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# The Plight of the Elephants.

## Protecting the Species through Local Communities

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by

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**Abstract:** The elephant is considered one of the most fascinating mammals of the animal world and currently the biggest walking on Earth. Unfortunately, this species is severely endangered due to various causes, primarily poaching for ivory. Additionally, habitat loss, which also contributes to worsen human-elephant conflict, are other concerning reasons affecting elephant populations. The article will start with a brief introduction to the history of elephant hunting and exploitation in Africa, which reaches a peak during European colonialism times, to then continue by describing the threats that this species is facing today. Secondly, the article will focus on one important stakeholder involved in elephant conservation: the indigenous communities. The article will mention a few key examples of community involvement in conservation, highlighting the case of first community-owned sanctuary in Africa: the Reteti Elephant sanctuary. This sanctuary is not only relevant for being the first of its kind, but also because women play a central role in managing the elephants.

### Introduction

The Earth is our home, but it is also home to innumerable other species. Among those species, the elephant is arguably one of the most fascinating mammals of the animal world and currently the biggest walking on Earth. In fact, elephants are considered a “charismatic species”, a term increasingly used in conservation biology to generally indicate species that are popular among people and consequently attract considerable financial resources to be protected (Frédéric Ducarme, Gloria M. Luque and Franck Courchamp 2012). Additionally, it seems to be primarily used with big-size animals (Emilio Berti, Sophie Monsarrat, Michael Munk, Scott Jarvie and Jens-Christian Svenning 2020).

Elephants and humans have a long history of coexistence but also of hunt and exploitation. Although European colonialism was particularly threatening to African elephants’ existence, elephants were exploited for their ivory even before the Europeans arrived on the continent, with Swahili Arabs and Indian merchants trading

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with local African communities and exporting ivory abroad, from India to the rest of the world (Mark Cioc 2009). The Europeans exploited these established trade routes, slowly replacing Arabs and Indians merchants (Cioc 2009). However, the Europeans brought elephants to the brink of extinction like no other group did before: in just around fifteen years from the “Scramble for Africa”<sup>1</sup>, in the 1890s, the elephants were on the brink of extinction (Rachelle Adam 2014). This is because Europeans made the hunting of elephants simpler and more effective compared to traditional techniques used by indigenous communities thanks to technologically advanced rifles and the construction of railroads to connect the interior to ports to transport ivory, which also simplified access to elephant herds (Cioc 2009; Adam 2014). For colonial governments, ivory became a fundamental source of revenue, if not the very foundation of colonial trade (Cioc 2009; Adam 2014). However, because of the excessive exploitation and the importance of the ivory trade, colonial powers became seriously concerned with elephants’ disappearance (Cioc 2009; Adam 2014). Since an individualistic approach to elephant protection initially taken by each colony did not prove effective (Cioc 2009), German and British colonies invited the other European colonies representatives to a conference that took place on April 24, 1900 in London. The result was the creation of the Convention for the Preservation of Wild Animals, Birds, and Fish in Africa, also known as the 1900 London Convention (Cioc 2009; Adam 2014; see also Michael Bowman, Peter Davies and Catherine Redgwell 2011). Although this treaty never came into force, it represents the first international agreement to protect biodiversity, and the first one to encourage the creation of natural reserves (Bowman et al. 2011). Additionally, it prompted colonies to create new regulations and to produce reports on the numbers and the species killed (Adam 2014). Regarded as an important step towards a globalized approach to biodiversity protection, this first agreement has been criticized for being limited in scope. First, elephants were weakly protected. The convention included five attached lists, called schedules, which categorized animals according to their level of protection (Adam 2014). Schedule I included animals that were offered the highest level of protection, which could mean a total hunting ban, but elephants appeared in schedules II, III and IV. Schedule II prohibited to hunt or kill only young elephants, while schedule III prohibited the killing of female elephants when they were together with their young (Bowman et al. 2011; Adam 2014). Schedule IV instead, which included animals that could be killed in a limited number, meant that elephant hunting was not completely banned (Adam 2014). This is primarily due to the fact that the elephants were protected because of their economic value to colonialists rather than for their intrinsic value. Secondly, it was not designed to cover the whole African continent, as it left most of southern Africa out of its jurisdiction (apparently due to the ongoing Anglo-Boer War<sup>2</sup>) (Cioc 2009; Adam 2014). Additionally, only the European colonists were invited to attend the conference in London, excluding the

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<sup>1</sup> The “Scramble for Africa” is described as “a frenzied attempt by leaders of the various colonizing powers to lay claim to as much territory as possible before the other powers beat them to it” (Cioc 2009).

<sup>2</sup> The Anglo-Boer War was fought from 1899 to 1902 between the British Empire and the two Boer Republics due to the Empire’s influence in Southern Africa.

only two remaining independent indigenous powers, namely Liberia and Abyssinia (today's Ethiopia) (Cioc 2009). As a result, through article I, the invited countries established the twentieth parallel north as the treaty's jurisdiction limit in the north. This limit was chosen because it corresponded to the separation between Sahara and sub-Saharan Africa, both from a faunal and political point of view (Cioc 2009). Since both Liberia and Ethiopia were included in the convention's territorial limit, even though they were rejected both as negotiators and signatories, they were both expected to implement the convention (Adam 2014). Nowadays it would be unthinkable, but at that time it was not surprising, since colonialist powers during their ruling paid little to no respect to indigenous communities' cultures, needs and overall identity and practices. Notably, this convention prohibited traditional African hunters' practices, viewed by Europeans as cruel and barbarous, while simultaneously prohibiting indigenous communities to acquire and use modern arms, which severely restricted their ability to provide for them and their families. Additionally, a license system to hunt was created, which allowed to hunt certain animals only by those that have a license. Those licenses, however, were particularly expensive for indigenous hunters, which ultimately meant that their subsistence hunting was now considered poaching (Cioc 2009). However, this is not all. On the ashes of the 1900 London convention, a second convention deemed to cover all of Africa, the London Convention Relative to the Preservation of Flora and Fauna in Their Natural State (the 1933 London convention) was created to focus primarily on the establishment of what would become national parks. Through the urgent need to tackle species extinction, naturalist Major R. W. G. Hingston, hired by the Society for the Protection of the Fauna of the Empire<sup>3</sup> to report on Africa's wildlife status, pushed the idea of upgrading the 1900 Convention reserves into national parks based on the United States model. This proposal included the forced eviction of indigenous populations from the area (Adam 2014). In fact, Hingston firmly supported the idea of separating wildlife and humans, the latter viewed as the main reason for species extinction (Adam 2014). Therefore, indigenous communities were often forced to leave their land when a new protected area was created, both in the past and in more recent times, as will be illustrated in the coming sections.

Things are changing, as there is a more widespread understanding of the importance of indigenous communities' knowledge in preserving biodiversity and ecosystems, in particular the role of women (at least at the international level, particularly through the Convention on Biological Diversity). More work needs to be done in this sphere, but some positive examples are proving the effectiveness of more inclusive conservation programs and projects.

This article starts by illustrating the primary threats to elephants, particularly poaching and habitat loss. Among the various consequences of habitat loss there is human-elephant conflict, an often-underestimated problem that affects the long-term goals of elephant conservation by alienating elephants to the humans that live in close proximity. The following section will be devoted to indigenous communities, with an example of community displacement followed by two examples of

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<sup>3</sup> The Society for the Preservation of the Fauna of the Empire (SPFE) is considered the first international conservation organization, and it was founded by Edward North Buxton (Adam 2014).

successful integration of communities into conservation, particularly through the example of the Reteti Elephant Sanctuary. It constitutes the first place where women are actively managing wildlife in Africa. Finally, the last section will be followed by a description of what makes elephants unique but most importantly indispensable animals, particularly for their role in shaping and maintaining the ecosystems in which they live.

### **Current threats to elephants: poaching**

Elephants' numbers in the African continent have been steadily declining, with the main causes being poaching for ivory, loss of habitat and human-elephant conflict (Christopher Thouless, Holly T. Dublin, Julian Blanc, D.P. Skinner, T.E. Daniel, Russell Taylor, Fiona Maisels, Howard Frederick and Philippe Bouché 2016). Poaching has been for many years the main reason driving this decline. In particular, in 2006 there was a surge in poaching in Africa, the worst since 1970s and 1980s (Thouless et al. 2016), with 2011 and 2012 reaching poaching records: "it is estimated that in 2011, approximately 7.4 percent of the total elephant populations in elephant sites across Africa were killed illegally" (UNEP, CITES, IUCN and TRAFFIC 2013). In 1997, the Conference of the Parties of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) created the Monitoring the Illegal Killing of Elephants (MIKE) program, to inform range States by providing them useful information to improve the species' management in their territory. To evaluate poaching levels, MIKE bases the results on the Proportion of Illegally Killed Elephants (PIKE), which is the amount of illegally killed elephants found divided by the total number of carcasses (comprised of illegally killed elephants, elephants that died naturally, unknown deaths, and management-related deaths) (CITES 2021). According to the latest MIKE report of 2021, the annual PIKE mean increased from 2003 to 2010 to then peak in 2011 followed by a steady decline until 2020, with the 2020 PIKE estimate being the lowest since 2003 (CITES 2021).

Although the situation appears to be improving in recent years, the past decades proved to be tough for African elephants, which made the International Union for Conservation of Nature (IUCN) decide to list the African forest elephant as critically endangered and the African savanna<sup>4</sup> elephant as endangered on the IUCN Red List of Threatened Species<sup>5</sup> (IUCN 2021). In fact, in the past few years, multiple alarming

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<sup>4</sup> Forest and savanna elephants are two different species. Compared to savanna elephants, forest elephants are smaller, with thinner tusks, rounded ears, and different skull morphology. Forest elephants live in tropical forests of Africa (located primarily in the Democratic Republic of Congo and Gabon) while savanna elephants live in savanna, bush and slightly forested regions mostly located in eastern and southern Africa. Additionally, forest elephants live in smaller groups and communicate differently (see Alfred L. Roca and Stephen J. O'Brien, "Genomic inferences from Afrotheria and the evolution of elephants", *Current Opinion in Genetics & Development*, 2005.). They also have slightly different ecosystem contributions.

<sup>5</sup> The IUCN Red List, created in 1964, is used to evaluate the conservation status of animals, but also fungi and plant species and it is the most comprehensive list in the world of its kind. The species are divided into nine categories: not evaluated, data deficient, least concern, near threatened, vulnerable, endangered, critically endangered, extinct in the wild and extinct. It is used by academics studying

reports have been published about the elephant population across the continent, with recorded regional differences. According to the latest available report on the status of the African elephants, the Central African region, which includes Chad, Cameroon, Central African Republic, Equatorial Guinea, Gabon, Congo and Democratic Republic of Congo, has been heavily affected by ivory poaching (Thouless et al. 2016). Another slightly older report actually indicated that the region recorded the highest levels of poaching of all the other regions since the MIKE monitoring began (UNEP 2013). In particular, Gabon and the Democratic Republic of the Congo (DRC) are home to forest elephants and both those countries have been affected by poaching, at different intensities. In DRC, poaching for ivory affected also World Heritage sites, including the Virunga National Park, where in 2011 all the dead elephants found have been killed illegally (UNEP 2013). According to a TRAFFIC report concerning ivory markets in Central Africa, because of armed forces present in the territory, levels of poaching soared, leading to a decrease in the elephant population in the Kisangani area and northern and southern Kivu provinces (Sone Nkoke Christopher, Jean-François Lagrot, Stéphane Ringuet and Tom Milliken 2017). Groups like Lord's Resistance Army (LRA) poached elephants for their ivory to generate financial resources, leading to the United Nations Security Council to adopt a resolution concerning DRC to authorize sanctions against poachers perceived as a threat to peace (Anne Peters 2014). In Gabon, the Minkébé National Park was created because of its abundant forest elephant population, and it was thought to be a sanctuary for elephants given the park is large and remote (John R. Poulsen, Sally E. Koerner, Sarah Moore, Vincent P. Medjibe, Stephen Blake, Connie J. Clark, Mark Ella Akou, Michael Fay, Amelia Meier, Joseph Okouyi, Cooper Rosin and Lee J. T. White 2017). In reality, a study revealed that between 2004 and 2014 there was a 78 to 81 percent loss in elephants primarily due to cross-border poaching but also to local poaching (more than 25,000 elephants lost their lives) (Poulsen et al. 2017). These results highlighted that there is no safe place from poaching.

Eastern Africa is composed by Eritrea, Djibouti, Somalia, Ethiopia, Sudan, South Sudan, Uganda, Kenya, Rwanda, Burundi and Tanzania. It is the mostly affected region by poaching, recording a 50 percent decline in elephant population since 2007 caused by a huge loss of Tanzanian elephants, amounting to more than 60 percent loss of individuals (Thouless et al. 2016). In Tanzania, the majority of illegal killings occurred in Selous Game Reserve, a UNESCO World Heritage and a site inserted in the Danger list (UNEP 2013). In West African, which includes Senegal, Guinea Bissau, Gambia, Sierra Leone, Liberia, Guinea, Mali, Cote D'Ivoire, Burkina Faso, Ghana, Togo, Benin, Niger and Nigeria, the population of elephants is small and fragmented, however an increase in poaching was reported in this area too (UNEP 2013). Finally, Southern Africa is composed of Angola, Namibia, South Africa, Botswana, Zambia, Malawi, Zimbabwe, Mozambique, Swaziland, and Lesotho. The region is hosting the biggest elephant population of the continent (Thouless et al. 2016). However, the area is also increasingly threatened with poaching (UNEP 2013), with populations in countries like Zimbabwe, Angola, Mozambique and

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conservation, as well as government and NGOs, for example to inform and influence conservation policies.

Zambia suffering the highest losses (Thouless et al. 2016). It is important to note that poaching causes serious issues to elephants' social system and behavior (Thomas Breuer, Fiona Maisels and Vicki Fishlock 2016) with, among others, well-known groups or families being lost, particularly because no breeding females survived, resulting in an increase of orphan elephants (George Wittemyer, David Daballen and Iain Douglas-Hamilton 2013). The loss of experienced female individuals has the potential of disrupting social and ecological knowledge (Breuer et al. 2016).

Among the reasons that drive poaching there is the customers willing to pay high prices for ivory products. Economic growth in some Asian countries, including Vietnam, Thailand and most of all China pushed the demand for ivory: in China, the demand skyrocketed in recent years, turning it into the main destination for illegal ivory (UNEP 2013). This high demand made the finding of effective strategies to reduce ivory purchases in China particularly urgent. In 2016 the Chinese government announced a ban on ivory, and a recent report shows that it seems to have influenced consumers' choices, with a decrease in purchases and an increase in those that do not want to buy ivory (Wander Meijer, Daniel Bergin, Timothy Cheng, Crystal Yang, and Eugene Kritski 2021). This encouraging consumers' behavior changes, together with the enforcement of the Chinese sales ban (Elephant Crisis Fund 2022), could contribute to explain a recent announcement by the Elephant Crisis Fund declaring that poaching is no longer the biggest threat to elephants (Elephant Crisis Fund 2023), confirmed by the above-mentioned most recent PIKE data. In particular, the related report states that although elephants are still killed for their ivory in the continent, compared to five to ten years ago, the poaching levels do not threaten their survival anymore (Elephant Crisis Fund 2022). Although it is encouraging that poaching levels are decreasing, the same report states that at the same time the other causes that threaten elephants' survival, namely habitat loss and human-elephant conflict (briefly described in the next section), continue to grow (Elephant Crisis Fund 2022).

### **Current threats to elephants: habitat loss and human-elephant conflict**

Another major cause for elephant population decrease that is receiving less attention is habitat and range loss, which is a consequence of human population growth, clearing land for pasture and agriculture and building infrastructures (Thouless et al. 2016). It is reported that according to some models, 29 percent of elephant range has been altered, with this figure projected to reach 63 percent by 2050 (UNEP 2013). Habitat loss combined with poaching may imply that elephants may go extinct in parts of Central and West Africa, as well as a record of relevant range reduction in Eastern Africa, while only ranges in Southern Africa may remain stable (UNEP 2013). For instance, in Central Africa the logging industry expanded to the point that it changed elephants' habitats (Nadine T. Laporte, Jared A. Stabach, Robert Grosch, Tiffany S. Lin, and Scott J. Goetz 2007), and mining is another threat (David P. Edwards, Sean Sloan, Lingfei Weng, Paul Dirks, Jeffrey Sayer and William F. Laurance 2014). This erosion of elephant range leads to another linked cause of habitat loss, which is human-elephant conflict. Given the previously mentioned expansion in human activities, such as agriculture expansion into natural habitats, the encounter

with wildlife is a more and more frequent phenomena, and competition for natural resources can arise (Rocío A. Pozo, Jeremy J. Cusack, Graham McCulloch, Amanda Stronza, Anna Songhurst and Tim Coulson 2018). Additionally, the current and ongoing drought in many African states forced elephants to move further away from their habitats and get closer to human settlements in search for water and food (Elephant Crisis Fund 2022). In fact, elephants can create huge damages to crops and homes in human areas, leading also sometimes to the death of those farmers that try to stop them. Such an issue often leads to hostility towards conservation programs and often to the killing of the elephants as a form of revenge for the damage caused (Pozo et al. 2018). The problem of human-elephant conflict has been long underestimated, given that the international community was more concerned about poaching. It has been reported that for instance in Kenya the rising of movements to protect wildlife largely ignored the increasing intolerance of rural communities that were having troubles living close to wildlife without gaining any benefit from it and at the same time exercising no influence in national policy (David Western, John M. Waithaka, and John Kamanga 2015). To fill this gap, it has been recognized that there is an urgent need to support those communities that live side-by-side with elephants (Elephant Crisis Fund 2022), providing them with multiple strategies to protect themselves and their lands, but also by involving them more actively in conservation.

### **Indigenous communities and the example of Kenya's Reteti Elephant Sanctuary: the home of the first-ever women elephant keepers in all Africa**

There are multiple communities that coexist with megafauna like elephants, and whose rich history, culture and traditions are deeply entrenched with the place where they live. However, European colonialists disregarded this aspect, not only by stigmatizing indigenous traditions, but by establishing conservation policies that excluded indigenous communities from conservation. In fact, the current hundreds of parks established in Africa to protect wildlife, a colonial legacy, were created following the model of the United States parks and therefore indigenous communities were forced to leave their territories and were forbidden to live or migrate there (Cioc 2009). An example of this issue is the Endorois population in Kenya, through the landmark case *Endorois Welfare Council v. Kenya*, 276/2003<sup>6</sup>: in the 1970s the Kenyan government ordered the expulsion of hundreds of Endorois families from the Lake Bogoria area, their land, to create a game reserve for tourism. Even though they were promised compensations and benefits, these were never fully implemented and Endorois access to the land was restricted. The Centre for Minority Rights Development and the Minority Rights Group International filed complaints before the African Commission on Human Rights, who found the Kenyan government in violation of several dispositions of the African Charter, winning the case in 2010. However, between 2010 and 2011, the Kenyan government failed to act (Rebecca Marlin 2014). The situation worsened when in 2011 the UNESCO inserted Lake Bogoria in

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<sup>6</sup> More information about this case can be found at: <https://www.escri-net.org/caselaw/2010/centre-minority-rights-development-kenya-and-minority-rights-group-international-behalf>

the World Heritage List without consultation, a decision that affects Endorois' rights to the land (Marlin 2014). In May 2014, the representatives of the Kenyan Government's Wildlife Service, the Baringo County Council, the Kenyan Commission to UNESCO and the Endorois Welfare Council signed a memorandum of understanding that recognized Lake Bogoria as Endorois ancestral land and required Endorois inclusion in the management of the land (Marlin 2014). The World Heritage Committee subsequently issued a State of Conservation report in July 2014 urging the Kenyan government to include the Endorois in management and benefit-sharing (Marlin 2014). Together with this case, which is important to mention as it is the first time the African Commission recognized the rights of indigenous peoples over traditionally owned land and their right to development under the African Charter, in Kenya there are two other examples of community engagement in conservation. One is constituted by the Amboseli National Park, where in the 1970s it was introduced an annual grazing fee whose name was later changed to Payment for Ecosystem Services, that is paid to the local communities of farmers to support the migratory wildlife herds (Western et al. 2015). In addition, local communities were encouraged to create touristic accommodations to obtain direct profits and be more prone to support conservation in the Amboseli ecosystem (Western et al. 2015). This way, there has supposedly been created an incentive for local communities to protect wildlife given that it provided them with direct benefits.

Perhaps an even better example of local communities directly involved in the conservation of elephants and living in harmony with them is constituted by the Reteti elephant sanctuary. The sanctuary is located in the Namunyak Wildlife Conservancy in the Samburu County of Northern Kenya, and was opened on August 20, 2016 by H.E. Moses Lenolkulal, the Samburu County Governor. Most notably, this is the first community-owned elephant sanctuary in Africa<sup>7</sup> and all the employees come from the Samburu community (Leah Duran 2017). It is important to highlight that a study carried out on the Samburu elephant population revealed that, because of illegal killings and other causes, stable families were lost and therefore there was an increase in orphan elephant calves (Witemyer et al. 2013). The sanctuary was in fact created with the goal of rescuing and releasing orphaned and abandoned elephant calves but at the same time create benefits to the communities that live in the area. As can be read on the sanctuary's website, the elephants are described as "symbols of a new wave of thinking about wildlife and the environment, which goes far beyond traditional conservation methods, and dives deeper into the core value of what nature represents"<sup>8</sup>. Through the sanctuary, the Samburu community is reviving its history of co-existence with wildlife. However, this seems to be a successful example not only because this is a new model for communities to manage and put back into the wild elephants in a community-owned landscape (Duran 2017), but also for the major role women are playing in this effort. In fact, the Reteti provides women with new opportunities, as the sanctuary aims to turn Samburu women into "the first-ever women elephant keepers of all Africa" (Duran 2017). The deep bond between the

<sup>7</sup> Reteti Elephant Sanctuary main website, accessible at: <https://www.reteti.org/who-we-are> (last accessed: 07/02/2023)

<sup>8</sup> *Ibidem*.



Samburu women and the orphan young elephants has been documented in a short film entitled “Shaba” (Ami Vitale 2021). Shaba is a female elephant calf whose mother was killed by poachers. Once she arrived at the sanctuary, the women elephant keepers took care of Shaba, in an attempt to become mothers to her. They are interviewed in the film, explaining how the community did not believe that women could carry out the hard work of taking care of wild animals. However, their success contributed to change the community’s perspective, and women started to be seen in a new way. Shaba’s rescue was very successful, particularly because she became the matriarch of other incoming orphans in the sanctuary, forming a herd. Later Shaba and two other orphans were reintroduced into the wild, where they joined a wild herd. Even after Shaba’s rescue was complete, the sanctuary keeps welcoming other elephant orphans and still remains the only one of its kind in the continent, hoping to inspire similar efforts elsewhere.

### **Why it is important to protect the African elephants?**

Elephants’ protection is important for multiple reasons, including irreplaceable ecological functions and ethical considerations. From an ecological point of view, elephants are a keystone species with a fundamental role in maintaining ecosystems. They are notorious seed dispersers, and they also contribute to nutrient recycling and environment modification through herbivory and physical damage (John R. Poulsen, Cooper Rosin, Amelia Meier, Emily Mills, Chase L. Nuñez, Sally E. Koerner, Emily Blanchard, Jennifer Callejas, Sarah Moore and Mark Sowers 2018). In particular, forest elephants are “the largest fruit-eating animals on the planet” (Poulsen et al. 2018) and through seed dispersing they contribute to the reproduction of a large variety of plants. Seed dispersal is enhanced because these animals travel for kilometers, to the point that some seeds have been found up to 57km from the parent tree (Poulsen et al. 2018). In addition, studies revealed that elephants’ digestion of seeds may influence germination by reducing its duration, and it constitutes also “one of the main determinants of the spatial pattern of seed dispersal” (Ahimsa Campos-Arceiz, Steve Blake 2011). Therefore, it can be inferred that through seed dispersal, elephants contribute to the maintenance of biodiversity (David Beaune, François Bretagnolle, Loïc Bollache, Gottfried Hohmann, Martin Surbeck and Barbara Fruth 2013). Considering nutrient recycling, studies revealed that because of the great variety of fruits these animals eat, they deposit nutrient-rich dung in the soil, contributing to the cycling of substances that act as fertilizers (Campos-Arceiz and Blake 2011). This way they also foster a homogeneous nutrient distribution in the environment (Poulsen et al. 2018). Through herbivory and physical damage, elephants actively modify the environment: this is because, given their huge size, by moving in the forest they destroy trees, contributing to the maintenance of forest clearings and trails systems (Poulsen et al. 2018). Savanna elephants too are important seed dispersers, even though from a lowest diversity of plant species (Campos-Arceiz and Blake 2011). It is reported that “among all elephant taxa, savanna elephants from arid and semi-arid environments are likely to provide the longest seed dispersal distances” (Campos-Arceiz and Blake 2011). Similarly to forest elephants, savanna elephants as well interact with the environment in which they live through

physical damage given that those animals “break and up-root trees up to 40-60 cm in diameter” (Poulsen et al. 2018). Because of the functions that these species have, their loss may have serious repercussions for ecosystems and the environment: the reduction in elephants seed dispersal action will cause a reduction in genetic diversity as well as stop the colonization of new habitats (Poulsen et al. 2018). In the same study it is also reported that “the loss of large animals such as elephants is expected to reduce the carbon storage potential of the forest” (Poulsen et al. 2018). In another study it is reported that the reduction of seed dispersal will also cause “a simplification of the community-level interaction network, an increase in the vulnerability of ecosystem function, and changes in the demography and distribution of a considerable number of plant species” (Campos-Arceiz and Blake 2011).

In addition to elephants’ fundamental ecological role, they are also known to be particularly social animals, and females play a fundamental role in guiding the family and protecting it from dangers. In particular, female African elephants, or matriarchs, coordinate the movements of the group and how it responds to threats, for example the responsiveness to potential lions’ attacks (Karen McComb, Graeme Shannon, Sarah M. Durant, Katito Sayialel, Rob Slotow, Joyce Poole and Cynthia Moss 2011). Following the matriarch and respecting the elders is a matter of survival for elephants, as older elephants accumulated more experience and knowledge (Carl Safina 2015). For example, they remember where water or food can be found, and the female matriarchs also remember the voices and calls of elephants in other family groups (Safina 2015). It is also a species known and admired for being emphatic, smart, and caring towards the members of their own group. It has been observed that elephants greet and touch each other when they have been apart for a while and even help other group members under threat (Michael J. Glennon 1990). Additionally, they have been reported to be quiet and tense when they see and approach a carcass of a member of their family (Glennon 1990). They also appear to understand cooperation as elephants help each other, for example, when trapped in the mud, or help to retrieve calves and help raise an injured or fallen group member (Safina 2015). For example, an elephant has been observed while helping another elephant who had a spear stuck in her by removing it, and another elephant has been seen while feeding another wounded elephant (Safina 2015). However, more impressively, elephants occasionally help people too. For instance, a herder had an accidental confrontation with a matriarch which resulted in serious injuries to one of his legs. The matriarch, after realizing the herder could not walk properly anymore, helped him to move under the shade of a tree nearby. The matriarch guarded the herder the whole night, even though her family left her behind (Safina 2015).

As it has emerged throughout this article, elephants have been exploited and pushed to the brink of extinction primarily for humans’ profit, considering also that animals were (and largely still are) treated as inferior creatures. In fact, Europeans considered colonialism as the natural extension of human supremacy over non-human animals (Charles Patterson 2003 in Monica Gazzola and Roberto Tassan 2018). The issue of anthropocentrism and humans’ supposed superiority over other animals constitutes an evolving concept, as recent scholarly work extensively illustrates (Gazzola et al. 2018). From the Greeks who considered non-human animals as living tools, to the Romans who categorized non-human animals as property, it was not

until eighteenth and nineteenth-century Britain that non-human animals' treatment started to become relevant (Ian Robertson and Paula Spark 2023). In particular, non-human animals' sentience has become increasingly relevant over the years, and it is the subject of important ethical, philosophical, and legal considerations in the animal protection sphere. Today, a rising number of countries recognize non-human animals' sentience<sup>9</sup>, which is at the base not only of a growing attention to animal welfare, but also of the animal rights position, which supports non-human animals' right to live regardless of humans' needs and attributed economical value (Gary Francione 1996). Considered the father of animal rights and of the animalist movement, Peter Singer wrote in 1975 the book "Animal Liberation", in which he explains how non-human animals are subject to a systematic form of oppression by human beings and arguing that non-human animals should be treated as the independent sentient beings that they are (Peter Singer 1975). Most importantly, Singer supports the idea that as non-human animals suffer just as much as humans do, their suffering must be given equal consideration to that of all other species (Singer 1975). However, in his work, Singer never advocated for establishing real animals' rights, and his approach was predominantly a utilitarian one (Gazzola et al. 2018). Therefore, Singer remains open to the possibility of sacrificing non-human animals' interests to prioritize humans' ones (Gazzola et al. 2018). However, Professor Tom Regan expanded on Singer's work and rejected the utilitarian approach while supporting not only the establishment of animal rights, but also the revolutionary idea that non-human animals have intrinsic value (Gazzola et al. 2018). In 1983, Regan published the book "The case of Animal Rights", where he argued that, as sentient beings and subjects-of-a-life, we all (human and non-human animals) have inherent value, with an equal right to be respected and to not be harmed (Tom Regan 1983). Importantly, Regan argued that rights must be recognized not only to "moral agents" (those that behave according to moral principles as they possess sophisticated reasoning and behavioral skills, like adult human beings) but also to "moral patients" (those that are unable to behave according to moral principles, like children, people with disabilities but also non-human animals, particularly mammals and primates) (Gazzola et al. 2018). This theory is fundamental as it allows to recognize rights to non-human animals independently of their abilities (Gazzola et al. 2018).

### Conclusion

The elephants are a particularly fascinating species, who needs to be protected both because of its intrinsic value and because of the fundamental role it plays in maintaining ecosystems. Despite the many years elephants have been poached for ivory, for a long time the primary cause of their decline, multiple efforts to curb poaching appear to start delivering results: poaching has recently been declared to be not as threatening as before to elephants' existence. However, human-elephant conflict is attracting more attention now, becoming a key issue to be tackled. In fact, over the years, multiple attempts have been made to turn this conflictual relationship

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<sup>9</sup> See for example the European Union Treaty on the Functioning of the European Union (TFEU), art. 13.

with wildlife into one that is mutually beneficial for the humans and the animals with which they share the territory and resources. A key example mentioned in this article is that of the Reteti elephant sanctuary, which is reviving the history of the Samburu co-existence with wildlife, and that is also giving the possibility to the women of that community to show their abilities, ultimately contributing to push a much-needed change in the community's perception of them. Hopefully, this successful project will inspire other women around Africa to follow their passions and dreams and their communities to elevate them and recognize their value. Finally, the history of elephants should serve as a warning and a reminder of a concept often forgotten: when humans challenge nature and exploit it for short-term profit, it eventually leads to dire consequences in the long run, not only for animals, but for us as well. On the other hand, when exploitation is turned into cooperation and respect, potentially we will all be able to thrive and enjoy our home, the Earth.

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