



WWF®

REPORT

2018



# LIFE ON THE FRONTLINE 2018

A global survey of the working conditions of rangers

## PROJECT TEAM

Mike Belecky, Rohit Singh & William Moreto

## SPECIAL THANKS

Rob Parry-Jones, Mike Baltzer, Drew McVey & Alain Ononino

## LAYOUT, DESIGN & ILLUSTRATION

Catalyze

## COVER PHOTO

© Greg Armfield / WWF  
© Simon Rawles / WWF-UK

**Published in October 2018**

Disclaimer: The responses provided by rangers in this survey do not necessarily represent the position of WWF.

# CONTENTS

Forewords	1
Dedication to Rangers	3
Executive Summary	5
The Ranger Survey In Context	7
Methodology Summary	9
Country Survey Sites	11
Global Overview	13
Africa	27
South Asia	39
Southeast Asia	51
Further Regional Comparison	63
China / Russia Tiger Landscape Case Study	65
Latin America Preview Survey	66
Recommendations	67
Acknowledgements	69

# I Forewords



Sustainable Development Goal 15 aims to “protect, restore and promote sustainable use of terrestrial ecosystems, [and] sustainably manage forests.” When adopting this Goal among only 17 Sustainable Development Goals, the international community recognized that it must take action to protect the ecosystems that are home to more than

80 per cent of the terrestrial species of animals. During the High-level Dialogue of the XIV World Forestry Congress in 2015, the participants declared that “wildlife management can provide benefits for food security, livelihoods, natural heritage, and biodiversity and ecosystem conservation.” They also called for combating the illegal trade in wildlife.

But none of these lofty goals can be realized without wildlife rangers.

Public wildlife rangers are at the forefront of the struggle to preserve uncountable species that are victimized by multiple consequences of human activity. As with all public servants, it is the duty of governments, and indeed of society, to ensure that they have the proper tools and working conditions to carry out their work. Decent work, the heart of the ILO’s mission, requires the protection of workers’ rights, adequate income and social protection. As the ILO Director-General stated in 1999, “it marks the high road to economic and social development.” As a result, it is the central feature of SDG 8.

For that purpose, the international community, gathered in the ILO, has adopted a number of International Labour Standards that cover many areas of work that wildlife rangers care about and are discussed in this report, among them: preparing for and confronting climate change and conflicts, housing conditions, welfare facilities like water and sanitation, working hours, protection of wages, freedom to join workers’ organizations, the right to collective bargaining, protection of their civil and political rights, and termination of employment.

In 1999, the ILO adopted a Code of Practice on Safety and Health in Forestry Work, which covers those engaged in the protection of forests. In light of the recent changes in climate and their impact on forests and

wildlife, the ILO will host a sectoral meeting on promoting decent work and safety and health in forestry in 2019.

To mark the centenary of the ILO in 2019, the International Labour Conference has decided to adopt a Convention and a Recommendation on violence and harassment in the workplace, which is a main concern of this report. During the first discussions in 2018, the workers’ representatives pointed out that violence at work may stem from public servants’ interaction with third parties, especially in dealing with sensitive matters such as issuing sanctions and fines, and conducting inspections and prosecutions. The proposed Convention will require governments to adopt laws and regulations to prohibit violence and harassment anywhere workers, including rangers, carry out their duties or any activity related to their work.

This groundbreaking report allows us to survey the issues that affect wildlife rangers the most and establish priorities for future action. The reader will have the privilege of witnessing these problems from the point of view of the rangers themselves, which adds great value as a starting point for such action. The choice of regions is particularly appropriate, since they are home to a wide variety of endangered species which require attention from the governments. This report contributes to the growing realization that those who protect these species are a crucial element in this effort, and that their ability to play their role requires decent working conditions.

We commend the WWF for this initiative and invite readers and policy-makers to create awareness of the challenges facing these dedicated public servants so member states and workers’ organizations can take positive actions on their behalf.

**Carlos R. Carrión-Crespo**

*Sectoral Specialist for Public Service and Utilities,  
International Labour Organization*



We are in the midst of both a global extinction crisis and global poaching crisis that threatens decades of conservation successes as well as the survival of many species. Poaching is one of the greatest current threats to the conservation of species and their homes.

Three of the world’s most loved species – tigers, elephants and rhinos – are under

threat from extinction. Increasingly involving large-scale, transnational organised crime, the current unprecedented spike in illegal wildlife trade poses a growing threat not only to wildlife but to the local communities that depend on these resources.

Rangers are the frontline of conservation. They are responsible for protecting these species and their habitats. Every day, park rangers risk their lives to protect wildlife and wild places from poaching and other threats. Sadly, it’s estimated over 1,000 park rangers have been killed in the line of duty over the past 10 years – a large percentage of these are due to commercial poachers and armed militia groups. Park rangers are generally under-equipped, underpaid, and often under-appreciated. These dedicated men and women need support, appreciation and respect from the world community – be that governments, conservation organizations or the general public.

The International Ranger Federation and The Thin Green Line Foundation have been supporting the cause for the past two decades. We have managed to support the families of 300 fallen rangers and trained thousands of rangers, but a lot still needs to be done for rangers and for their families left behind.

IRF & TGLF welcomes the study and findings. The results shed light on a much-needed aspect of ranger welfare, i.e. health and safety, which was also identified as one of the key gaps in the Estes Park Declaration of the 8th World Ranger Congress held in the USA in 2016. It is my hope that these results will not remain as merely interesting statistics but that they will help governments, conservation organizations, and the world community to both understand the needs of rangers, and know how to support them better, for “conservation without well-equipped and well-trained rangers is just conversation!”

**Sean Willmore**

*President, International Ranger Federation  
Founder, The Thin Green Line Foundation*



As the world grapples with the poaching and illegal wildlife trade crisis, rangers on the frontline of protecting our wildlife and natural resources are exposed regularly to dangerous and life-threatening situations. I've witnessed this personally while working in the parks and protected areas of Africa and Asia.

I remember rangers packing World War II rifles and reporting encounters with poachers who were armed to the teeth with the latest automatic assault weapons. These poachers, backed by well-resourced, sophisticated wildlife trafficking syndicates have taken a massive toll in terms of injuries and in increasing frequency, the deaths of rangers. The official death toll from last year alone rose to 107 from 101 the previous year according to the International Ranger Federation and The Thin Green Line Foundation.

'Life on the frontline' reports on the largest and most comprehensive ranger welfare survey ever conducted in Africa and Asia. The report reveals that many rangers are struggling without basic welfare needs such as decent housing, medical care and adequate health insurance.

There are glaring gaps in access to basic training for new rangers and lack of regular training and upgrading of skills, inadequate communication equipment, lack of transport, low wages and ultimately, inability to respond to the ever-evolving tactics deployed by poachers.

The picture revealed by the data and ranger testimonies in this report are not surprising to me, but as disheartening as the results may be they can – and should – provide incentives for the surveyed countries



Rangers are on the frontline of conservation efforts, helping to protect the world's most important natural places in national parks, reserves, conservancies and other protected areas. Their dedication and hard work ensure that natural habitats and wildlife are protected and maintained, conserving nature for present and future generations. Many rangers work in

difficult, challenging and sometimes dangerous conditions, yet this vital work force is often poorly recognized and resourced.

This publication, the first of its kind, emphasizes the urgency for the global community to act on Recommendation 32 from the 2016 World Conservation Congress in Hawai'i, regarding 'Establishment, Recognition and Regulation of the Career of Park Ranger'. It emphasizes the need for all states to give immediate priority to the recruitment, training, equipment and well-being of park rangers everywhere. This requires that governments, and conservation agencies, take a fresh look at career advancement for rangers and create attractive and exciting career profiles for staff of protected and conserved areas. This requires support for capacity building to enhance their skills for protection and management but also provision of adequate resources and equipment, including – wherever possible – access to new technologies. More emphasis on professionalization of ranger service would help to address many of the shortcomings identified in this study, and even help to save lives.

and others facing similar challenges to take action and address ranger welfare.

There are simple, inexpensive changes that governments can implement immediately. For example, creating work schedules that allow adequate time for travel and home visits for rangers who work far from their families. Other changes – medical coverage, health insurance and access to adequate living facilities, not to mention tools to enhance safety and effectiveness of patrols – require financial investment but we must rally the international community to provide for our heroes who live on the frontline.

My hope is that this report sparks more interaction between countries of Africa, Asia and beyond so that administrative and management challenges can be elevated and resolved globally.

And my wish is that these survey findings influence far greater investment by governments that lead to significant improvements for rangers' living and working conditions. These are the women and men who protect our natural heritage and deserve our attention, investment and deepest respect.

**Dr Margaret Kinnaird**

*Practice Leader, Wildlife, WWF International*

I am hopeful that readers will remember, and act upon, the call from famed conservationist Jane Goodall to the attendees of the World Parks Congress in Sydney, Australia to consider how we can better support both rangers and their families. In recent years, the global community has begun to realize that while protected areas are the cornerstones of biodiversity conservation they also offer much more to society, contributing to food and water security, adaptation to climate change, and human livelihoods. These rangers, and the vital roles that they perform, are not simply protecting wildlife and wild spaces, but also contributing to human welfare and well-being.

Investing in the men and women who take on these important duties and recognizing, enhancing and rewarding their professional skills is one of the most effective ways we can contribute to the protection of nature, and a more sustainable and safer world.

**Dr Kathy MacKinnon**

*Chair, IUCN World Commission on Protected Areas (WCPA)*

# Dedicated to Rangers Who Have Lost Their Lives in the Line of Duty

**Unnamed**  
*Senegal*

**Mohammad Asad**  
*Pakistan*

**Zeeshan**  
*Pakistan*

**Rajen Naag**  
*India*

**Amuge Sisto**  
*Uganda*

**Gana Bey**  
*India*

**Alexandre Rochsinki**  
*Brazil*

**Sebastião Lima Ferreira Júnior**  
*Brazil*

**Olavo Perim Galvão**  
*Brazil*

**Marcos Costa Jardim**  
*Brazil*

**Léopold Gukiya Ngbekusa**  
*Democratic Republic of Congo*

**Patrick Kisembo N'singa**  
*Democratic Republic of Congo*

**Sudi Koko**  
*Democratic Republic of Congo*

**Antopo Selemani**  
*Democratic Republic of Congo*

**Lokana Tingiti**  
*Democratic Republic of Congo*

**Trenton Johnson**  
*USA*

**Mamadou Mbengue Camara**  
*Senegal*

**T. Murugesan**  
*India*

**Brent M. Witham**  
*USA*

**Mohammad Amin Wani**  
*India*

**Pati Dheer**  
*India*

**Charles Paluku Syaira**  
*Democratic Republic of Congo*

**Jonas Paluku Malyani**  
*Democratic Republic of Congo*

**Pacifique Musubao Fikirini**  
*Democratic Republic of Congo*

**Souleymane Tangara**  
*Mali*

**David Radu Bernat**  
*Romania*

**Wayne Lotter**  
*Tanzania*

**Gabriel Ramos Olivera**  
*Mexico*

**Edilson Pereira Dos Santos**  
*Brazil*

**Maiko Ngerangera**  
*Tanzania*

**Tilak Singh Yadav**  
*India*

**Fazal Ahmad**  
*Pakistan*

**Gary Helming**  
*USA*

**Adamou Philippe**  
*Democratic Republic of Congo*

**Toya Sompleny Williams**  
*Ivory Coast*

**Kezang Jatsho**  
*Bhutan*

**Ruben Arzaga**  
*Philippines*

**Fernando Victor Alazima**  
*Mozambique*

**Tanasak Marod**  
*Thailand*

**Muhammad Mushtaq Bhatti**  
*India*

**Manzoor Ahmad**  
*Kenya*

**Unnamed**  
*Mali*

**Sudchit Khorthong**  
*Thailand*

**Ratnam "Posi" Pochaiah**  
*India*

**Ambroce Nyange**  
*Kenya*

**Javier Viéitez**  
*Spain*

**Attaher Younoussa**  
*Mali*

**Ousmane Coulibaly**  
*Mali*

**Issa Zalleh**  
*Mali*

**Girish Chandra Biswal**  
*India*

**Uttam Sarkar**  
*India*

**Dave Gliddon**  
*Australia*

**André de Villiers**  
*South Africa*

**Lankeswar Lakhar**  
*India*

**Sadashiv Trimbakka Nagthane**  
*India*

**Kanis J. Muyente**  
*Nigeria*

**Awunge Robert Ngogé**  
*Cameroon*

**871** recorded ranger deaths (mid-2009 - mid-2018)

**107** recorded ranger deaths (July 2017 - July 2018)

**Sri Kariyan**  
*India*

**Safeer Hussain (Shah)**  
*Pakistan*

**Toeurn Soknai**  
*Cambodia*

**Kior Kulwa**  
*Kenya*

**Usman A. Yahaya**  
*Nigeria*

**Wang Kamsaeng**  
*Thailand*

**Ngwenha Jose Mureau**  
*Mozambique*

**Kamathe Mulwahali Kachenge**  
*Democratic Republic of Congo*

**Abdramane Faradji**  
*Mali*

**Shri S. Manikandhan**  
*India*

**Julio Quispe Churo**  
*Bolivia*

**Amal Chakraborty**  
*India*

**Damodar Murmu**  
*India*

**Jules Sombouaya Yaméogo**  
*Burkina Faso*

**Prasit Petsal**  
*Thailand*

**Thomas Kweku Majam**  
*Ghana*

**Tarzman Foma**  
*Zimbabwe*

**Tendai Hunawe**  
*Zimbabwe*

**Edzai Malunga**  
*Zimbabwe*

**Gérard Hien**  
*Burkina Faso*

**Karfa Dembélé**  
*Burkina Faso*

**Eberto Nagles Luedo**  
*Colombia*

**Faustin Biriko Nzabakurikiza**  
*Democratic Republic of Congo*

**Posoposi Moukoto**  
*Democratic Republic of Congo*

**Moustapha Gueye**  
*Senegal*

**Tai Las**  
*Ivory Coast*

**Barthelemie Kakule Mulewa**  
*Democratic Republic of Congo*

**Theodore Kasereka Prince**  
*Democratic Republic of Congo*

**Karonkayo Jean de Dieu Byamungu**  
*Democratic Republic of Congo*

**Jean Luc Kasumbana**  
*Democratic Republic of Congo*

**Kananina Jean Luc Sibomanana**  
*Democratic Republic of Congo*

**Emmanuel Ila Muranda**  
*Democratic Republic of Congo*

**Nguele Rene**  
*Cameroon*

**Raksanong Samingram**  
*Thailand*

**Dev Pratap Bhatt**  
*India*

**Shibu Hembrom**  
*India*

**Mahadev**  
*India*

**Pehelwan Singh**  
*India*

**Salman Panuri**  
*Indonesia*

**Rachel Masika Baraka**  
*Democratic Republic of Congo*

**Kibwalwe Kibanda Simon**  
*Democratic Republic of Congo*

**Jimmy Chilepa**  
*Zambia*

**Unnamed**  
*India*

**Luis Antonio Lorenzo Catalá**  
*Spain*

**Marcos Oraon**  
*India*

**Ashok Kumar**  
*India*

**Unnamed**  
*Thailand*

**Aboubacar Conde**  
*Guinea*

**Pape Diomaye Ndiaye**  
*Senegal*

**Griselda Carolina Díaz Rojas**  
*Paraguay*

Data Source:



# Executive Summary

Given their central and indispensable role in preserving global biodiversity, one might wonder why there is not already a broad library of information on rangers – a library addressing the many elements and perspectives from what is a dynamic and multifaceted profession. While there is a growing body of literature on ranger activities (e.g. patrol), little is known about the individuals themselves. This publication is an attempt to fill this void by presenting the results of a large-scale assessment of ranger perceptions on their profession. With this significant amount of actionable data, it is hoped that this report can shine a far brighter light on the conditions and realities of a profession that has remained very much in the shadows to this point.

Based on the results of 4,686 surveys completed by patrol rangers in 17 countries and with each survey containing 197 unique responses –, this publication offers much to consider. It is also expansive in thematic scope, tackling matters ranging from traditional employment indicators and benefits, to training and equipment and then further yet to health, stress, community and interpersonal relationships. Such information should open the door to contributions from organizations that have not traditionally considered the profession, such as those with mandates in health and workplace rights.

The report provides valuable insights into the day-to-day life and concerns of patrol rangers, and identifies priority actions which those positioned to support rangers are encouraged to take note of.

**THE SINGLE MOST OBVIOUS THREAD THAT RUNS THROUGH THE SURVEY COMPLETED BY PATROL RANGERS AT NEARLY 300 SITES IN 17 COUNTRIES IS THAT RANGERS ARE FACING EXCESSIVE SAFETY AND HEALTH RISKS THAT COULD BE SIGNIFICANTLY REDUCED WITH THE APPROPRIATE INTERVENTIONS.**

---

The first such element is **training**, with over one third of rangers (38 per cent) indicating that the training they first received was inadequate to prepare them for the realities of their job. These findings clearly call for an urgent review and modification of ranger curricula, many of which are almost surely highly outdated and inadequate for the challenges faced by today's rangers.

**Health and safety** shortcomings seemingly overlap, with the revelation that only 19 per cent of respondents had received any first aid training during the 12-month window prior to responding to the survey. This is a considerable oversight when one considers that more than one in 15 rangers surveyed had broken a bone on the job during that same timeframe, and roughly one in eight sustained another type of serious injury.

Most of the rangers (57 per cent) also believe that medical treatment will not be adequate when needed. This is indicative of the fact that more must be done to hasten the delivery of rangers to qualified medical professionals when the need arises – something that is worth further exploration between relevant government authorities.

Infectious diseases are also revealed by this study to be a serious threat to ranger well-being, with 25 per cent contracting malaria within the prior 12 months, and 22 per cent contracting another disease or infection that required treatment. The fact that a majority of rangers indicated that their shelter is inadequate may partially explain this. Low-cost improvements such as ensuring the availability of mosquito nets and clean drinking water at outposts would almost certainly reduce infections. Only 33 per cent and 51 per cent of those surveyed ‘often’ or ‘always’ had access to those items respectively.

Inadequacy or non-availability of key **equipment** is another issue that puts rangers at risk. Slightly over half of respondents believed that even their most basic equipment (uniform and boots) is insufficient for the job they do – shortcomings that would be magnified given the substantial patrolling distances required of the profession.

The fact that 36 per cent of rangers surveyed stated that they never have access to **communication devices** during patrol should shock and surprise. The inability to communicate information in real time makes an already dangerous job far riskier.

Another safety-related matter communicated to us by rangers is the high rate of on-the-job **verbal abuse** (31 per cent) and **threats** (32 per cent) received from community members within the prior 12 months. However, this problem was recorded unevenly – between regions, and even between countries within the same region. Improving training (sensitization, human rights considerations, etc.) as it pertains to dealing with local communities and other stakeholders, and opening up a constructive dialogue between wildlife authorities and those

communities must be made a matter of priority in areas where the situation is problematic. Such a strategy can do much to protect the safety of both rangers and local peoples.

Many of the problems outlined by rangers also direct us towards possible solutions. However, such solutions will require political will and action, as well as the support of those organizations that have a stake in rangers or conservation more generally. At minimum, the information revealed through the surveys should help those overseeing budgets for this sector to better prioritize spending and make sound decisions regarding the allocation of finite resources.

To accomplish more lasting change however, rangers need to be fully professionalized – which is to say properly valued and supported for the critical role they play. Findings in this study, such as the fact that one-third of surveyed rangers have been paid late at least once during the previous year, reveal that there is considerable progress needed on this point.

Fortunately, this is an opportune time for major changes to how rangers are perceived and supported. One major factor is that governments are increasingly recognizing that rangers protect more than natural heritage and intact wilderness. They also guard billions of dollars of ecosystem services provided by protected areas – services that form the base upon which economic progress and sustainable development must necessarily be built. All this in addition to the fact that rangers are protecting an item of classic concern to governments – the territorial integrity of their countries, which is now more than ever threatened by the intrusion of transnational wildlife crime.

This study gives a strong voice to rangers, and shares with us many of their most pressing challenges and concerns. It now falls on governments and their partners to answer the call.

# The Ranger Survey In Context

That rangers face many challenges and a difficult working environment is a commonly-held opinion of those familiar with the sector. However, quantitative studies on rangers' working conditions have been almost non-existent, with far less data available than is the case for most professions.

To determine whether the intensive effort and investments required to produce this study would be necessary, WWF conducted an initial limited-scope pilot study of rangers in the Africa and Asia regions, later published as *Ranger Perceptions: Asia* and *Ranger Perceptions: Africa*. These, along with another small overview study entitled *Ranger Insurance Report*, suggested that the situation currently faced by rangers is highly problematic. It was clear that a larger, more rigorous study would be required to make the case for change and galvanize action.

The publication of this report is only the start – far more is on the way. This includes a major research report that will be released in the lead-up to the 2019 World Ranger Congress in Nepal. That publication will include:

- National-level survey results from the 17 countries highlighted in this publication.
- Results from the delivery of the survey to an additional 4-10 countries.

➤ In-depth studies and recommendations on a variety of topics pertinent to rangers, including:

- A comparative review of the ranger sector to other law enforcement sectors (e.g. police) in select survey countries.
- An in-depth ranger insurance study from four countries.
- A comprehensive analysis of the legal rights and obligations of rangers working in seven Asian countries.
- Further analysis of international law and international labour standards as they pertain to the sector.
- The results of surveys delivered to hundreds of community members, in or immediately adjacent to protected areas where rangers had previously been surveyed. The perceptions of both groups towards each other will then be compared in order to suggest means to improve ranger-community relations.
- A case study on post-traumatic stress disorder (PTSD).



**THE PUBLICATION OF THIS REPORT IS ONLY THE START — FAR MORE IS ON THE WAY. THIS INCLUDES A MAJOR RESEARCH REPORT THAT WILL BE RELEASED IN THE LEAD-UP TO THE 2019 WORLD RANGER CONGRESS IN NEPAL.**

# Methodology Summary



**17** countries surveyed



**294** survey sites



**20** months



**4,686** responses

The survey was delivered to rangers at 294 sites in 17 countries between October 2016 and July 2018. Of the 4,686 surveys that were returned, 4,393 make up the main findings published in this report (15 countries), and 293 were analyzed separately as regional case studies (two countries). In addition to taking the survey, approximately one in five respondents was invited to participate in a short one-on-one interview, with the survey delivery team member taking down their answers in writing. Some of these responses are included as quotes in the regional sections of this report.

The study prioritized the following approaches:

**Collaborative development:** Although the lead survey design team consisted of three individuals, dozens of experts were invited to give inputs into the process, leading to a number of important additions. Prior to data collection, a two-day workshop was held in Phnom Penh, Cambodia (2015), where key stakeholders – including rangers – from a number of Asian countries met to discuss the draft survey and interview instruments to better contextualize the questions, as well as the logistics required to standardize data collection across multiple countries.

**Public-sector patrol rangers as sole survey targets:** Two key criteria were used to determine eligibility for participation in the survey. One was that the rangers should be in the public sector, in the sense that some or all of their salary is paid by government, and their position should be characterized by accountability and duties to a governmental authority. The second prerequisite was that the ranger taking the survey must be

involved in patrolling activities on a regular basis. It is also worth noting here that rangers go by multiple designations across Asia and Africa, with many survey respondents not formally referred to by the term ‘ranger’ in their home country.

**Organizational and geographical representativeness, plus consistency in national sample size selection:** In all surveyed countries

major efforts were made to obtain an accurate estimate of the total number of employed public sector patrol rangers (these figures can be viewed on pages 11-12). Plans were then built around the objective of delivering surveys to roughly 20 per cent of patrol rangers in each country, to an upper limit of roughly 750 responses. This was to ensure that the data collection a) was manageable for the survey teams, b) did not interfere with the operations of the agencies involved, and c) provided sufficient responses for future statistical analyses. To the extent possible, survey sites were then selected in a manner reflective of overall distribution of rangers, both geographic and organizational. Examples of the latter would include distribution of rangers between ministries (e.g. environmental vs forestry) or between different levels of government (e.g. federal vs provincial). While random sampling is often viewed as the best approach for survey research, the study adopted a convenience sampling strategy as random sampling would have been limited by the ability to approach rangers located in remote outposts. Furthermore, the identification of randomly-selected rangers may have compromised the anonymity of study participants.

### Questions spanning a 12-month timeframe:

Many of the survey questions prompted rangers on events that happened during the preceding 12 months at their workplace. Because the survey covered an entire year, this approach minimized the risk of skewing responses by taking into account the influence of seasonal variations (e.g. malaria infection rate, contact with community members, etc.)

**High-quality translations:** The survey was translated into national or local languages when required, and the quality of each survey was verified by field staff working closely with rangers in each case. In instances in which the survey respondent was illiterate, a member of the survey delivery team would read the questions aloud to that person, and assist them in recording their responses.

**Strong privacy protections:** Prior to the start of both surveys and interviews, informed consent procedures were followed. Rangers who were offered the opportunity to partake in the survey were informed that their participation was entirely voluntary. As an added layer of anonymity protection, verbal consent was provided to ensure that respondents did not have to record or sign their names. Survey and interview takers were also provided with an alphanumeric code that corresponded to their submitted response sheets. They were informed that they could at any time use this number to request that their response be destroyed and removed from any analysis.

To encourage full honesty, respondents were informed that neither individual responses nor site-specific results would be shared directly with their departments or any government officials, in order to protect the safety (particularly job security)

of both survey respondents and their managers at individual sites. Responses were always kept in the possession of survey delivery teams, which in all cases were non-governmental staff.

**Additional factors impacting surveys:** Although it is hoped that all results are an accurate reflection of ranger employment conditions, certain factors should be acknowledged when one conducts broad sociological surveys of this kind. Some examples might include:

- 1 Cultural variation when it comes to expressing opinions on matters such as happiness, dissatisfaction, or other topics that can be highly sensitive in some regions (e.g. criticism of superiors, corruption, sexual harassment, etc.)
- 2 Sample sites selected are unlikely to be perfectly representative of a country as a whole. Financial limitations precluded the option of sampling at every single site where rangers work in these countries.
- 3 Some words or concepts used in the original English survey do not have precise counterparts in the language of the translated documents, which may influence certain responses in a limited number of cases.

All of the above issues were mitigated to the extent possible by seeking advice from individuals familiar with the local organizational, cultural and linguistic context of the survey locations.

To reduce respondent fatigue, multiple breaks were incorporated into the survey. In instances where several rangers sat to take the survey at the same time, they were instructed not to discuss its content until after they had concluded and left the survey location.

# Country Survey Sites



Africa

South Asia

Southeast Asia

Survey sites



Number of  
surveys



Estimated number of  
patrol rangers in country

## Cameroon

109

900



## Uganda

610

2,000



## Central African Republic

37

247



## Republic of Congo

67

177



## Kenya

516

3,000



## Myanmar

105

412



## Indonesia

742

5,604



WWF does not endorse the borders of any map shown in this publication, nor any political position related to territorial claims.

## Pakistan

📄 474 👤 1,500



## India

📄 767 👤 60,000



## Nepal

📄 200 👤 2,262



## Bhutan

📄 54 👤 1,500



## Bangladesh

📄 143 👤 820



## Sri Lanka

📄 145 👤 614



## Cambodia

📄 201 👤 1,300

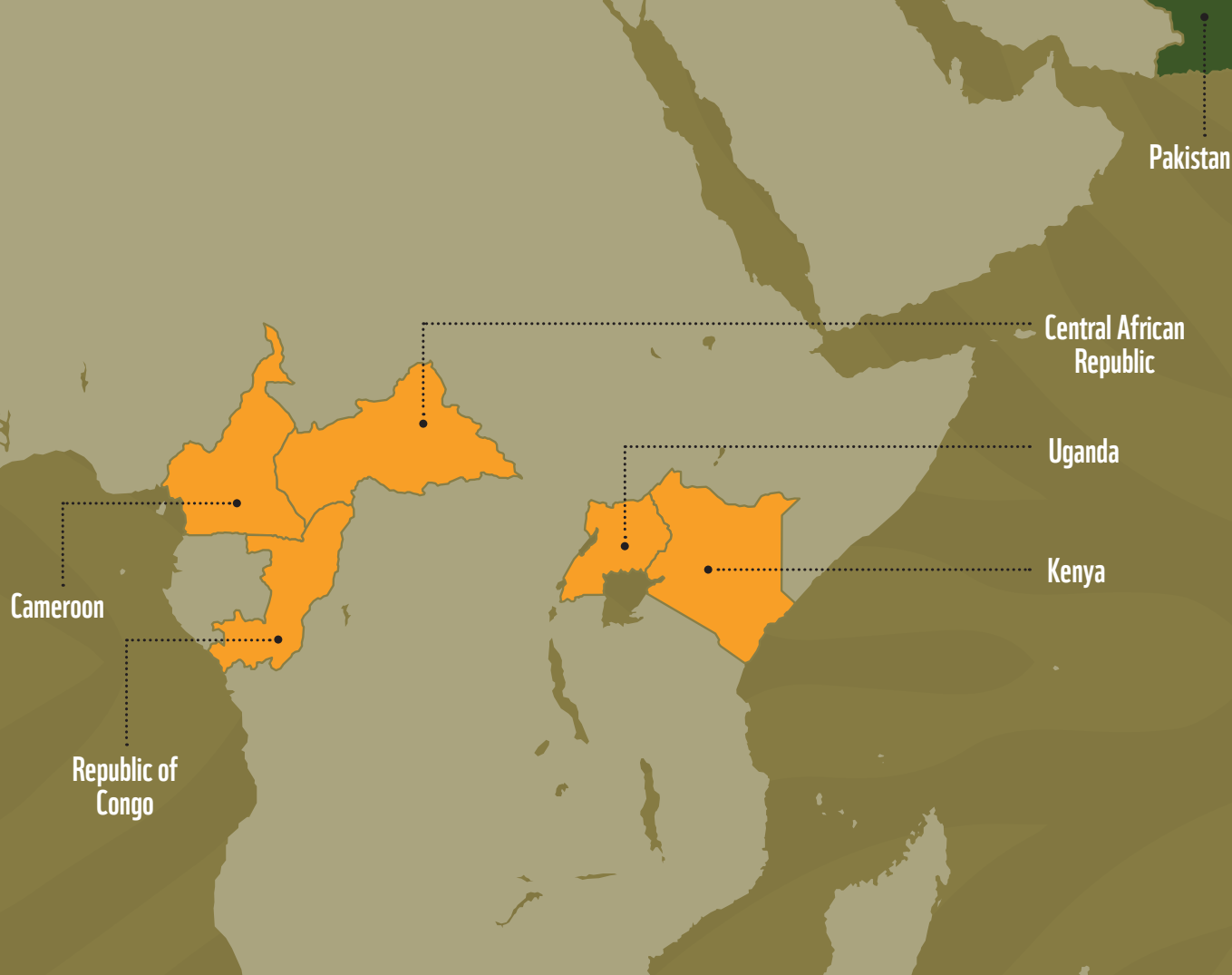


## Malaysia

📄 223 👤 1,408



# Global Overview



<i>Average</i>		Frequency	Percent
<i>Age</i>	40.86 years old	♀ 255	5.9
<i>Time in current organization</i>	12.76 years	♂ 4,057	94.1
<i>Work as a ranger</i>	12.32 years	*81 respondents did not answer the gender question	
<i>Work in current conservation area</i>	9.37 years	<i>Rangers surveyed</i>	4,393

WWF does not endorse the borders of any map shown in this publication, nor any political position related to territorial claims.



Africa



South Asia



Southeast Asia

### ***What is a ranger?***

Ranger is a collective term used to describe wildlife wardens, forest guards, foresters, scouts, watchers and other frontline staff. They are involved in practical protection and preservation of wild areas, historical and cultural sites. Moreover, they provide recreational opportunities and interpretation of sites, while providing links between local communities and protected areas.

# Employment



Overtime compensation



Extra pay for bad/dangerous work conditions



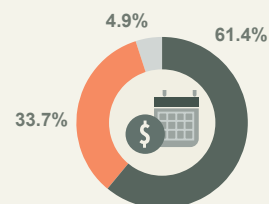
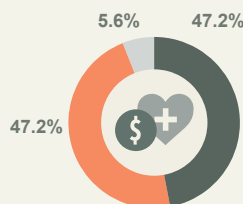
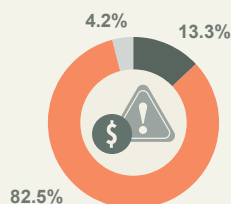
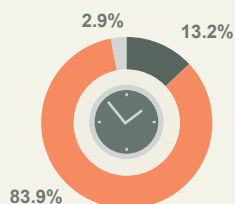
Paid sick leave



Paid annual leave

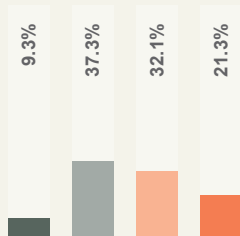
## Benefits from the work that I do

● Yes ● No ● Unsure



## I am paid a fair wage

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



## During the last 12 months

■ Yes ■ No

0% 20% 40% 60% 80% 100%

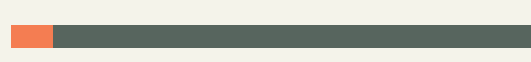
I was paid late **once**



I was paid late **≥ 3 times**



My payment was withheld for **≥ 2 months**

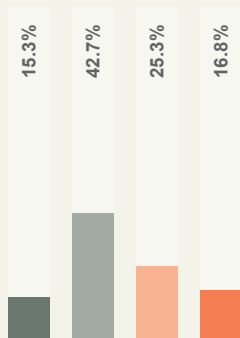


My salary was **cancelled**



## I am satisfied with my chances for promotion and advancement

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



I am paid this much in my local currency

USD **254.15** monthly



I have other paid jobs besides being a ranger

**4.8%** have other jobs

Average hours I work weekly

Total Per Week

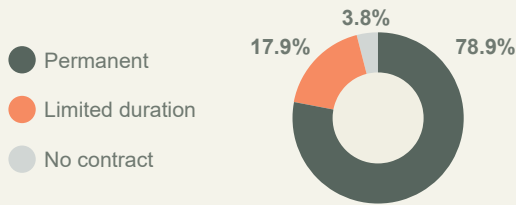
**76.11** hours

6 PM-6 AM

**33.42** hours

\*In data visualizations the colour orange correlates to the more concerning or 'negative' response categories for all non-neutral questions  
 \*Quotes with no citation are from rangers who were interviewed after completing the survey

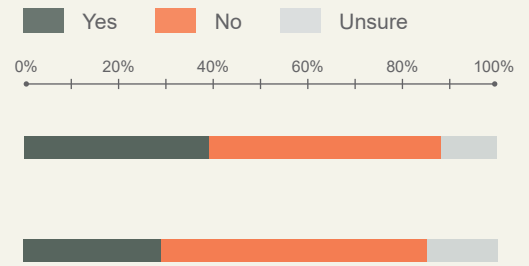
### Type of employment contract



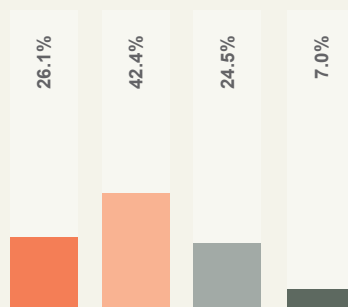
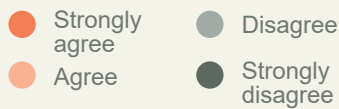
### I have access to

A union, work council or similar committee that represents employees

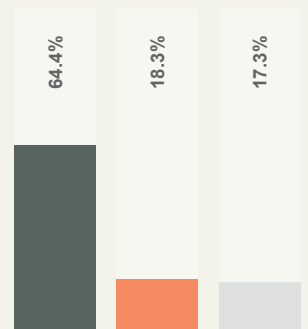
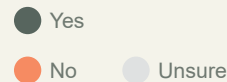
A union, work council or similar committee that can 'collectively bargain' on my behalf



### Being a ranger is a more difficult job than most people have in my country



### My organization is required to provide notice of termination



ILO Convention Category	Conventions relevant to rangers	Ratification rate (%) of listed conventions by 14 ranger survey countries*
<b>Governance</b>	<b>No. 81</b> - Labour Inspection Convention (1947); <b>No.122</b> - Employment Policy Convention (1964); <b>No. 129</b> - Labour Inspection (Agriculture) Convention (1969); <b>No. 144</b> - Tripartite Consultation (International Labour Standards) Convention (1976)	<b>54 %</b>
<b>Fundamental</b>	<b>No. 29</b> - Forced Labour Convention (1930); <b>No. 87</b> - Freedom of Association and Protection of the Right to Organise Convention (1948); <b>No. 98</b> - Right to Organise and Collective Bargaining Convention (1949); <b>No. 100</b> - Equal Remuneration Convention (1951); <b>No. 105</b> - Abolition of Forced Labour Convention (1957); <b>No. 111</b> - Discrimination (Employment and Occupation) Convention (1958); <b>No. 138</b> - Minimum Age Convention (1973); <b>No. 182</b> - Worst Forms of Child Labour Convention (1999)	<b>89 %</b>
<b>Technical</b>	<b>No. 47</b> - Forty-Hour Week Convention (1935); <b>No. 95</b> - Protection of Wages Convention (1949); <b>No. 102</b> - Social Security (Minimum Standards) Convention (1952); <b>No. 156</b> - Workers with Family Responsibilities Convention (1981); <b>No. 171</b> - Night Work Convention (1990); <b>No. 155</b> - Occupational Safety and Health Convention (1981); <b>No. 151</b> - Labour Relations (Public Service) Convention (1978); <b>No. 169</b> - Indigenous and Tribal Peoples Convention (1989)	<b>8 %</b>

Even though the 14 survey countries included in this calculation comprise 7.5 per cent of ILO membership, they account for a mere 2.4 per cent of total ratifications of these important technical conventions – a notable and concerning statistic.

\*Bhutan is excluded from the calculations given that it is not an ILO member state.

Source: International Labour Organization / NORMLEX

# Equipment



Firearms



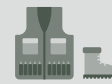
Communication devices



Navigation equipment

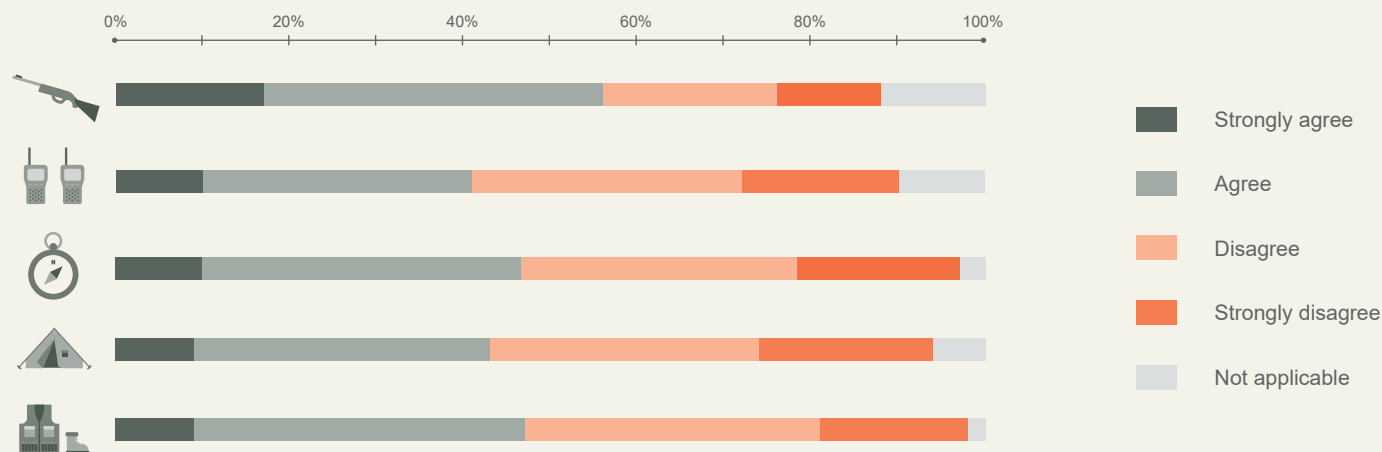


Shelter



Uniforms and boots

## The equipment provided is sufficient for the work that I do



## Impact of NGO Support

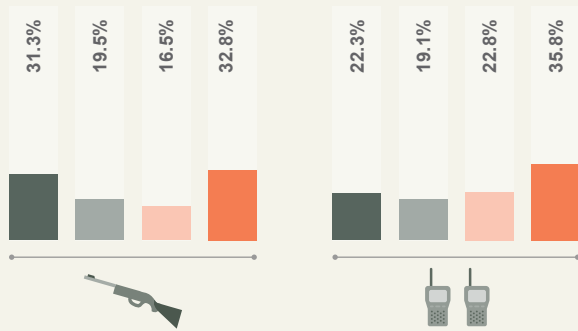
In one of the countries that was surveyed, all site managers were asked if they received any non-governmental organization (NGO) support, be it in the form of equipment or training. Survey responses revealed that NGO training support did not correspond with a higher frequency of refresher trainings overall, with rates highly similar to those of non-supported sites. Neither did NGO equipment support lead to more positive (or negative) impressions of various equipment types at those sites that received it.

Many factors could explain these results. For instance, NGOs might deliberately target sites with greater needs. It is also possible that limited sample size combined with random variation explain the findings. However, it does invite a more comprehensive multi-country analysis of the impact of NGO support on rangers' safety and satisfaction.

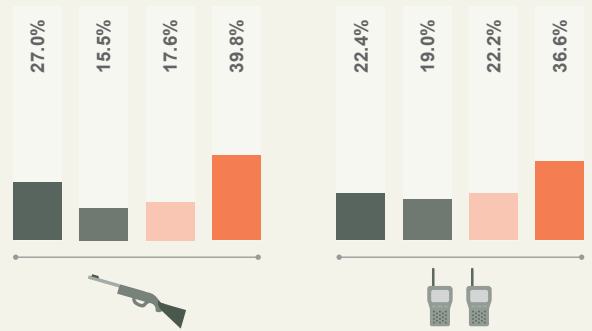
Interestingly, the only high-magnitude divergence between results from NGO and non-NGO supported sites in the study was that rangers had more frequent access to clean drinking water in sites that did not receive any support. Such findings might lead NGOs to consider whether the most basic necessities of the profession are adequately addressed, rather than limiting involvement to more 'technical' or 'sophisticated' types of support. It is hoped that this report – and especially a pending 2019 report that will include national-level findings – will allow NGOs to better design their engagement through reference to a more complete accounting of ranger needs.

● Always
● Often
● Rarely
● Never

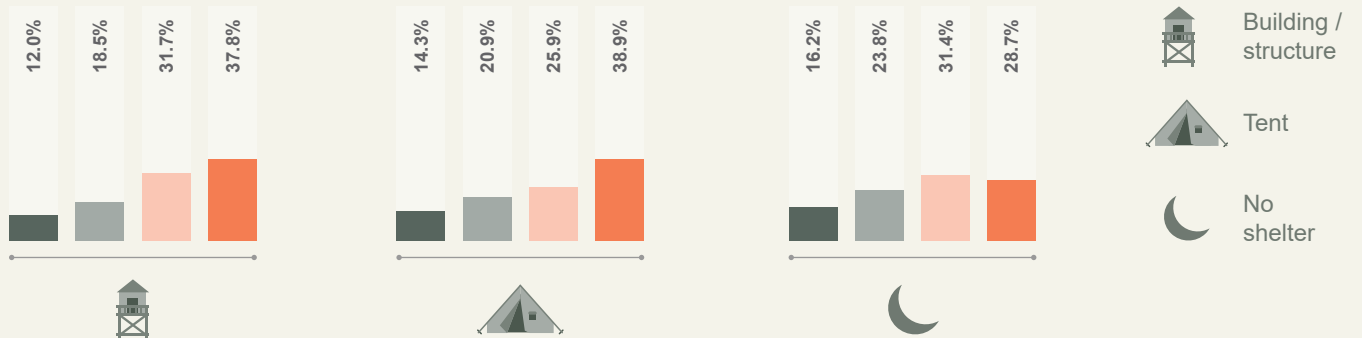
### On patrol, I have access to



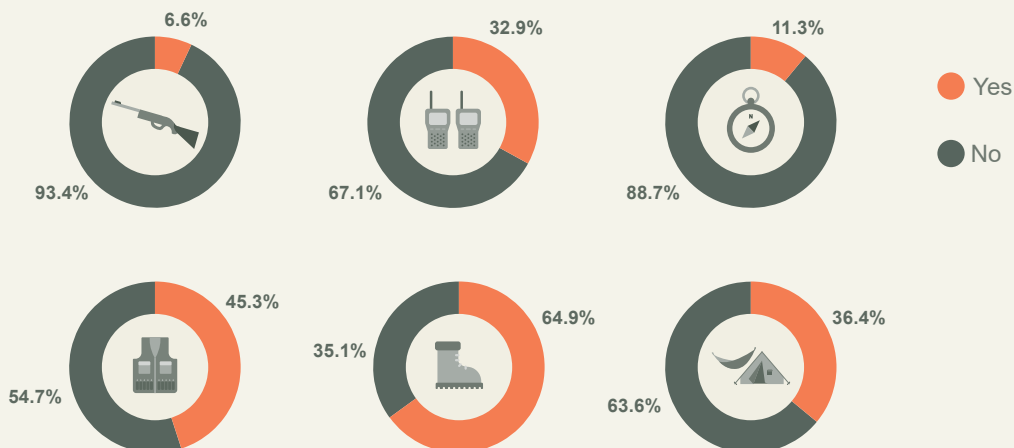
### At outpost/station, I have access to



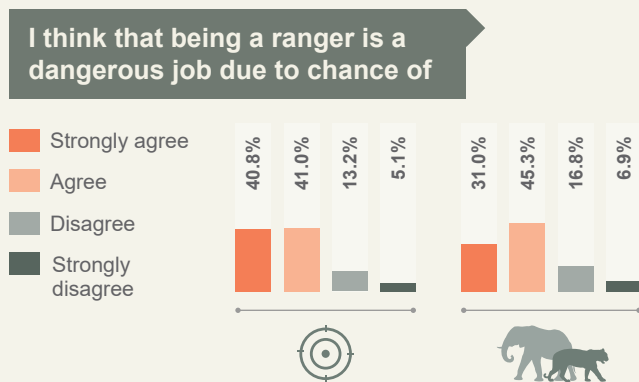
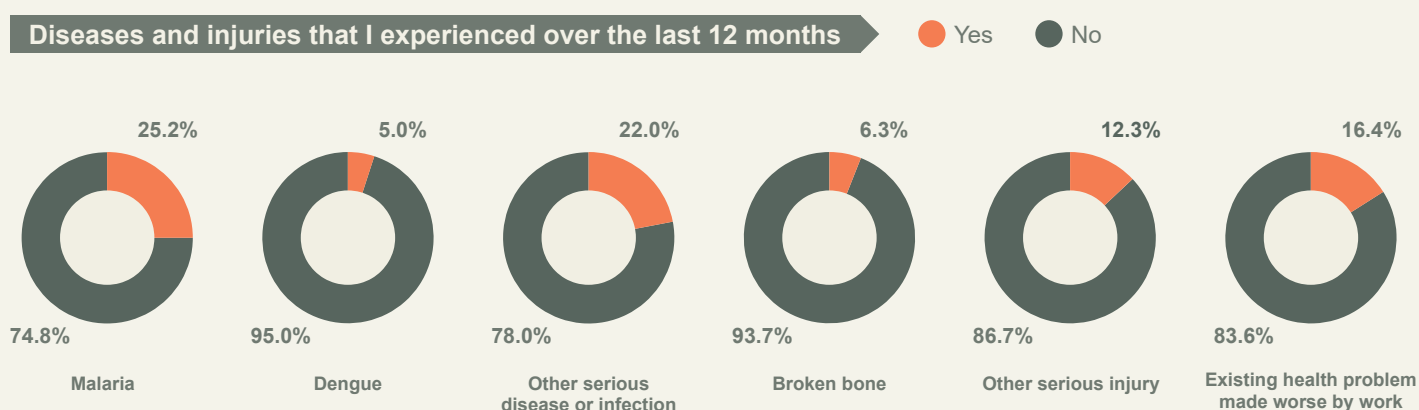
### When I am on patrol overnight away from my main ranger base, I have access to



### I bought the following equipment with my own money



# Health and Insurance



## Dangerous Work

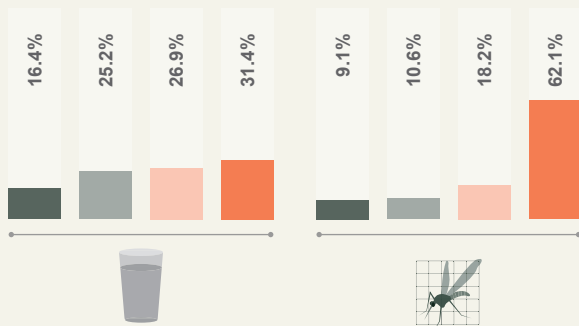
The Thin Green Line Foundation (TGLF) protects nature's protectors by providing vital support to rangers working on the frontline of conservation.

The Fallen Ranger Fund has supported over 100 families in essential areas including education, housing and assistance in establishing business enterprises. TGLF's end goal is to support 100 per cent of fallen rangers' families around the world.

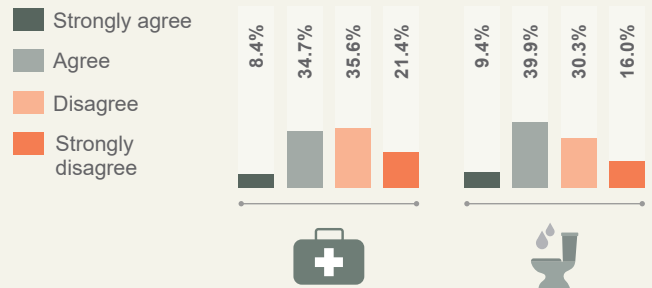
**Sean Willmore**  
Founder of TGLF

● Always ● Often ● Rarely ● Never

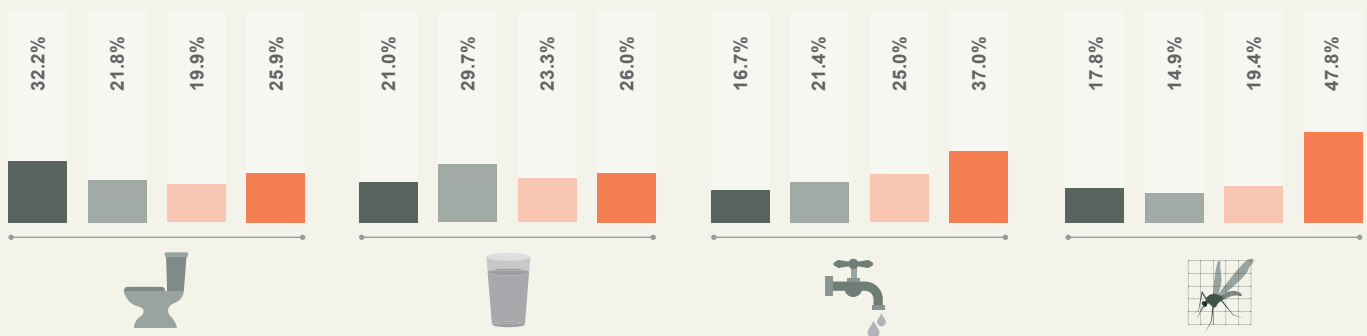
### On patrol, I have access to



### The medical treatment and basic necessities (toilet and water) that I am provided are adequate

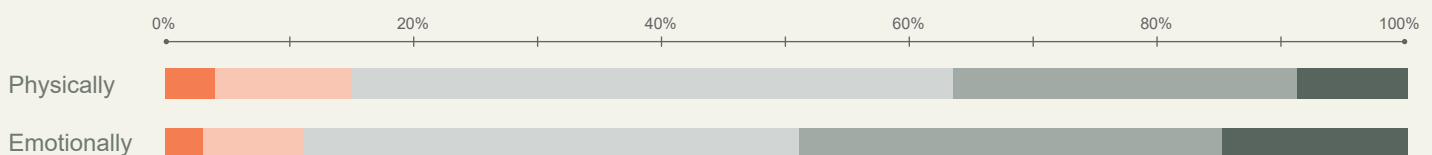


### At outpost/station, I have access to



Strongly agree Agree Sometimes Disagree Strongly disagree

### I often feel exhausted



## Psychological Impacts on Rangers

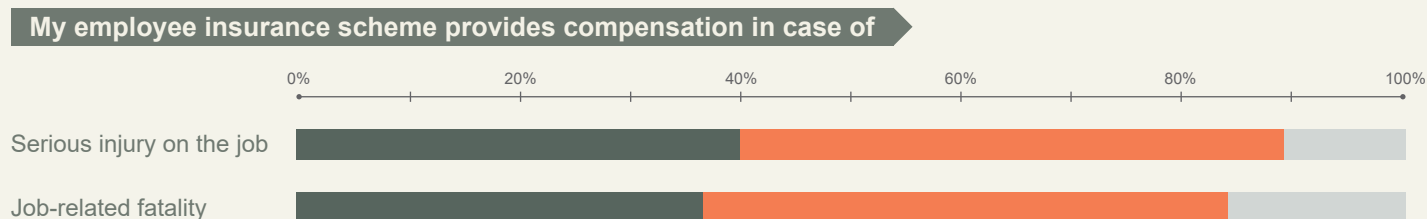
Due to the current epidemic of the poaching of Africa's wildlife and illegal extraction of natural resources, rangers are increasingly finding themselves in combat situations – for which they are paying a significant price. The effects of this epidemic are not only grievous, but detrimental to rangers' well-being. Rangers are expected to go beyond their typical role as conservationists to become active players in guerrilla warfare, putting their lives at constant risk. Rising incidents of post-traumatic stress disorder (PTSD), acute stress disorder and burnout fatigue are just some of the effects rangers have to endure as a result of this ongoing assault on our natural heritage.

Added to this, the effects on rangers' families are a reality that many in the outside world do not consider. These families often live in fear, not only for the lives of their loved ones, but also for their own. Such stress puts major strain on rangers' families and their ability to maintain a healthy family environment. Although many of the rangers look like military and are seemingly at war, it must be noted that there is a significant difference in that military go to a place of war and then return, however rangers work and live in the war zone often with their families. This is an additional stress Africa's rangers have to endure.

**Chris Galliers**  
Game Ranger Association of Africa

# Health and Insurance

● Yes ● No ● Unsure



**I have**

**75.3%**  
Spouse

**83.2%**  
Children

**I live with**

**38.6%**  
Spouse

**35.3%**  
Children

## Understanding and Improving the Ranger Insurance Model

A case study undertaken by WWF and K.M. Dastur & Company (KMD) in Kenya, Cameroon, Thailand, and India reveals the urgent need of reforming insurance support for rangers.

The results of the study show that rangers in these countries mostly worry about disability due to accidents and the considerable medical costs associated with occupational injuries.

The study shows that rangers are interested to enroll themselves in an insurance scheme but that most do not have adequate earnings and savings to

contribute towards such a scheme. This calls for a premium financing mechanism which would combine individual responsibility with targeted subsidies. Such insurance benefits can attract, motivate and retain rangers especially when they are hired on contractual / temporary basis.

A good insurance model will help to create shared infrastructure that lowers transaction costs and provides economies of scale.

**Ayandev Saha**  
General Manager, K.M. Dastur & Company

# Training

Strongly agree Agree Disagree Strongly disagree

The training I received when I first started was sufficient for my job responsibilities



I feel that my organization provides sufficient additional training (such as refresher trainings)



Within the past 12 months, I went to the following types of training to improve my skills

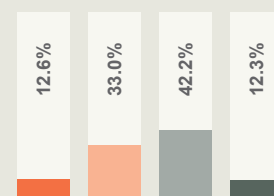
**19.2 %**  
First aid & emergency

**20.4 %**  
Navigation

**21.2 %**  
Human wildlife conflict

**25.6 %**  
Crime scene investigation

I don't think the law does a good job of deterring people from committing crimes in the conservation area



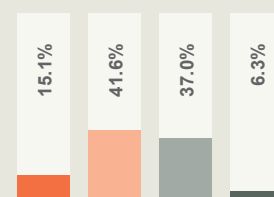
**30.9 %**  
Firearms

**22.1 %**  
Tracking

**23.9 %**  
Ranger-based data collection

**32.2 %**  
Law and regulation

I'm disappointed with the way courts treat people arrested in the conservation area



**13.3 %**  
Engagement /combat

**18.4 %**  
Wilderness survival

**32.6 %**  
Patrol

Strongly agree  
Agree  
Disagree  
Strongly disagree



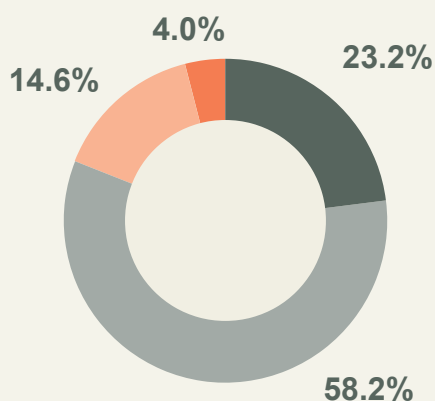
TO THE OUTSIDE WORLD, WORKING IN THE BUSH CAN SOMETIMES APPEAR TO BE A GLAMOROUS PROFESSION. NO ILLUSIONS SHOULD BE CREATED AS TO THE REALITIES OF THE JOB AT HAND. ALL CONSERVATION EFFORTS IN AFRICA WILL AMOUNT TO VERY LITTLE WITHOUT A WELL-LED, WELL-SUPPORTED, WELL-SKILLED, WELL-RESOURCED, DEDICATED AND MOTIVATED FIELD FORCE.

— Chris Galliers  
Game Ranger Association of Africa

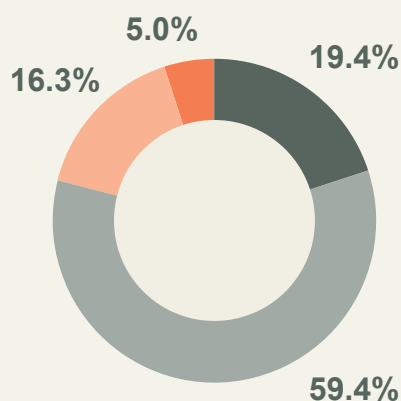
# Community Relations

● Strongly agree
● Agree
● Disagree
● Strongly disagree

I believe that part of rangers' success at their jobs depends on the community providing them with information



I believe community members trust me



The organization I work for shows concern for community members' well-being and quality of life



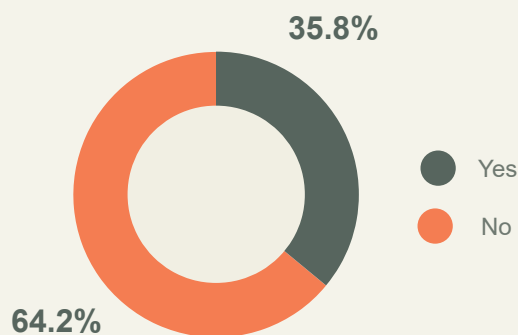
## Importance of Community Trust

The trust and support of local communities – characterized by a regular and constructive dialogue with rangers – is one of the most critical factors in reducing the likelihood of poaching activities. It encourages communities to act as reliable informants, which in turn makes areas less permeable and appealing to organized poaching groups. This keeps rangers safer, while also serving to reduce any hostility and misunderstanding that can lead to tragic violence between rangers and local peoples.

## Rangers from Neighbouring Communities

Survey responses did not show significant difference between rangers from nearby communities and those from more distant areas. This observation also held true for rangers' perceptions of local communities and community-ranger relations.

I am originally from a neighbouring community (within 20km of a park)



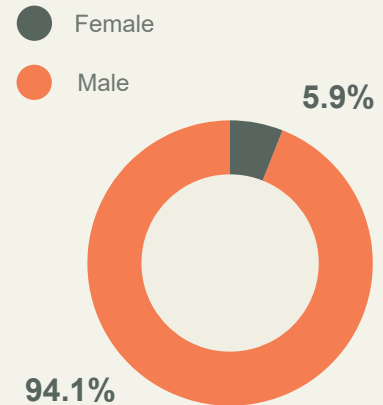
# Gender

Although male and female responses to the survey were highly similar overall, there was notable divergence for a few key questions.

When asked if their efforts were fairly rewarded by their organization, 49 per cent of women responded in the affirmative, compared to 59 per cent for men. Similar gaps (between 8-10 per cent) were seen for related questions, such as optimism regarding the potential for promotion and the fairness of their supervisor's decisions.

The numbers below suggest it would benefit employers to review if women are leaving the profession earlier or at higher rates than men. An aspect of this analysis should include whether gender bias – particularly in recognition and promotion – could be a contributing factor to any such occurrence.

Survey respondents by gender



My efforts are fairly rewarded by my organization

49 %

59 %

I am a supervisor

19 %

28 %

Average age

32.0 years

39.3 years

I have been subjected to sexual harassment or violence by co-workers

3.6 %

1.1 %

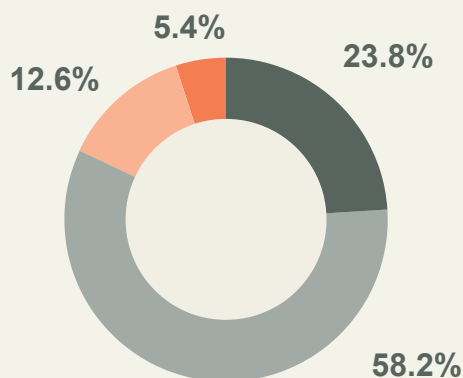


LAST YEAR I GOT PREGNANT BUT I HAD TO EXECUTE MY RESPONSIBILITIES, INCLUDING GOING FOR PATROLS. WE USUALLY PATROL FOR 15 DAYS BEFORE COMING BACK TO CAMP. I WAS PART OF THE PATROL UNTIL I WAS SIX-MONTHS PREGNANT. IT WAS AN EXPERIENCE I WISHED I COULD AVOID BUT COULDN'T BECAUSE NOT GOING TO THE PATROLS MEANT NO EXTRA ALLOWANCES WHICH I DESPERATELY NEEDED. MOST FEMALE RANGERS DO THIS, WHICH IS EXTREMELY RISKY FOR BOTH MOTHER AND CHILD.

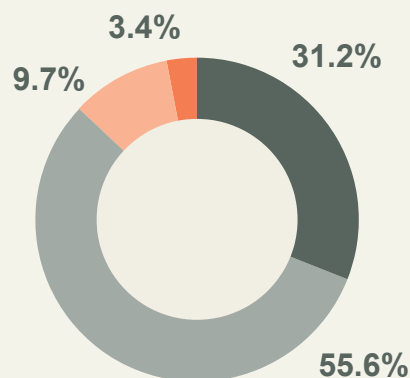
# Misconduct

Strongly agree
Agree
Disagree
Strongly disagree

Rangers would report their fellow rangers if they witnessed them accepting a bribe or engage in other corrupt and illegal activities

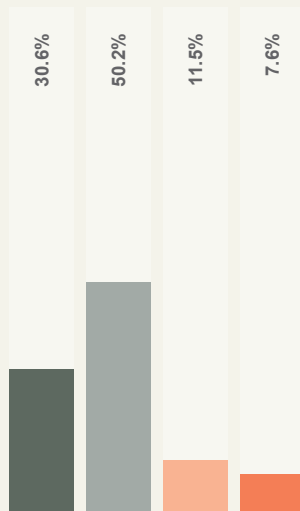


I would report a ranger if I witnessed them accepting a bribe or engage in other corrupt and illegal activities



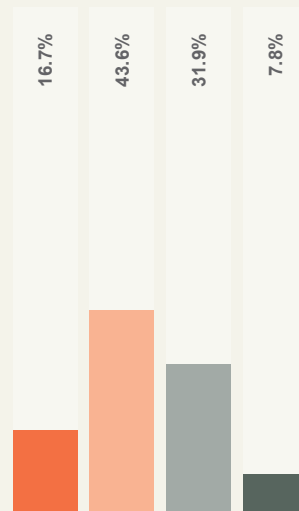
My organization does a good job reprimanding rangers found to have participated in corrupt activities (such as accepting bribes)

Strongly agree  
Agree  
Disagree  
Strongly disagree



I would be concerned for my safety if I reported a fellow ranger who I witnessed accepting a bribe or engage in other corrupt and illegal activities

Strongly agree  
Agree  
Disagree  
Strongly disagree

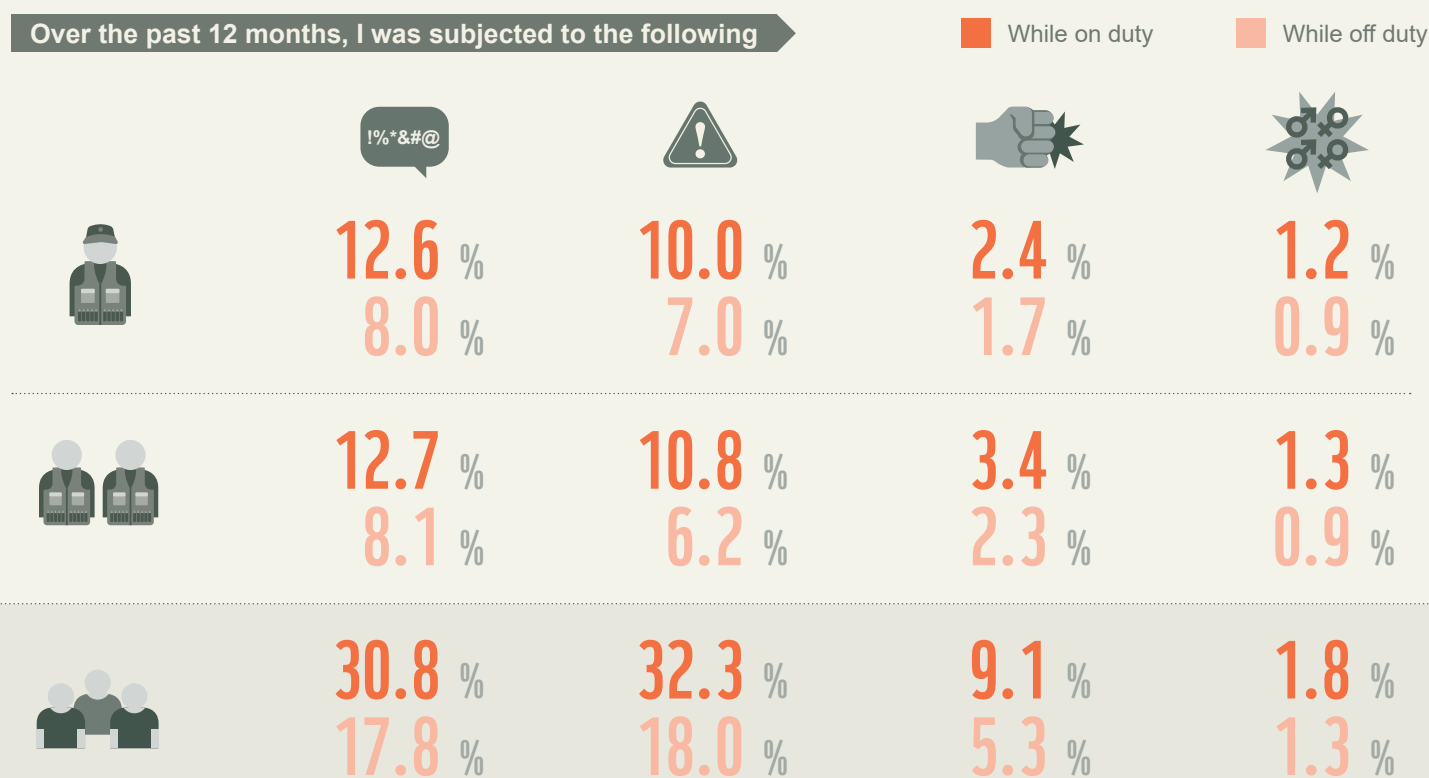


IT IS FRIGHTENING TO NOTE THAT OVER 50 PER CENT OF SURVEYED WILDLIFE RANGERS FEAR FOR THEIR OWN SAFETY IF EXPOSING CORRUPTION IN WILDLIFE PROTECTION.

— Arne Strand  
 Director, U4 Anti-corruption Resource Centre, Norway



Over the past 12 months, I was subjected to the following



Although community members were defined in the survey as ‘those living in or around the conservation area’, it is worth noting that rangers may in some cases have a limited ability to distinguish such ‘locals’ from others who may have entered the area to unlawfully extract or otherwise use local resources. Such cases may have inflated these numbers to some degree. Even so, the statistics are significant and invite further study. For instance, it would be worthwhile to establish how human-wildlife conflict frequency or the age of the protected area impacts these numbers.

Such findings are of great importance given that reduction of conflict and mistrust between rangers and local community members is an essential aspect of protecting the health and safety of both groups. To provide a more complete picture of ranger-community dynamics, a large number of community members will be given similar surveys to learn more about their experience with — and perception of — rangers. These will be delivered in villages close to previous ranger survey sites, with the findings to be included in a follow-up 2019 report.

# Africa

## *Average*

<i>Age</i>	<b>34.07 years old</b>
------------	------------------------

<i>Time in current organization</i>	<b>7.93 years</b>
-------------------------------------	-------------------

<i>Work as a ranger</i>	<b>7.58 years</b>
-------------------------	-------------------

<i>Work in current conservation area</i>	<b>5.94 years</b>
--	-------------------

		Frequency	Percent
<i>Gender breakdown*</i>	♀	<b>144</b>	<b>11.2</b>
	♂	<b>1,141</b>	<b>88.8</b>

\*54 respondents did not indicate their gender

<i>Rangers surveyed</i>	<b>1,339</b>
-------------------------	--------------



“

I AM PROUD TO BE A FOREST AGENT. MOSTLY TO PROTECT THE FOREST SO THAT OUR CHILD SHOULD SEE THE ANIMALS IN THE FUTURE

—— *Ranger in Central African Republic*

# Employment



Overtime compensation



Extra pay for bad/dangerous work conditions



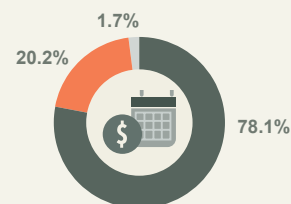
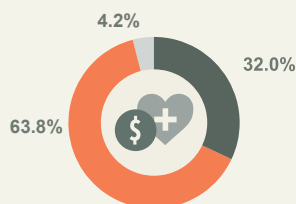
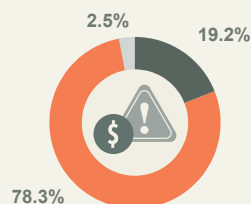
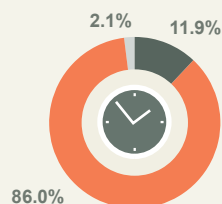
Paid sick leave



Paid annual leave

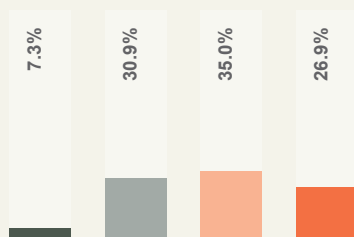
## Benefits from the work that I do

● Yes ● No ● Unsure



## I am paid a fair wage

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree

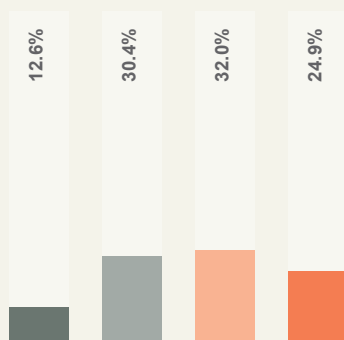


I am paid this much in my local currency

USD **179.30** monthly

## I am satisfied with my chances for promotion and advancement

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



Average hours I work weekly

Total Per Week

**105.12** hours

6 PM-6 AM

**55.34** hours

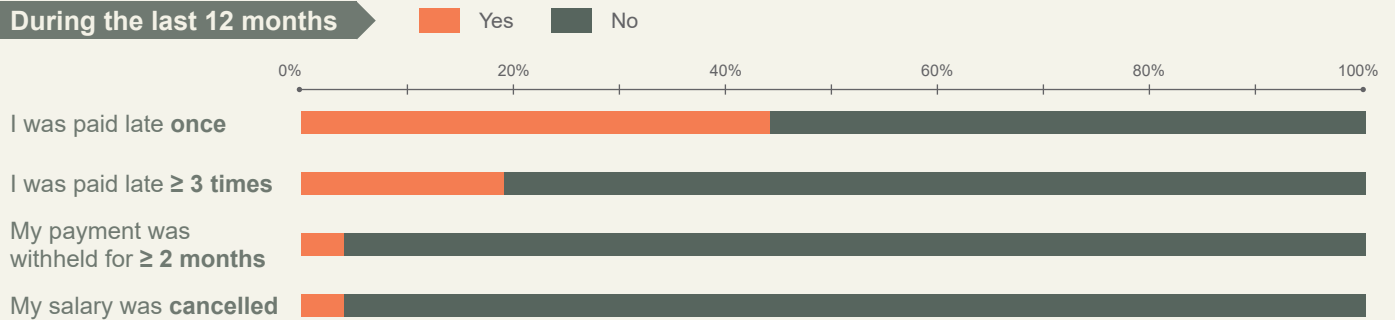


I have other paid jobs besides being a ranger

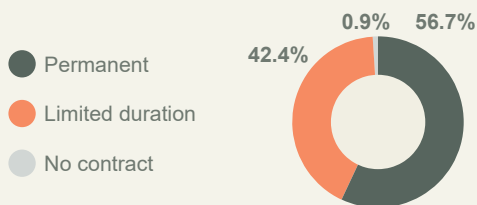
**2.2%** have other jobs

\*In data visualizations the colour orange correlates to the more concerning or 'negative' response categories for all non-neutral questions  
 \*Quotes with no citation are from rangers who were interviewed after completing the survey

### During the last 12 months

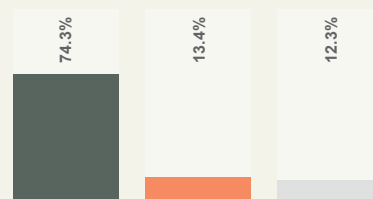


### Type of employment contract



### My organization is required to provide notice of termination

Yes  
No  
Unsure



### I have access to

Yes No Unsure

A union, work council or similar committee that represents employees

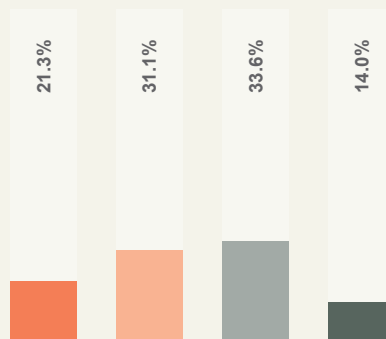


A union, work council or similar committee that can 'collectively bargain' on my behalf



Being a ranger is a more difficult job than most people have in my country

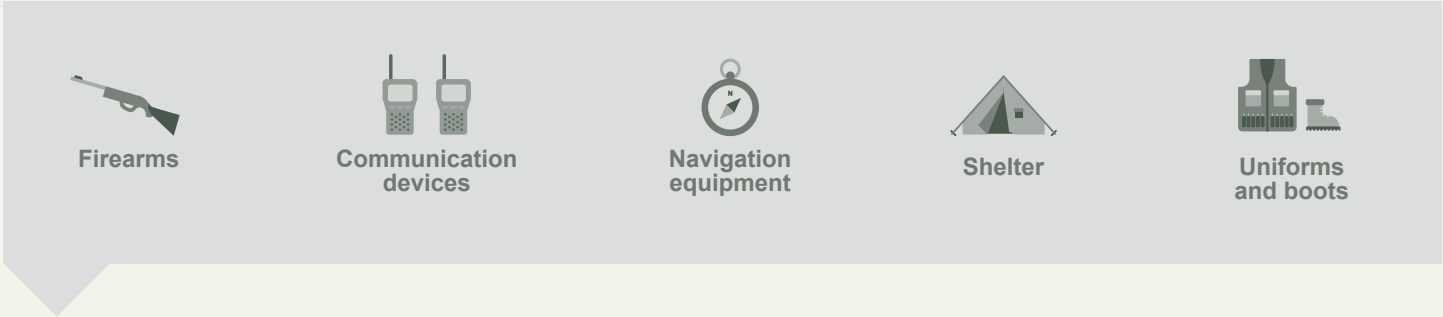
Strongly agree  
Agree  
Disagree  
Strongly disagree



“

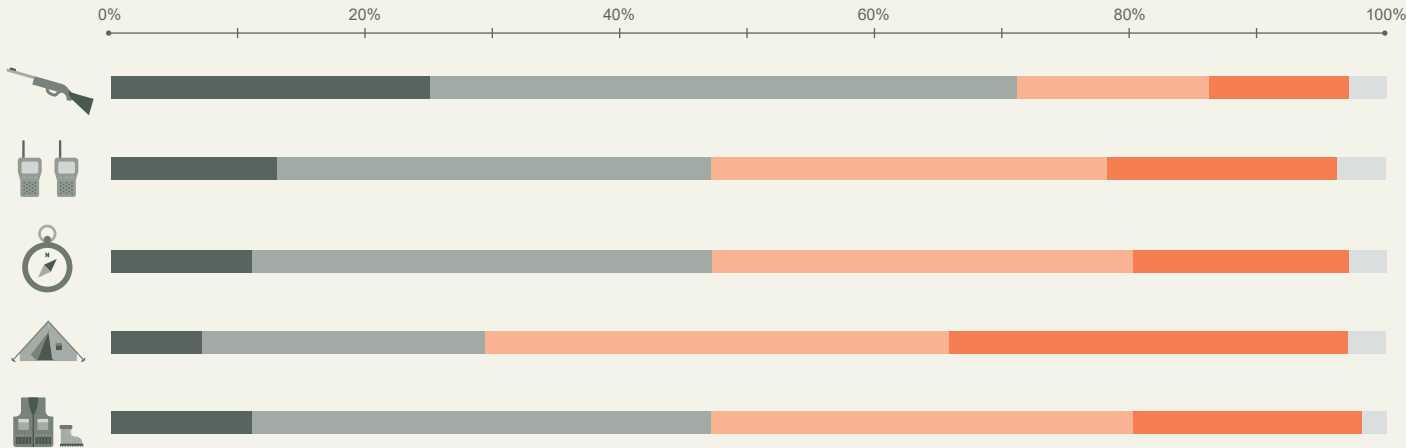
I TRUST MY FELLOW RANGERS 100 PER CENT BECAUSE I CANNOT GO ALONE TO THE FOREST - AND IF I AM WOUNDED, HE WILL CARRY ME BACK TO THE VILLAGE. WE ALL WEAR THE SAME UNIFORM, SO HE IS MORE LIKE MY BROTHER.

# Equipment

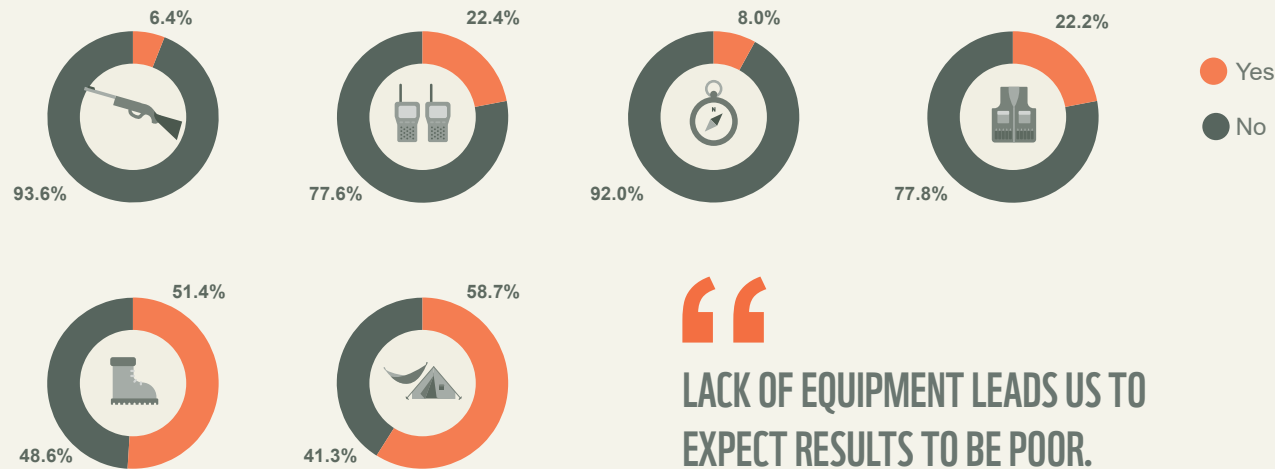


Strongly agree    Agree    Disagree    Strongly disagree    Not applicable

The equipment provided is sufficient for the work that I do

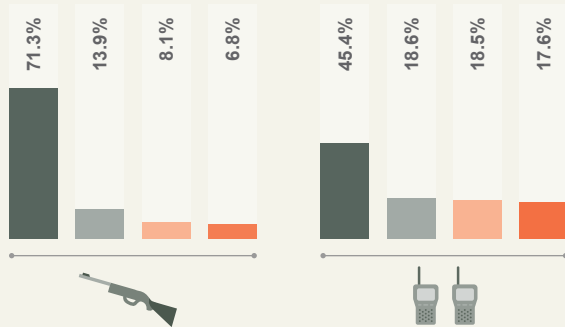


I bought the following equipment with my own money

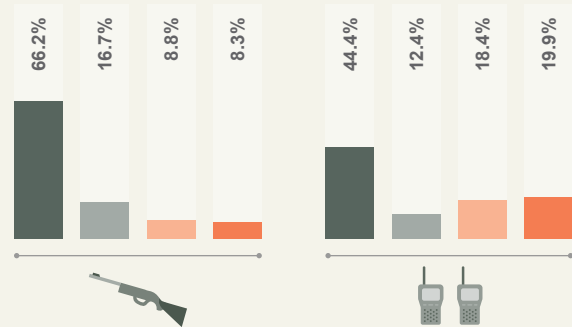


● Always    ● Often    ● Rarely    ● Never

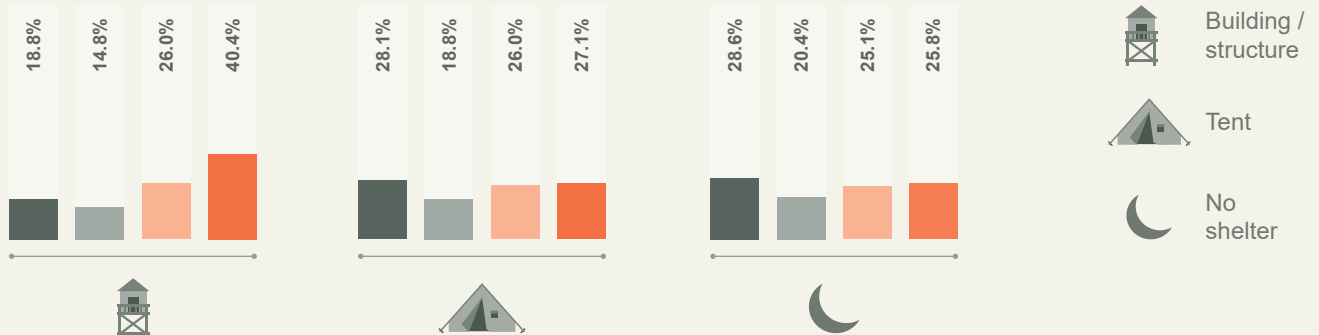
### On patrol, I have access to



### At outpost/station, I have access to



### When I am on patrol overnight away from my main ranger base, I have access to



THE PROBLEM FACED BY RANGERS DURING PATROL IS THAT WE DON'T HAVE ADEQUATE EQUIPMENT TO PERFORM OUR WORK, LIKE BOOTS AND RAINCOATS.

# Training

Strongly agree    Agree    Disagree    Strongly disagree

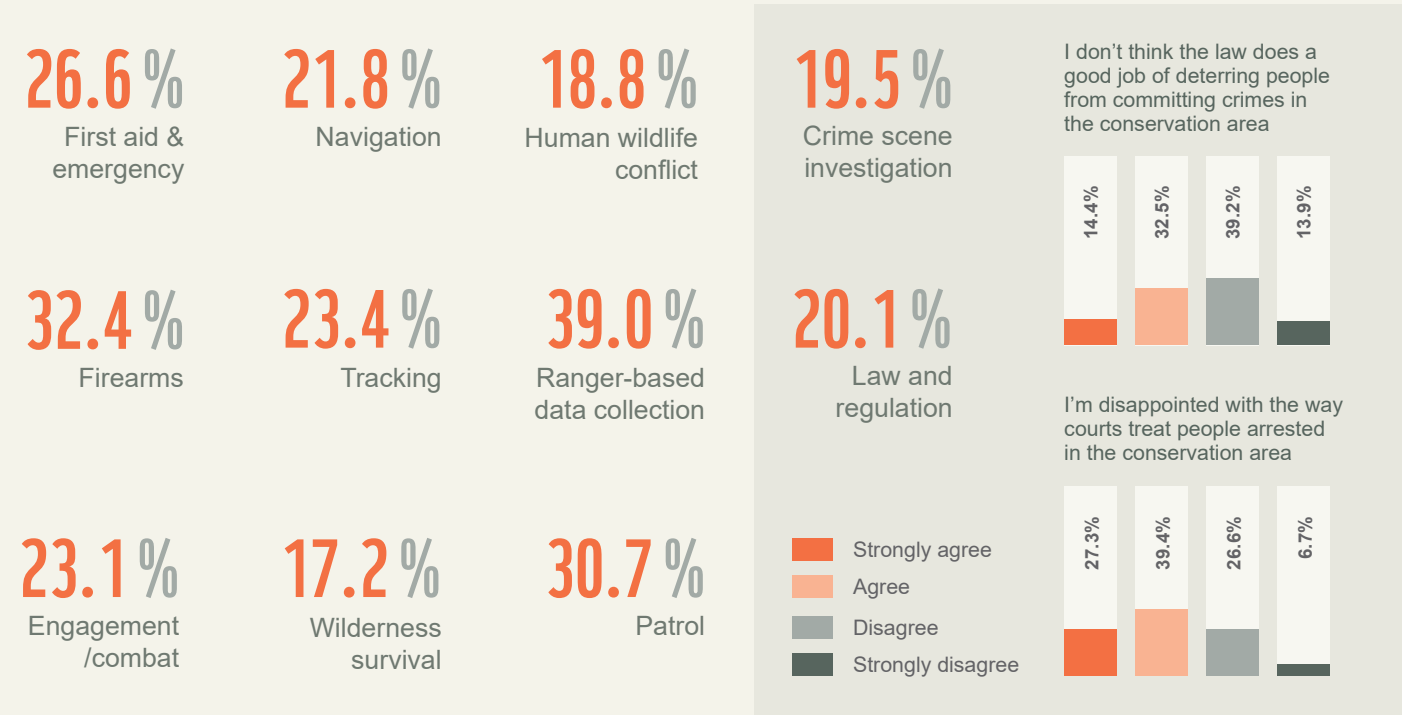
The training I received when I first started was sufficient for my job responsibilities



I feel that my organization provides sufficient additional training (such as refresher trainings)



Within the past 12 months, I went to the following types of training to improve my skills

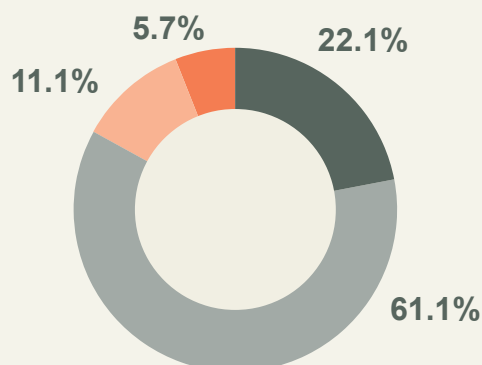


TRAINING OPPORTUNITIES ARE NOT EQUALLY SHARED. THAT IS VERY DISAPPOINTING.

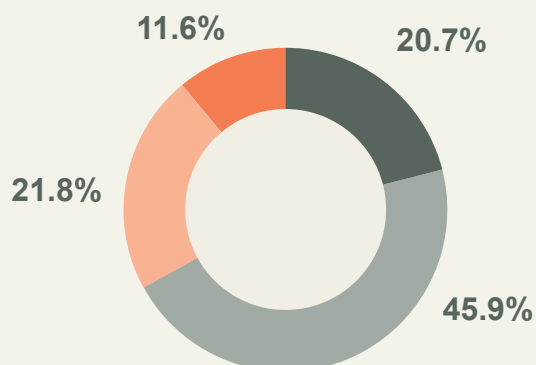
# Community Relations

● Strongly agree      ● Agree      ● Disagree      ● Strongly disagree

I believe that part of rangers' success at their jobs depends on the community providing them with information



I believe community members trust me

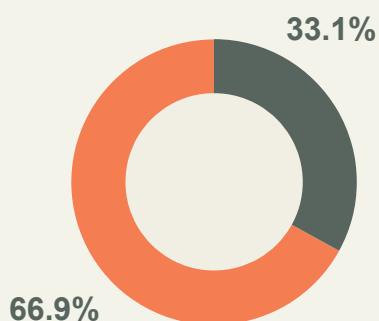


The organization I work for shows concern for community members' well-being and quality of life



● Yes      ● No

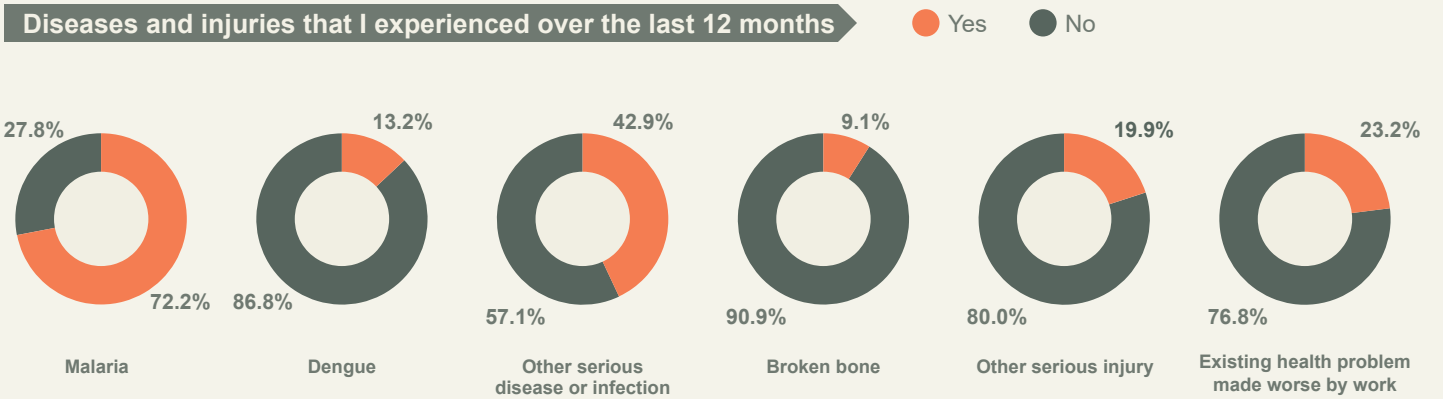
I am originally from a neighbouring community (within 20km of a park)



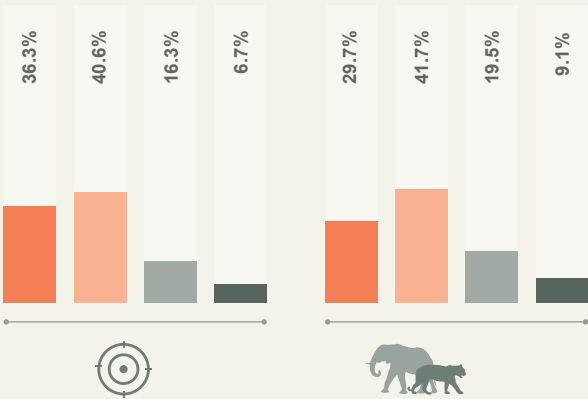
“

I AM FROM THE LOCAL COMMUNITY AND I AM PROUD TO PROTECT THIS BIODIVERSITY AND THESE WILDLIFE SPECIES FOR FUTURE GENERATIONS BECAUSE THEY ARE FACING THE CURSE OF EXTINCTION. I WANT MY CHILDREN TO BE ABLE TO SEE ELEPHANTS AND GORILLAS.

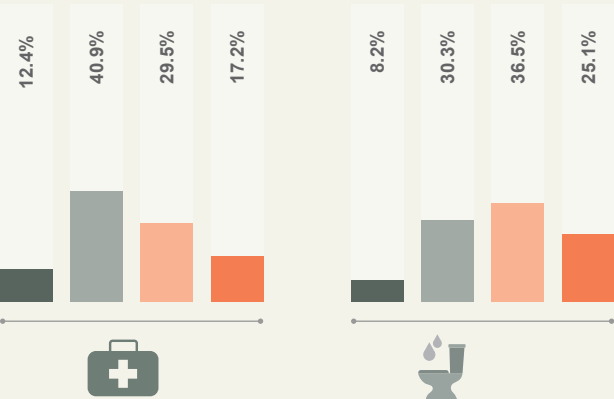
# Health and Insurance



I think that being a ranger is a dangerous job due to chance of

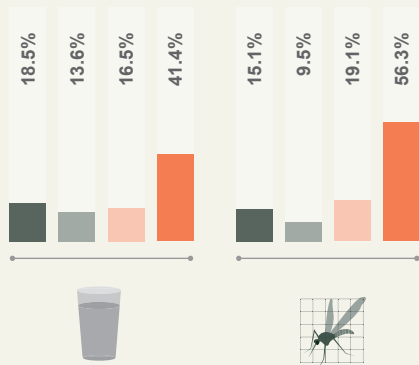


The medical treatment and basic necessities (toilet and water) that I am provided are adequate

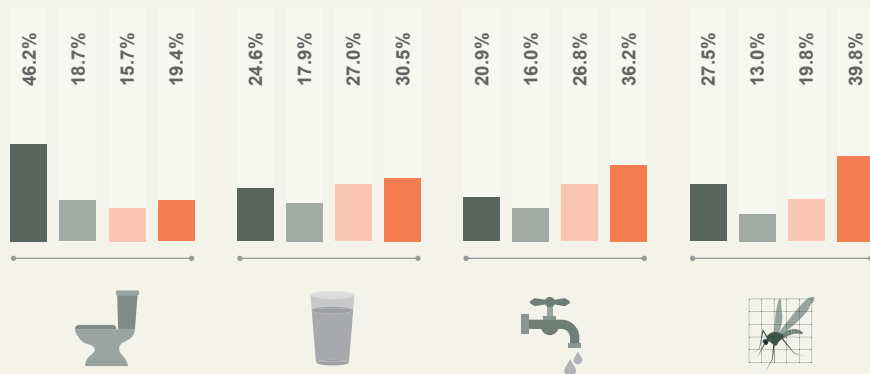


Always Often Rarely Never

### On patrol, I have access to

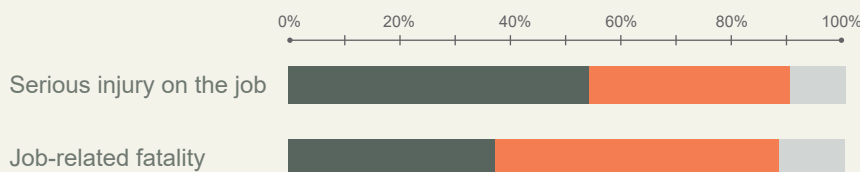


### At outpost/station, I have access to



Yes No Unsure

### My employee insurance scheme provides compensation in case of

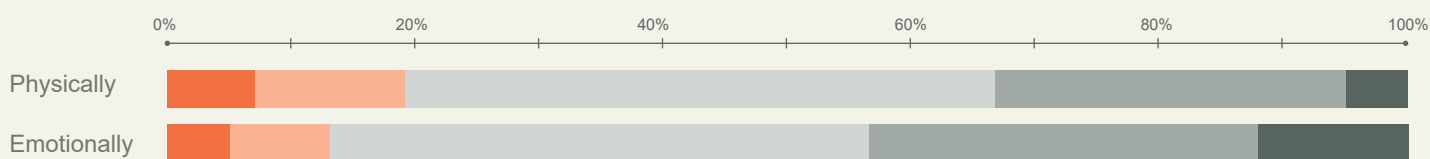


### I have

**48.8%** Spouse  
**86.6%** Children

Strongly agree Agree Sometimes Disagree Strongly disagree

### I often feel exhausted



Average number of coworkers who accompany me on patrol

**4.58** rangers

“

A FEMALE RANGER TOLD ME OF ANOTHER CHALLENGE THAT THEY FACE, WHICH IS MENSTRUATION CYCLES THAT COME UNEXPECTEDLY WHILE ON PATROL. SHE SAYS SHE KNOWS FEMALES WHO HAVE HAD TO USE THEIR SOCKS IN PLACE OF SANITARY PADS.

# Misconduct



Over the past 12 months, I was subjected to the following

While on duty While off duty



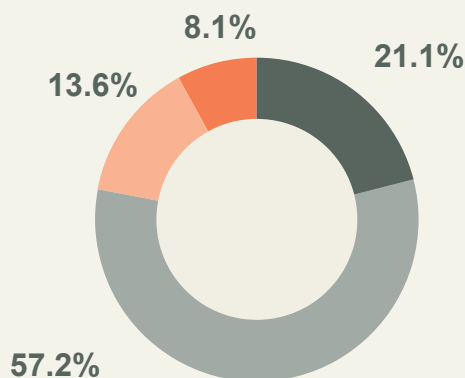
● Strongly agree

● Agree

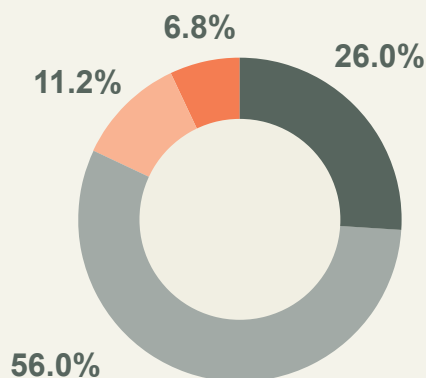
● Disagree

● Strongly disagree

Rangers would report their fellow rangers if they witnessed them accepting a bribe or engage in other corrupt and illegal activities

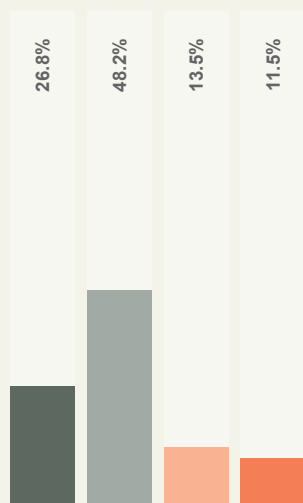


I would report a ranger if I witnessed them accepting a bribe or engage in other corrupt and illegal activities



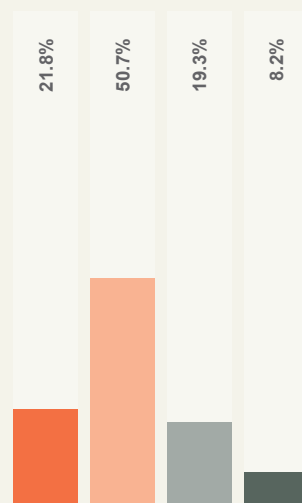
My organization does a good job reprimanding rangers found to have participated in corrupt activities (such as accepting bribes)

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



I would be concerned for my safety if I reported a fellow ranger who I witnessed accepting a bribe or engage in other corrupt and illegal activities

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



SOME RANGERS MAY PARTICIPATE IN CORRUPT ACTIVITIES FOR PERSONAL GAINS, OTHER RANGERS WOULD REPORT THEIR FELLOW RANGERS IF THEY WITNESSED THEM PARTICIPATING IN CORRUPTION. IT IS MY PERSONAL BELIEF THAT CORRUPTION CAN BE MINIMIZED BY STRICT PUNISHMENT, IMMEDIATE TERMINATION FROM JOB AND IMPOSING HEAVY PENALTY ON CORRUPT OFFICIALS.

# South Asia

## Average

Age	40.45 years old
Time in current organization	14.67 years
Work as a ranger	13.99 years
Work in current conservation area	8.63 years

		Frequency	Percent
Gender breakdown*	♀	74	4.2
	♂	1,706	95.8

\*Three respondents did not indicate their gender

**Rangers surveyed** 1,783



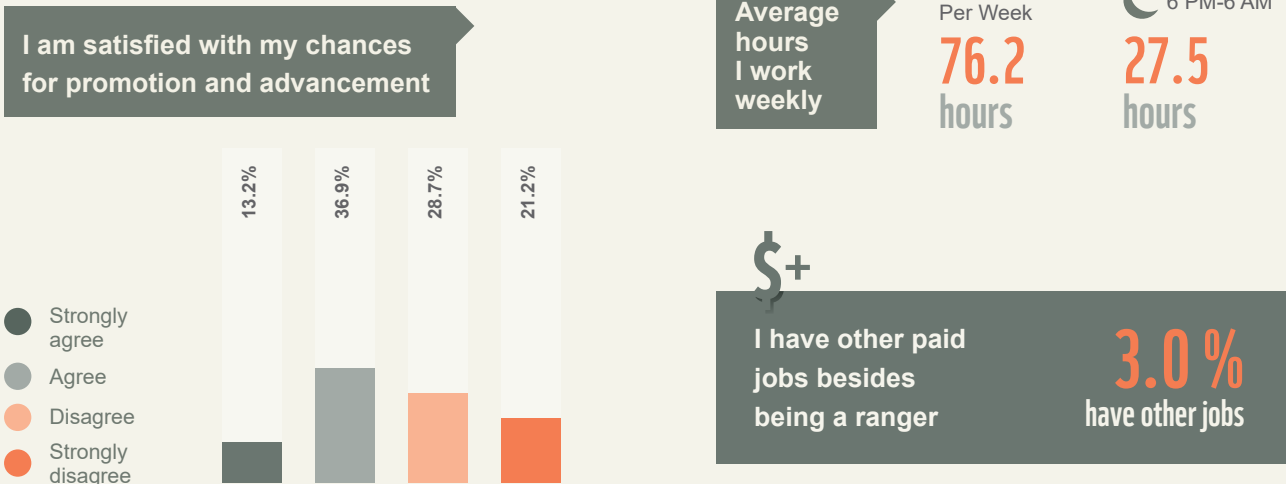
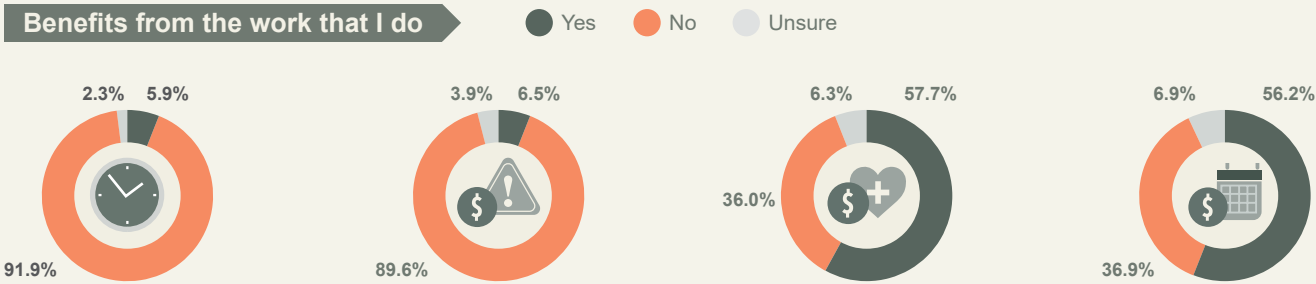


“

**I FEEL PROUD TO BE A FOREST GUARD AND I  
AM FORTUNATE ENOUGH TO CARRY OUT THIS  
PRESTIGIOUS RESPONSIBILITY FOR FUTURE  
GENERATIONS**

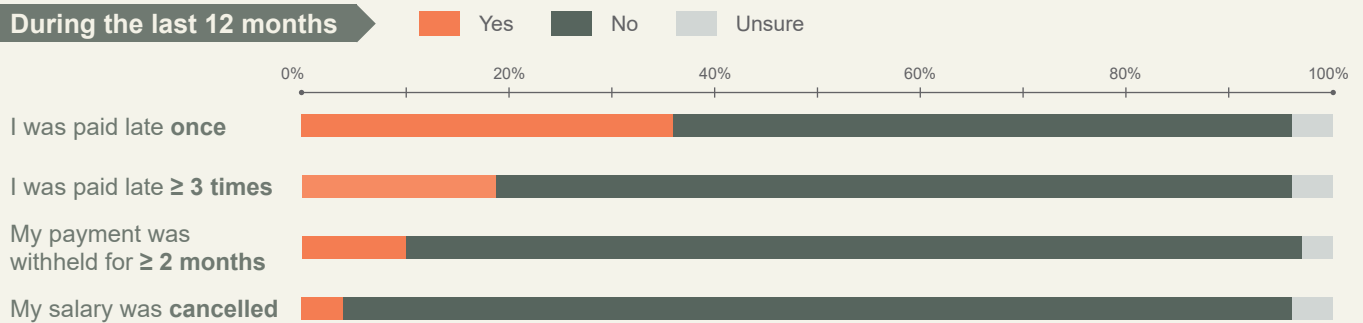
— *Ranger in India*

# Employment

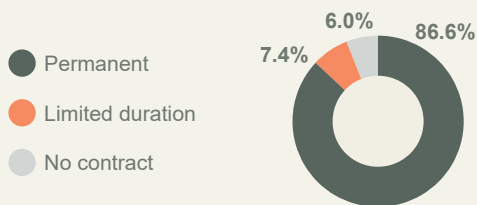


\*In data visualizations the colour orange correlates to the more concerning or 'negative' response categories for all non-neutral questions  
 \*Quotes with no citation are from rangers who were interviewed after completing the survey

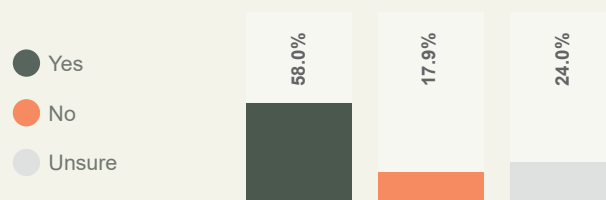
### During the last 12 months



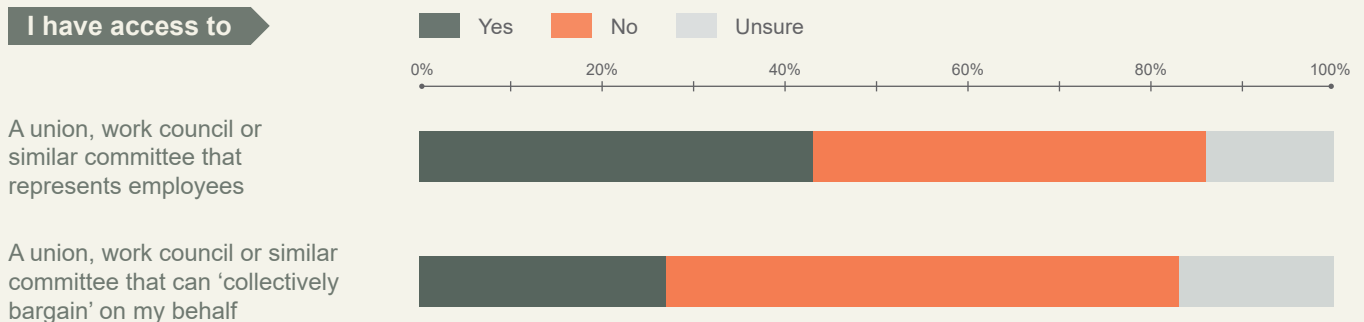
### Type of employment contract



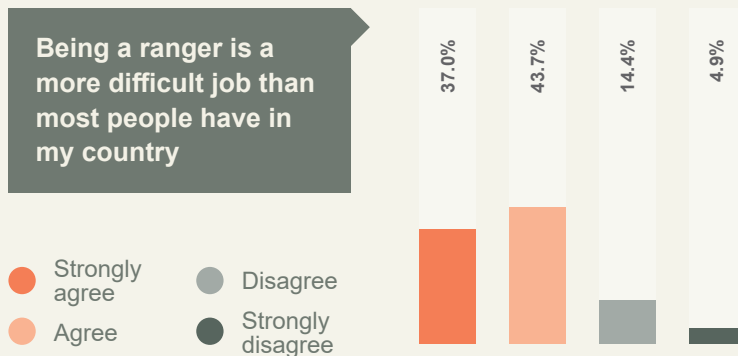
### My organization is required to provide notice of termination



### I have access to



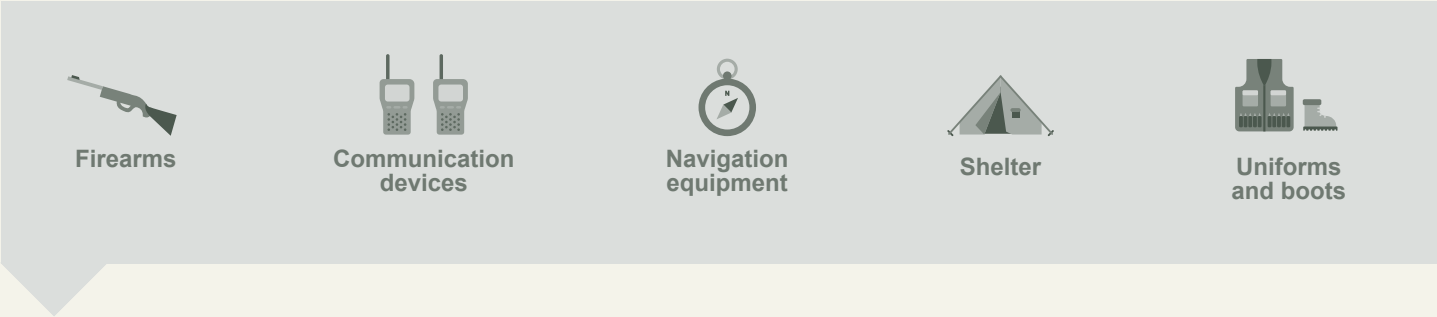
Being a ranger is a more difficult job than most people have in my country



“

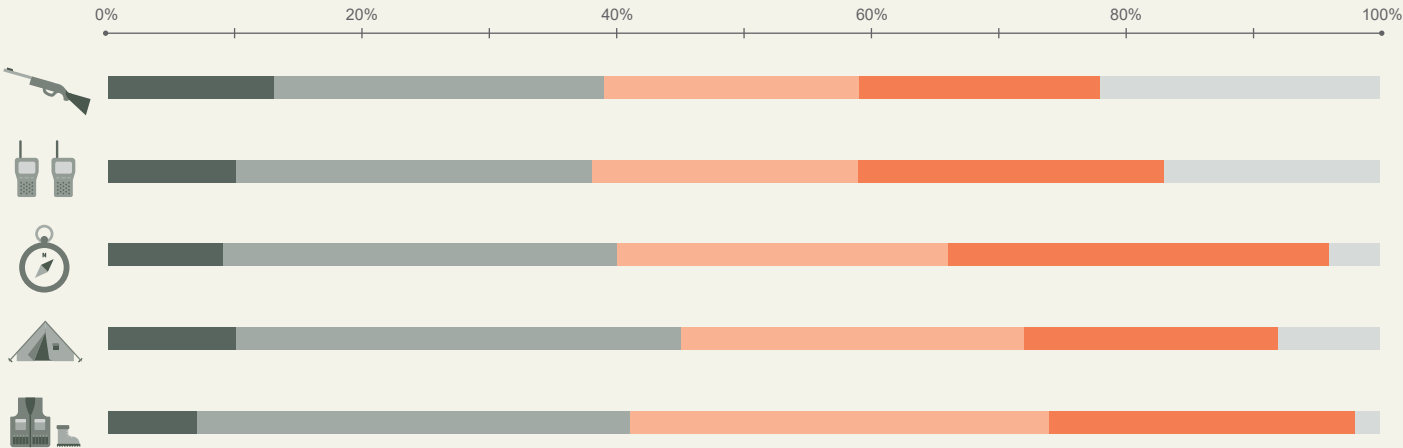
THERE ARE TOO MANY TASKS ASSIGNED FOR ANY GIVEN JOB TITLE, AND THE STAFF IS NOT PAID ACCORDING TO THE TASKS HE COMPLETES.

# Equipment

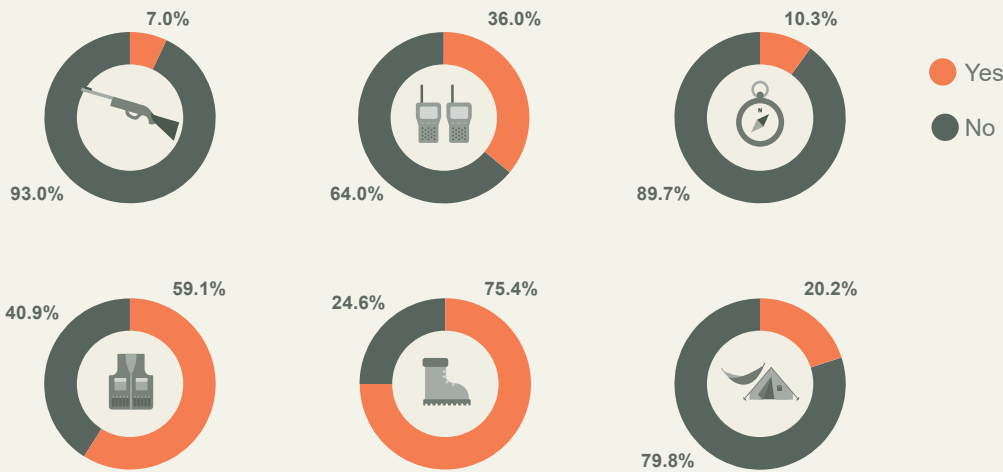


Strongly agree    Agree    Disagree    Strongly disagree    Not applicable

The provided equipment is sufficient for the work that i do

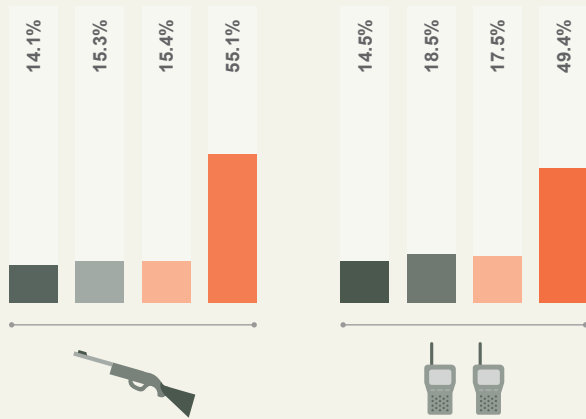


I bought the following equipment with my own money

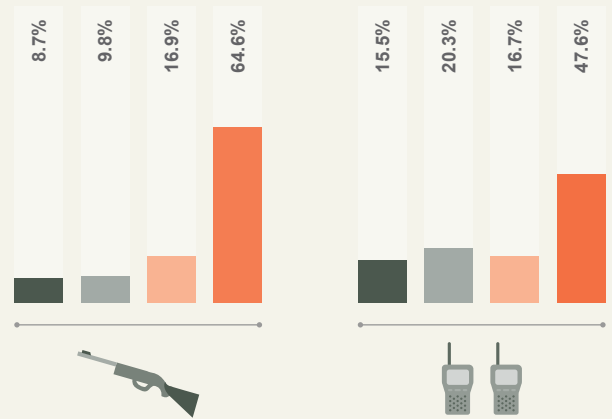


● Always    ● Often    ● Rarely    ● Never

### On patrol, I have access to



### At outpost/station, I have access to



Building / structure

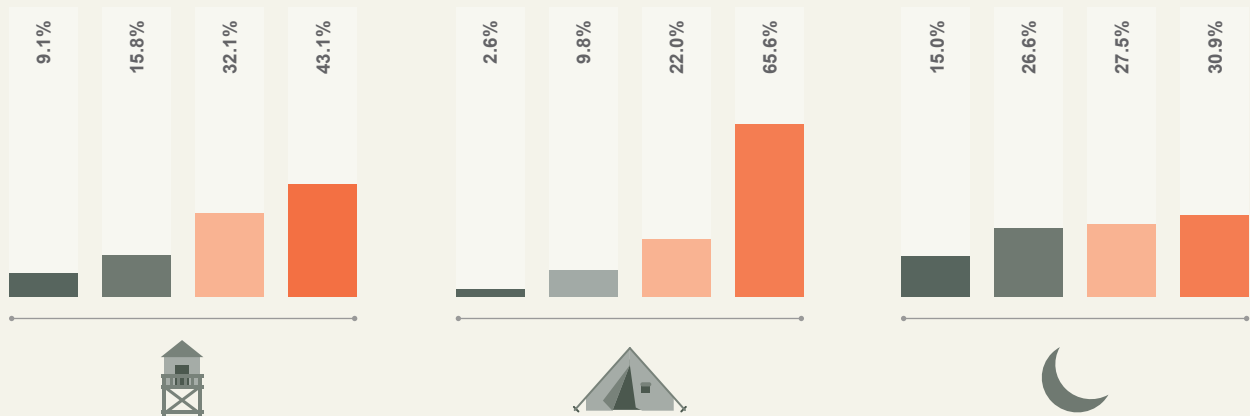


Tent



No shelter

### When I am on patrol overnight away from my main ranger base, I have access to

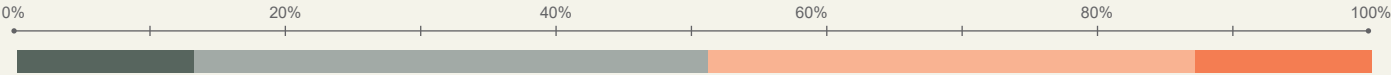


TO HAVE THE CONSERVATION WORK DONE PROPERLY, THERE MUST BE SUPPORT FROM THE MANAGEMENT, INCLUDING THE PROPER GEAR THAT IS REQUIRED ON THE GROUND.

# Training

Strongly agree   Agree   Disagree   Strongly disagree

The training I received when I first started was sufficient for my job responsibilities



I feel that my organization provides sufficient additional training (such as refresher trainings)



Within the past 12 months, I went to the following types of training to improve my skills

11.2 %  
First aid & emergency

9.9 %  
Navigation

17.2 %  
Human wildlife conflict

11.4 %  
Firearms

16.3 %  
Tracking

12.6 %  
Range-based data collection

3.7 %  
Engagement /combat

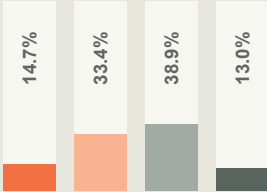
15.8 %  
Wilderness survival

29.1 %  
Patrol

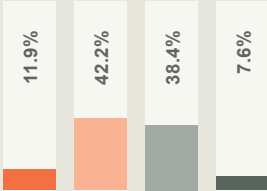
24.5 %  
Crime scene investigation

35.8 %  
Law and regulation

I don't think the law does a good job of deterring people from committing crimes in the conservation area



I'm disappointed with the way courts treat people arrested in the conservation area



Strongly agree  
Agree  
Disagree  
Strongly disagree

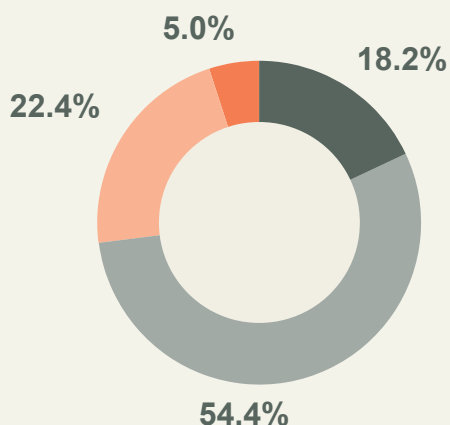


THERE IS A NEED FOR TRAINING UPDATES, ESPECIALLY IN INVESTIGATION AND LEGAL PROCEDURES.

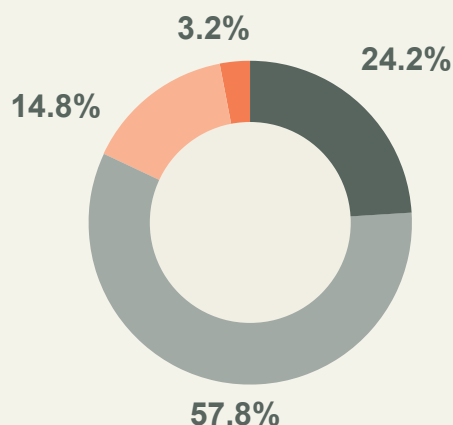
# Community Relations

● Strongly agree
● Agree
● Disagree
● Strongly disagree

I believe that part of rangers' success at their jobs depends on the community providing them with information



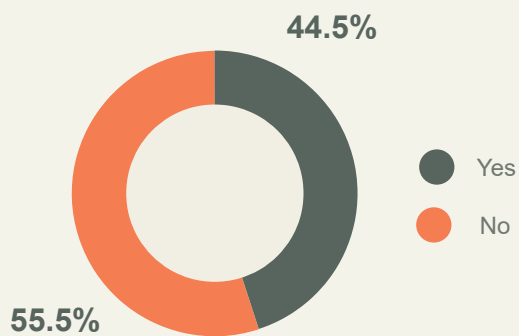
I believe community members trust me



The organization I work for shows concern for community members' well-being and quality of life



I am originally from a neighbouring community (within 20km of a park)



“

THE COMMUNITY SHOULD BE HANDLED WITH CARE AND IN A FRIENDLY MANNER. AGGRESSION WILL NOT HELP.

# Health and Insurance



Encounter  
poachers



Encounter  
wildlife



Medical  
treatment



Clean drinking  
water



Running  
water



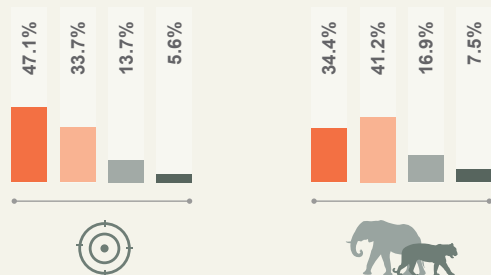
Mosquito  
net



Toilet

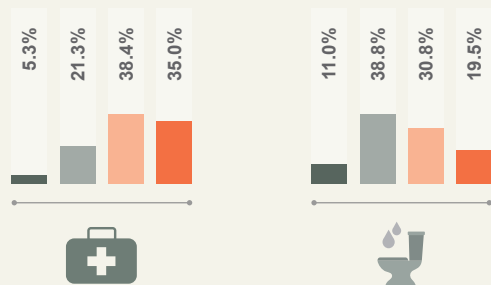
Strongly agree Disagree  
Agree Strongly disagree

I think that being a ranger is a dangerous job due to chance of



Strongly agree Disagree  
Agree Strongly disagree

The medical treatment and basic necessities (toilet and water) that I am provided are adequate



## Story of Manzoor

Manzoor Ahmad had been working in the Punjab Wildlife and Park Department in Pakistan for over 34 years. He dedicated much of his life to a special squad that monitored the movements of wildlife and intercepted poaching and illegal hunting. The loss of any life is upsetting, but the loss of a life that helped to protect others and was the sole breadwinner for a family with seven children, is an exceptionally devastating loss.

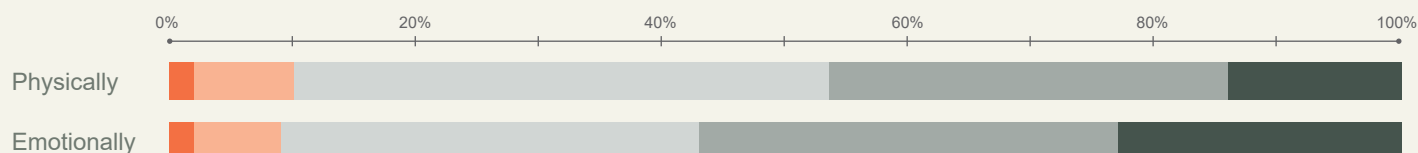
His family recalled that Manzoor took his responsibility to care for and protect 'creatures from heaven' very seriously, and felt immense pride in his job. The importance of this for him was amplified by the thought of his seven children being able to witness the beautiful landscapes that he had the opportunity to patrol.

Manzoor's family described him as having an unappeased desire to be out in the field, having many interesting stories to bring home and share with his children. But despite his recounts, his family had little idea of the dangers Manzoor was faced with daily. Whilst he was out on patrol, Manzoor was shot dead by poachers on the September 20, 2017, leaving behind an elderly mother, his wife and seven children.

It was not until Manzoor's family received the news of his death that they realized the extreme dangers faced by rangers every day. In the future, Manzoor's family hopes that there will be more attention on the plight of rangers working on the conservation frontline and increased support provided to the families left behind.

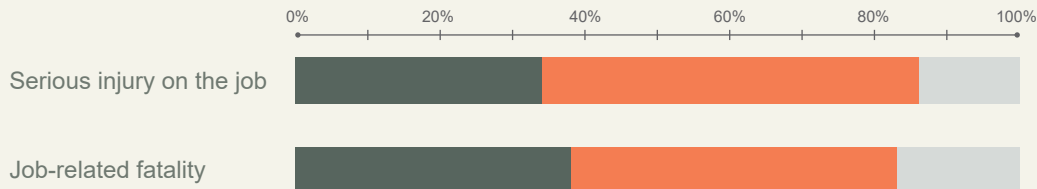
Strongly agree Agree Sometimes Disagree Strongly disagree

I often feel exhausted



● Yes ● No ● Unsure

### My employee insurance scheme provides compensation in case of



I have

82.4%

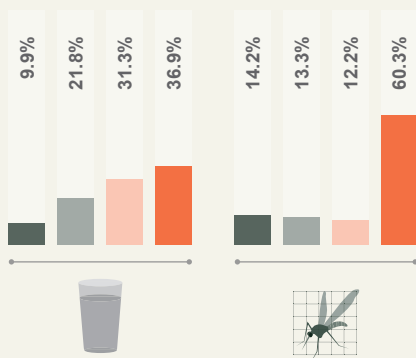
Spouse

79.8%

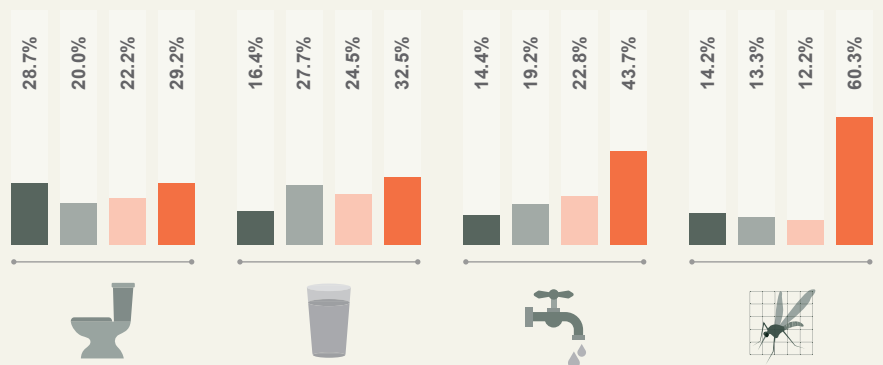
Children

● Always ● Often ● Rarely ● Never

### On patrol, I have access to

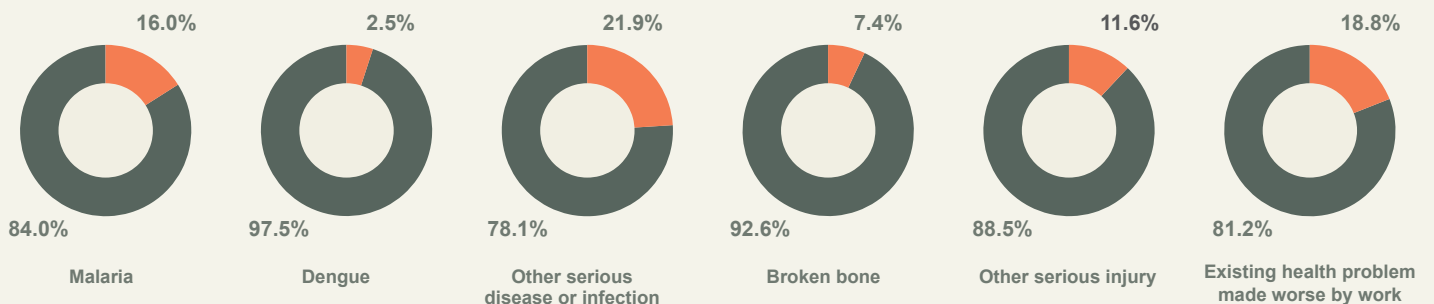


### At outpost/station, I have access to



### Diseases and injuries that I experienced over the last 12 months

● Yes ● No



### Malaria case

For South Asia, this number would be higher if excluding surveys returned from locations that fell outside the malaria zone. Although the region represents only a minority of total survey sites, it was the only survey region with a significant number of such locations, many of which were at a high elevation.



Average number of coworkers who accompany me on patrol

3.5 rangers

# Misconduct



Over the past 12 months, I was subjected to the following

While on duty While off duty



I FEEL FREE IN SHARING MY THOUGHTS ON PROBLEMS REGARDING FOREST CONSERVATION IN MY FIELD OFFICE AND WITH MY SUPERVISOR. I TRUST MY SUPERVISOR FULLY.

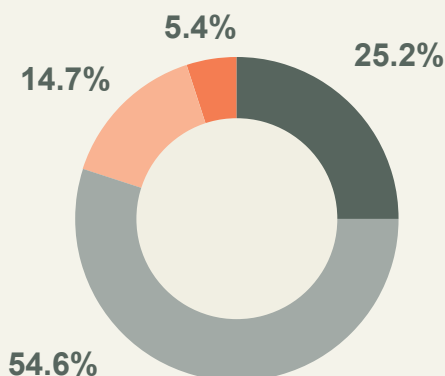
Strongly agree

Agree

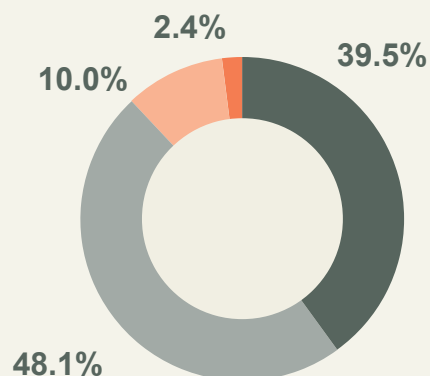
Disagree

Strongly disagree

Rangers would report their fellow rangers if they witnessed them accepting a bribe or engage in other corrupt and illegal activities

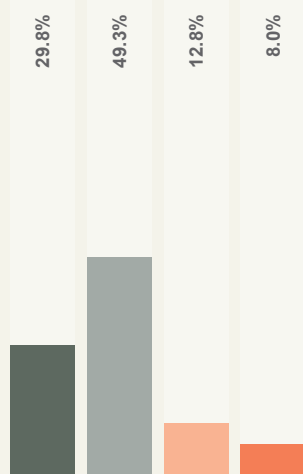


I would report a ranger if I witnessed them accepting a bribe or engage in other corrupt and illegal activities



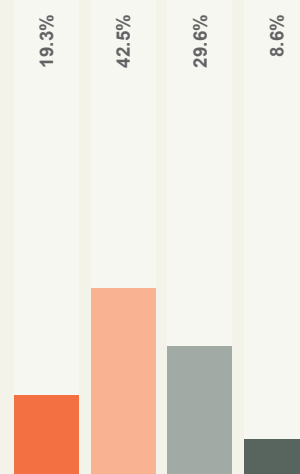
My organization does a good job reprimanding rangers found to have participated in corrupt activities (such as accepting bribes)

Strongly agree  
Agree  
Disagree  
Strongly disagree



I would be concerned for my safety if I reported a fellow ranger who I witnessed accepting a bribe or engage in other corrupt and illegal activities

Strongly agree  
Agree  
Disagree  
Strongly disagree



## Improved Community Ties in Chitwan

The success in reducing poaching in Chitwan National Park in Nepal illustrates the importance of good relationships between communities and conservation law enforcement staff such as rangers. During the poaching surge of the early 2000's, communities mentioned how they felt in conflict with park rangers and the Nepalese army who are responsible for assisting with law enforcement in the park. At the time, there were low levels of trust and communication between communities, park rangers, and the army. Over the following years, processes for the

communities around Chitwan to have regular dialogue with park rangers and the army have been established. Moreover, army staff assist the communities with patrols in their buffer zones and communities provide valuable information about poaching to the army and rangers. Many community members around Chitwan now feel that the army and rangers are partners, rather than opponents. This change has been a key ingredient of Nepal's impressive success in reducing poaching.

# Southeast Asia

## *Average*

<i>Age</i>	<b>41.75 years old</b>
------------	------------------------

<i>Time in current organization</i>	<b>15.70 years</b>
-------------------------------------	--------------------

<i>Work as a ranger</i>	<b>15.40 years</b>
-------------------------	--------------------

<i>Work in current conservation area</i>	<b>13.53 years</b>
--	--------------------

	Frequency	Percent
<i>Gender breakdown*</i>		
♀	37	3.0
♂	1,207	97.0

\*24 respondents did not indicate their gender

<i>Rangers surveyed</i>	<b>1,268</b>
-------------------------	--------------



“

**I'VE LOVED THE FOREST SINCE I WAS LITTLE, AND  
BOTH MY PARENTS ARE ALSO FOREST RANGERS**

—— *Ranger in Indonesia*

# Employment



Overtime compensation



Extra pay for bad/dangerous work conditions



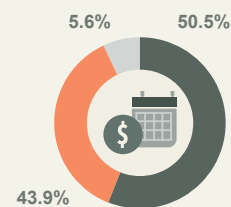
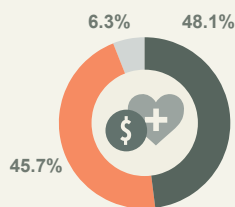
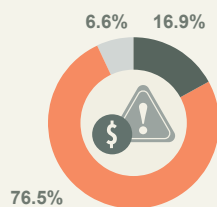
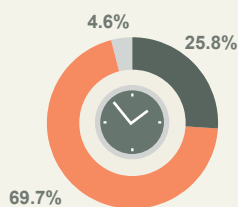
Paid sick leave



Paid annual leave

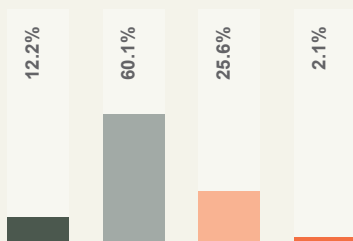
## Benefits from the work that I do

● Yes ● No ● Unsure



## I am paid a fair wage

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree

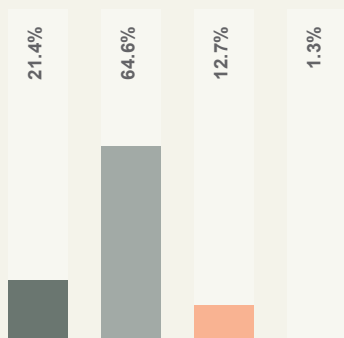


I am paid this much in my local currency

USD **323.91** monthly

## I am satisfied with my chances for promotion and advancement

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



Average hours I work weekly

Total Per Week  
**47.1** hours

6 PM-6 AM  
**17.5** hours

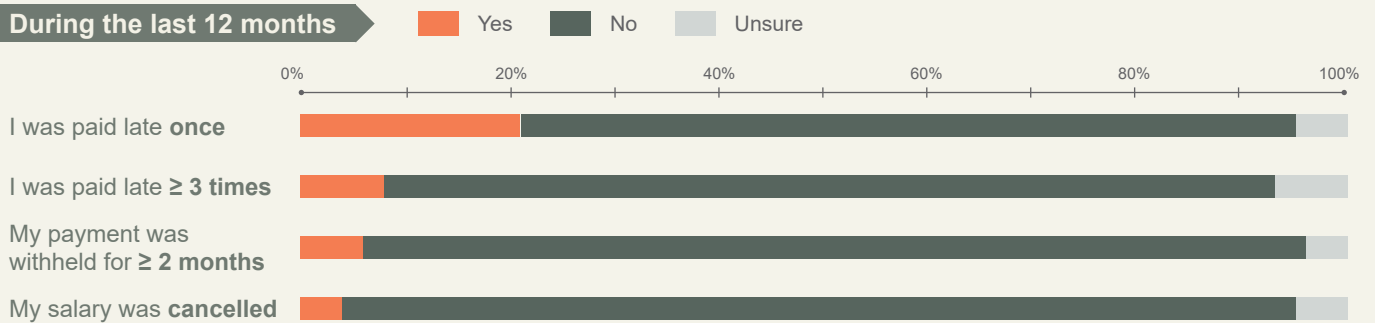


I have other paid jobs besides being a ranger

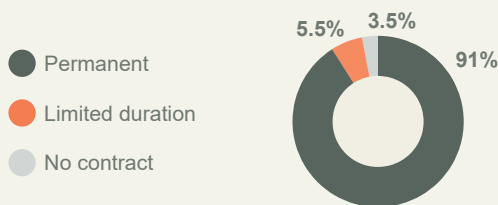
**9.4%** have other jobs

\*In data visualizations the colour orange correlates to the more concerning or 'negative' response categories for all non-neutral questions  
 \*Quotes with no citation are from rangers who were interviewed after completing the survey

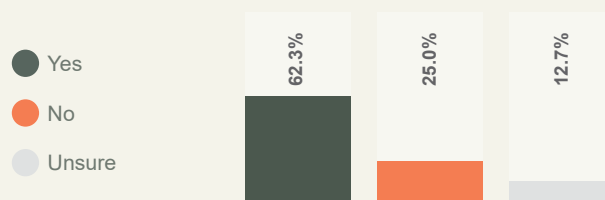
### During the last 12 months



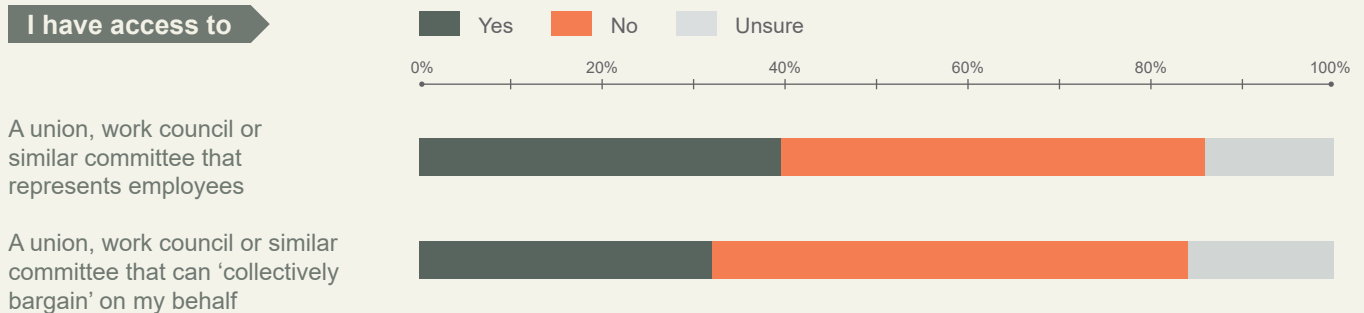
### Type of employment contract



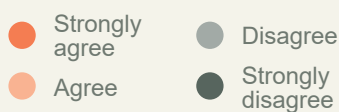
### My organization is required to provide notice of termination



### I have access to

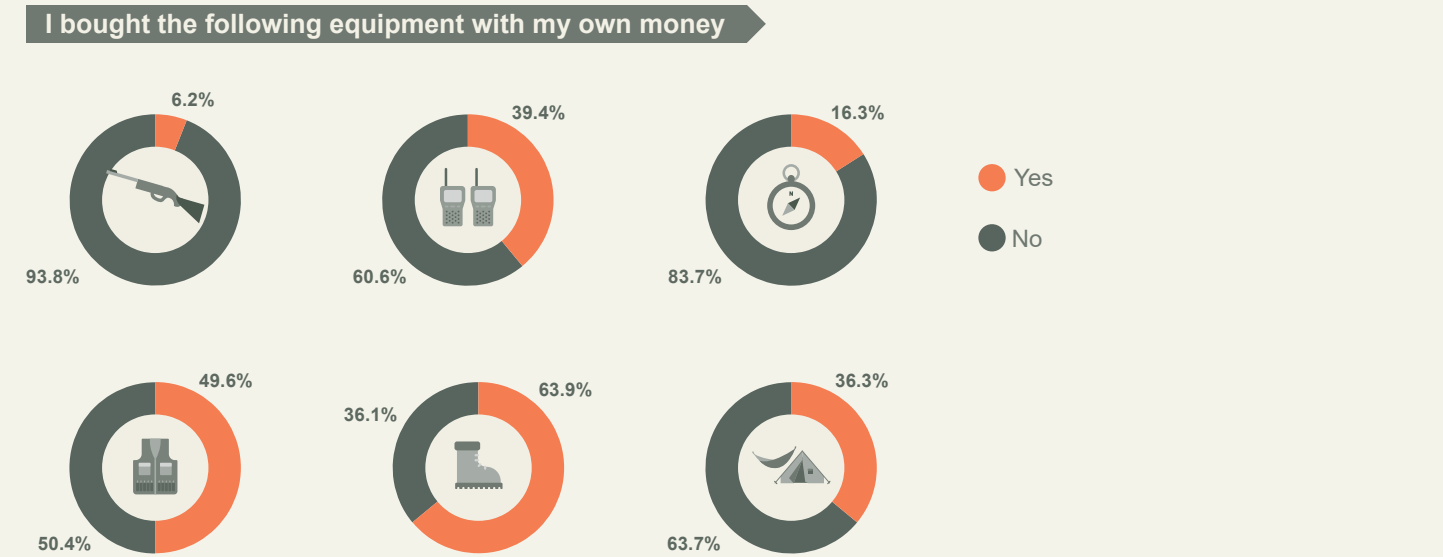
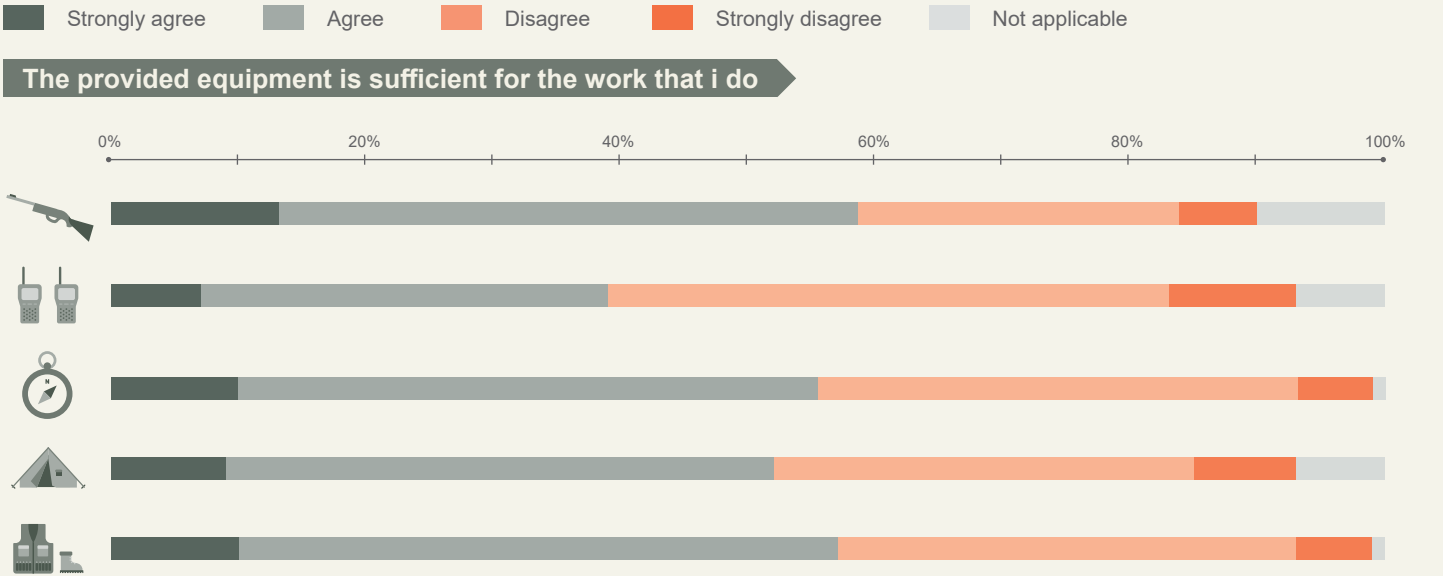
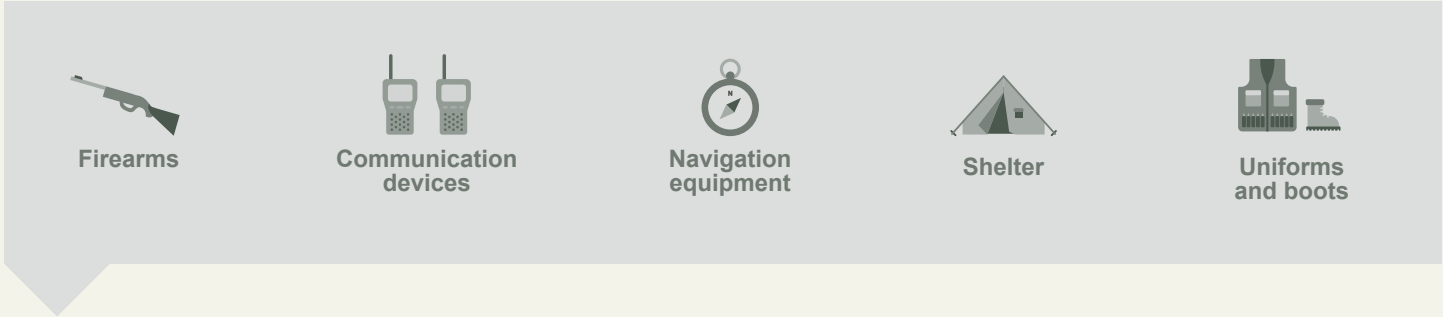


Being a ranger is a more difficult job than most people have in my country



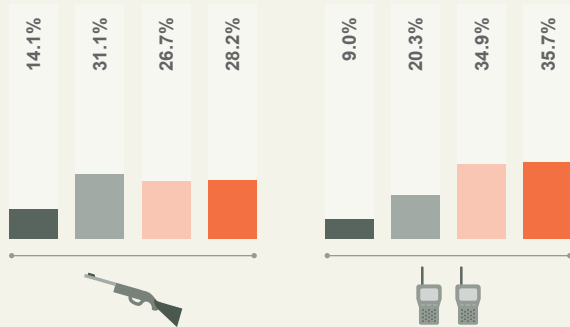
THE SIZE OF THE FOREST AREA IS NOT PROPORTIONAL TO THE NUMBER OF FOREST RANGERS.

# Equipment

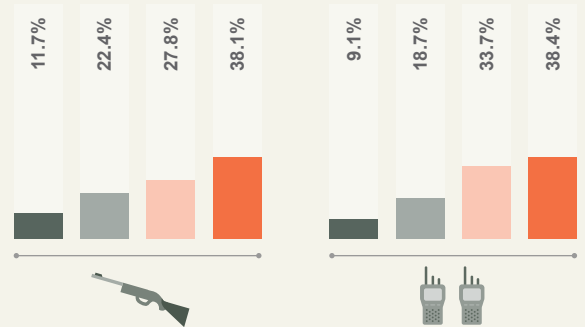


● Always    ● Often    ● Rarely    ● Never

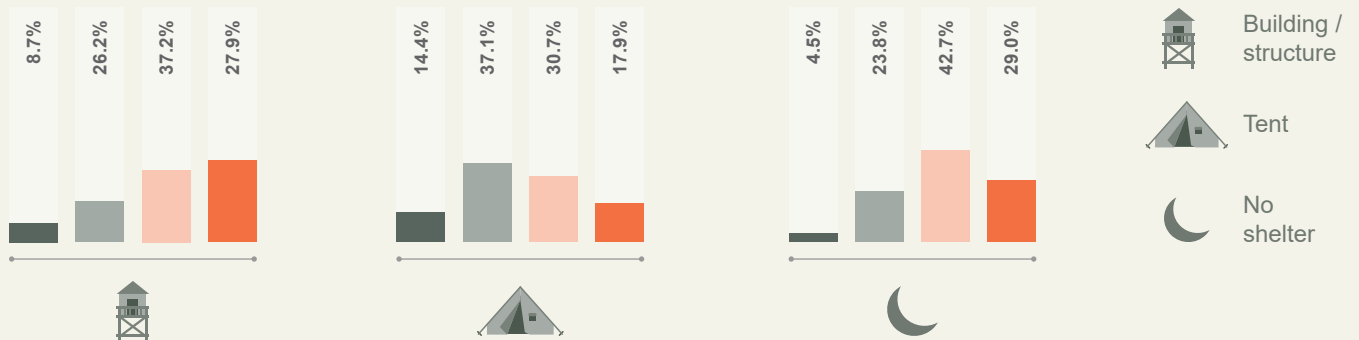
### On patrol, I have access to



### At outpost/station, I have access to



### When I am on patrol overnight away from my main ranger base, I have access to



“

ONE OF THE CHALLENGES I FACE AS A RANGER IS THAT I OFTEN MUST BE FAR FROM MY FAMILY AND I'M CUT OFF FROM THE OUTSIDE WORLD. THIS MAKES MY FAMILY WORRY CONSTANTLY ABOUT ME, BUT THEY ARE NOT ABLE TO CONTACT ME BECAUSE OF LACK OF COMMUNICATION MEANS.

# Training

Strongly agree   Agree   Disagree   Strongly disagree

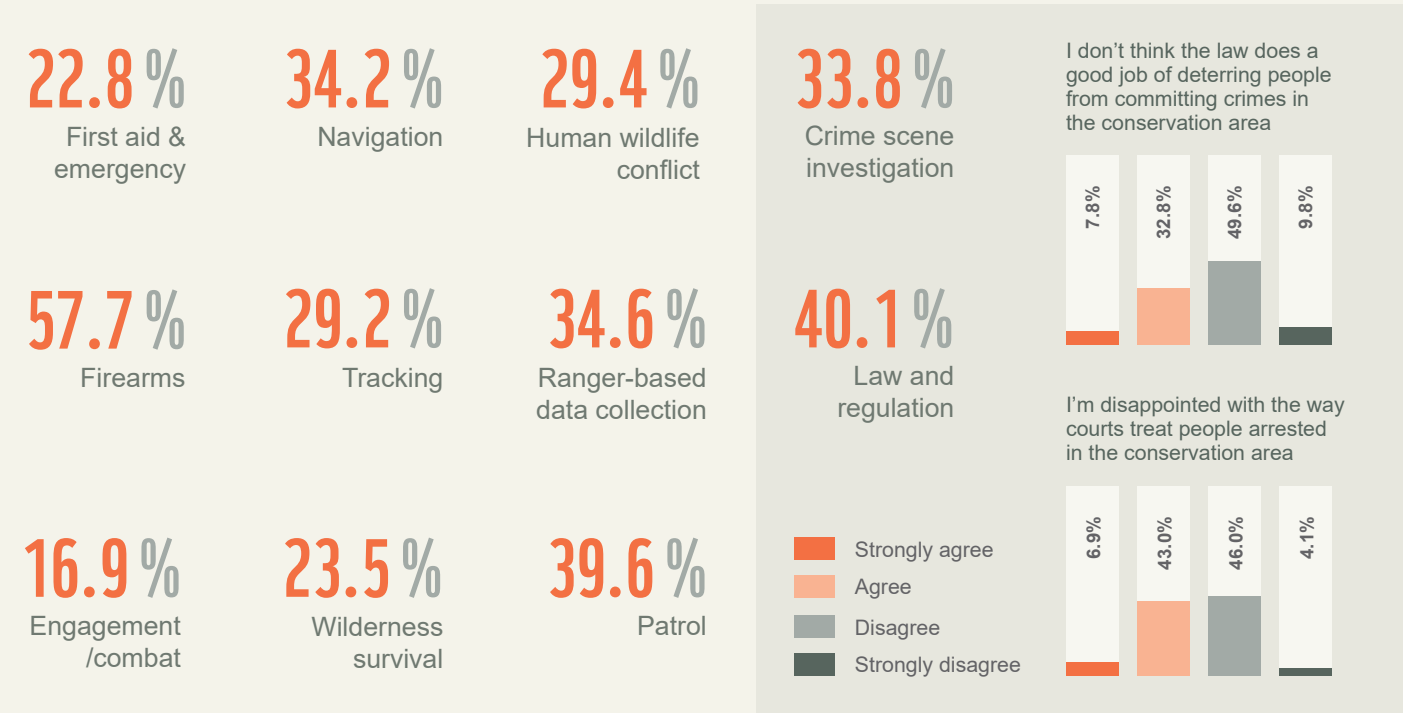
The training I received when I first started was sufficient for my job responsibilities



I feel that my organization provides sufficient additional training (such as refresher trainings)



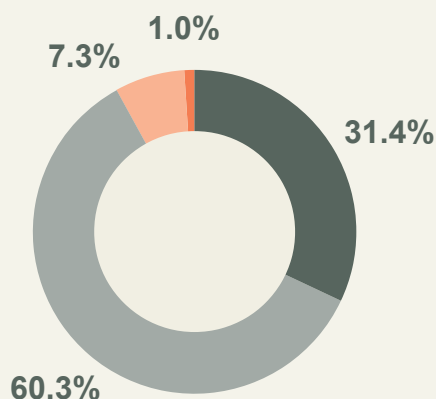
Within the past 12 months, I went to the following types of training to improve my skills



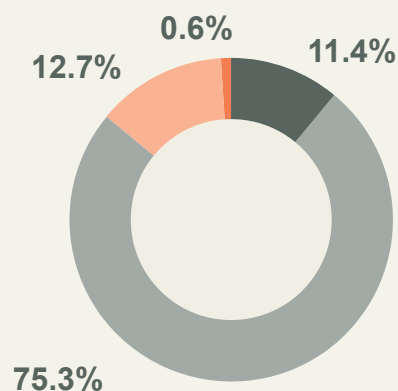
# Community Relations

● Strongly agree    ● Agree    ● Disagree    ● Strongly disagree

I believe that part of rangers' success at their jobs depends on the community providing them with information



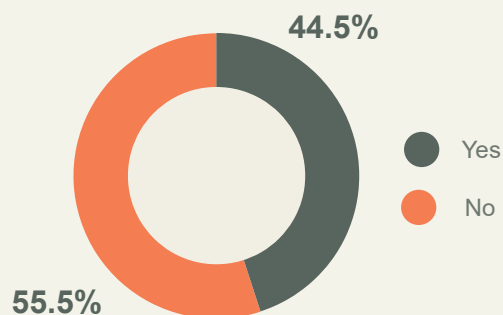
I believe community members trust me



The organization I work for shows concern for community members' well-being and quality of life



I am originally from a neighbouring community (within 20km of a park)

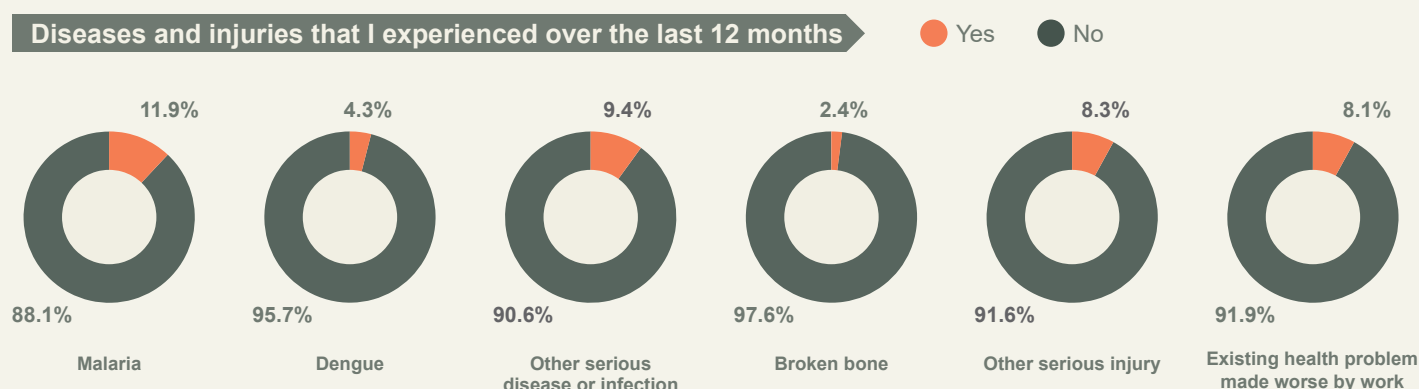


THE LOCALS IN THE AREA UNDERSTAND ABOUT CONSERVATION. WE HAVE GOOD RELATIONS WITH THEM, AND NO CONFLICT TO THIS DAY.



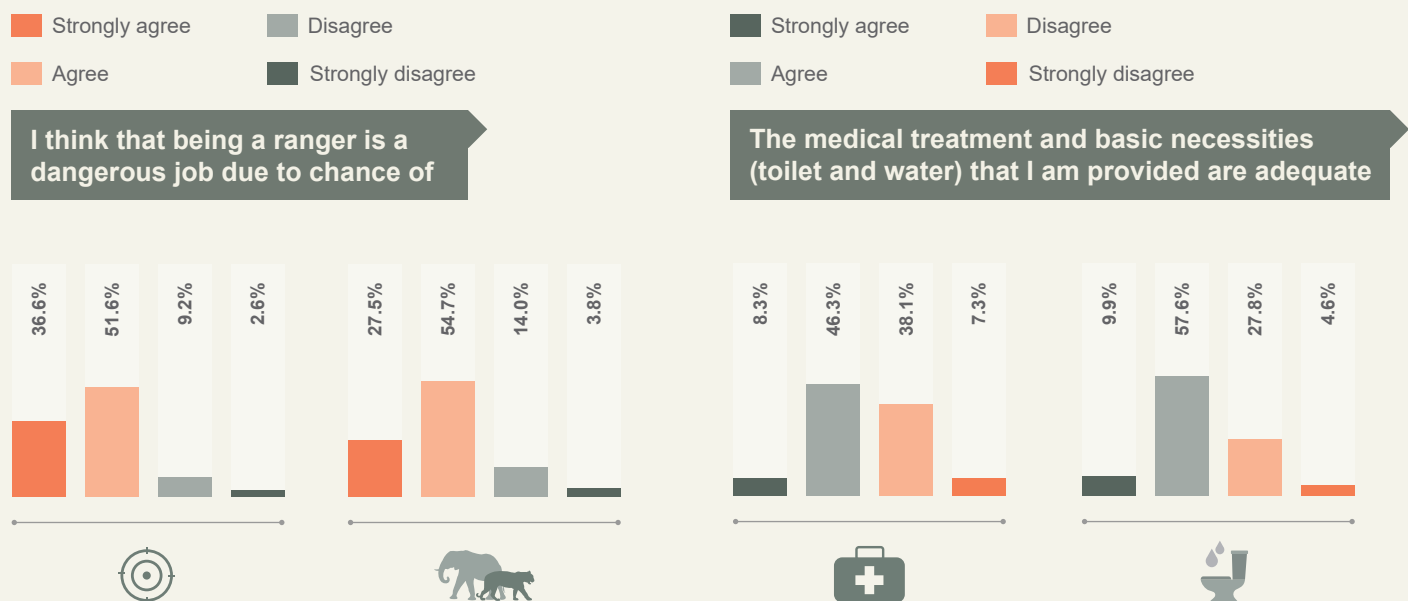
IT IS CHALLENGING WHEN WE FACE MEMBERS OF THE COMMUNITY WHO DO NOT UNDERSTAND OUR WORK AND FORESTRY LAWS. THEY SEE US AS THE ENEMY.

# Health and Insurance



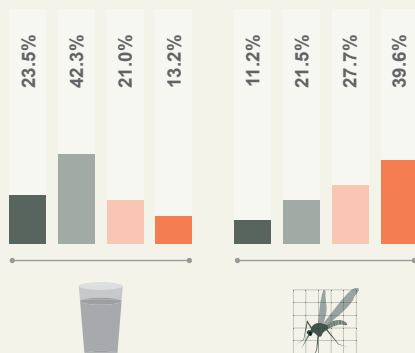
**Malaria case**

Malaria infection rates were not uniform between or within survey countries. Some were particularly hard hit – for example, 45 per cent of Cambodian rangers stated that they had contracted malaria within the 12 months prior to responding to the survey.

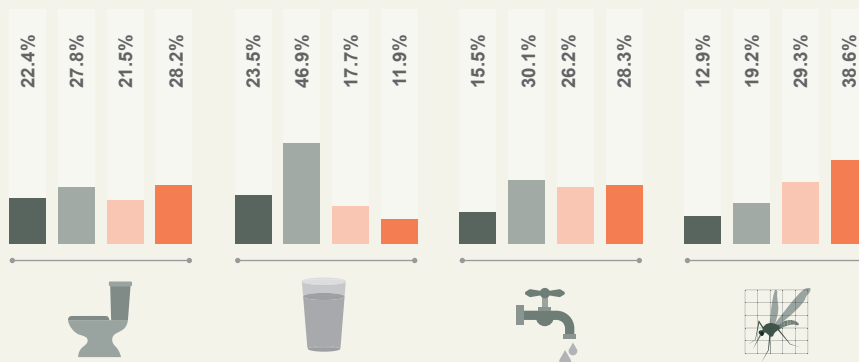


● Always ● Often ● Rarely ● Never

### On patrol, I have access to

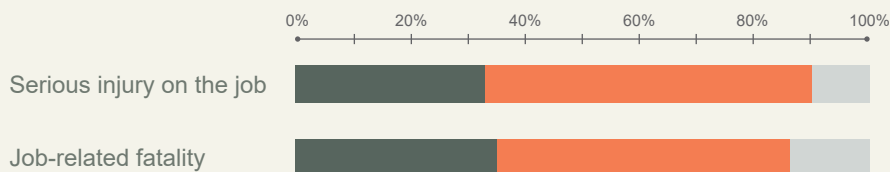


### At outpost/station, I have access to



● Yes ● No ● Unsure

### My employee insurance scheme provides compensation in case of



Average number  
of coworkers  
who accompany  
me on patrol

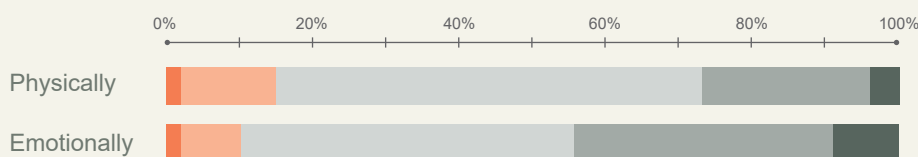
5.2  
rangers



WHEN WE GET INJURED IN THE JUNGLE IT IS DIFFICULT TO GET MEDICAL TREATMENT, ESPECIALLY FOR INJURIES THAT REQUIRE A DOCTOR OR A HOSPITAL. THERE IS NO HELICOPTER TO LIFT US OUT AND TAKE US TO THE HOSPITAL FOR EMERGENCY TREATMENT.

Strongly agree Agree Sometimes Disagree Strongly disagree

### I often feel exhausted



I have

93.0%

Spouse

84.5%

Children

# Misconduct



Over the past 12 months, I was subjected to the following

While on duty While off duty



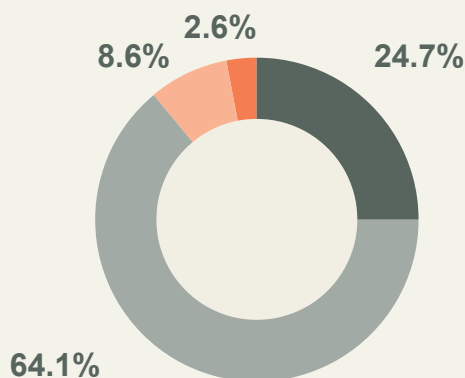
● Strongly agree

● Agree

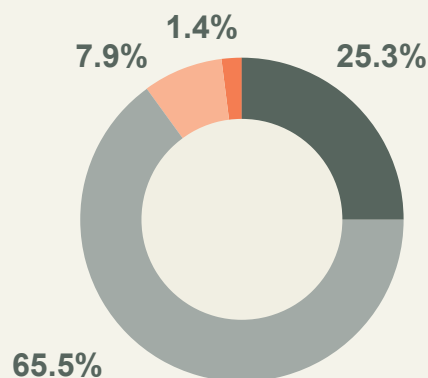
● Disagree

● Strongly disagree

Rangers would report their fellow rangers if they witnessed them accepting a bribe or engage in other corrupt and illegal activities

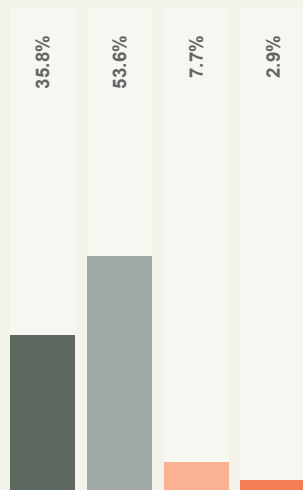


I would report a ranger if I witnessed them accepting a bribe or engage in other corrupt and illegal activities



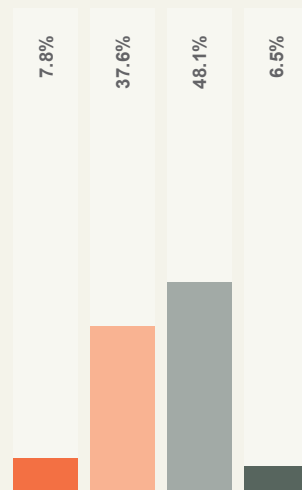
My organization does a good job reprimanding rangers found to have participated in corrupt activities (such as accepting bribes)

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



I would be concerned for my safety if I reported a fellow ranger who I witnessed accepting a bribe or engage in other corrupt and illegal activities

● Strongly agree  
● Agree  
● Disagree  
● Strongly disagree



RANGERS TAKE BRIBES NOT BECAUSE THEIR SALARIES ARE INADEQUATE, THEY TAKE THEM BECAUSE THEY THINK NO ONE NOTICES. I DON'T KNOW HOW TO REPORT ANONYMOUSLY, BUT IT WOULD BE GOOD TO BE ABLE TO REPORT IN THIS WAY TO HAVE THOSE RESPONSIBLE CHARGED.

# Further Regional Comparison

At nearly 200 questions, the survey also included many ranger perception questions that were not shown in the preceding pages. To provide insight into some of these, the regional variation in thematic groupings of questions is shown below. Higher scores indicate more positive or optimistic responses to questions from each theme.

That survey respondents felt more negatively about their chances for promotion, recognition and fair reward is one item that stands out as problematic in both the African and South Asian regions. In all regions, rangers seemed to express fairly negative perceptions regarding the effectiveness of national institutions in properly punishing and deterring those who commit wildlife crimes and endanger ranger safety.

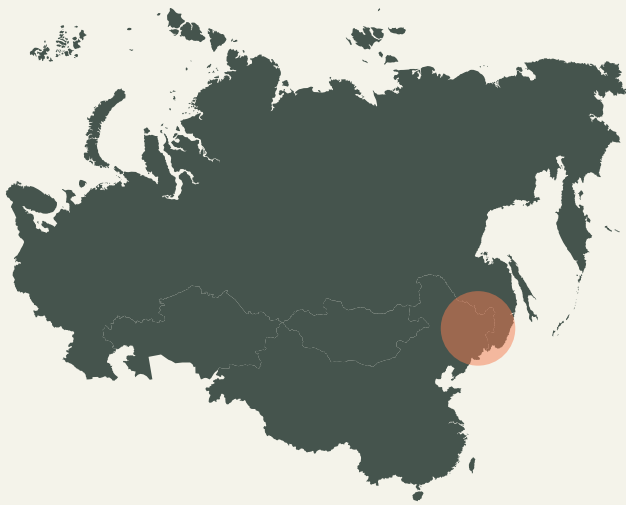
## Average percentage positive/optimistic response

	Africa	South Asia	Southeast Asia
Relationships with co-workers <sup>1</sup>	75.3 %	75.8 %	73.8 %
Relationships with managers and supervisors <sup>2</sup>	58.1 %	64.1 %	67.8 %
Relationship with communities <sup>3</sup>	59.5 %	65.5 %	67.6 %
Job satisfaction <sup>4</sup>	76.8 %	80.3 %	76.8 %
Job reward <sup>5</sup>	47.8 %	46.8 %	63.4 %
Physical and mental stress <sup>6</sup>	61.9 %	68.8 %	67.5 %
Perception of legal-judicial system <sup>7</sup>	44.6 %	47.0 %	54.7 %

Number of survey questions for each theme: (1) four, (2) 12, (3) 15, (4) 10, (5) three, (6) ten, (7) 11.



# China / Russia Tiger Landscape Case Study



Surveys were delivered to 293 rangers at more than 40 sites across Northeast China and Southeast Russia, mainly in Jilin and Heilongjiang provinces (China) and Primorsky Krai (Russia), with a very limited number from Inner Mongolia (China) and Jewish Autonomous Oblast (Russia).

Overall, results were far more positive when compared to the global averages highlighted earlier in this publication. This held across all major survey categories. Given that the vast majority of these sites either currently have tigers or are central to tiger population recovery and expansion, the results should provide some optimism for the future of the world's northernmost outpost for that species.

Average age of survey taker

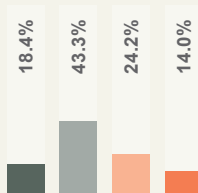
**39.58**  
years

Average duration of employment as a ranger

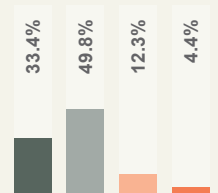
**7.27**  
years

Strongly agree Agree Disagree Strongly disagree Not applicable

I feel I'm paid a fair wage for the work I do

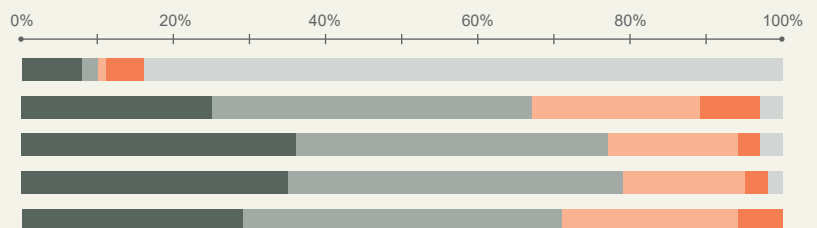


I am satisfied with my chances for promotion and advancement

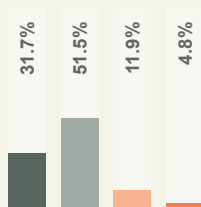


The provided equipment is sufficient for the work that I do

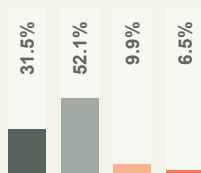
Firearm  
Communications device  
Navigation equipment  
Housing/shelter  
Uniform/boots



The training I received when I first started was sufficient for my job responsibilities

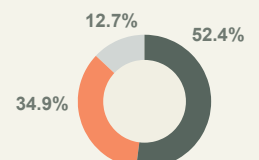


I feel that my organization provides sufficient additional training (such as refresher trainings)

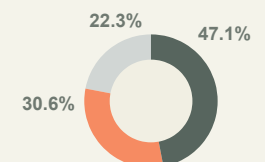


Yes No Unsure

I have an employee insurance scheme that provides compensation in case of serious injury on the job



I have an employee insurance scheme that provides financial or otherwise significant compensation to my family in case of job-related fatality



# Latin America Preview Survey



Results from the Central America Ranger Well-being and Working Conditions survey suggested that while conditions for the region's rangers do not appear to be getting worse, there are a number of areas for improvement. Note that this survey is far more limited in scope compared to the one in this publication, and as such far more research is needed in order to draw reliable conclusions.



Here, only around 60 per cent of rangers currently work on permanent contracts and approximately half of the rangers surveyed see their families 5-10 days per month. While over 90 per cent of rangers surveyed feel that they are adequately trained for their jobs, almost three-quarters of them don't believe that they have the proper equipment and amenities to ensure their safety.

The most frequently reported worst aspect of being a ranger is the dangerous working conditions, with over 70 per cent of respondents having faced a life-threatening

situation. Despite this, over 75 per cent of rangers surveyed said they would want their children to become rangers. The primary motivation cited as their reason for becoming a ranger was the chance to be outside in nature. Based on these preliminary findings, it is suggested that the highest priority for rangers in Central America is to work towards better ensuring both their job security and their safety while in the field. A secondary and related priority is to improve the infrastructure and equipment available to rangers in order to allow them to fulfill their roles to the greatest extent possible.

# I Recommendations

Given their critical role in safeguarding valuable natural resources and ecosystem services, as well as protecting the territorial integrity of the countries in which they work, rangers should be further professionalized and supported in a manner commensurate with that of an agency which protects high-value state resources and upholds the rule of law.

In order to professionalize the ranger sector, governments in the survey countries should:

- **Comprehensively analyze survey findings** from their jurisdictions, and use them to draft strategies and policies to improve ranger welfare and effectiveness. The findings should also be used to attempt to leverage more resources or better allocate existing funds.
- **Consult with non-governmental organizations** in this planning to ensure the most impactful and effective distribution of capacity in support of rangers.
- **Design and support further research on rangers** to address the gap in current public sector research, and to facilitate in-depth investigation and understanding on issues of importance to ranger well-being.

As a further step in the direction of professionalizing the ranger sector, governments should:

- **Review and improve training curricula:** a full review of rangers' training curricula should be undertaken, with particular attention to training in matters that may impact ranger safety. Periodic refresher training in line with other government law enforcement standards should be provided. Organizations specialized in, and familiar with, global best standards (such as the International Ranger Federation Training Guidelines for Field Rangers) should be invited to contribute to the process.

- **Facilitate the building of trust between rangers, and indigenous peoples and local communities:** this must include substantive integration of the issue into ranger training curricula, as well as providing opportunities and fora for constructive dialogue and interaction between rangers and these groups.
- **Act fast to improve ranger safety:**  
The clearest theme that emerges from the opinions of rangers is that there are considerable safety gaps exposing rangers to severe illness, injury or death. Governments must address these gaps as a matter of priority, particularly by:
  - > **Guaranteeing access to basic necessities:** with a high proportion of rangers lacking adequate shelter, clean water, boots and clothing, this is of urgent concern.
  - > **Improving availability and quality of emergency medical care:** plans must be implemented to minimize the response time in delivering qualified medical treatment to an injured ranger in the field. In addition, first aid training needs to be provided to all rangers, and certification should be viewed as prerequisite to patrol work.
  - > **Providing 100 per cent insurance coverage for serious injury or death:** adequate insurance coverage (to a living wage) must be provided for all rangers – or their families in the case of death.
  - > **Improving the availability of essential equipment such as communications devices:** governments and their partners should ensure that all areas patrolled by rangers have a suitable communication 'network' in place, and that rangers have continuous access to a communication device appropriate to local conditions.



# I Acknowledgements

## Partner in survey design, methodology and data analysis



UNIVERSITY OF  
CENTRAL FLORIDA

### University of Central Florida

The University of Central Florida is a thriving preeminent research university located in metropolitan Orlando, U.S. With more than 67,000 students, UCF is one of the largest universities in the country.

The Department of Criminal Justice at UCF provides excellence in teaching, research and service. Dedicated to its students, the faculty delivers outstanding instruction at the undergraduate and graduate levels, incorporating learning, service and inquiry. The department also conducts quality research and pursues local, state and federal funding to advance knowledge in our discipline. By actively developing meaningful partnerships, it provides exemplary service to the university and the broader professional and academic community.

[www.ucf.edu](http://www.ucf.edu)

## Survey delivery



### Global Tiger Forum

Global Tiger Forum (GTF) is an inter-governmental and international body established with members from willing countries to embark on a worldwide campaign, common approach, promotion of appropriate programmes and controls to save the remaining five sub-species of tigers in the wild distributed over 14 tiger range countries of the world.

[www.globaltigerforum.com](http://www.globaltigerforum.com)



### Global Wildlife Conservation

Global Wildlife Conservation (GWC) protects endangered species and habitats through science-based field action. GWC is dedicated to ensuring that species on the verge of extinction aren't lost, but prosper well into the future. GWC's three key goals are to: create and manage parks in the most irreplaceable sites worldwide, develop and implement wildlife recovery plans for key threatened species, and engage and empower current and future conservation leaders worldwide. Through these key goals GWC brings together scientists, conservationists, policy makers, industry leaders and civil society to ensure a truly collaborative approach to species conservation.

[www.globalwildlife.org](http://www.globalwildlife.org)



### KEHATI

Yayasan Keanekaragaman Hayati Indonesia (KEHATI), otherwise known as the Indonesian Biodiversity Foundation, is a non-profit, grant-making foundation. The organization was created to mobilize and manage resources to be channeled to other parties in the form of grants, facilitation, consultations, and other assistance to support various programmes in biodiversity conservation and utilization in a fair and sustainable manner.

[www.kehati.or.id](http://www.kehati.or.id)



### ELEMOTION

Elemotion Foundation is a U.S.-registered, non-profit organization working for the welfare and conservation of Asian elephants in Sri Lanka, and the people connected to them.

[www.elemotion.org](http://www.elemotion.org)



### IUCN, Bangladesh

The International Union for Conservation of Nature is an international organization working in the field of nature conservation and sustainable use of natural resources. It is involved in data gathering and analysis, research, field projects, advocacy, and education. Bangladesh joined IUCN as a State Member in 1972. IUCN started its operations in the country in 1989 and established a country office in 1992. To achieve its goals and objectives, IUCN in Bangladesh works in close collaboration with its Members comprising national non-government organizations, with key support from the Ministry of Environment and Forest, a State Member.

[www.iucn.org/asia/countries/bangladesh](http://www.iucn.org/asia/countries/bangladesh)



### Ranger Federation of Asia

The RFA is a group of conservation-focused individuals who strive to further the standards of the profession and vocation of rangers throughout Asia. The concept for the RFA came into existence at the 7th World Ranger Congress. We are an association of rangers, wildlife wardens, forest guards, foresters, scouts, watchers and other frontline field staff (collectively referred to here as "rangers"). We promote and provide opportunities for members to gain and share their knowledge and experience in all aspects of wildlife conservation and protection work. The RFA is a platform for discussions on matters of interest to rangers and provides opportunities for members to interact with other national and international ranger associations.

[www.rangerfederationasia.org](http://www.rangerfederationasia.org)



### University of Nottingham

The University of Nottingham Malaysia offers a world-class British education which is ranked among the top 100 universities worldwide. Designed to reflect University Park Campus in Nottingham, it is a self-contained, vibrant village situated on an attractive and landscaped 125-acre site. The University has around 5,000 students and around 700 teaching and administrative staff from all over the world. According to The Graduate Market in 2016, High Fliers Research, our alumni are among Britain's top choice for employers. We offer the best of UK education in an Asian setting.

[www.nottingham.ac.uk](http://www.nottingham.ac.uk)

### The following individuals helped with the survey delivery:

**Sar Sophyra**, Consultant, Cambodia

**Wilber Manyisa Ahebwa**, Consultant, Uganda

**Ekane Ansoah Humphrey**, Consultant, CAR, Cameroon & Congo

**Jeni Thapa**, Freelancer, Nepal

**Dmitry Gorshkov**, Director of Sikhote-Alin Reserve, Russia

**Ken Esau**, Consultant, Kenya

Additional thanks to all government officials who have approved the undertaking of this research in their countries.

6

## CONSERVATION PARTNERS

participated in survey  
delivery in 5 countries

17

## COUNTRIES

and 294 conservation  
sites in Asia and Africa  
where surveys were  
delivered



4,686  
RESPONSES

collected over the  
course of 20 months

197  
QUESTIONS

in each survey



Working to sustain the natural  
world for people and wildlife

**together possible** [panda.org](http://panda.org)

© 1986 Panda symbol WWF – World Wide Fund For Nature (Formerly World Wild life Fund)  
© "WWF" is a WWF Registered Trademark. WWF, Rue Mauverney 28, 1196 Gland, Switzerland  
Tel. +41 22 364 9111 Fax +41 22 364 0332. For contact details and further information,  
please visit our international website at [www.panda.org](http://www.panda.org)