

animals, people and war: the impact of conflict



ifaw



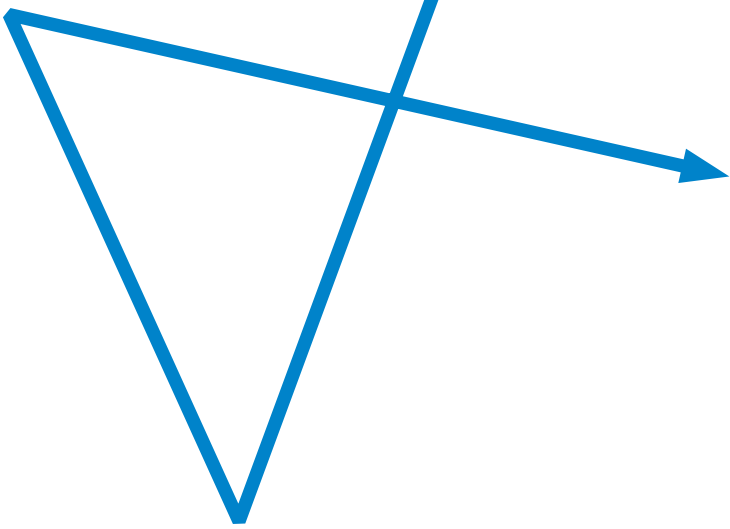
Photo: Melanie Mahoney

vision:
animals and people
thriving together.



Photo: © IFAW

mission:
fresh thinking
and bold action for
animals, people and
the place we call
home.



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About IFAW (International Fund for Animal Welfare)—

IFAW is a global non-profit helping animals and people thrive together. We are experts and everyday people, working across seas, oceans and in more than 40 countries around the world. We rescue, rehabilitate and release animals, and we restore and protect their natural habitats.

The problems we're up against are urgent and complicated. To solve them, we match fresh thinking with bold action. We partner with local communities, governments, non-governmental organizations and businesses. Together, we pioneer new and innovative ways to help all species flourish. See how at ifaw.org.

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Cover photo: Mike Zomer / © IFAW
Veterinarian Andrew Kushnir with dogs belonging to
Ukrainian refugee Tatiana—some of the dogs are in new
carriers provided by IFAW.



Photo: Mike Zomer / © IFAW

foreword

Conflicts, hostilities, and war have been part of the human experience throughout history. In the 21st century, conflicts have continued to occur in multiple corners of the world. Whether the conflict is waged by a government or a terrorist organization, the human costs for the combatants and innocents caught in the middle have been immeasurably high. Not least among the

consequences of conflict are the experiences of untold thousands of people who are forced to flee, in search of safety and assistance, all too often only to find that additional barriers—political and physical—have been raised to prevent safe passage or refuge. World conflicts like the one most recently playing out in [Ukraine](#), are significant, extreme and challenging.

“Why does the International Fund for Animal Welfare (IFAW) devote resources to helping animals affected by conflicts when there is so much human suffering?” is a question I am often asked as the leader of an organization dedicated to the well-being and conservation of animals. In response, the first thing I point out is that we at IFAW agree fully that, in conflict situations, it is vital to address human

needs first. In fact, when IFAW responds to a crisis—natural emergencies as well as situations caused by conflicts—before we arrive on the scene **we always ensure that human needs are being addressed first and foremost.** But I also respond by explaining the connections between animals and people in conflict, how attending to the welfare of animals benefits not just the animals, but people as well.

Those within conflict zones are subject to suffering in many forms; from painful injuries, to loss of shelter, starvation, thirst, and of course, terror. People in conflict zones experience all of those things, and animals within these zones do as well. At IFAW, we recognize that it is important to do our best to stop suffering: to alleviate mental, emotional and physical pain, provide shelter, provide nourishing food and water, quench thirst, calm fears, and ultimately provide comfort. Doing this for animals does not undermine efforts to help human beings; we do not take from people to provide for animals. Just as the indiscriminate killing and wounding of animals by some combatants in conflict zones signals a breakdown of the social order, and a rejection of humanity, efforts to help animals in need affirm our humanity and illustrate compassion—often in situations where compassion and hope are sorely needed. Sympathy and compassion are devoid of any political agenda. It requires courage to partake in another animal's suffering, to empathize with the suffering that so many animals feel around the world. **When human conflict is the cause of that suffering, our moral obligation to help becomes only stronger.** Helping animals in distress during these times of conflict gives us hope, reinforcing what it means to be distinctly human—to extend a gentle hand of compassion, allowing us to fulfill the need to protect those who are most vulnerable.

Furthermore, IFAW has found that when we respond to disaster situations—war zones or natural disasters—**there are always people who are concerned about the safety of the community animals they have with them.**

People clutch tightly to their animals and will not leave a dangerous situation without their beloved pets or reassurance about their safety. People in crisis have shown this level of concern with companion animals, but also with animals that they rely on for income and financial well-being, including livestock. This

bond underscores the connection between people and animals at all times, but especially in times of crisis.

There are important connections between wildlife and people in war zones too. In countries in conflict where there is a high population of wildlife, people fleeing are often forced to retreat into land areas where they end up competing with wildlife for resources (such as water), a competition that inevitably causes destruction and loss of habitat.

In fact, today's greatest challenge for both wildlife conservation and animal welfare is the loss of habitat, a problem exacerbated by a growing human world population. The loss of wildlife habitat is a problem for animals and humans. For example, in parts of West Africa, for thousands of years hunting in nearby neighboring forests helped communities to meet their dietary needs, but now many hunters must travel for days to find prey and some communities have even resorted to using child labor.¹

Conflict also inflames other problems including the poaching and trafficking of animals to meet the demand for illegal wildlife products. The high profits from the trade of such products are often suspected of being used by conflict combatants to purchase weaponry and further sustain those conflicts and wars. Such profits ultimately encourage criminal networks to flourish as a result of poor enforcement. The effects from the decimation of habitat and wildlife are acute, especially in countries that rely on wildlife for income from tourism. Thus, protecting biodiversity increases the possibility of a successful transition to a peacetime economy once a conflict ends.

Human conflict is never confined to human society alone—it spills over into the natural environment, affecting landscapes and wildlife populations. The effects reverberate to reveal the deep connection between humans and animals.

Wildlife and natural resources are under pressure as a result of increasing famine and water shortages, exacerbated not just by climate change, but by human conflict as well. The world is in a difficult and precarious situation. We are witnessing the immense devastation before our eyes in [Ukraine](#), one

conflict of many that has played out on the global stage. The well-being of animals and humans is on the line. Animal well-being is not just important for philosophical reasons, but for pragmatic and humanitarian ones as well. **By protecting wildlife habitats and helping them flourish, we can save animal species, including our own.** In times of conflict, the choice is not whether we ought to care for animals or humans; the choice is whether we care for both or not. “Why, amid human suffering, should we devote resources to helping animals affected by conflict?” Simply because turning our backs on animals would mean turning our backs on humanity as well.



Azzedine Downes
President and CEO
International Fund for Animal Welfare

◀ At the Ukraine-Poland border crossing, refugees fleeing the war in Ukraine receive veterinary care and supplies for their pets during the 2022 conflict.



Photo: © Poznań Zoo

Time line²

1914–1918 First World War

More than 16 million animals were made to serve on all sides, with nine million killed (including eight million horses, mules and donkeys).

1939–1945 Second World War

Over 750,000 domestic pets were killed in Britain in one week following a government public information campaign about their safety and expected food shortages. The German Army on the Eastern Front lost 179,000 horses in two months.

1955–1975 Vietnam War

Use of Agent Orange to eliminate forest cover destroyed the habitats of tigers, Asian elephants, gibbons, civets, leopards and other species. At least 40,000 animals were killed by unexploded landmines in the 20 years following the war.

1977–1992 Mozambique Civil War

Giraffe and elephant herds in the Gorongosa National Park shrank by 90%.

1980–1988 Iran-Iraq War

Populations of wild goats, wolves, otters, pelicans, striped hyenas, river dolphins and other wildlife were wiped out or reached the point of extinction.



introduction

IFAW believes that **animals and their habitats possess intrinsic value**. In the realm of public policy, the intrinsic value of animals is often overlooked when the conversation focuses around other priorities, such as development and economic growth. IFAW understands that animals are not only inherently “valuable”, but also critical to human well-being. Alongside animal welfare and conservation partners across the globe, IFAW works to demonstrate this fundamental link between animal welfare and human well-being to both policymakers and their constituents.

War and other human conflicts create uninhabitable conditions, marked by immense destruction, suffering, and despair.

During such conflicts, the reduction of human suffering is prioritized, as it should be. But even in these same conflict zones, the connections between human well-being and animal welfare remains—as strong and often even greater than before. So what exactly are those connections between people and animals affected by conflict? What can be done to reduce both human and animal suffering caused by conflict? How can we better serve animals and the people caring for them in unexpected times of conflict such as the one currently playing out in Ukraine? This report examines such questions as well as the impact of human conflict on the connections between animals and people. It explores the effects on community animals,

wildlife, and habitats, and shares success stories of programs that are working to reduce animal and human suffering that occur as a result of conflicts. The report concludes with a set of policy recommendations that, if used to guide decisions, will help to improve conditions for all species on this shared planet.

- ▲ A row of dog crates containing the rescued Syrian dogs at the cargo holding area.
- ◀ Lions evacuated from a Ukrainian sanctuary adjust to their temporary new home at the Poznań Zoo in Poland during the 2022 Ukraine conflict.

1983–2005 Sudanese Civil War

South Sudan's elephant population fell from 100,000 to 5,000.

1990–1991 Gulf War

More than 80 per cent of livestock in Kuwait died, including 790,000 sheep, 12,500 cows and 2,500 horses. About 85% of the animals in Kuwait International Zoo died. A deliberate oil leak into the Persian Gulf by Iraqi troops caused the deaths of up to 230,000 aquatic animals and birds.

1998–1999 Kosovo War

Kosovo's cattle population reduced from 400,000 to 200,000

2003–2011 Iraq war

Insurgents commonly strapped bombs to dogs to target convoys and used donkeys to pull carts of explosives for the same purpose.

2014 Gaza conflict

20% of the animal population estimated to be lost - including 15,000 missing sheep and goats



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Photo: Mike Zomer / © IFAW

the impact of conflict

the impact of conflict



Photo: © House of Cats Ernesto



Photo: Paolo Torchio / © IFAW

In a corner of [London](#), stands a remarkable war memorial, a thank-you note of sorts to animals conscripted to fight in battles for and alongside people. Unveiled in 2004, the [Animals at War Memorial in Hyde Park](#) features bronze sculptures of two mules, laden with battle gear, approaching an opening in a wall. On the other side of that wall is a horse and dog who are “bearing witness to the loss of their comrades and representing hope for the future.”³ Along the wall, are representations of “horses, dogs, camels, monkeys, goats, bears, elephants, and even the glow worms that allowed troops to read their maps in the trenches of World War I.”⁴ The [Hyde Park memorial](#) commemorates in words carved into its side: “This monument is dedicated to all the animals that served and died alongside British and Allied forces in wars and campaigns throughout time.” The memorial recognizes animals affected by recent human conflict, but a similar story could be told about most any conflict throughout history: the interconnectedness between humans and animals. Whether brought into battle, killed in the crossfire or pushed out of a natural habitat, animal species have been affected by conflict for as long as wars have been waged. The short-term and long-term impact, on animals and humans, is significant.

Societal and geopolitical conflicts have produced reverberating consequences for animals, biodiversity and the delicate natural balance of the environment. The impact of

war can be observed in many ways, including habitat destruction, the degradation of food and water sources, and noise pollution. Changes in the environment brought about by conflict affect each individual animal, family and community, but also entire species. Community animals, companion animals, zoo animals, livestock and wildlife are all affected and the repercussions can last for generations.

Conflict often results in the depopulation of towns, villages and entire regions, and all too often animals are left behind. Domestic animals may be deserted without adequate access to food or water, either tied up or kept inside an abandoned building, or else left to roam the streets. One example is a shelter in Borodyanka in Ukraine where workers and volunteers were forced to abandon the shelter and flee the area as a result of the bombing and despite their best efforts to stay and continue caring for their animals.

Abandoned animals perpetuate stray populations and are vulnerable to outbreaks of diseases such as rabies. Further, once the conflict has ended, animals who were once healthy are likely to have post-traumatic stress disorder or physical ailments that decrease the likelihood of adoption. Animals in zoos, kept in cages or enclosures and unable to escape or fend for themselves, are at particular risk for harm because those who care for them may be killed, forced to flee, or unable to feed the animals as a result of food shortages. A gruesome example of animals

being deserted during a conflict occurred in the [Gaza Strip](#) in 2014 at [Khan Younis Zoo](#), dubbed “the worst zoo in the world.”⁵ During the seven-week conflict between [Israel](#) and [Hamas](#), the zoo was closed and the animals were left in filthy cages to starve. After the conflict, the mummified remains were put on display alongside the living animals as an attraction. It was, said one observer, “like a horror movie.”

“when humans lose their humanity, they start losing all their ethics, and one of them is animal welfare.”

—Elsayed Mohamed, IFAW Regional Director, Middle East and Africa

- ▲ A Maasai woman walks past resting livestock.
- ◀ In February 2020, IFAW responded to a call for help from House of Cats Ernesto, the only cat and animal sanctuary in Syria, with support in the form of purchased supplies.

the unfolding crisis in ukraine



Photo: Benjamin Wisocki / © IFAW



According to researchers who analyzed decades of wildlife population trends across Africa, “the single most important predictor of whether species prosper or perish isn’t poaching, or deforestation, or even climate change. It’s human conflict.”⁶ As we witness the currently unfolding conflict in Ukraine, it is critical to ask what the future holds not only for the people, but also for the animals in peril? During the 2022 [Russian and Ukrainian conflict](#), emergency response teams from wildlife foundations across the globe answered the call in many people’s, and animals’, greatest time of need. The [United Nations International Organization for Migration](#) estimated that more than 3 million people fled Ukraine in the first month of conflict, launching lives into a world of chaos where family pets, domestic stock and wildlife were all thrown into jeopardy seriously threatening their existence.

Foreseeably, the collateral damage of the war in Ukraine will destroy biodiverse ecosystems throughout the [East European Plain](#). This is a bigger problem than most people realize. The region’s virgin steppes and old-growth forests aren’t just home to thousands of other species. They are also humankind’s frontline defense against global warming. Acting as powerful “carbon sinks,” these biospheres

absorb giga-tons of greenhouse gases from the atmosphere. As wildlife disappear from these landscapes, so will the countless plant species that depend on animals to disperse their seeds.

As in other human-driven conflicts, animals are uniquely caught in the midst of the storm with no way of escaping the violence and outlying suffering, no recourse to turn to for alleviation of their suffering and no guarantee of a return to the life they once knew. Thankfully, rescue teams have found allies in neighboring countries such as [Poland](#) who are working on the frontlines of the crisis, but rescuing animals is easier said than done. During the first month of the conflict, IFAW’s team met with Polish veterinary authorities to discuss how they are processing refugees and their pets from Ukraine. There is estimated to be around 80,000 refugees coming into Poland daily, many are bringing their pets with them. Polish veterinary teams are processing 500 to 600 animals per day, and have vaccinated and microchipped over 12,000 animals since the war began.

Trained animal rescuers are continuing to put their expertise to work and recognize the animals coming in are traumatized from the war and have been removed from everything

they know. The reunification of these animals with their previous owners or caretakers is essential to a return to normalcy, for both the animal as well as the person.

3 million

people fled Ukraine in the first month of conflict

500–600

animals are processed per day by Polish veterinary teams

12,000

animals have been vaccinated and microchipped since the war began

▲ Luba the bear, affected by the 2022 Ukraine conflict, at Save Wild’s White Rock Bear Shelter outside of Kyiv, Ukraine.

◀ IFAW-contracted veterinarian Andrew speaks with Ukrainian refugee Suitlana and her daughter Lence, who brought their two Yorkies Nika and Jina to the animal service station.



Photo: ©GRACE

wildlife population decline

Wildlife populations are often affected by modern conflict because of proximity, as nearly **80% of modern conflicts take place in biodiversity hotspots**. Examples abound. For instance, in a study on the long-term effects of Agent Orange, a defoliant chemical that was sprayed over jungles during the Vietnam War, a Harvard biologist found 24 species of birds and 5 species of mammals in a sprayed forest, compared to two adjacent sections of unsprayed forest where there were 145 and 170 species of birds, and 30 and 55 species of mammals.⁷

The impact of conflict in Afghanistan provides a more recent example. One of the world's most important migratory bird thoroughfares leads through Afghanistan, where the number of birds migrating along this route has dropped by 85%.⁸ The migration of endangered Siberian cranes has

been disturbed and entire bird populations have disappeared across the entire Afghanistan and Pakistan region.

On the continent of Africa, the negative effect of conflict on wildlife and people is pronounced. Ten years after the war in the Congo, eastern lowland gorilla numbers were reported to have collapsed by as much as 70%.⁹ Conflict and wildlife declines feed on each other: In Rwanda, two-thirds of the original area of Akagera National Park was removed from protected status, so that numerous refugees and their livestock could be settled there, leading to the virtual local extinction of some ungulates (hoofed mammals). But as people in war-torn areas often rely on wildlife, directly as food or as part of a healthy ecosystem, wildlife declines may increase food scarcity, thereby prolonging wars and the suffering they cause.

80%

of modern conflicts take place in biodiversity hotspots

▲ In 2016, a grant from IFAW assisted a 1.5 year old Grauer's gorilla orphan to be transferred to the Gorilla Rehabilitation and Conservation Education (GRACE) Center in Eastern Democratic Republic of Congo (DRC). Lulingu, the orphaned gorilla, was rescued from Virunga National Park by armed guards after being captured by poachers. 2016



Photo: Julia Curmes / © IFAW

people and animals: connected in peacetime, in war time and in war's aftermath

The impact of conflict on both community animals and wildlife is linked to the impact on people. Working and domestic animals are of such vital importance to the livelihoods of some people and communities, that even in conflict, in the face of danger, individuals may refuse to evacuate, as they do not want to leave the animals behind. People who evacuate and later return to rebuild their lives and homes who find that livestock or companion animals have died or disappeared, have more difficulty readjusting and returning to normalcy compared to people who return and find their animals alive and well.¹⁰

The connection between people and wildlife can be observed by what happens in the chaos of conflict. As conflict often leads to a breakdown in environmental protections, including police enforcement of wildlife protection, increases in resultant effects, such as illegal poaching, ensue. Healthy wildlife populations are also essential. This is particularly true in areas where wildlife-based tourism plays an important economic role, especially in areas recognized as biodiverse hotspots. Ending the violence that conflict forces upon animals does not distract from efforts to address the impacts of conflict on humans; it reinforces them.

▲ Ukrainian refugee, Natalya, is photographed with her two dogs, Key (left) and Lala (right) at the border crossing in Medyka, Poland.



community animals: companion animals and livestock



Photo: © IFAW

community animals: companion animals and livestock

In 1939, at the outbreak of [World War II](#), the [British government](#) published a pamphlet called *Advice to Animal Owners* that urged citizens: “If at all possible...send or take your household animals into the country in advance of an emergency.” It concluded: “If you cannot place them in the care of neighbors, it really is kindest to have them destroyed.” Many responded to the advice. Animal shelters, humane organizations, and veterinarians were inundated with anxious pet owners sadly surrendering their companion animals to be euthanized; 750,000 dogs, cats and other animals were killed in just one week. It was, notes one historian, “one of the things people had to do when the news [of war] came—evacuate the children, put up the blackout curtains, kill the cat.”¹¹

Perhaps the pamphlet’s advice was correct. Perhaps destroying a household pet was kinder than the alternative. Consider the below description of what happened to animals in the [German city of Dresden](#) during Allied bombing raids:

*The bombing toll on domestic pets and farm animals is never spoken of, but it was a slaughter of momentous proportion. Horses burned alive at various stud farms or were simply let loose, cattle were blown to pieces, sheep literally cooked in the fields and thousands of pets were lost, lamed, blinded, orphaned and even eaten out of desperation. For zoos it was hellish. Zoo animals were bombed or later slaughtered and plundered at war’s end. The few survivors starved or died of cold.*¹²

There are contemporary stories, however, that contrast with the historical examples from [World War II](#). These stories reveal the strong bond that exists between humans and community animals, a connection that can lead people to take extreme actions to ensure the safety of animals. People who flee conflict

may insist on bringing animals with them, even if that means walking 300 miles from [Damascus to Greece](#), carrying a pet dog the entire way,¹³ or boarding a raft and setting sail for the same destination while clutching a kitten.¹⁴

Extraordinary human effort, though, does not always spare the animals from suffering. During the 1989 revolution in [Nicaragua](#), desperate migrants, with cattle and horses, fled to [Costa Rica](#), but were forced to tie up the animals 100 yards from the border due to the land mines that littered the final stretch of their escape route. By the time rescuers arrived, some of the animals had died of starvation while others, emaciated, were chewing on the bark of the trees where they were tied.

The loss of livestock inevitably has a deleterious impact on farmers who remain in conflict zones and engaged in the food supply in war-torn regions. In some cases, combatants use livestock to help fuel conflict. For example, livestock levels in [Syria](#) plummeted in the years after the commencement of the civil war, while rebel groups stole and exported farm animals to help fund their insurgency.¹⁵ In other cases, the conflict situation may create conditions where raising livestock is impossible. In the pastoral society of [South Sudan](#), for example, significant government resources were devoted to addressing the civil war, reducing aid for cattle farmers, which resulted in an increase in mortality and illness.¹⁶

The suffering of community animals may continue long after a conflict ends. Land mines are a pernicious threat to livestock without fences or other barriers, or where enclosures have been damaged or destroyed. Herds may wander long distances, sometimes into areas that are laden with mines where an explosion inadvertently set off by one animal may kill many others. One

study concluded that in conflicts in [Afghanistan](#), [Bosnia](#), [Cambodia](#), and [Mozambique](#), more than 54,000 animals were killed in land mine detonations.¹⁷ Other reports reveal that livestock have been used intentionally to trigger land mines that remain in the landscape even after the conflict ends. In [Bosnia](#), locals guided sheep to unsafe areas, in [El Salvador](#) pigs were used, and in [Zimbabwe](#), it was cattle.¹⁸

Towns and cities that have been devastated by battle and abandoned by much of the population can become populated by dogs, cats, and other stray animals. The welfare of these animals may not be prioritized or the animals may be seen as a nuisance. In [Bosnia](#), during the siege of [Sarajevo](#), people were “exposed to snipers, artillery, freezing temperatures, and hunger, becoming heavily reliant on international aid. Dog owners had no food for themselves and were forced to abandon their pets. The fittest survived on the streets.”¹⁹ Subsequently, an organized campaign against the tens of thousands of strays across the country resulted in widespread violence toward them, incentivized by a reward for each stray dog killed.

750,000

dogs, cats and other animals were euthanized in just one week in England at the outbreak of World War II¹⁹

54,000

animals were killed in land mine detonations in conflicts in Afghanistan, Bosnia, Cambodia, and Mozambique¹⁹

◀ A dog sits by the crosswalk in Sarajevo City Center.

out of the rubble



Photo: © BCYPO "Service Protection of Animals"



Photo: © BCY/PO, Service Protection of Animals

In the heart of such violence and despair, the suffering of animals has also been known to inspire the heights of human compassion. In [Aleppo, Syria](#), one report explained how a man fed approximately 150 stray cats daily.²⁰ In the Ukrainian city of [Donetsk](#) in 2014, [Shelter Pif](#) fed, sheltered, treated, and housed stray animals throughout the conflict that raged on the city’s outskirts between government forces and Russian-backed separatists.²¹ Sadly, [Shelter Pif](#) is again struggling to provide care for stray animals in the midst of the current conflict.

“One of the things that really shines through in this work is the stories of people coming together and saving animals and saving one another,” explains Shannon Walajtys, IFAW’s Director of Disaster Response and Risk Reduction. “The pride of people in their country and what it used to be, or their community and what it used to be: ‘I’m not leaving, so please help me take care of the animals in my care, because I’m not leaving. This is our culture, this is our home, can you help me stay here?’ People want to keep their families together. And in many countries where there is conflict, animals are part of their family. So, whether that is providing a kennel or fencing, being able to provide basic medications or food for the animals, or just supplementing a family’s daily rice so they can give their family food, then we will do that. Keeping a family together keeps morale high. It provides a sense of hope and normalcy.” After the 2014 conflict, IFAW worked to

help war-torn communities in [Eastern Ukraine](#) rebuild connections between people and animals. [Shelter Pif](#), along with partner shelters, created classes where local volunteers, including many children, learned to train dogs and display the successful training at events where community members could see the dogs obeying commands. “As a result,” explains Walajtys, “people wanted to adopt those dogs. Lives were going on and people were adopting animals again, returning to a new and more secure normal which included a new animal family member. This normal has sadly once again been devastated by the ravages of war, tearing apart these families yet again.

Another example of an animal welfare response following conflict occurred in [Bosnia](#). The [Bounty Program](#), which incentivized the killing of stray animals, prompted a backlash that led to a wave of animal welfare legislation across the country, including a ban on euthanasia of companion animals. However, because of a lack of simultaneous efforts to control dog numbers through such methods as neutering and spaying, the net result was an explosion in the abandoned dog population in many cities.

“By and large, they are not aggressive,” explains Katie Moore, IFAW’s Deputy Vice President of Animal Rescue. “They hang around grocery stores and grab at your bags because they’re used to getting fed. They hang out at schoolyards because kids

feed dogs. They’ll convene around the butcher shop because they’re also used to getting scraps. People are intertwined with them. People abandon the dogs, but other people feed them. One-half want to be around the dogs and feed them, while the other half don’t want anything to do with them and thus throw rocks at them. So you end up having people angry at each other. Everybody blames the other and everybody blames the government—therein lies the nature of the conflict. It feeds into the divisions that already exist after the conflict.”

Working with the [United Nations Development Program](#) and local communities across [Bosnia](#), IFAW helped implement the [Humane Community Development Program](#), in which community members collaborated to develop and maintain dog population control programs that include a mix of shelters, adoption, neutering and spaying, and vaccination.

“Now you have a different situation entirely. You have communities taking responsibility for these dogs,” says Moore. “You have people looking out for them. There are dogs on the street and though they aren’t super-healthy, they’re tagged, sterilized and vaccinated. There is someone who takes it upon themselves to look out for the dogs. Many vets have rebranded to be small animal vets too, not just livestock vets. The goal is eventually no street dogs, ensuring every animal has a guardian.”

▲ ◀ As violence escalated in Eastern Ukraine in 2015 many dogs, cats and other pets were abandoned. Access to food and supplies was limited and military action caused death and injury. IFAW provided emergency funding to animal shelters in the affected region.



what happens when governments can't defend wildlife

When governments lack the political will or capacity to defend threatened wildlife, local stakeholders may take action themselves, sometimes resorting to violence.

The most well-known example of this is the rise of Somali piracy following the proliferation of foreign fishing vessels in that country's waters.²² After the collapse of the Somali government, there was no regulation over Somali territorial waters. As a result, international fishing vessels began conducting illegal fishing operations in Somali waters, which depleted local fish stocks. Somali pirates began attacking foreigners who they saw as invading their waters, often holding vessels and crew for ransom. While this example may seem extreme, it highlights how a lack of regulation can lead to dangerous consequences.

◀ Makos shark. The waters of the Indian Ocean off Somali coast are said to be teeming with thousands of the creatures including large populations of makos, hammerheads and grey sharks. Fishermen often catch sharks which are sold at market. Much of the shark meat is dried and salted for export.



Photo: RSCN / © IFAW

the illegal wildlife trade

Rising levels of wealth in certain regions as well as improved access to the internet has strengthened an already large consumer base for wildlife products. Low risks combined with high rewards have led to a flourishing illegal trade that is responsible for immense animal suffering as well as biodiversity and species loss. From an animal welfare perspective, the live transport of animals in both legal and illegal trade is a continuing and critical problem that must be addressed. Meat, skins, bones and live

animals, both domesticated and wild are all part of a global illegal wildlife trade, conservatively estimated to be worth around \$23 billion annually.²³ Often able to reach remote areas and wildlife habitats that are otherwise difficult to access, militias, extremist groups and other violent non-state actors operating outside the reach and jurisdiction of any one country have long been suspected of engaging in the trade in wildlife parts, which can generate significant income. Rare wildlife commodities with

established high black-market values, can be used as collateral, similar to gold or blood diamonds.²⁴

\$23 billion

estimated worth of global illegal wildlife trade²²

▲ Cheetah cub seizures in Jordan.



poaching

The most pervasive way that conflict affects wildlife is by fostering poaching. The societal disruption caused by conflict frequently results in a reduction of enforcement capabilities in wildlife-rich areas, especially in intra-state conflicts where networks, with the means and intent to evade and subvert established authorities, may flourish. The proliferation of weaponry and of organized groups hardened by combat, along with the combatants' need for food and money, combine together to put wildlife populations under extreme pressure, during and after a conflict.

"A common perception of wildlife poaching in Africa is that it is generally the result of some poor guy trying to make ends meet," explains Jason Bell, IFAW's Executive Vice President of Strategy, Programs and Field Operations. "But the more we build out our intelligence network and see who's involved, we see a lot of guys who already have a business, and they want to line their pockets with extra trade. So, the more we fill out that picture, the more we see it's not necessarily just people who are trying to put food on the table. Perhaps one of the strongest false narratives is that the poacher is just some

poor guy looking to feed his family. And if you were a criminal network, wouldn't you want to push that narrative?"

Indeed, the sheer scale of poaching activities contradicts the notion that it is conducted by unconnected individuals. For example, as many as 20,000 elephants were poached each year in Africa at the height of the poaching crisis. In the first half of 2015, 57 elephants were poached in northern Mali alone—a number that represents 20% of the country's entire elephant population.²⁵

After Mozambique declared independence from Portugal in 1977, the country erupted in a 15-year civil war that cost the lives of over a million people and devastated wildlife populations in the country's Gorongosa National Park.²⁶ Thousands of elephants were hunted for ivory, which was sold to help fund arms and supplies. Zebras, wildebeest and buffalo were killed for meat. Around 90% of the park's large mammals were shot or died of starvation.

In Syria, a tiny flock of bald ibises—long since considered extinct in the region—was found near the Syrian city of Palmyra. The discovery

was heralded as "the Tutankhamen's tomb of Arabian ornithology." However, the Islamic State seized control of Palmyra in 2015, and shortly thereafter, the tiny remnant flock was reported to have been lost, marking an end to the migratory population of a bird that was once revered in Ancient Egypt.^{27,28}

20%

of Mali's entire northern elephant population (57 elephants) were poached in the first half of 2015 alone²⁴

▲ Elephants, zebras, wildebeest and springbok grazing.





a focus on elephants

Elephants are at particular risk in conflict zones. According to a 2012 report, African hostages who escaped from captivity in the [Lord's Resistance Army \(LRA\)](#) reported seeing LRA members shoot elephants and remove their tusks. Former hostages reported that LRA leader, Joseph Kony, ordered fighters to kill as many animals as possible, with a promise that they would receive rations in exchange for the ivory. [LRA](#), however, reportedly used proceeds from ivory sales to purchase guns and ammunition.^{29, 30, 31}

In [Somalia](#), [Al-Shabaab](#), a militant Islamist group, is believed to be training fighters to infiltrate neighboring [Kenya](#) to kill elephants for ivory to raise money.³² Former Al-Shabaab associates have reported that villagers along the [Kenya-Somalia](#) border are encouraged to bring them tusks, which are then shipped out through the port of [Kismayo](#), a notorious smuggling hub under Al-Shabaab's control.³³

In several regions of [Africa](#), elephant poachers use military weapons, including American-made M16s and German-made G3s, which fire bullets as far as 500–600 meters. The [Kenya Wildlife Service \(KWS\)](#) has recovered rocket-propelled grenades, which Somali poachers sometimes carry to use against the rangers or to discourage [KWS](#) patrols from pursuit.³⁴

In January 2012, teams of elephant poachers, traveling on horseback in groups of five to 10, arrived from [South Sudan](#), where they had been fighting in [Darfur](#), and prior to that, in [Chad](#) and the [Central African Republic](#). In previous years, this group of poachers had targeted [Chad's Zakouma National Park](#). However, the park was under new management in the form of an international NGO that implemented security measures and enhanced anti-poaching patrols. Poachers thus continued into [Cameroon's Bouba Ndjida National Park](#), where approximately 1,000 elephants were present and unfortunately not closely monitored. "The people who did this contributed to the rebellion war in [Sudan](#)," explains Celine Sissler-Bienvenu, IFAW's Senior Program Officer of European Disaster Response & Risk Reduction. "They were active in the [Darfur](#) area, were riding horses, were very mobile, knew the field very well and were also heavily armed. They arrived knowing exactly what they wanted." The brutal and violent poaching campaign that ensued lasted 10 weeks, with poachers killing an estimated 650 elephants, shooting them with AK-47s and hacking off their trunks and tusks, sometimes while the elephants were still alive.³⁵

"They were poaching day and night and were very organized," says Sissler-Bienvenu. "They were setting ambushes for the elephants.

Even if some elephants managed to escape from a herd, poachers placed sentries to ambush them. They understood elephant behavior, knowing that elephants that had escaped would eventually return to find the ones that had died."

After the poaching campaign ended, only a few dozen elephants remained in [Bouba Ndjida](#), while the bulk of the surviving elephants fled. Most settled in [Chad](#). The impact extended beyond the elephants' welfare and the area's ecology, also affecting the park's economy. With the elephants gone, tourism dried up and park rangers lost their jobs.

The massacre at [Bouba Ndjida](#) is an especially gruesome case, yet it is only one of many documented examples where wildlife have been affected by human conflict. For example, a population of African forest elephants in the [Gola Forest of Sierra Leone](#) collapsed during that country's 1991–2001 civil war, with a 2011 study finding that just a few elephants remained from a mid-1980s population count of approximately 110.³⁶

▲ Elephants at Mana Pools National Park, Zimbabwe.

◀ African elephants walk through Amboseli, Kenya with Mount Kilimanjaro in background.

conflicts declare war on the natural world and habitats

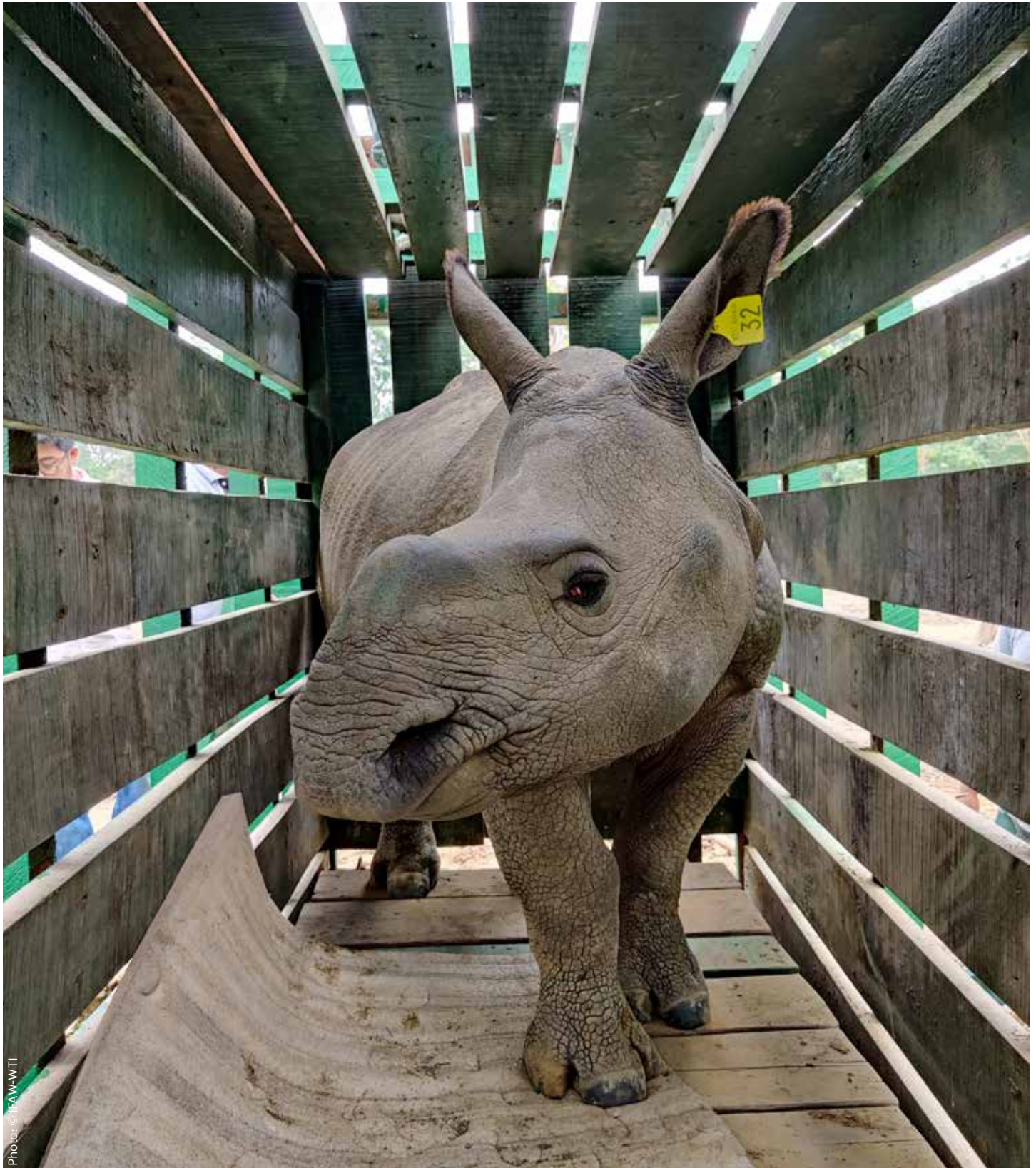


Photo: © IFAW-WTI

Between 1950 and 2000, 80% of the world's major armed conflicts have occurred in biodiversity hotspots.³⁷ That is because, in the words of one report: "The same factors that cause peril for wildlife—climate change, the harvesting of natural resources, and fast-growing human populations—can also heighten tensions between people. And so, when people declare war on each other, they inadvertently declare war on the natural world."³⁸

The destructive forces of conflict take a toll on natural habitats. Examples can be found all across the globe. In India, a mere seven years after being established as a UNESCO World Heritage Site, Manas National Park was at risk of having that status withdrawn because of damage incurred as a result of years of conflict stemming from an independence movement in the region. As the region slowly stabilized, the Greater Manas Recovery Project was launched, an effort among IFAW, Wildlife Trust of India (WTI) and the Assam Forest Department to repopulate the park's wildlife and return it to its condition prior to the conflict.

Elsewhere, in 1991, Saddam Hussein's regime responded to an uprising by the Iraqi Marsh Arabs by destroying the Mesopotamian marshes of southern Iraq, an area often considered the cradle of western civilization. At the time, the marshes were the permanent home for millions of birds and a flyway for millions more migrating between Siberia and Africa. Ten years later, only 10% of the marshes remained.³⁹ More recently, Turkish forces reportedly destroyed large swathes of forest habitat to deny shelter to Kurdish fighters.⁴⁰

The destruction of wildlife habitats may occur as a result of combat activities or during preparation for conflict, particularly when nuclear weaponry is used. For example, fish communities within a 12.5 square kilometer area were effectively eliminated as a result of underwater shock waves from 137 nuclear tests conducted between 1976 and 1995 at the Moruroa atoll in French Polynesia in the southern Pacific Ocean. Similarly, a trio of U.S. atomic tests conducted between 1965 and 1971 on Amchitka Island in the Aleutians in southwest Alaska killed between 700 and 2,000 sea otters.⁴¹

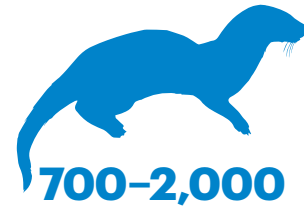
A study that analyzed 65 years of data on the abundance of large mammals in Africa found that populations were generally stable during peacetime, but almost always declined during periods of war, citing conflict as the largest contributing factor to animal population decline.⁴² Joshua Daskin of Yale University, the co-author of that study, said, "It may not matter whether this is a small-scale battle or a large-scale war. The onset of conflict disrupts the ability to protect wildlife."⁴³

"This speaks to the pervasive nature of conflict," added Daskin. "It affects the ability, accountability, and motivation of governments to fulfil their conservation duties. It disturbs the fabric of local societies by increasing poverty, and displacing people into protected areas where they may harvest wildlife. It leads to withdrawal of NGOs. It increases problems with law enforcement, which might lead to increases in poaching."

A 2016 study found there are 24 distinct pathways through which armed conflict affects wildlife populations.⁴⁴ The study identified military-related tactics and related activities, including the use of mines, bombs and chemicals, that kill wildlife and destroy the environment, wildlife ultimately killed to feed combatants, or a military presence encroaching on or destroying habitat. The study also included "non-tactical pathways" such as increases in extractive industries and decreases in enforcement, or the displacement of people. The latter category can impact wildlife in multiple ways. For example, displaced people's reliance on wild-caught meat has been documented in Tanzania, where bushmeat hunting is widespread among refugees from conflicts in Rwanda, the Democratic Republic of Congo and Uganda.⁴⁵

In another example, this time from Asia, between August and December 2017, more than 600,000 Rohingyas fleeing ethnic cleansing in Myanmar, entered southeastern Bangladesh and settled in camps that happened to coincide with eight vital elephant migratory corridors. A report from National Geographic recounts the scene: "When elephants attempted to migrate to the area, they encountered a sea of people—the tragic irony of one displaced group

inadvertently displacing another. Elephants and people alike panicked. Elephants ran haphazardly, looking for an exit, while people desperately tried to seek cover and avoid being trampled. Some sought to scare off the elephants by throwing garbage at them, creating even more panic."⁴⁶

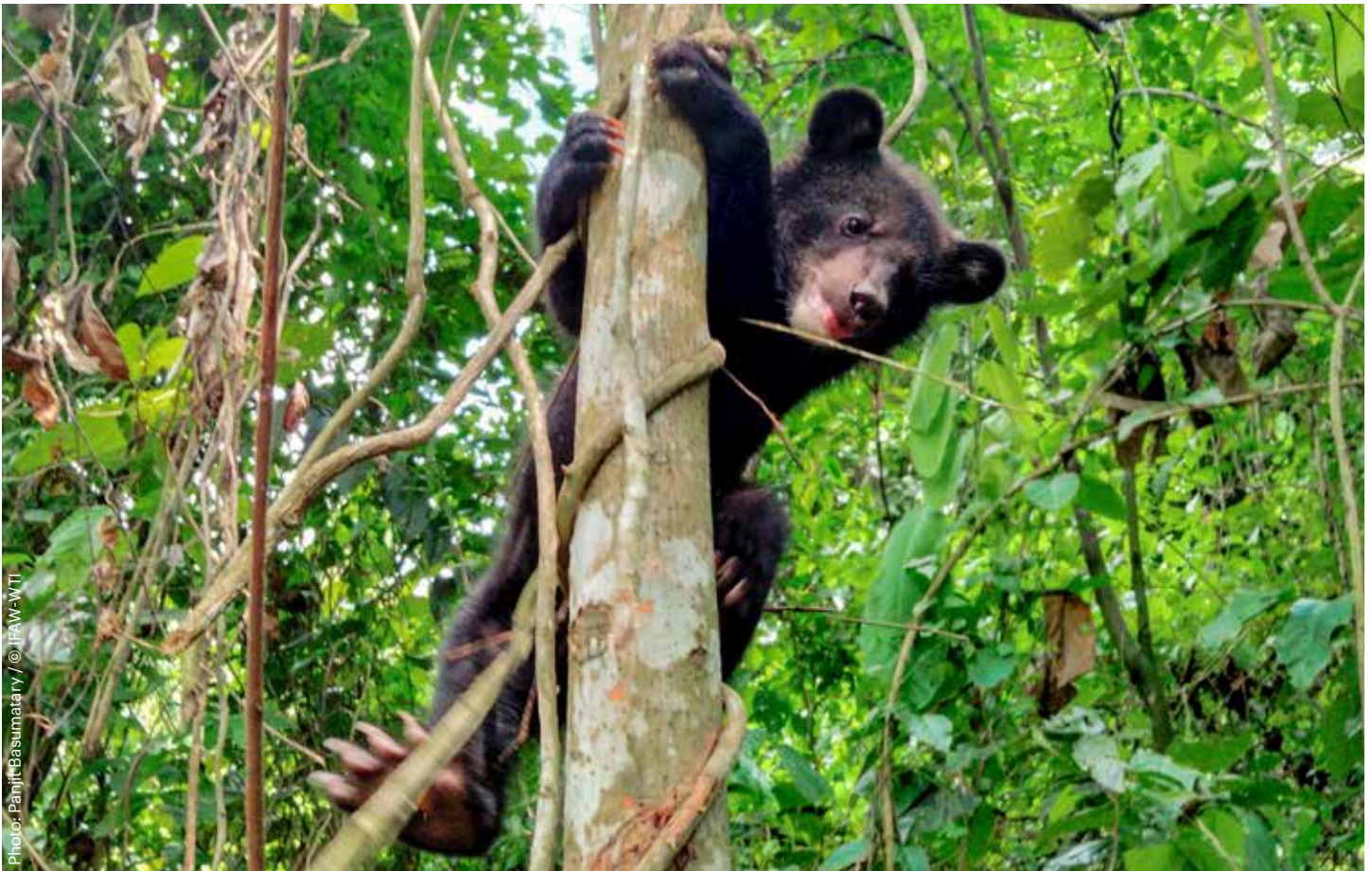


700–2,000
sea otters killed after the U.S. conducted a trio of atomic tests conducted between 1965 and 1971 on Amchitka Island in the Aleutians in southwest Alaska⁴⁹

10%

of the Mesopotamian marshes of southern Iraq remained 10 years after Saddam Hussein's regime responded to an uprising by the Iraqi Marsh Arabs

◀ Kuthari, awake after being darted and loaded by a team from IFAW-WTI, inside the individual crate that will be used for translocation from the CWRC in Kaziranga National Park, Assam, India, to Manas National Park as part of the IFAW-WTI commitment of "Bringing Back Manas." The initiative involves moving rhinos to Manas National Park from other protected areas in Assam to grow rhino populations and expand their range, while also protecting existing populations and their habitats.



the use of walls, fences and barriers

When conflicts displace people and force human migrations into natural habitats, wildlife inevitably suffers. Wildlife also suffers when conflicts spur countries to erect barriers and walls along borders to prevent movement of refugees or others. This interruption of migration patterns affects animals as well. For example, fences along the [China-Mongolia](#) border have effectively separated the remaining and dramatically declining herds of Asiatic wild ass into distinct subpopulations on either side of the border. In another example, Mongolian gazelles have been found hopelessly caught in barbed wire fencing between [Mongolia](#) and [Russia](#).⁴⁷

In Europe, a slew of mangled animal carcasses, notably deer, have been found in,

on or around fencing erected by [Slovenia](#) on its border with [Croatia](#). The fencing was intended to stem a flow of refugees.⁴⁸ In [Africa](#), within a year of being erected in 1996, an 83-mile stretch of fence between [Botswana](#) and [Namibia](#) had ensnared numerous animals, including at least five giraffes, several antelopes and an elephant.⁴⁹

In [South Asia](#), an increase in fatal attacks on people by Asiatic black bears and leopards in the [Kashmir region](#) has been linked to the border fence constructed by [India](#) along its contested border with [Pakistan](#), which has disrupted the predators' wandering patterns and diminished their access to natural prey, ultimately causing them to enter villages and target humans.⁵⁰

▲ A rescued Asiatic black bear cub climbs a tree on her daily forest walk during rehabilitation at the Center for Bear Rehabilitation and Conservation in the Pakke Tiger Reserve, Arunachal Pradesh, India.



Photo: © IFAW

the use of land mines

Fences and walls are not the only approach used in conflict zones to control or influence movement. Land mines ravage wildlife. In [Mali](#), the last elephant population, the Gourma population, which migrates hundreds of kilometers across the country, is reportedly becoming a collateral victim of fighting among ISIS-affiliated groups, with reports claiming that the animals are being injured or killed by land mines.

In [Mozambique](#), mines have reportedly killed more than 100 elephants. In northwest [Rwanda](#), an endangered mountain gorilla was

killed by a land mine.⁵¹ And in [Asia](#), in [Sri Lanka](#), as many as 20 Asian elephants are killed by land mines annually. In [Angola](#), national parks were heavily impacted by conflict. Only now are they being restored due to a combination of active park rehabilitation and mine clearance.

The placement of land mines also poses an indirect threat to wildlife. In many world regions, arable farmland is rendered useless when mines are placed in fields. This causes farmers to move into marginal adjoining regions otherwise inhabited by wildlife.⁵²

100+

elephants reportedly killed by landmines in Mozambique⁵⁰

20

Asian elephants are killed annually by land mines in Sri Lanka

▲ A small Asian elephant named Sama that lost her right front foot in a landmine explosion in Sri Lanka.

beyond the conflict: how ifaw works with local communities to meet their needs, rescue and rewild



Photo: Karel Prinsloo / © IFAW

Ultimately, the only enduring and comprehensive way to end the impact of conflict affecting wildlife would be to actually end conflict. This may sound unrealistic, but nevertheless, there are other actions that can be taken to reduce the effects of such conflict. In places where poaching has become prevalent during and after conflict, or where an abundance of wildlife and other conditions give rise to concerns that poaching may become rooted, a combination of incentives and punishments should be implemented.

For example, IFAW's work in [East Africa](#) uses a suite of "carrots and sticks" to address the poaching issue. To many outside observers, anti-poaching initiatives conjure images of rangers and police identifying and breaking up poaching networks and apprehending poachers—and certainly, that is one facet of the work. At least as important, however, is the longer-term strategy of working closely in collaboration with local communities to develop mutual understanding and cooperation.

As James Isiche, IFAW's Regional Director for [East Africa](#), explains, "If I am losing my cows, why the hell should I care what is happening to the lion? So, one of the things that we do as IFAW is make sure we get the community to participate in our endeavors. As much as we can, we make sure that they can take the lead. It is their land, ultimately, after all."

"Often times, we go in as part of a broader engagement strategy where we build trust and ask the communities to report on what's happening with regard to local wildlife," explains Jason Bell, IFAW's Executive Vice President of Strategy, Programs and Field Operations. "I think the surprising element is this idea of unexpected connections. There is always a layer of the onion you can peel back. For example, in [greater Kilimanjaro](#), in one year alone, the [Massai](#) people sustained a 60% loss to their livestock herds. In response, IFAW purchased improved stock of cattle to compensate them for that livestock loss. Supplying them with a new and healthy stock of cows ultimately helped to stave off

any temptation to engage in poaching. We drove an immediate impact and eliminated that potential conflict."

Similarly, a combination of approaches has helped to restore India's world-renowned [Manas National Park](#) following the conflict that had threatened its [UNESCO](#) status. The park is proactively being restocked with wildlife with the [Indian government](#) capturing and relocating rhinos from another national park to [Manas](#). In conjunction, IFAW and the [Wildlife Trust of India](#) rescue animals each year, including baby rhinos, elephant calves, leopard cubs, tiger cubs and clouded leopards, from regular floods in the neighboring [Kaziranga National Park](#), hand-raising them over many years before taking them to a pre-release center in [Manas](#) where they are acclimated and equipped with radio collars before their release into the wild.

Another approach that can improve conditions and reduce the effects of conflict is the use of community engagement programming. For example, by providing more efficient cookstoves to people affected by conflicts, there is an immediate reduction in local tree logging for firewood, which helps conserve natural habitats. Another approach that can be used is to target hiring former poachers as guards. Providing them with a steady source of income and a chance to benefit from their surrounding environment through stewardship and protection can also produce long-term gains and minimize the potential impacts to local wildlife and habitat that so often arise from conflict. Offering livestock support through replacing or ensuring healthy livestock for the local community has also proven to be highly successful in [Kenya](#).

In [Gorongosa National Park](#) located in central [Mozambique](#), most of the wildlife populations were barely hanging on after a bloody civil war broke out in 1977, after [Mozambique](#) declared its independence from [Portugal](#). When the war ended in 1992, more than 90% of the park's large mammals had been killed. But today animal populations in the park have recovered to incredible levels, in some cases exceeding

pre-war sizes, largely because of a partnership between the [government](#) and the [Gorongosa Restoration Project](#), a U.S.-based nonprofit, which has recruited and trained rangers to fight poachers, and deployed teams to boost the health of people who live near the park through vaccinations, pre-natal check-ups, family planning advice and bed nets to block out malarial mosquitoes.⁵³

"I am optimistic," says Isiche, "that there is a good element of human beings that wants to bequeath to the next generation what our forefathers gave us. But there are all sorts of competing interests and all sorts of conflicts that can arise from the local community all the way up to the global stage. Though you are swimming against the tide, you just prepare yourself and swim. Conflicts can be resolved and victories for animals and wildlife can be achieved. That is what keeps you going."

100%+

recovery of animal populations in [Gorongosa National Park](#) in [Mozambique](#) after the end of war



▲ The rescued leopard inside a holding area at the CWRC in [Kaziranga National Park](#), [Assam State](#), [India](#), where she was moved after exhibiting signs of improvement due to treatment and rehabilitation from paraplegia.

◀ A [Maasai](#) man stands in front of livestock while holding a staff, [Amboseli](#), [Kenya](#).



Photo: Benjamin Wiacek / © IFAW

conclusion, recommendations & end notes



Photo: © IFAW

conclusion

Society is conditioned to accept that conflicts such as war and civil unrest will undoubtedly result in human harm. It is not, however, accustomed to thinking about the suffering that such wars and unrest cause to animals. With no way of escaping the violence and outlying suffering, animals are uniquely caught in the midst of the storm, with no recourse to alleviate that suffering. Casualties are most often measured in human lives, with rarely a mention of the often overwhelming effects on the natural

environment and biodiversity that come from human-driven conflicts.

From companion animals to livestock to the surrounding wildlife, animals are an integral part of our ability to thrive as human beings. Their importance should be highlighted rather than ignored throughout the conflicts that far too often plague the world. Regardless of ecological impact, physical proximity or strategic importance, humanity must make the situation right—alleviating the

suffering of those animals and returning a sense of normalcy to those lives, both human and animal, that have been disrupted. Acknowledging the profound impact of conflict upon animals is a fundamental first step toward restoring our own humanity as well.

▲ A hyena at Taiz Zoo in Yemen where IFAW works to alleviate the stress of the carnivores during civil unrest.

recommendations

In both rural and urban areas, IFAW works to understand the nature and scope of threats of all forms and then develop strategies to address them from both a short- and long-term perspective. We know that human conflicts escalate broadly with often intense consequences for the natural environment. This can also lead to increasing instances of human and animal conflict, most often manifested in a competition for space. This is not expected to subside with threats from climate change growing ever greater, as it is likely that humans will be inhabiting more and more of the same spaces as wildlife.

Knowing the interconnectedness of human and animal conflict allows IFAW to plan ahead and deliver solutions that benefit both animals and people. It is critical in understanding the threats and drivers behind conflict prior to developing strategies in order to have the desired impact. There is no one-size-fits-all solution in conservation and the fundamental truth remains that animal and human conditions and fates are deeply intertwined.

The following outlines key initiatives that can ultimately minimize the impact of conflict on animals while also providing support for their human caretakers. These include:

1. Strengthen international conventions to require occupying forces to provide appropriate care and shelter to animals within occupied areas.

This would include access to appropriate medical care for wounded animals, and basic needs such as food, water, shelter and/or freedom, as appropriate to species' needs.

2. Include domestic animals in all planning efforts regarding refugee resettlement that arise from times of conflict.

3. Consider the classification of intentional and malicious harm to animals as a war crime, recognizing that, often in times of conflict, threats to animals are often used as leverage to exert influence over people, break morale and compel obedience.

4. Allow for expedited procedures around domestic animal transport (and potential financial assistance for medical requirements) across international borders in conflict situations.

5. Allocate appropriate resources at border crossings out of conflict zones to allow for transport of domestic animals to safety.

6. As outlined in International Law Commission draft principles, strengthen international conventions to require extra care be applied to sensitive habitats in conflict zones, recognizing that destruction of such habitats can impact the whole global community.

7. Adopt the International Law Commission's draft principles on protection of the environment in relation to armed conflicts,⁵⁴ and recognize the human right to a healthy environment,⁵⁵ at the earliest opportunity in forthcoming sessions of the UN General Assembly, to give further legal protection to the environment and to people's access to and benefits from it.

8. Consider adopting 'Ecocide',⁵⁶ as a fifth crime under the Rome Statute of the International Criminal Court (ICC), which would provide for further avenues to hold responsible those who damage the environment in conflict situations.

9. Heighten law enforcement capacity in order to better combat wildlife crime at the local, national and international level, especially during times of conflict when such illegal markets tend to flourish.

10. Recognize the destruction of nature actionable under international law, acknowledging that access to nature must be treated as a human right.



Photo: Mike Zomer / © IFAW

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◀ The IFAW team, including Shannon Walajtys, carries some of Ukrainian refugee Tatiana's dogs in new carriers provided by IFAW.

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