangers.org/) have created Codes of Conduct for reference.

7. **Adopt and implement ranger well-being plans.** Low salary and inadequate material workplace support (e.g. lack of food rations, water, equipment, shelter, etc.) tends to be a consistent contributor to ranger corruption. It seems probable that corruption would be more likely in workplaces where a non-living wage salary is provided (i.e. below subsistence level). A recent study assessing empirical evidence did find such correlation, albeit a correlation that was described as ‘weak’ (Cornell and Sundell 2020). Poor working conditions and amenities could also result in dereliction of duty, for the protection of one's safety or health for instance. Unlike other factors that are difficult to change or may necessarily require long-term investment, changes to pay structure and ensuring essential workplace necessities are short- and intermediate-term changes that can have a near instant impact on ranger morale and employee investment in the organization itself and its mission. More comprehensive employee well-being plans should be integrated into protected area management plans; these would also account for items such as ranger mental health, and supporting measures that enable rangers to spend adequate amounts of time with their families.

8. **Utilize situational crime prevention measures.** Situational crime prevention (SCP) has a long history in effectively preventing different types of criminal activity (see Moreto & Pires 2018). Ranger corruption would be no different. The development of prevention strategies that increase risk, increase effort, and
reduce rewards associated with corruption, while also reducing provocations, removing excuses, and providing opportunities would help reduce the potential of ranger corruption prior to its occurrence. Such approaches do not have to be costly, nor would necessarily require much in terms of organizational change or investment. For instance, instructions of what constitutes ranger corruption could be posted. Furthermore, signage could be posted clearly at park boundaries clearly stating that it is illegal for park staff to collect money for fines on the spot. Where procedures currently allow for such immediate payment of fines, decision makers should look to modify them in a way that assures such cases are properly filed and handled through on-the-record channels.

9. Avoid displacing ‘problem’ rangers, and develop appropriate processes for reprimand or dismissal. This recommendation is in line with a notable shift in the handling of problem employees by police agencies, where the practice of reassigning corrupt officers or “bad apples” to other locations has increasingly fallen out of favor. Ranger agencies should also avoid this approach, and recognize that this likely does not address the problem and may result in additional problems in other settings. Given this, the establishment of reprimand approaches or dismissal mechanisms need to be available for all protected area authorities/agencies, and they need to be used in a transparent manner.

10. Use technology and ranger tracking. Technology can be deployed to help reduce ranger corruption. Increasingly, there exists the ability to track ranger teams at all times while on the job. In this way, managers can know the locations of every patrol, which are usually randomized, with instructions only given out each day or night to the patrol leader. Only those that need to know should be aware of rangers’ locations at any given moment, although this emphasizes the need to take great efforts to guarantee that these limited few are not corrupt. If a poaching incident were to occur, such patrol location information can be vital to determine if there were any inside collusion. As such, ranger employer institutions should implement best practice patrol tracking technologies (such as the Spatial Monitoring and Reporting Tool (SMART)) and also liaise with experts in interpretation of patrol data to be sure that patterns indicative of corruption can be identified to the maximum extent possible. Efforts should also be made to openly engage rangers in the process of implementing such technologies, and explaining the numerous other benefits it can provide in terms of job effectiveness and safety. This is critical, given that such oversight might not be welcomed (and result in push-back) if it is perceived as a sign of lack of trust in their work or integrity.

11. Include ranger unions and associations in anti-corruption measures. The meaningful inclusion of such bodies in the delivery of many of the above items is likely to be helpful on multiple fronts. For one, it would increase the total number of institutions forwarding ideas and strategies for local implementation of anti-corruption approaches. Furthermore, it would be likely to increase ranger buy-in to such programs, increase peer awareness of the importance of the issue, and reduce instances where rangers feel they have had no say in the creation of anti-corruption strategies, tools, and institutions. These bodies can also play an impactful role in raising awareness about the risk of corruption amongst rangers and normalizing honest and open discussions around the topic.
Recommendations for institutions and organizations (that do not employ rangers)

1. All interested parties should undertake analysis of where corruption risks lie in ranger work in a given context (protected area, ranger agency, etc.). Furthermore, they should produce similar analysis in closely related or interlinked agencies, such as the police, prosecutors, and judiciary.

2. Conservation organizations should increase efforts to support a rights-based approach to environmental crimes and corruption, through active partnerships with human rights organizations and human rights mechanisms at local, national, regional and international levels with a view to piloting integrated approaches to addressing corruption.

3. Conservation organizations should put in place policies and guidelines that explicitly tie decisions on funding allocation and technical support to the quality of anti-corruption measures put in place by institutions that employ and oversee rangers. In this way such organizations can add a financial incentivize to the adoption of such anti-corruption measures.

4. Conservation organizations should also identify a roster of qualified experts who can assist ranger employers and their overseeing ministries in implementing successful changes under each category of recommendation above.

5. Donors and ranger employer institutions should ensure that rangers are trained in the human rights dimensions of their work, and sensitized to what constitutes corruption. The Universal Rangers Support Alliance could provide guidance regarding development of an Ethics Code of Conduct.
About Targeting Natural Resource Corruption
The Targeting Natural Resource Corruption (TNRC) project is working to improve biodiversity outcomes by helping practitioners to address the threats posed by corruption to wildlife, fisheries and forests. TNRC harnesses existing knowledge, generates new evidence, and supports innovative policy and practice for more effective anti-corruption programming. Learn more at tnrcproject.org.

Disclaimer
This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the author(s) and do not necessarily reflect the views of USAID, the United States Government, or individual TNRC consortium members.

WWF® and ©1986 Panda Symbol are owned by WWF. All rights reserved.