**What's the environmental impact of modern war?**

Ban Ki-moon has called on nations to do more to protect the environment from the destruction of war, but even in times of peace our militaries have a huge impact on natural resources

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**U**N secretary general [Ban Ki-moon](https://www.theguardian.com/world/ban-ki-moon) has called on nations to do more to protect the environment from the devastation of war.

“The environment has long been a silent casualty of war and armed conflict. From the contamination of land and the destruction of forests to the plunder of natural resources and the collapse of management systems, the environmental consequences of war are often widespread and devastating,” said Ban [in a statement](http://www.un.org/en/events/environmentconflictday/2014/sgmessage.shtml) for the UN’s [International Day for Preventing the Exploitation of the Environment in War and Armed Conflict](http://www.un.org/en/events/environmentconflictday/)on Thursday.

“Let us reaffirm our commitment to protect the environment from the impacts of war, and to prevent future conflicts over natural resources.”

War changes our parameters. In the face of actual or perceived threat, acts that would normally be abhorrent become acceptable and even routine. One of the first of our sensibilities to be discarded is the protection of the environment, says Catherine Lutz, a professor on war and its impacts at [the Watson Institute for International Studies](http://watson.brown.edu/).

“There is this notion that it is life or death for a nation so you don’t worry about niceties. We have this idea that human beings are separate from their environment and that you could save a human life through military means and military preparation and then worry about these secondary things later,” she says.

[According to the Institute for Economics and Peace](http://www.visionofhumanity.org/#/page/indexes/global-peace-index), only 11 countries in the world are not involved in any conflict – despite this being “the most peaceful century in human history”. Even in relatively peaceful countries the forces assembled to maintain security consume vast resources with relative impunity. But in war, the environment suffers from neglect, exploitation, human desperation and deliberate abuse on a terrible scale.

During the first Gulf War, the US bombed Iraq with 340 tonnes of missiles containing depleted uranium. Mac Skelton, a contributor to the Costs of War project at Brown, is writing his doctoral thesis in anthropology on Iraqis seeking cancer care in Lebanon. One of [his articles](http://costsofwar.org/sites/default/files/articles/41/attachments/Health_and_HealthCare1.pdf) reviews a number of studies that suggest a potential increase of cancer rates in Iraq, which has been linked to the shells used by the US and UK militaries

Researchers have suggested the radiation from these weapons has poisoned the soil and water of Iraq, making the environment carcinogenic. [The UK government says these accusations are false](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210641/Depleted_Uranium.pdf). No comprehensive study has been done to establish or disprove the link between cancer and depleted uranium weapons.

But Skelton says the most serious environmental damage caused to Iraq over the course of the past 24 years of war and pariahood has been the systematic destruction of Iraq’s infrastructure. The bombing campaign during 1991 destroyed the aparatus of society, including the systems that supported the environment.

“You haven’t seen a dismantling of a modern state’s infrastructure as quickly as that,” Skelton says. Sewers flowed into the streets and rivers, and refineries and pipelines leaked oil into the soil. The sanctions that followed meant little was repaired and land and cities have been poisoned. [One observer in Basra in 2008](http://www.nytimes.com/2009/11/08/world/middleeast/08basra.html?_r=1&) said people “live amid mud and faeces... Childhood cancer rates are the highest in the country. The city’s salty tap water makes people ill. And there is more garbage on the streets than municipal collectors can make a dent in”.

Lutz says the images of 630 burning oil wells, torched by the retreating Iraqi army in Kuwait in 1991, advertised the inherent ‘[ecocide](https://www.theguardian.com/environment/2010/apr/09/ecocide-crime-genocide-un-environmental-damage)’ of war. But this type of destruction is “the tip of the iceberg”, she says. In the military “the environment goes out the window even outside of war,” she says.

The maintenance of standing armies just to counter the threat of war exerts enormous strain on environmental resources.

The US Department of Defence is the country’s largest consumer of fossil fuels. Research from 2007 showed the military used 20.9bn litres of fuel each year. This results in similar CO2 emissions to a mid-sized European country such as Denmark.

And that’s before they go to war. The carbon footprint of a deployed modern army is typically enormous.[One report suggested](http://usatoday30.usatoday.com/news/washington/2008-04-02-2602932101_x.htm) the US military, with its tanks and Bradley fighting vehicles, used 190.8m litres of oil every month during the invasion of Iraq. [An estimated](http://delphi.com/pdf/techpapers/2004-01-1586.pdf) two thirds of this fuel is used delivering more fuel to the vehicles at the battlefront.

In all wars, displaced people congregate en masse without infrastructure to support their presence. Refugees turn to the environment in order to fulfil their basic needs.

During the Rwandan civil war almost three-quarters of a million people lived in camps on the edge of Virunga national park. [According to the Worldwatch Institute](http://www.worldwatch.org/node/5520) around 1,000 tonnes of wood was removed from the park every day for two years in order to build shelters, feed cooking fires and created charcoal for sale. By the time the conflict ended 105 sq km of forest had been damaged and 35 sq km stripped bare.

As Rwanda’s refugees spilled into Zaire (now the Democratic Republic of the Congo), they sparked another civil war. Virunga was now enveloped by human conflict. In 1994, the park became the first Unesco world heritage site listed as endangered because of conflict.

Virunga is a totemic issue in a continent pockmarked by warfare. The park is home to critically endangered mountain gorillas as well as chimpanzees, elephants and other charismatic megafauna. Ian Redmond, a wildlife consultant for Born Free says in the disorder and desperation of war the protections for precious wildlife habitats like Virunga evaporate.

“War is bad for wildlife in as many ways as for people. [Conservation](https://www.theguardian.com/environment/conservation) suffers because rangers often have to flee the fighting, and may be attacked because rebel armies covet their vehicles, radios and guns. Moreover, rebels often feed their troops on bushmeat and finance their ops with ivory, timber, charcoal and minerals from protected areas.”

The massive influx of high-powered weaponry into these areas means that during and after conflict, the scale of poaching can increase dramatically. In just two months in 2006, [Mai-Mai rebels in the DRC slaughtered almost the entire hippopotamus population](http://news.nationalgeographic.com/news/2006/10/061024-hippo-congo.html) of two of Virunga’s rivers - changing the ecosystem forever.

In Afghanistan too, wildlife and habitats have disappeared. The past 30 years of war has stripped the country of its trees, including precious native pistachio woodlands. [The Costs of War Project says](http://costsofwar.org/article/environmental-costs) illegal logging by US-backed warlords and wood harvesting by refugees caused more than one-third of Afghanistan’s forests to vanish between 1990 and 2007. Drought, desertification and species loss have resulted. The number of migratory birds passing through Afghanistan has fallen by 85%.

Many of the above examples could be considered violations of international law. [The Geneva Convention](https://www.icrc.org/customary-ihl/eng/docs/v1_rul_rule45) places restrictions on methods of warfare “which are intended, or may be expected, to cause widespread, long-term andsevere damage to the natural environment”. But Marie Jacobsson, a special rapporteur to the UN’s International Law Commission charged with assessing how legal frameworks can protect the environment from armed conflict, says the international legal protections are “rudimentary”.

[According to the UN Environment Programme](http://www.un.org/en/peacekeeping/issues/environment/resources.shtml), over the last 60 years, at least 40% of all internal conflicts have been linked to the exploitation of natural resources. Jacobsson believes there is evidence that militaries are beginning to accept that destroying the environment runs counter to long-term security. Her research has found environmental measures being taken on by militaries across the world.

“Even if states do not find themselves obliged to regulate their military activities during armed conflict, most states today have environmental regulations in their rules of engagement. That was not the case 10 years ago.” She says these changes govern “everything from lead-free ammunition to cleaning up after operations”.

Laws and codes of practice may serve to ameliorate a fraction of the damage caused by the wars waged by large armies. A far greater (and possibly achievable) impact would be to reduce the vast standing armies the world maintains in a time of relative global tranquility.

But legal frameworks and intrinsic sensibilities will not reach into the anarchic civil wars of Africa, Syria and elsewhere. Desperate people will continue to maintain their lives at the expense of all around them – and who could blame them?