



# Akina and Elewisa's Wildlife Adventures

-Teaching guide-

---

Authors: Molly Kavanagh, Kelys Malouda, Claire  
Patterson, Karishma Puri.



## Table of Contents

<b>About the Teaching Guide and why you should use it:</b> .....	2
<b>The Reality of Poaching in Kenya:</b> .....	2
<b>Current Kenyan legislation</b> .....	2
<b>Actions being taken</b> .....	2
<b>The research behind the storybooks:</b> .....	3
<b>The language:</b> .....	3
<b>The storylines</b> .....	4
<b>The illustrations:</b> .....	4
<b>About the African Bush Elephant:</b> .....	4
<b>The importance of African Bush Elephants in the ecosystem:</b> .....	4
<b>The African Bush Elephant v Poaching and Local Farmers:</b> .....	5
<b>Implications for other stakeholder groups:</b> .....	5
<b>Viable solutions:</b> .....	5
<b>About the African Lion:</b> .....	6
<b>The African Lion v Poaching:</b> .....	6
<b>Contribution to the food chain and implications for other species:</b> .....	7
<b>Implications for human stakeholders:</b> .....	7
<b>Viable Solutions:</b> .....	7
<b>About the African Wild Dog:</b> .....	8
<b>The importance of the African Wild Dog in relation to the food chain:</b> .....	8
<b>The African Wild Dogs v Poaching:</b> .....	8
<b>Viable Solutions</b> .....	8
<b>Additional activities</b> .....	9
<b>Glossary</b> .....	9
<b>Further Resources</b> .....	10
<b>Bibliography:</b> .....	10

## About the Teaching Guide and why you should use it:

This teaching guide is an important prerequisite material for anyone wanting to further educate children on the importance of condemning poaching and preserving endangered species, just like the three “Akina and Elewisa’s Wildlife Adventures” picture books attempt to do. It will equip you with more diligently researched information in regard to the environmental and economic impacts of the trafficking and poaching of species in savanna-ridden climates in Africa, specifically in Kenya. This ensures that the mentor is fully prepared with the relevant research and materials pertaining to the topic to facilitate not only a more productive post-reading conversation with the child/children but also any activities, games or tests that they may want to carry out with the children after (perhaps with the supplementary food chain and food web posters we have curated as well). The principle behind the teaching guide is therefore for you to be able to prove the ultimate test of knowledge: to be able to comprehend the complex problems and then untangle them in a way so that children may understand them.

## The Reality of Poaching in Kenya:

### Current Kenyan legislation

Legislation in Africa as a whole has progressed rapidly over the past 10 years in push to criminalise and fully punish those who are poaching and trafficking animals and animal parts across the continent. The majority of animal trafficking and the illegal trade of ivory occurs in South East Asia where there is a demand for the ivory as it is used in traditional medicine and for display pieces. Action is being taken to raise awareness in both Africa and Asia about the damage these practises are having to the natural world. Kenya is one example where poaching, trafficking and the illegal trade of ivory is rife. Julius Kamau, the executive direction of East African Wildlife Society, said to Africa Renewal that “Poaching has damaged the wildlife population in Kenya, with fears that some species could be pushed into extinction.”<sup>1</sup>

Kenya introduced the Wildlife Conservation Act in 2013 which established high penalties of up to US\$200,000 for wildlife crime and imprisonment for those found to have killed endangered species. There was much misinformation spread in the recent years about Kenya making a move to impose the death penalty for those found or have engaged in Wildlife crime, however this has proven to be false.<sup>2</sup>

### Actions being taken

The establishment of the Kenyan Wildlife Service (KWS) ‘brought about a considerable improvement in wildlife security and helped to stabilize the wildlife and tourism sectors’. This is a state-established body, legitimised by the Wildlife Conservation and Management Act (CAP 376) No. 16 1989. It has powers conferred by the Kenyan government to enforce legislation surrounding wildlife crime, as is the organisation from which Akida, the story’s law-enforcement officer, hails.

Its Director general, John Waweru, outlined some of the policies being undertaken by the KWS to reduce the national poaching problem:

‘Our law enforcement units have embarked on structure engagement with local communities, private ranches, and other conservation stakeholders to counter poaching threats and other wildlife crimes.’<sup>3</sup>

<sup>1</sup> Benjamin Durr, 'Conservationists Take Aim At Poachers | Africa Renewal' (*Un.org*, 2017) <<https://www.un.org/africarenewal/magazine/may-july-2017/conservationists-take-aim-poachers>> accessed 24 April 2020.

<sup>2</sup> Jane Dalton, 'Wildlife Poachers In Kenya 'To Face Death Penalty' (*The Independent*, 2018) <<https://www.independent.co.uk/news/world/africa/poachers-kenya-wildlife-death-penalty-capital-punishment-najib-balala-a8349966.html>> accessed 24 April 2020.

<sup>3</sup> Fiesta Warinwa, 'Fighting Wildlife Trade In Kenya | United Nations' (*United Nations*) <<https://www.un.org/en/chronicle/article/fighting-wildlife-trade-kenya>> accessed 24 April 2020.

The book shows how all of these tools could be utilised to help save vulnerable animals, along with continued research into the behaviour and patterns of the animals.<sup>4</sup>

Kenya and South Africa have been working to set up laboratories where DNA collected from stolen ivory and game meat can be traced back to specific animals. These are being used as clear proof of illegal poaching and are helping in the prosecution of these crimes.<sup>5</sup> Increasingly, technology is also being successfully implemented to track poaching activities, in the form of 'connected conservation' schemes, which use 'Sensors, CCTV, wifi, and biometrics to detect unusual activity'.<sup>6</sup> This has been successfully implemented in both Zambia and South Africa.

Whilst much work has and is currently being done to tackle these crimes, the remote nature of the attacks has made it difficult to police. This is why bringing greater awareness surrounding the topic to these rural areas is necessary in order to eradicate wildlife crime in Africa and protect these endangered species. Despite the success of Kenya's national efforts, similar efforts have not been mirrored in its neighbouring Somalia, and hence this border provides a successful port for animal traffickers. As such, an international effort, as is being pioneered by the African Wildlife Foundation (AWF) is required to truly combat wildlife crime. Recently, action by the International Criminal Police Organization (INTERPOL) has also been 'coordinating and offering support with transnational crime' to combat disparities between the national law of different African countries.

### The research behind the storybooks:

In order to best spread awareness of the complex issues addressed in the storybook, extensive research was carried out in producing storybooks that were appropriately adapted to resonate with children ranging from 4-6 years of age, or the literacy levels of 2-3 (according to the OECD guidelines).<sup>7</sup> A choice was made to have the three storylines targeted towards slightly different age groups, consisting of 4-5 years (or literacy level 2) for the elephant storybook, and 5-6 years (or literacy level 3) for the lion and wild dog story. The reason the age/reading level difference is important to note is due to the choice of language and themes that the different storylines carry. For instance, the lion and wild dog stories include references to trophy hunting, which may be a sensitive and complex topic for a younger audience. This is important to take into account when deciding which books to give the child to read and when. The different books are marked with either a blue or a red star, with the former indicating it is for children at the literacy level of 2, and the latter indicating it is for children at the literacy level of 3.

### The language:

Concerning the language, the overall choice of words is highly influenced by the three most popular reading guidelines used by schools and children's books authors consisting of the 'Guided Reading Level (GRL)', the 'Developmental Reading Assessment (DRA)' and the 'Lexile Measures'.<sup>8</sup> For example, this encouraged the use of shorter sentences and simpler terms to be used in the elephant storyline, in comparison to the lion and wild dog stories, which incorporated more complex and longer sentences. Inspired by the reading guidelines, the choice was made to highlight advanced terminology and jargon throughout the dialogue, which were subsequently referenced to in a glossary page at the end of the book. This allows the child to efficiently understand the content expressed in the books, while pushing the child's development of new and useful vocabulary. We also incorporated certain terms in Swahili, with the help of native speakers, to further immerse the children in the story. This may also function to provide a greater sense of familiarity to the story for readers from that region of the world.

<sup>4</sup> Charlotte Pointing, 'How Kenya's Wildlife Poaching Dropped By 90% In 6 Years' (*LIVEKINDLY*, 2020) <<https://www.livekindly.co/kenya-wildlife-poaching-dropped/>> accessed 24 April 2020.

<sup>5</sup> Durr, (n1).

<sup>6</sup> Warinwa (n3).

<sup>7</sup> 'What Do Adult Literacy Levels Mean? | National Literacy Trust' (*National Literacy Trust*, 2020) <<https://literacytrust.org.uk/parents-and-families/adult-literacy/what-do-adult-literacy-levels-mean/>> accessed 19 April 2020.

<sup>8</sup> Joetta Beaver and Mark Carter, *Developmental Reading Assessment* (3<sup>rd</sup> edition Pearson, 2019).

## The storylines

Regarding the narrative choice, a straightforward plot was used in all three books to guide the reader to learn about the endangered animal, the issue of poaching, and the solutions for it. The storylines, therefore, all start with the main endangered animal character searching for food with their family, and the climax of the story involves the main character getting lost or separated to their family due to human interference. After this, the lost animal encounters the main human characters, Akina and Elewisa, who engage in a conversation about the human and animal conflict, its impacts on the ecosystem, and the possible solutions to this dilemma. Afterward, the animal friends reunite with their lost families, which provides an optimistic and uplifting ending to the stories. This particular ending choice is primarily done in light of the young target audience, and to emphasise the plausibility of the solutions to the conflict discussed in the storybooks. Additionally, the use of such consistent narrative plots in all three books has been influenced by other popular children's books such as the 'Magic Rainbow Book'<sup>9</sup> series which used a similar repetitive narration in their different books, which can prompt children into wanting to collect the different books and to learn about the different endangered species.

## The illustrations:

Lastly, the illustrations have been intricately designed to be adapted to the different age groups, by avoiding the use of excessive graphic imagery and using a consistent colour scheme throughout the books. For example, the graphic imagery of elephants getting poached is omitted to ensure the protection of the child's sensitivity towards topics like death and suffering. Instead, the book incorporates a more subtle depiction of the gruesome events, like showing a poaching car with tusks instead of the process of removing the tusks from the elephant's body, for the events to be possibly inferred by and child and further explained to the child by an adult at their discretion. Moreover, all three storybooks incorporate a consistent colour scheme to produce a child-friendly environment, which provides the child with comfort and familiarity with the story, allowing for greater engagement with the characters and content.

## About the African Bush Elephant:

One of the various aims of this book series is to spread awareness of the importance of the different endangered species found in the local community. Consequently, this teaching guide provides several facts and information which may be communicated to the child, to enrich their understanding of these different animals and their crucial roles in the ecosystem.

Firstly, Akina and Elewisa's elephant friend, Azizi, comes from a species of African elephants called 'Loxodonta africana' or otherwise more commonly known as the 'African Bush Elephant.'<sup>10</sup> It must be noted that the African Bush Elephant is one of the two main elephant species found in Africa, the other one being the African Forest Elephant. African Bush Elephants are large herbivores, meaning that they feed on vegetation, and can eat up to 450kg a day,<sup>11</sup> and weigh up to 11 tonnes.<sup>12</sup> These elephants can also live up to 70 years and can lift objects with their trunks of up to 180 kg.<sup>13</sup>

## The importance of African Bush Elephants in the ecosystem:

The African Bush Elephant is a keystone species<sup>14</sup>, namely because of its important contributions in sustaining the local ecological community. They do so by aiding the process of seed dispersal and nutrient

<sup>9</sup> 'Rainbow Magic' (thriftbooks) <<https://www.thriftbooks.com/series/rainbow-magic/40329/>> accessed 10 February 2020.

<sup>10</sup> 'African Bush Elephant' (The Nature Conservancy) <<https://www.nature.org/en-us/get-involved/how-to-help/animals-we-protect/african-bush-elephant/>> accessed 4 April 2020.

<sup>11</sup> 'Human - Elephant Conflict'

(WWF) <[https://wwf.panda.org/knowledge\\_hub/endangered\\_species/elephants/human\\_elephant\\_conflict.cfm](https://wwf.panda.org/knowledge_hub/endangered_species/elephants/human_elephant_conflict.cfm)> accessed 4 April 2020.

<sup>12</sup> The Nature Conservancy (n10).

<sup>13</sup> Ibid.

<sup>14</sup> 'Why Care?' (World Elephant Day) <<https://worldelephantday.org/about/elephants>> accessed 4 April 2020.

distribution when they ingest vegetation and excrete important nutrients like nitrogen<sup>15</sup> during their migration around the savanna and forest floors. In fact, these elephants are sometimes referred to as the 'gardeners of the forest',<sup>16</sup> as whilst the African bush elephants mainly reside in the open savanna area, they also frequently migrate around forest areas, where they feed on the forest floors and help to open up the forest areas, to help stimulate the growth of various new species of plants. Consequently, their absence would have detrimental effects on the environment and may affect as much as 96% of Central Africa's forests in terms of the variety and quantity of tree species and dependant herbivore species it sustains.<sup>17</sup>

#### The African Bush Elephant v Poaching and Local Farmers:

Unfortunately, the African bush elephant is recognised as an endangered species due to anthropogenic activities like poaching that have caused a 20% decrease in their population.<sup>18</sup> This is mainly due to illegal poachers that kill these elephants to cultivate their ivory tusks and sell them abroad, as an estimated 20,000-30,000 elephants a year are killed in the region of sub-Saharan Africa for that purpose.<sup>19</sup> The demand to cultivate their ivory tusks is largely linked to the increase in demand in countries like China where ivory is used for medicinal products,<sup>20</sup> and the population of Asian elephants have become endangered.<sup>21</sup> Consequently, adult elephants are more frequently targeted by poachers due to their larger tusks, resulting in a greater number of orphaned baby elephants.<sup>22</sup>

Furthermore, the increase in the human population and the urbanisation of cities have increasingly encroached on the land historically available to elephants to thrive. Consequently, this has fuelled conflict between humans and elephants, as wild elephants are increasingly migrating onto open farm fields where they trample on or eat the local farmer's crops. In response, rural farmers often kill the elephants in retaliation, to protect their livelihood and source of income.<sup>23</sup>

#### Implications for other stakeholder groups:

Apart from their important role as 'ecological engineers', the African Bush Elephant also significantly contributes to the income in the local tourist industry, as humans can profit off of elephants by allowing tourists to view them in the wild. Indeed, poaching of the African bush elephants will cost the local tourist industries an estimated \$25 million a year if their population decreases any further, which highlights how the elephants economically contribute to the well-being of the local human community.<sup>24</sup>

#### Viable solutions:

However, in light of their endangered status, several measures have been taken by non-governmental organisations and the local community to protect the African bush elephants against poachers. For instance, WWF work with local farmers to encourage the use of 'chili and tobacco-based deterrents'

<sup>15</sup> Jenn Marsh, 'Duke researchers find poaching elephants hurt forest ecosystem' (*The Chronicle*, March 26 2018) <<https://www.dukechronicle.com/article/2018/03/duke-researchers-find-poaching-elephants-hurts-forest-ecosystems>> accessed 4 April 2020.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> 'Elephant Poaching Costs African Economies \$25 Million Per Year In Lost Tourism Revenue' (*EurekAlert!*, 1 November 2017) <[https://www.eurekalert.org/pub\\_releases/2016-11/uov-epc102816.php](https://www.eurekalert.org/pub_releases/2016-11/uov-epc102816.php)> accessed 4 April 2020.

<sup>19</sup> Ibid.

<sup>20</sup> Clarissa Wei, 'The Myths of Medicinal Ivory' (*KCET*, April 7 2015) <<https://www.kcet.org/food/the-myths-of-medicinal-ivory>> accessed 4 April 2020.

<sup>21</sup> *EurekAlert!* (n18).

<sup>22</sup> *World Elephant Day* (n14).

<sup>23</sup> 'Rampaging elephants destroying crops' (*The New Humanitarian*, 15 April 2008)

<<http://www.thenewhumanitarian.org/report/77771/zimbabwe-rampaging-elephants-destroying-crops>> accessed 5 April 2020.

<sup>24</sup> Steffanee Wang, 'Poaching Isn't Just Bad For The Elephants - It Hurts the Economy Too' (*Pacific Standard*, June 14 2017) <<https://psmag.com/news/poaching-isnt-just-bad-for-the-elephants-it-hurts-the-economy-too>> accessed 5 April 2020.

that have proven successful in Malaysia in discouraging elephants from roaming near their farmlands, which eliminates the need to kill these elephants.<sup>25</sup>

Additionally, WWF has proposed the use of 'flying elephant squads', consisting of specialised workers who are responsible for the constant surveillance of local community land and to chase away any wild elephants roaming near local farmlands.<sup>26</sup> Although the use of firecrackers has been used in the past to deter the elephants, its use has been discouraged since it puts the farmers at risk of danger.<sup>27</sup> Apart from these measures, local conservation centres like the 'African Conservation Centre' and 'Sheldrick Wildlife Trust'<sup>28</sup> both situated near Nairobi, specialise in safely relocating the elephants into the wild, and at a safe distance from humans.<sup>29</sup>

The Kenyan government officially banned illegal hunting of elephants, and the illegal international trade of ivory through the Wildlife (Conservation and Management) Act 1976.<sup>30</sup> The Act also established the Kenya Wildlife Service responsible for enforcing the relevant provisions and conserving the protected wildlife creatures. More recently, the enactment of the Wildlife Conservation and Management Act (WCMA)<sup>31</sup> in 2013, has increased the minimum penalties for wildlife crimes, and or life imprisonment for the killing of an endangered species.

### About the African Lion:

Another endangered friend that the characters of Akina and Elewisa stumble upon in the three-part series of their wildlife adventures is Amana, a 'Panthera Leo Melanochaita', otherwise known as an African Lion.<sup>32</sup> Typically found in the regions of southern and eastern Africa,<sup>33</sup> the other subspecies of the Lions that are widely recognised, the Panthera Leo Leo, is typically found in eastern and central regions of Africa.<sup>34</sup>

### The African Lion v Poaching:

According to Discover Wildlife, the Lion populations across Africa have declined by 43% over the past 21 years due to a range of factors including conflict with cattle farmers, loss of prey and habitat, unsustainable trophy hunting, and more recently, poaching for body parts.<sup>35</sup> Panthera, a wild cat conservation charity, led a study that found that poaching for body parts accounted for 35% of all known human-caused lion killings and that in 48% of cases where lions were killed in retaliation for livestock losses, body parts were also removed.<sup>36</sup> This lion-farmer conflict is a major threat to lion populations as well and is responsible for 51% of the total mortality.<sup>37</sup> The opportunistic aspect of poaching is thought to be wholly derived from the demand for 'luxury' products such as lion-bone wine in wealthy Asian countries China and Vietnam, as well as the use of lion products in traditional Chinese

<sup>25</sup> 'Battles over ever decreasing land' (WWF)

<[https://wwf.panda.org/knowledge\\_hub/endangered\\_species/elephants/human\\_elephant\\_conflict.cfm](https://wwf.panda.org/knowledge_hub/endangered_species/elephants/human_elephant_conflict.cfm)> accessed 5 April 2020.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> 'Sheldrick Wildlife Trust: Haven for Elephants and Rhinos' (Sheldrick Wildlife Trust) <<https://www.sheldrickwildlifetrust.org/>> accessed 10 February 2020.

<sup>29</sup> 'Elephant Conservation' (African Conservation Centre)<[https://www.accafrica.org/our\\_work/explore-impacts/elephant-conservation-in-east-africa/](https://www.accafrica.org/our_work/explore-impacts/elephant-conservation-in-east-africa/)> accessed 5 April 2020.

<sup>30</sup> Wildlife (Conservation and Management) Act 1976.

<sup>31</sup> Wildlife (Conservation and Management) Act, 2013.

<sup>32</sup> 'The Lions We Listed Are Not Extinct' (Fws.gov, 2015) <<https://www.fws.gov/news/blog/index.cfm/2015/12/22/The-Lions-We-Listed-Are-Not-Extinct>> accessed 6 April 2020.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Leoma Williams, 'Lions Face New Poaching Threat For Body Parts' (Discover Wildlife, 2019) <<https://www.discoverwildlife.com/news/lions-poached-body-parts/>> accessed 6 April 2020.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

medicine.<sup>38</sup> Moreover, trophy hunting has become an issue of increasing gravity, evidenced in the fact that a Lion's de-skulled and de-skinned carcass can be worth up to \$1,000.<sup>39</sup>

#### Contribution to the food chain and implications for other species:

Lions play a vital role in the ecosystem as they function as apex predators. This means that they are considered to be a cornerstone species with no other natural predators apart from man.<sup>40</sup> Without their presence, species in the lower trophic levels of the food chain (which is illustrated in the food chain poster provided with the storybooks!) would overpopulate.<sup>41</sup> According to Lion ALERT, the impact that the decline in the lion's population has had on the ecosystem is now noticeable, as research shows that there has been an up-to-twofold increase in buffalo populations, a substantial increase in zebra populations, and large herbivore increases in areas with diminishing lion populations. The amount of available vegetation in those regions is dwindling and has severe implications for other plant-eating animals.<sup>42</sup> Moreover, Lions can control disease amongst herbivore animals by preying on the weakest (therefore unhealthier) of the herd, keeping the herd population resilient and healthy. Consequently, their presence ensures that the population of parasites living on herd animals does not prevail, which would otherwise result in fewer healthy animals.<sup>43</sup>

#### Implications for human stakeholders:

The increase in smaller carnivores, such as olive baboons, due to the lack of lions preying on them can cause complications for farmers as these smaller carnivores destroy farmers' crops and livestock for food.<sup>44</sup> This can also lead to the spreading of diseases, as these baboons tend to carry the bacterium *Treponema pallidum*.<sup>45</sup> Additionally, the African economies could experience a loss of tourism income. In 2012, tourism contributed over US\$36 billion or 2.8% of the continent's GDP,<sup>46</sup> with certain regions receiving an estimated \$8.7 billion (or R56 billion at R11.84/\$) every year from their tourist sector.<sup>47</sup>

#### Viable Solutions:

Firstly, the Wildlife Conservation and Management Act (WCMA)<sup>48</sup> imposes several consequences for illegal trophy hunting of lions including a financial penalty of no less than 20 million shillings or imprisonment for life.<sup>49</sup>

Alongside this measure, organisations have started using electronic collars to track the animals using a series of cameras and sensors, to know where they are at all times. If a lion gets too close to someone's

<sup>38</sup> Ibid.

<sup>39</sup> Damian Carrington, 'Lion Poaching: The Brutal New Threat To Africa's Prides' (*the Guardian*, 2018) <<https://www.theguardian.com/environment/2018/nov/05/lion-poaching-the-brutal-new-threat-to-africas-prides>> accessed 6 April 2020.

<sup>40</sup> Quentin Coleman, 'The Importance Of African Lions' (*Animals.mom.me*) <<https://animals.mom.me/importance-african-lions-6795.html>> accessed 6 April 2020.

<sup>41</sup> Caroline Fraser, 'The Crucial Role Of Predators: A New Perspective On Ecology' (*Yale E360*, 2011) <[https://e360.yale.edu/features/the\\_crucial\\_role\\_of\\_predators\\_a\\_new\\_perspective\\_on\\_ecology](https://e360.yale.edu/features/the_crucial_role_of_predators_a_new_perspective_on_ecology)> accessed 6 April 2020.

<sup>42</sup> Coleman (n40).

<sup>43</sup> 'Why The African Lion Is Important To The Ecosystem' (*Nikela: Helping People Saving Wildlife*, 2015) <<https://www.nikela.org/why-the-african-lion-is-important-to-the-ecosystem/>> accessed 6 April 2020.

<sup>44</sup> Ibid.

<sup>45</sup> F. M. D. Paciência and others, 'Mating Avoidance In Female Olive Baboons (*Papio Anubis*) Infected By *Treponema Pallidum*' (2019) 5 *Science Advances*.

<sup>46</sup> Marco Schoitz, 'Why Millions Chose Africa As Their Safari Destination' (*The Conversation*, 2016) <<https://theconversation.com/why-millions-chose-africa-as-their-safari-destination-52503>> accessed 6 April 2020.

<sup>47</sup> Selene Brophy, 'Infographic: SA Takes Lion's Share Of Tourism Revenue Across Africa' (*Traveller*, 2018) <<https://www.traveller24.com/Explore/BusinessTravel/infographic-sa-takes-lions-share-of-tourism-revenue-across-africa-20180323>> accessed 6 April 2020.

<sup>48</sup> WCMA (n31).

<sup>49</sup> WCMA (n31) s96(1)(a).

livestock or home, those employed by the conservation organisation will go and chase them away.<sup>50</sup> This mitigates the need for poaching and the far-reaching turbulence that can be caused by it.

### About the African Wild Dog:

The African Dog is the last of Akina and Elewisa's friends that we have researched and designed so far. African dogs also known as painted dogs, cape hunting dogs, painted wolves and African wild dogs are native to sub-Saharan Africa.<sup>51</sup> They are a highly social species, usually travelling in small packs with an alpha female as their leader. However due to poaching, loss of habitat and disease outbreaks, their numbers have decreased to just 7000 painted dogs on the entire continent, meaning that they are now extinct in 25 of the former 39 countries they occupied.<sup>52</sup> For that reason, they are considered to be one of the most endangered animals in Africa.

### The importance of the African Wild Dog in relation to the food chain:

Like most predators, the African Wild Dog serves an important function in the food chain by eliminating sick and weak animals, thereby helping to maintain the natural balance and improve the condition of prey species.<sup>53</sup> Additionally, they have an appetite for preying on wild creatures like impala, kudu and duiker over livestock such as cattle and goats. They are also hunted by lions who are considered as the apex predator in the region.<sup>54</sup>

### The African Wild Dogs v Poaching:

In areas such as southern Kenya, it has been observed that when given the option wild dogs will hunt wild animals over livestock, and that if wild dogs hunt local livestock, it is mostly due to loss of habitat and a decrease in their prey that leads them to attacking livestock.<sup>55</sup> In fact, recent studies on wild dogs have shown that they were responsible for fewer than half of reported attacks on livestock.<sup>56</sup> It has also been observed that after the birth of cubs (also known as the denning period), the pack will reside for a longer period of time in one place, thus decreasing their hunting radius.<sup>57</sup> During this period of time, most livestock attacks occur, suggesting that African Wild Dogs are perhaps not the sole cause of such attacks.<sup>58</sup>

### Viable Solutions

In light of this situation, the African Wild Dog is provided with the same protection as the elephants and lions in terms of the financial and prison penalties imposed on illegal poachers, under the WCMA. Whilst there is a legislative measure in place, it is still hard to monitor local communities to see if they comply with the provisions, especially in very rural remote areas.

In order to ease the situation however, there are various local conservation centres which focus on working with the community to ensure their safety.

<sup>50</sup> 'How To Stop The Hunting Of Lions – Globalmarch4lions' (*Globalmarch4lions.org*) <<http://www.globalmarch4lions.org/how-to-stop-the-hunting-of-lions/>> accessed 6 April 2020.

<sup>51</sup> R. Woodroffe, J.R. Ginsberg, D.W. Macdonald (Eds.), *The African wild dog: status survey and conservation action plan* (1997), pp. 11-57.

<sup>52</sup> Ibid.

<sup>53</sup> 'African wild dogs – what makes them such fascinating hunters' (*African Wildlife Detective*) <<https://www.africa-wildlife-detective.com/African-wild-dog.html>> accessed 20 February 2020.

<sup>54</sup> Coleman (n40).

<sup>55</sup> G.S.A Rasmussen, 'Livestock predation by the painted hunting dog *Lycaon pictus* in a cattle ranching region of Zimbabwe: a case study', (1999) *Biological Conservation* 88, 133-139.

<sup>56</sup> Rosie Woodroffe, Peter Lindsey, Stephanie Romanach, Andrew Stein, Simon M.K ole Ranah, 'Livestock predation by endangered African wild dogs (*Lycaon pictus*) in northern Kenya' (2005) *Biological Conservation*, 124, 225-234.

<sup>57</sup> S. Creel, N.M. Creel, *The African wild dog: behaviour, ecology and conservation* (Princeton University Press, 2002).

<sup>58</sup> Ibid.

- **The African Painted Dog Conservation Project:** work to fix this issue by raising awareness among villages and helping to rehabilitate injured dogs who were caught in the snares. Anti-poaching units are also being formed who go about disabling snares and identifying poachers.

The conservation project has a number of campaigns to raise awareness and money for the cause. They employ 20-30 people who work to produce art made from the snares used to trap the dogs. Furthermore, they host awareness workshops for children, where they are able to see the dogs up close and learn about them, their environment and the importance of protecting these creatures in the wild.<sup>59</sup>

- **African Wildlife Foundation:** educates community members on protecting their local wildlife and equips them to do so. In the Samburu landscape, AWF, with funding from the U.S. Agency for International Development and the Dutch government, employed 12 scouts from five neighbouring communities. These scouts monitor the wild dogs and are able to learn their movements and alert herders when wild dogs are present. Moreover, by providing access to new employment, AWF is able to weave conservation and economic opportunity together to incentivize wild dog protection.<sup>60</sup>

As well as these legislative, and conservation measures, local farmers are encouraged to keep their live stocks in bomas (enclosures), in order to protect their domestic animals from being prone to attacks by the African Wild dog. AWF works with communities helping them to build these enclosures, and by additionally monitoring the wild dog's movements, are able to help the local community pre-empt their potential attacks.<sup>61</sup>

### Additional activities

Alongside the three storybooks, there are various activities which may be used to engage with the child's learning on the three different endangered species. We have therefore provided an anatomy poster of the animals, a pull-out poster detailing the food chain and a food web for the regions of sub-Saharan and central Africa.

The illustrated posters show the role of the elephant and other endangered species within the food chain. The interactions between the different food chains make up the food web. This demonstrates the importance of the elephant to many different species in a way that is visually appealing and easy for children to understand. It is suggested to use the poster in conjunction with the book to increase a child's understanding of the role of the elephant as a keystone species.

The food web can be used to easily develop a cutting and sticking activity, including placing organisms into their correct positions within a web.

### Glossary

Attached at the end of every storybook, is a glossary of specific terms incorporated in the storylines, in simple and understandable terms. The use of such a glossary was included in the storybooks for the specific purpose of helping children develop their linguistic vocabulary and ecological understanding.

The glossary may also be used in the classroom context, the words and definitions may be memorised and used for matching games and 'cutting and sticking' activities, with the premise to match the word to the definition. For older learners, topic-based spelling tests are recommended as well as children creating their own definitions for the words.

<sup>59</sup> 'Conservation Programs' (*Painted Dog Conservation*) <<http://painteddog.org>> accessed 20th February 2020.

<sup>60</sup> 'African Wildlife Foundation' (*African Wildlife Foundation*) <<https://www.awf.org>> accessed 20th February 2020.

<sup>61</sup> Ibid.

## Further Resources

Parents and teachers are encouraged to use online resources to pursue any continued interest of the child, such as below:

<https://www.worldwildlife.org/species/african-elephant>

- This contains more facts about the vulnerable status of the African Elephant.

<https://www.worldwildlife.org/teaching-resources/toolkits/elephant-toolkit>

- This contains downloadable worksheets about African Elephants.

The WWF also organises an 'Adopt an African Elephant' scheme to help protect elephants in the wild and fund sanctuaries like that in this story.

## Bibliography:

### Kenyan legislation:

Wildlife (Conservation and Management) Act 1976

Wildlife (Conservation and Management) Act, 2013

### Books:

Beaver J and Carter M, *Developmental Reading Assessment* (3<sup>rd</sup> edition Pearson, 2019).

Woodroffe R, Ginsberg J.R., Macdonald D.W. (Eds.), *The African wild dog: status survey and conservation action plan* (1997), 11-57

### Articles

Paciência F and others, 'Mating Avoidance In Female Olive Baboons (*Papio Anubis*) Infected By *Treponema Pallidum*' (2019) 5 *Science Advances*

Rasmussen G.S.A, 'Livestock predation by the painted hunting dog *Lycaon pictus* in a cattle ranching region of Zimbabwe: a case study', (1999) *Biological Conservation*, 88, 133-139.

Woodroffe R, Lindsey P, Romanach S, Stein A, M.K Simon Ranah O, 'Livestock predation by endangered African wild dogs (*Lycaon pictus*) in northern Kenya' (2005) *Biological Conservation*, 124, 225-234

### Reports:

The Law Commission, 'Wildlife Trafficking and Poaching' (January 2013)

### Websites / Blogs:

'African Bush Elephant' (*The Nature Conservancy*) <<https://www.nature.org/en-us/get-involved/how-to-help/animals-we-protect/african-bush-elephant/>> accessed 4 April 2020

'African wild dogs – what makes them such fascinating hunters' (*African Wildlife Detective*) < <https://www.africa-wildlife-detective.com/African-wild-dog.html>> accessed 20 February 2020

'African Wildlife Foundation' (*African Wildlife Foundation*) <<https://www.awf.org>> accessed 20th February 2020

'Battles over ever decreasing land' (WWF) <[https://wwf.panda.org/knowledge\\_hub/endangered\\_species/elephants/human\\_elephant\\_conflict.cfm](https://wwf.panda.org/knowledge_hub/endangered_species/elephants/human_elephant_conflict.cfm)> accessed 5 April 2020

Brophy S, 'Infographic: SA Takes Lion's Share Of Tourism Revenue Across Africa' (*Traveller*, 2018) <<https://www.traveller24.com/Explore/BusinessTravel/infographic-sa-takes-lions-share-of-tourism-revenue-across-africa-20180323>> accessed 6 April 2020

Carrington D, 'Lion Poaching: The Brutal New Threat To Africa'S Prides' (*the Guardian*, 2018) <<https://www.theguardian.com/environment/2018/nov/05/lion-poaching-the-brutal-new-threat-to-africas-prides>> accessed 6 April 2020

'Conservation Programs' (*Painted Dog Conservation*) <<http://painteddog.org>> accessed 20th February 2020

Dalton J, 'Wildlife Poachers In Kenya 'To Face Death Penalty' (*The Independent*, 2018) <<https://www.independent.co.uk/news/world/africa/poachers-kenya-wildlife-death-penalty-capital-punishment-najib-balala-a8349966.html>> accessed 24 April 2020

Durr B, 'Conservationists Take Aim At Poachers | Africa Renewal' (*Un.org*, 2017) <<https://www.un.org/africarenewal/magazine/may-july-2017/conservationists-take-aim-poachers>> accessed 24 April 2020

'Elephant Conservation' (*African Conservation Centre*)<[https://www.accafrica.org/our\\_work/explore-impacts/elephant-conservation-in-east-africa/](https://www.accafrica.org/our_work/explore-impacts/elephant-conservation-in-east-africa/)> accessed 5 April 2020

'Elephant Poaching Costs African Economies \$25 Million Per Year In Lost Tourism Revenue' (*EurekaAlert!*, 1 November 2017) <[https://www.eurekaalert.org/pub\\_releases/2016-11/uov-epc102816.php](https://www.eurekaalert.org/pub_releases/2016-11/uov-epc102816.php)> accessed 4 April 2020

Fraser C, 'The Crucial Role Of Predators: A New Perspective On Ecology' (*Yale E360*, 2011) <[https://e360.yale.edu/features/the\\_crucial\\_role\\_of\\_predators\\_a\\_new\\_perspective\\_on\\_ecology](https://e360.yale.edu/features/the_crucial_role_of_predators_a_new_perspective_on_ecology)> accessed 6 April 2020

'How To Stop The Hunting Of Lions – Globalmarch4lions' (*Globalmarch4lions.org*) <<http://www.globalmarch4lions.org/how-to-stop-the-hunting-of-lions/>> accessed 6 April 2020

Human - Elephant Conflict' (WWF) <[https://wwf.panda.org/knowledge\\_hub/endangered\\_species/elephants/human\\_elephant\\_conflict.cfm](https://wwf.panda.org/knowledge_hub/endangered_species/elephants/human_elephant_conflict.cfm)> accessed 4 April 2020

Marsh J, 'Duke researchers find poaching elephants hurt forest ecosystem' (*The Chronicle*, March 26 2018)<<https://www.dukechronicle.com/article/2018/03/duke-researchers-find-poaching-elephants-hurts-forest-ecosystems>> accessed 4 April 2020

Pointing C, 'How Kenya'S Wildlife Poaching Dropped By 90% In 6 Years' (*LIVEKINDLY*, 2020) <<https://www.livekindly.co/kenya-wildlife-poaching-dropped/>> accessed 24 April 2020

Rainbow Magic' (*thriftbooks*) <<https://www.thriftbooks.com/series/rainbow-magic/40329/>> accessed 10 February 2020

Schoitz M, 'Why Millions Chose Africa As Their Safari Destination' (*The Conversation*, 2016) <<https://theconversation.com/why-millions-chose-africa-as-their-safari-destination-52503>> accessed 6 April 2020

Sheldrick Wildlife Trust: Haven for Elephants and Rhinos' (*Sheldrick Wildlife Trust*) <<https://www.sheldrickwildlifetrust.org/>> accessed 10 February 2020

'The Lions We Listed Are Not Extinct' (*Fws.gov*, 2015) <<https://www.fws.gov/news/blog/index.cfm/2015/12/22/The-Lions-We-Listed-Are-Not-Extinct>> accessed 6 April 2020

Warinwa F, 'Fighting Wildlife Trade In Kenya | United Nations' (*United Nations*) <<https://www.un.org/en/chronicle/article/fighting-wildlife-trade-kenya>> accessed 24 April 2020

'What Do Adult Literacy Levels Mean? | National Literacy Trust' (*National Literacy Trust*, 2020) <<https://literacytrust.org.uk/parents-and-families/adult-literacy/what-do-adult-literacy-levels-mean/>> accessed 19 April 2020

'Why The African Lion Is Important To The Ecosystem' (*Nikela: Helping People Saving Wildlife*, 2015) <<https://www.nikela.org/why-the-african-lion-is-important-to-the-ecosystem/>> accessed 6 April 2020



