



LION  
GUARDIANS

*Annual Report 2018*

# Roaring Back

Lions once roamed the African savannas in large, healthy prides. Today, in most parts of the continent, free-roaming lions are quickly disappearing. In the last two decades alone, the African lion population is estimated to have decreased by over 40% and now occupies approximately 17% of its historical range. However, in the Amboseli-Tsavo ecosystem in Kenya, the story is different. Here, lions are roaring back, thanks to unified efforts led by local communities, conservation organizations, and the Kenya Wildlife Service.

Lion Guardians is proud to be an integral part of this thriving synergy. We believe the fate of wildlife lies in the hands of communities, and have focused our efforts on helping people live alongside lions. By engaging in our model of conservation, people who once killed lions are transformed into lion protectors. Our innovative approach has improved the livelihoods of thousands of people and helped to reduce lion killing by more than 90%. Where once lions were disappearing, their populations are now booming, posing a new challenge - we now are faced with a changing context that inspires us to adapt and evolve.

We remain focused on furthering our impacts by using the rigor of science to inform conservation and by sharing our knowledge through customized trainings and large-scale collaborations. In the years to come, Lion Guardians aims to continue to help lions roar back in areas far and wide by staying true to our core values.

*Mecrayu imasaa nashorua Enkai*

*What is created and put together by God cannot be separated by anyone*



# Letter From The Founders

This past year marked the final year of our previous strategic plan and as we reflected on our progress, we were inspired by the resilience, the compassion, and forward-thinking of our team. In 2015, we set out on a bold refocus into uncharted territories. Realizing that we were in danger of diminishing our impact by spreading ourselves too thin, we brought the entire team together to rethink our future. What emerged was a vision that had us re-engaging deeply with the core of our organizational culture as well as our scientific foundation, while also pursuing a novel approach to spreading our impact through the systematic and organized sharing of our amassed knowledge. While it seemed like a huge undertaking at the time, we are proud to share that we have been able to achieve our ambitious targets by using a holistic and well-structured approach. Lion Guardians has now transformed into a mature organization with a strong senior management team at the helm. In fact, the development of the team and its members' individual knowledge and skills has been essential to our achievements and it continues to be a focus over the coming years.

Today, we find ourselves at another seminal juncture in our conservation journey. To an extent, we are victims of our own success. In the last ten years, **the lion population has more than quadrupled in our areas of operation** and the human population has also grown rapidly. This has resulted in more conflict every day, and it is a true testament to the work of the Guardians that **no lion was killed by a member of the communities living in our areas of operation in 2018**. However, with rapidly changing cultures and intensified pressures on the land, we know that we must adapt and evolve, not only to keep pace, but also to stay ahead of the curve. Peaceful coexistence is not a destination that can be reached; it is a continuum where one needs to consistently consider all factors in order to maintain balance. Our experience and our understanding of the changing context has reinforced the importance of fully comprehending the expectations from, connections with, and involvement of the community in everything we do. Accordingly, over the next years we are excited to continue to work closely with local communities to conserve lions and preserve cultures. Our vision is as bold as it has been over the last decade, but with added experience and wisdom to guide us. We look forward to sharing the journey with you, to collectively achieve conservation success together.

*Ashe Oleng*  
(‘Thank you’ in Maasai)

*Leela*  
Dr. Leela Hazzah  
Executive Director

*S. Dolrenny*  
Dr. Stephanie Dolrenny  
Director of Science

# Promoting Coexistence



BUILDING TOLERANCE



CONSERVING LIONS



IMPROVING LIVELIHOODS



SCALING IMPACT



ENHANCING CAPABILITIES

Thanks to your support, since 2007, Lion Guardians has been helping people live peacefully with wildlife by increasing the benefits from conservation and reducing the associated setbacks. Year on year, we have achieved significant outcomes that build tolerance and save lions, actively helping us achieve our mission of promoting coexistence.



## BUILDING TOLERANCE

**7,232** head of lost livestock were recovered by Guardians, helping communities avoid approximately \$1 million in potential losses

**243** bomas (livestock corrals) that suffered depredations were reinforced by Guardians, approximately 40% more than last year

All **7** herders and children (almost 3 times less than previous years) reported lost to Guardians were safely returned to their families



## CONSERVING LIONS

**0** lions killed in our areas of operation by community members; while approximately 15 lions were killed in neighbouring areas

**24** hunts stopped; approximately 35% of these in collaboration with Big Life Foundation and Kenya Wildlife Service

**230** lions monitored; 6 lions per 100 sq km, up 13% from 2017 and close to 6 times the number we were monitoring when we first started



## IMPROVING LIVELIHOODS

Over **\$100,000** in direct economic benefits to the community, with more than 50 employed from our core areas on a permanent basis. Through our Lions for Life program, we also support school teachers and have initiated a reforestation program with school children

**100s** of community members assisted with emergency transport to medical care facilities, transport and treatment of injured livestock, and support of community-led initiatives



## SCALING IMPACT

**6** knowledge sharing services, nearly double our annual goal that built up the capabilities of 58 conservationists and expanded our impacts beyond Africa and lions

**5** ongoing national and international large-scale collaborations where Lion Guardians is a lead stakeholder due to our scientific knowledge and experience

**16** engagements (presentations, tool transfers, discussions) where our team members were able to influence approximately 200 people with our knowledge and expertise



## ENHANCING CAPABILITIES

Engaged leadership coaches for Lion Guardians Amboseli senior managers, which led to team members from the community taking on new roles and responsibilities, as well as our Program Manager being accepted to University of Kent's Master of Science program

Embarked on a bottom-up strategic planning and budgeting process where all team members were actively engaged and driving the processes

Obtained four scholarships for senior Kenyan staff to attend leadership training in Kenya and Namibia



# Spotlight on Impacts



## A DELICATE BALANCE

The year, 2018, was a year like no other – in three months alone, we received more rain than we had in the preceding two years combined. And since lions turn more often to livestock during these rainy periods, conflict literally exploded, reaching the highest levels seen to date. The Guardians and the monitoring team, together with our conservation partners, often worked around the clock to mitigate conflict. We are pleased to share that thanks to our proactive efforts, we continue to reduce the negative impacts of lions on communities and in 2018, even with heightened conflict, no lions were killed in our areas of operation by communities living there.

But the process of getting to that result was by no means easy. There was a particular period of time when, frustrated by the losses they were facing, we were receiving escalating pleas for help from several communities at once. Normally, the conflict occurs at one hotspot at a time, but in 2018, these hotspots were springing up at multiple places at the same time. The communities were at a loss and we were truly overwhelmed. But even then, we had a plan. Identifying the lions who are the culprits in these incidents is the only way to move forward, and in some areas, we took weeks trying to pinpoint the numerous lions involved, mitigate conflict, and prevent them from further attacks. One lion was causing us a particular headache, repeatedly hitting *bomas* at night and evading our prevention techniques. That is, until the moment where we caught him red-handed, literally dragging a calf away from a *boma*. The swift mock hunt that followed by our ground team worked wonders and the lion, *Koyiombo* (the bold and naughty one), has not killed livestock from that day forward. Thankfully, this one incident was like a catalyst of hope; once this area was relieved of pressure, it gave us time to focus on the other regions and tackle conflict more effectively.

The escalating conflict and the way in which it occurred gave us pause for thought and early on in the year, we convened conflict response meetings and appointed a team that would strategically activate and deploy during high conflict times. We introduced roving Guardians and put into place teams that would camp at hotspots over periods of time. We quickly realized that if we wanted to effectively deal with these new levels of conflict, then we would have to think differently. Using the momentum of 2018, we have already drafted a plan to be more proactive and fleshed out the details of our conflict response team. We look forward to adapting these strategies in 2019 and beyond for the safety of communities and lions.

## SOWING THE SEEDS OF COMMUNITY CONSERVATION

A few years ago, on a sunny May afternoon, the senior management team sat around bits of flip-chart paper, contemplating our refocused vision. One of the key realizations that we had during this time together was the need to engage more deeply with the communities in our areas of operation to effectively understand their needs, as well as some of the changes that were beginning to emerge. Community participation has always been a core value underpinning our mission and vision. Accordingly, more than 90% of our team is from the local area in the Amboseli-Tsavo ecosystem, and the innovation and adaptation of our model stems from what we see on the ground and the lessons that we learn. Furthermore, through our “Lions for Life” initiative, we have spread over \$1,000,000 dollars of benefit and helped close to ten thousand people with assistance in our areas of operation over the last ten years. Our goal now was to create additional platforms through which we could engage a broader audience for capacity building, information gathering, and community participation and thus the idea of the *murran* (warrior) forums was born.

Fast forward to 2018, we were finally able to launch this carefully planned-initiative and on a bright December morning, we held our inaugural tête-à-tête with 29 warriors. It was a lively meeting with much discussion about living with lions, especially the costs and benefits of doing so. What was most encouraging was that all the *murrans* present

wholeheartedly believed that the best way forward for both Maasai and lions was peaceful coexistence. They were immensely appreciative of the role that Lion Guardians played in maintaining a balance between lions and communities, and had several ideas on how we could expand our efforts to also help with depredations from other carnivores, such as hyenas.

We held two successful forums last year, and we plan to continue building the program, working with the warriors that we have already started to engage in order to enhance both their understanding of our program and conservation, as well as our understanding of their ideas, concerns, and needs. We are very excited about the ideas and synergy that is emerging from these gatherings. In addition, we have bolstered the Lions for Life program to facilitate broader engagement of the warriors with the school children, as we have found there is often a divide that has led to negative consequences for conservation and lions. We thought one way to do this was to bring everyone together with a seed planting initiative aimed at engaging the school children in our area and have the warriors as well as the elders and women participate. By planting seeds of indigenous trees, we are helping regenerate habitat for wildlife, while also laying the groundwork for tomorrow’s conservationists. These children are the future and as they grow into *murrans*, we hope that these learnings take seed in their fertile minds and remind them of the value of their heritage and the benefits of living with lions.

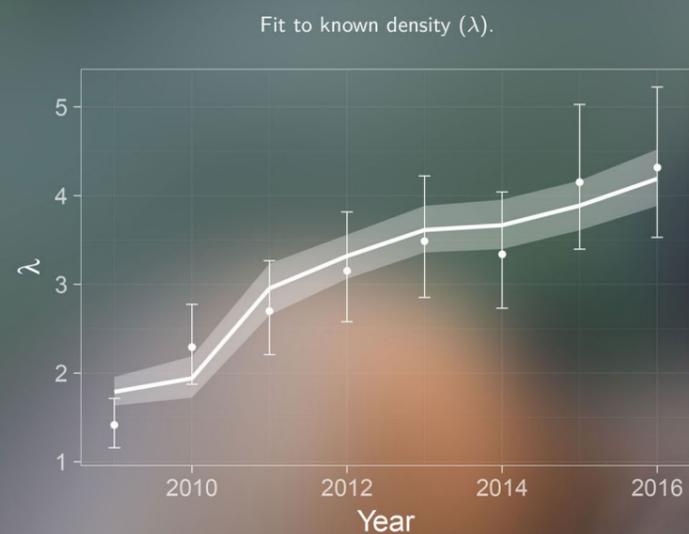


## WRITTEN IN THE SPOOR

Once a week, 40+ Guardians traverse a predefined route collecting critical data. Armed with a GPS, a pen, and a form to record tracks of any carnivore and prey that fall on the predetermined path, the previously informally-educated citizen scientist warriors set out to gather critical information: data that we surmised could tell us about relational trends of key species, as well as provide a non-invasive way to estimate the lion population in areas where it is not possible to obtain visuals of lions. Since 2009, our Science and Research team have been hard at work establishing the spoor track methodology, their brains constantly churning on how to make it more rigorous, given all the variables that come with working over broad areas with community members covering large distances alone on foot. The Lion Guardians team knew it would take years to obtain enough data to test our aspirations. Finally, in 2018 with nine years of spoor data collected by the Guardians at our core site in the Amboseli-Tsavu ecosystem and working with a statistician from NIWA, New Zealand, we developed a new and exciting model to estimate lion densities. Having input the precious data, the statistician ran the model and tested the outputs against our observed lion densities based on individual identifications. To our great joy, the results of the model matched our observed lion densities.

It took us a while to fully digest what this meant. Essentially, the results suggest that spoor data collected systematically by non-scientists can be used to effectively predict lion densities. This finding has far-reaching implications, as it gives us the ability to estimate lion populations in areas where lions are not easily observed, by

using data collected by citizen scientists. Since this exciting development, we have used our model to predict the lion density at our collaborator KopeLion's site in the Ngorongoro Conservation Area, an area where spoor data was collected in the same manner, but the lion population density was unknown. We look forward to continuing to unlock the full potential of this tool in community areas where lions occur at low densities, are particularly secretive, or live in areas that are particularly difficult to access.



## SOLVING THE LOST LIVESTOCK PUZZLE TO SAVE LIONS

If you were a fly on a wall at a meeting filled with lion conservationists, you may be surprised by what you hear. More often than not, the majority of the discussion is about cattle and other livestock, not lions. That's because at the heart of lion conservation across Africa lies the issue of lost livestock. In 2018, Guardians recovered close to 8,000 lost livestock (worth almost \$1,000,000). And in our ecosystem, it is estimated that between 60-80% of lion depredations occur on livestock left out in the bush overnight unattended; what we refer to as "lost" livestock. Put these two facts together and it is clear that we need to do more than mitigate conflict once livestock is lost; we actually need to figure out how we can help stop livestock from being lost in the first place. This is one of the key reasons we reached out to a rangeland specialist from Colorado State University in late 2017 and we have been working together ever since to understand this puzzle.

In 2018, a team comprising senior managers and the specialist traveled the length and breadth of our core area and spoke with 120 community members, and what they uncovered is pivotal in its simplicity. The lost livestock problem is essentially being driven by morphing herding

practices that are linked to changes in the local culture. At the higher level, the findings were clear, but as we dug deeper, they became more complex and each question led to more questions, such as "Is livestock lost because the younger generation do not value livestock as highly as previous generations?" "Is it because adults are not spending enough time mentoring younger herders?" "And if these values have shifted, then why do the warriors retaliate when lost livestock is killed?" We had several brainstorming sessions and have come up with a list of possible points where we feel that conservation interventions may help bolster herding skills while also aiming to reignite cultural husbandry practices. The data from these surveys are currently being mapped against lost livestock numbers and depredation events across the ecosystem to further understand where we can work with the communities most prone to large numbers of lost livestock to design and test various initiatives to reduce losses.

We hope our results will be widely applicable and allow more time for lion conservationists to talk about lions.

## SAVING BIG CATS WORLDWIDE – BEYOND AFRICA AND BEYOND LIONS

Sharing and collaboration are critical to wildlife conservation success. Our decades of experience have taught us many things, and every day we amass more information: data about lion behaviors, understanding of community-driven partnerships, and lessons learned about what works – and does not – when it comes to protecting lions and helping communities. And while all this knowledge informs our own model, sharing it opens up new opportunities for progress. We had many important opportunities to spread our wings and scale our impact in 2018, but one was particularly memorable for the impact we had on our visitors, as well as the impact they had on us.

In the first week of May 2018, we hosted a team of four senior managers from the Nature Conservation Foundation (NCF) - India for a customized coaching and training program. We were in the thick of the rainy season and had our fingers crossed that our visitors would be able to make it to our Training Centre without a hitch. Thankfully they arrived safely and within moments became part of the Lion Guardians family. This was our first-ever knowledge sharing with a team outside of Africa and for a species other than lions, and we are happy to report that it went exceedingly well. The days were filled with in-class workshops and field trips to observe the work of the Guardians and the monitoring team. All four participants learned a tremendous amount during their eight days with us, and were excited to return to their home sites and start working on several actions coming out of the training to help local communities and tigers and leopards in their areas. Sanjay Gubbi, Director of NCF-India, shared that *“It was wonderful to see first-hand the immense impact that the Lion Guardians team is having on the ground.”* For all of us at Lion Guardians, the NCF team left us with an increased understanding that the challenges carnivore conservationists face in Maasailand and in India are largely the same. And that, when we come together and share our knowledge, we are twice as impactful across broader landscapes.

*Eerr enkiti naiguane esayuk neituguana*

*A small yet well-equipped and knowledgeable team can overcome the  
greatest of challenges*





*Meibarru eng'eno elukunya*

Wisdom and skills never grow old

## LEVERAGING KNOWLEDGE TO HELP NAUGHTY LIONS

Certain lions frequently engage in killing livestock, and these “problem animals” are therefore responsible for a disproportionate amount of conflict. Our previous analyses have shown that less than 20% of the population of lions is responsible for approximately 90% of the depredations. Unfortunately, even the well-behaved lions in the community get caught up in the aftermath of these repeated depredations, as community members rightly incensed by an invasion into their homes and the loss of their livelihood tend to be unhappy with every lion they see. It is a problem we have been studying for a while as part of our Science and Research pillar. Through our fifteen years of observing lions and their behaviors, we have noticed patterns that give us clues on how to help communities deal with these poorly-behaved lions. For instance, one of our most chronic problem lions, Selenkay, always raided *bomas* when she was lactating. We also found that many of her offspring learned this behavior from her, making it even more crucial to figure out how to proactively stem the *boma*-raids and the generational transfer of bad behaviors.

While our in-depth knowledge of the lions in our core area and their behaviors has helped us minimize impacts to the communities, it has also drawn the attention of key stakeholders that are grappling with the same issues. Accordingly, Lion Guardians was invited to lead the development of a draft set of Problem Animal Control protocols for lions that have now been agreed upon by all stakeholders in the Amboseli-Tsavo ecosystem and approved for adoption by the Kenya Wildlife Service. It has been a long process, as the issue is a sensitive one with many polarizing opinions, yet we are making immense progress in unifying efforts by NGOs and government authorities to provide the best support to communities. We are grateful that our knowledge and data have been able to help our neighbors, our collaborators, and most importantly, the lions.

Now that the drafting is done, we are moving on to actual implementation. Over the next year, we, as part of an ecosystem-wide coalition, will initiate a year-long trial period during which we plan to test and adapt the protocols to make them applicable at the national level, while documenting lessons learned and pros and cons of the protocols on the ground in the Amboseli-Tsavo ecosystem. As mundane as the word protocol may sound, these unified efforts have the ability to have significant impacts. They are a giant step forward in helping communities and other stakeholders to proactively, strategically, and efficiently reduce depredations, help communities, and keep lions and elephants alive.

## LEADERS SHAPING LEADERS - START SMALL, GROW TALL

At our decade celebration in late 2017, we listened with great pride as members of the extended Lion Guardians family came together to tell stories of how it all started – five Guardians and two scientists under a tree, debating a name. Today, when we look around us, we see a dedicated and passionate team of leaders taking Lion Guardians into the next decade with strength and determination. While we have always been focused on building our team, we took our efforts to a new level by concentrating on growing leaders from within. This has resulted in significant developments in the capabilities of each member of the team, but there is one individual's story that we particularly want to share.

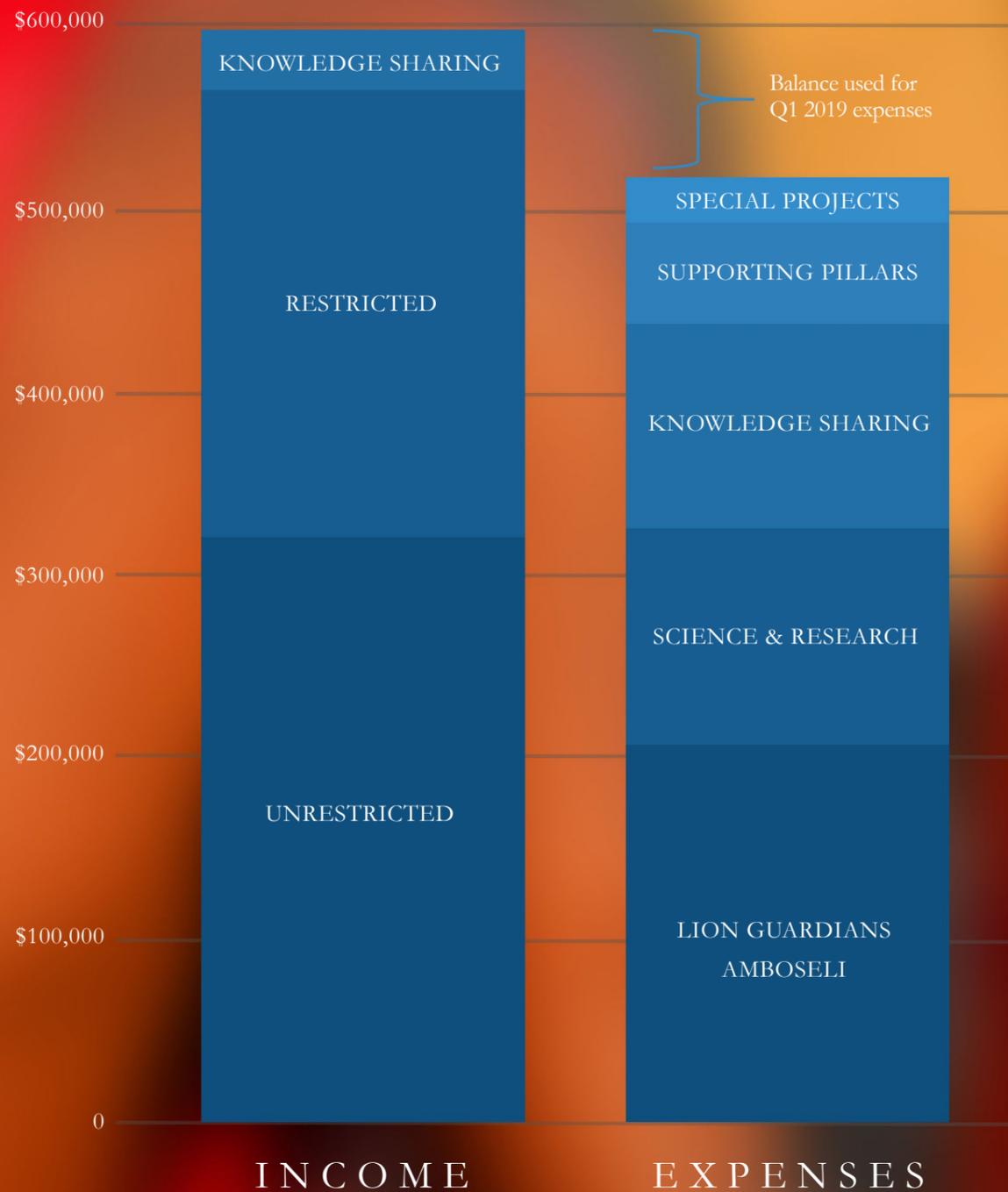
Jeremiah Purka, a young traditional Maasai man, first began as a part-time laborer in 2013 with a rather unglamorous task: digging four pit latrines in our new camp. He spent weeks breaking rock, digging downwards inch by inch, yet never complained. Thanks to his skills and natural leadership capabilities, he soon began to manage the construction labor unit, and was rewarded with a full-time job. As the years ticked by, Jeremiah flourished. Responsibilities kept being added to his quota, and soon he was our go-to-guy for both camp and vehicle maintenance. We were all so impressed by him – he had proven to be a reliable, indispensable employee, always cheerful, and remarkably talented. As his mechanical expertise improved, we could see that he was itching for a new challenge, so when a need arose within the lion monitoring department, we decided to promote from within. With fieldwork came a whole new responsibility that challenged Jeremiah. He quickly picked up the photography skills needed to supplement his innate tracking abilities, but having never gone to school, he could not read or write and this meant that the crucial task of entering data about lion observations was tricky. But, as with everything in Jeremiah's life, his passion to overcome any hurdle came to the forefront. In 2018, at his request, he eagerly started attending school to learn to read and write. Jeremiah's journey with Lion Guardians may have started with humble beginnings, but he is always reaching for the stars and we hope he never stops wanting to learn and develop.

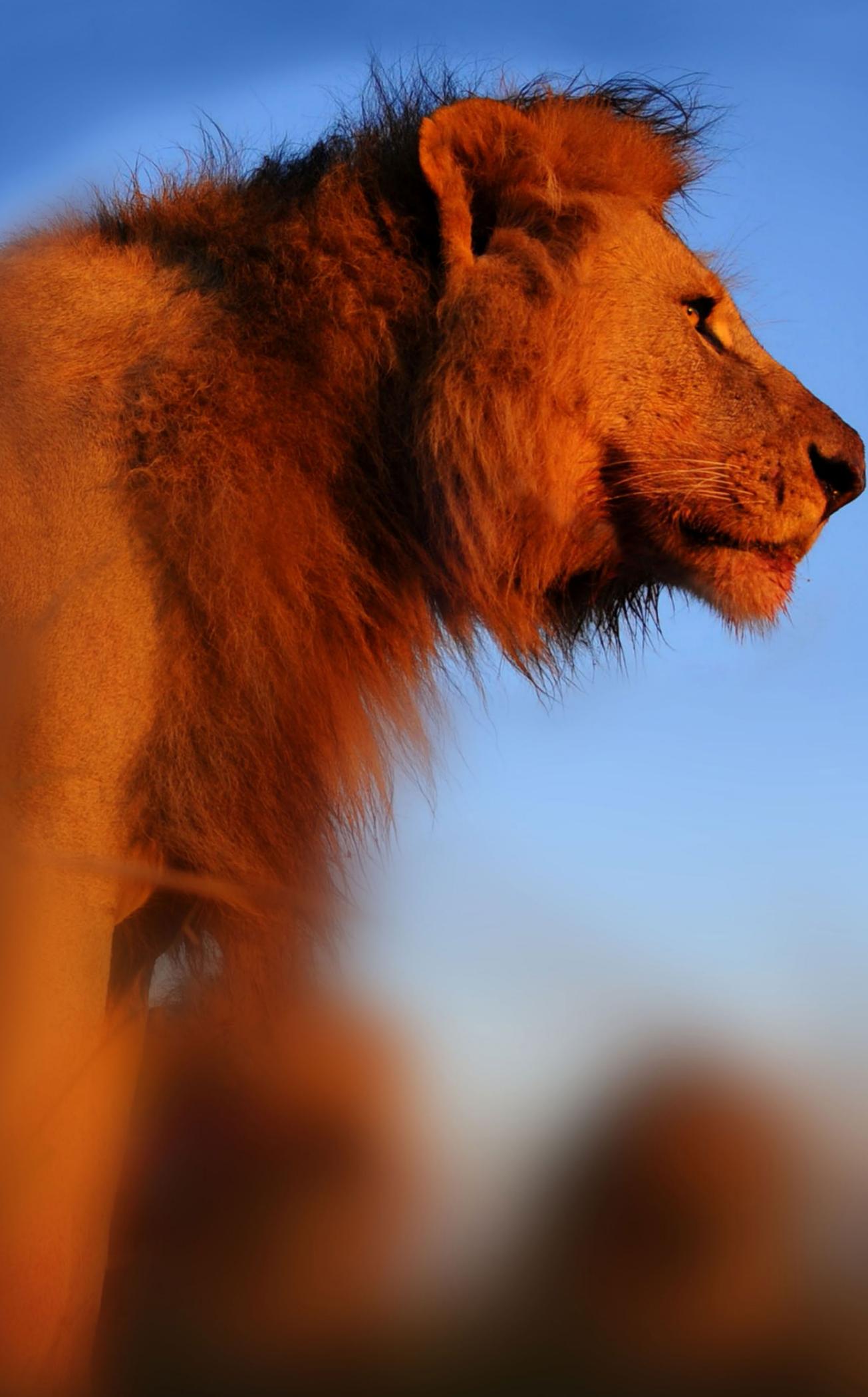
His story also epitomizes our ethos at Lion Guardians. We believe that nurturing talent and growing leaders from within is the most sustainable option to building an organization. We are also proud that another senior team member, who we taught how to use a computer, record data and read and write in English, will be heading to University of Kent this year. We focus on developing the strengths of each and every one of our team members and harnessing individual and team passion to achieve significant and lasting impacts for both people and wildlife.



# Our Finances

The financials below reflect what it takes to run our field operations in Kenya. In addition, we incur costs for our fiscal sponsor, Lion Guardians U.S., which supports community-based conservation initiatives in Africa. In total, for both these entities, we need to raise close to \$1,000,000 annually to operate effectively and sustainably.





# Looking Ahead

As we turn our gaze to what lies ahead, we see immense change on the horizon. The context that we found ourselves in when we first started in 2007 has shifted dramatically. We are facing uncertain times with cultural changes that are affecting people's values, climate changes that are affecting people's livelihoods and resilience, and lion behavioral changes that are intensifying conflict. Today, we have more lions and more people, but we also have a decade of experience and insight, lessons learned, and an effective and passionate team. It is, therefore, not surprising that when we sat down for our three-year strategy planning at the end of 2018, much of the discussion was about adapting and evolving to meet the changes we see coming. We are driven to continue to evolve and push the boundaries of wildlife conservation. As we proceed on our journey along the coexistence continuum, we plan to retain our focus on the rigor and quality of our science in order to develop novel techniques and maintain sustainable impacts. We are also putting resources towards building the capacity of our entire team, and one of the most exciting milestones we are looking forward to is a completely locally-managed program at our core site in Amboseli in the near future. In addition to our day-to-day operations, some of our key milestones for 2019 include:

- Gaining a clear understanding of land subdivision and how it may affect lions
- Developing plans to respond to cultural changes and how they affect our model
- Researching technological innovations and how they can help with conflict mitigation
- Maintaining the quality of our science, the integrity of our data, as well as our Knowledge Sharing influence
- Building a clear plan to enhance the capabilities and skills of all team members and continuing to grow their leadership skills

# Thank You

There are never enough words to say how much your support means to us – last year, the community lions of Eselenkei Group Ranch (EGR) showed us that, sometimes, all it takes is a gesture. And we wanted everyone to hear this special story of thanks from Eric Ole Kesoi, Lion Guardians Senior Manager.

*“When the Lion Guardians program started in EGR in 2009, there were only three resident lions. Since then, thanks mainly to the efforts of the Guardians at keeping the trouble-making yet prolific matriarch Selenkay alive, the population has grown to 34 residents over the age of 2; an astounding 1000% increase. So when we had the privilege of hosting the Lion Guardians U.S. Board of Directors at our core site in June 2018, we took them to the field to see this conservation success story first-hand and express our gratitude for their support. Little did we know that Selenkay’s pride was already prepared with their own vote of thanks. As we neared their resting place for the day, Ngenoi (granddaughter of Selenkay) climbed to the top of an acacia tree while being cheered on by the knowing glances of the rest of the pride members. After gazing at us from above, Ngenoi finally came down and strolled past our cars and with a swish of her tail, the iconic creature sent a big ‘thank you’ to our board members for their unwavering commitment which has taken us, and the lions, to new heights.”*

All of us at Lion Guardians deeply appreciate your continued support and belief in the future of our organization. Together, we can continue to impact the lives of lions and the people who live with them.



*Ashe Oleng*

THE BLUE FOUNDATION



THE BROMLEY TRUST



*It takes a community to conserve lions and preserve cultures, we are grateful that you are a part of ours.*



CHANTECAILLE

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

