



SHORT COMMUNICATION: GOVERNANCE TYPE BIAS IN GLOBAL RANGER SURVEY: IMPLICATIONS FOR RELEVANCE AND ANALOGOUS FUTURE WORK

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ABSTRACT

A growing body of literature explores rangers' perceptions and experiences of implementing conservation activities. In particular, the Global Ranger Perception Survey, carried out by the WWF, is the largest global assessment of ranger perceptions and experiences of working conditions in protected and conserved areas, providing insights into various aspects of the profession of rangers. Nevertheless, when the ranger perception survey data was associated with site governance type, we found that the survey is dominated by protected and conserved areas governed by government agencies (81 per cent) while sites with Indigenous and community governance were poorly represented (10 per cent) despite the vast area under this form of governance globally. These biases in governance mean that the survey data will be less relevant to protected and conserved areas with less government involvement, such as privately protected areas and those governed by Indigenous peoples and local communities. Our study therefore indicates that future large-scale surveys of ranger perceptions and experiences would benefit from including a more diverse set of sites with regards to governance types. Further, there could be value in carrying out a new survey akin to the Global Ranger Perception Survey with a focus on protected and conserved areas governed by Indigenous peoples and local communities.

Key words: rangers, governance, conservation areas, global survey, bias

FACTORS THAT SHAPE RANGER PERCEPTIONS AND EXPERIENCES

Rangers are central to conservation, operating on the frontlines to safeguard nature, cultural and historical heritage, as well as the rights and well-being of present and future generations (IRF, 2021). Modern rangers have multifaceted roles that include tasks such as research and monitoring, environmental risk mitigation, education and community and visitor engagement (IRF, 2021a; Moreto & Matusiak, 2017; Singh et al., 2021). Moreover, whilst rangers across the world operate under an incredibly diverse set of conditions, a pervasive characteristic of the work is its challenging nature (Oliver & Meier, 2006; Moreto, 2015; Moreto et al., 2016; Spira et al., 2019). Given the value of rangers to conservation and that the work is

often demanding, an increasing body of literature seeks to explore ranger perceptions and experiences (Seager, 2021; Singh et al., 2021a; Singh et al., 2021b; Belecky et al., 2021).

Multiple factors can shape ranger perceptions and experiences. Female rangers, for instance, are disproportionately impacted by specific barriers such as pervasive and high levels of violence and harassment, but obstacles like low pay and poor equipment also have gender-differentiated effects resulting in female rangers purchasing more equipment at personal expense than male rangers (Seager, 2021). Ranger job satisfaction can also be related to other demographic factors, such as age and income (Spira et al., 2019; Ogunjinmi et al., 2008). An array of occupational factors can also shape ranger



Members of the indigenous monitoring team in Uru-Eu-Wau-Wau indigenous land in Brazil © Marizilda Cruppe / WWF-UK

perceptions and experiences; for instance, operating over large areas and for long periods of time, especially in the face of uncertainty and danger, can reduce morale and job satisfaction (Eliason, 2006; Moreto, 2015; Belecky et al., 2021). Inadequate provision of training and resources (Eliason, 2011; Etemesi et al., 2018; Meduna et al., 2009) and poor relations with local communities (Moreto et al., 2017; Moreto, 2015; Allendorf et al., 2007; Karanth & Nepal, 2012; Anthony, 2007) can also negatively affect rangers' ability to effectively deliver their tasks. In a similar vein, the types and mechanisms of governance associated with a particular conservation area might affect ranger perceptions and experiences.

Considering ranger perceptions and experiences in the context of conservation governance

Governance systems for area-based conservation differ broadly in a number of aspects, such as roles, rights, responsibilities, management systems and decision-making powers and processes. They can also be conceptualised on a spectrum from rules imposed from

above that are devised and enforced externally (e.g. by states) to rules that are crafted by local users and internally self-enforced, such as by Indigenous peoples or local communities in Indigenous and community conserved areas (ICCAs). A rich variety of mixed forms of governance exists within this spectrum. The World Database on Protected Areas (WDPA) offers a typology of conservation area governance that aligns with this spectrum and conforms to the IUCN governance types as described in the IUCN governance of protected areas guidelines (Borrini-Feyerabend et al., 2013; IUCN & UNEP-WCMC, 2016). This WDPA typology is comprised of the following major governance types: Governance by government; Shared governance; Private governance; and Governance by Indigenous peoples and local communities. Many of these governance types are further divided into sub-categories.

Different forms of conservation governance might differentially affect ranger perceptions and experiences of their employment conditions. For instance, top-down governance of conservation areas, where local groups or bodies are partially or entirely excluded from decision

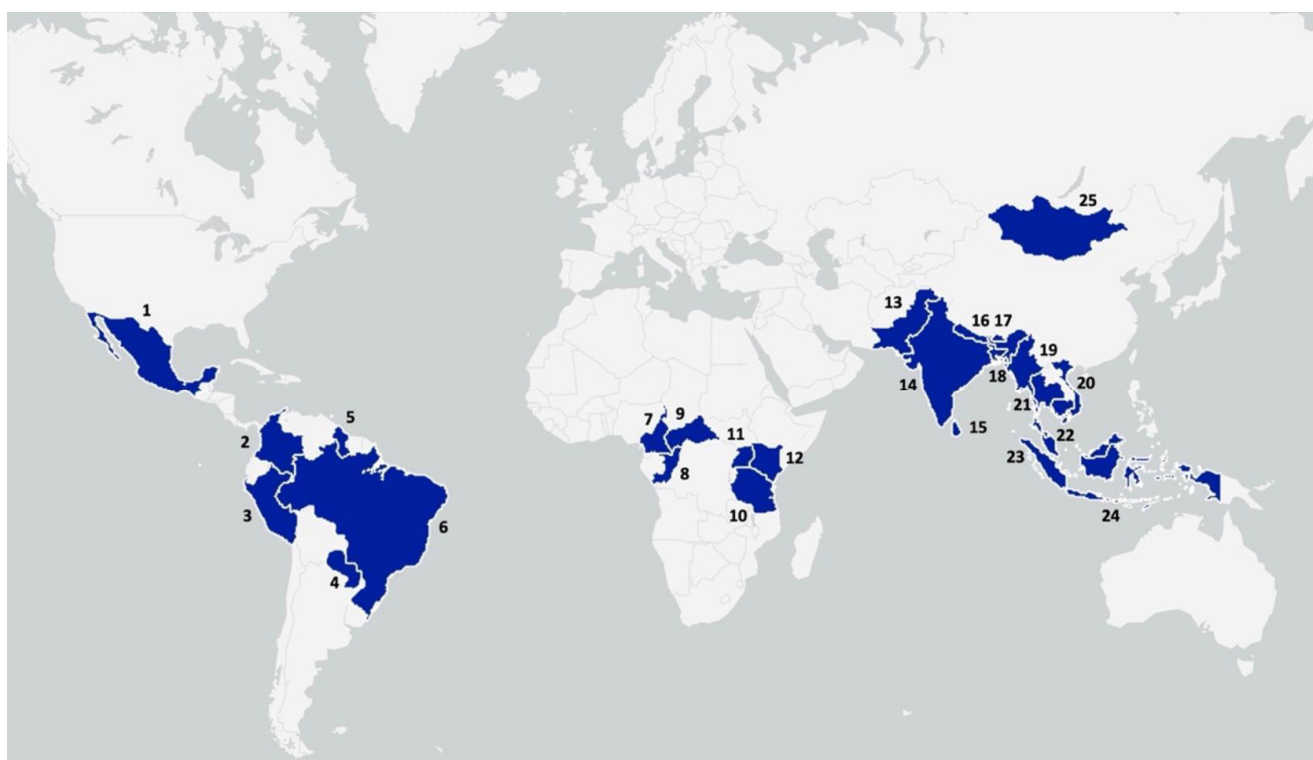


Figure 1. Countries included in the study. (1) Mexico, (2) Colombia, (3) Peru, (4) Paraguay, (5) Guyana, (6) Brazil, (7) Cameroon, (8) Democratic Republic of the Congo, (9) Central African Republic, (10) Tanzania, (11) Uganda, (12) Kenya, (13) Pakistan, (14) India, (15) Sri Lanka, (16) Nepal, (17) Bhutan, (18) Bangladesh, (19) Myanmar, (20) Viet Nam, (21) Thailand, (22) Cambodia, (23) Malaysia, (24) Indonesia, (25) Mongolia.

making, can often impose high costs on local livelihoods and exacerbate social conflicts, particularly in areas with high levels of poverty and resource dependence (Kothari, 2008; Adams & Hutton, 2007). A commonly perceived strength of Indigenous and community governance is that the local development of rules can translate to greater legitimacy and compliance on the ground (Ostrom, 1990; Baral & Stern, 2010). This suggests that sites with greater involvement of Indigenous peoples and local communities in governance tend towards being associated with more amicable ranger–community relations. In state-run PCAs where individual rangers have a variety of connections to a PCA (Woodside et al., 2021), which could, in turn, impact ranger perceptions and experiences related to ranger–community relations. Other hypotheses could, of course, be posited for why different types of area-based conservation governance could differentially affect rangers’ perceptions and experiences of their roles as professional rangers.

Assigning governance types to the data of the largest survey of rangers

As an initial step towards considering ranger perceptions and experiences in the context of conservation area governance, we reviewed the results

of a Global Ranger Perception Survey (GRPS) carried out from 2016–2019 across 25 countries in Asia, Africa and Latin America (Belecky et al., 2019), and assigned governance types (following the WDPA nomenclature) to each of the conservation areas. This RPS data was selected as it represents the largest global survey of ranger perceptions and experiences ever conducted to-date and because it contains information on various aspects of ranger work (including resource and training provision; relationships with colleagues and local communities). The process of assigning governance types began by identifying the RPS conservation areas that had direct matching counterparts in the World Database on Protected Areas (WDPA) and then assigning the governance types recorded on the WDPA to the GRPS conservation areas accordingly. For the remaining unmatched GRPS conservation areas, we asked country- and regional-level experts to assign a governance type, following the WDPA scheme, where possible. Through this process we assigned governance types to 425 GRPS conservation areas (out of 588) from 25 countries (Figure 1). We were unable to assign governance types to 163 of the 588 GRPS conservation areas for various reasons (the most common being that an GRPS conservation area would contain multiple sites with different governance types).

Implications of bias in the governance type covered by the survey

This process of assigning WDPA governance types to the GRPS conservation areas enabled us to highlight and quantify the extent of governance type representation in the GRPS (Table 1). Our results show that the GRPS mostly covers conservation areas that fall under the governance type category of Governance by government (81 per cent) – a predictable bias given that public-sector rangers were an intentional focus of the GRPS (Belecky et al., 2019). This Governance by government category contains three of the most abundant governance types: Federal or national ministry or agency (57 per cent of all classified sites), Sub-national ministry or agency (14 per cent) and Government-delegated management (10 per cent). The next most abundant governance type category is Indigenous people and local communities (11 per cent of all classified sites), which is dominated by the governance type: Governance by Indigenous peoples and local communities (98 per cent of sites with the Indigenous people and local communities governance type category). The governance type categories of Shared governance and Private governance both have scarce representation in the GRPS data, as do the governance types of Collaborative governance (6 per cent of all classified sites), Non-profit organisations (2 per cent), Individual landowners (0 per cent) and Indigenous peoples (0 per cent).

The GRPS is the largest global survey of ranger perceptions and experiences, and has yielded useful, broad insights into various aspects of their professional lives, albeit mostly restricted to state-governed protected and conserved areas. The GRPS data emphasises that working as a ranger remains

immensely arduous, often as a result of long hours in challenging conditions, inadequate resource and training provision, and strained relationships with local communities (Belecky et al., 2019). These insights helped spark a groundswell of new collaboration and support for rangers (e.g. URSA, 2021), which might be particularly timely given the traction towards the target of 30x30 to expand the protected and conserved area coverage of the Earth's surface to 30 per cent by 2030 (Woodley et al., 2021) through effectively and equitably managed, ecologically representative, and well connected systems of protected and conserved areas. The fact that IPLCs manage or have tenure rights over a quarter of the world's land surface, intersecting 40 per cent of all terrestrial PCAs (Garnett et al., 2018), lends further urgency to understanding this governance structure and the individuals working within it, in order to achieve the global 30x30 target. These sites require sufficient support and recognition, including for their rangers.

Nevertheless, our brief study reveals deep biases in the degree to which the perceptions of rangers from different governance types are represented in the RPS data. The bias in GRPS sites towards Governance by government means that whilst findings from the analysis of GRPS data may well be relevant to many public-sector rangers, they will be less applicable to rangers and equivalent personnel in conservation areas with less government involvement in management and governance (e.g. areas with Shared governance, Private governance or Governance by Indigenous peoples and local communities).

Therefore, analogous future studies should endeavour to include an equal representation of sites covering all

Table 1. Summary of governance categories and types for conservation areas in the Global Ranger Perception Survey, as per the conservation area governance typology from the World Database on Protected Areas (IUCN & UNEP-WCMC, 2016)

Governance type category			Governance type sub-category		
Category	Count	Percentage	Sub-Category	Count	Percentage
Governance by government	346	81%	Federal or national ministry or agency	243	57%
			Government-delegated management	44	10%
			Sub-national ministry or agency	59	14%
Shared governance	24	6%	Collaborative governance	24	6%
Private governance	10	2%	Individual landowners	1	0%
			Non-profit organisations	9	2%
Governance by Indigenous peoples and local communities	45	11%	Indigenous peoples	1	0%
			Local communities	44	10%
Total	425	100%	Total	425	100%

governance types. Alternatively, there could well be value in carrying out another large-scale survey – akin to the GRPS – but with a focus on sites with little government involvement, like privately protected areas and sites governed by Indigenous peoples and local communities. Such research would complement the useful insights from the GRPS and therefore contribute to the development of a more comprehensive understanding of ranger perceptions and experiences across governance types in the world.

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RESUMEN

Cada vez son más las publicaciones que analizan las percepciones y experiencias de los guardaparques al implementar actividades de conservación. En particular, la Encuesta Mundial de Percepción de los Guardaparques, realizada por WWF, es la mayor evaluación mundial sobre las percepciones y experiencias de los guardaparques en relación a las condiciones de trabajo dentro de las áreas protegidas. Proporciona información sobre diversos aspectos de la profesión. A pesar de que el área protegida bajo manejo indígena y comunitario es vasta a nivel mundial, cuando se combinan los datos de la encuesta de percepción con el tipo de gobernanza de los sitios, encontramos que la encuesta está dominada por las áreas manejadas por organismos gubernamentales (81%), mientras que los sitios con gobernanza indígena y comunitaria están escasamente representados (10%). Dado este sesgo, los resultados de la encuesta son poco relevantes para las áreas que tengan menor participación gubernamental en el manejo, como son las áreas protegidas privadas y las gobernadas por pueblos indígenas y comunidades locales. Nuestro estudio, por lo tanto, concluye que las futuras encuestas a gran escala sobre las percepciones y experiencias de los guardaparques se beneficiarían de la inclusión de un conjunto más diverso de sitios en relación al tipo de gobernanza. Por otra parte, podría ser útil llevar a cabo una encuesta similar a la Encuesta de Percepción de los Guardaparques, pero esta vez centrada en las áreas protegidas gobernadas por pueblos indígenas y comunidades locales.

RÉSUMÉ

De plus en plus de publications explorent les perceptions et les expériences des garde-forestiers dans la mise en œuvre des activités de conservation. En particulier, l'enquête mondiale sur la perception des gardes forestiers (Global Ranger Perception Survey), menée par le WWF, est la plus grande évaluation mondiale des perceptions et des expériences des gardes forestiers en matière de conditions de travail dans les zones protégées et conservées. Néanmoins, lorsque les données de l'enquête sur la perception des gardes-forestiers ont été associées au type de gouvernance du site, nous avons constaté que l'enquête est dominée par les aires protégées et conservées gouvernées par des agences gouvernementales (81 %), tandis que les sites avec une gouvernance indigène et communautaire étaient peu représentés (10 %), malgré la vaste zone sous cette forme de gouvernance dans le monde. Ces biais dans la gouvernance signifient que les données de l'enquête seront moins pertinentes pour les aires protégées et conservées avec moins d'implication gouvernementale, telles que les aires protégées privées et celles gouvernées par les peuples indigènes et les communautés locales. Notre étude indique donc que les futures enquêtes à grande échelle sur les perceptions et les expériences des gardes forestiers gagneraient à inclure un ensemble de sites plus diversifié en termes de types de gouvernance. En outre, il pourrait être utile de mener une nouvelle enquête semblable à l'enquête sur la perception des gardes-forestiers, en se concentrant sur les zones protégées et conservées gouvernées par des autochtones et des communautés locales.