



CAN CELL-PHONE RECYCLING HELP AFRICAN GORILLAS?

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Recycle your cell phone, save the gorillas.

It may not be as simple as that, but a recycling program to collect old cell phones at the San Diego Zoo and other American zoos is highlighting the little-known connection between cell phone use and the survival of African gorillas.

Conservationists point out that recycling cell phones protects landfills from the many potentially hazardous chemicals found in the phones, including antimony, arsenic, copper, cadmium, lead, and zinc.

But cell phones also include coltan, a mineral extracted in the deep forests of Congo in central Africa, home to the world's endangered lowland gorillas.

Fueled by the worldwide cell phone boom, Congo's out-of-control coltan mining business has in recent years led to a dramatic reduction of animal habitat and the rampant slaughter of great apes for the illegal bush-meat trade.

"Most people don't know that there's a connection between this metal in their cell phones and the well-being of wildlife in the area where it's mined," said Karen Killmar, the associate curator of mammals at the San Diego Zoo.

"Recycling old cell phones is a way for people to do something very simple that could reduce the need for additional coltan ... and help protect the gorillas," she said.

Reselling Phones

There are more than 150 million cell phone users in the United States alone.

With technology changing, the average lifespan of a cell phone is 14 months. There may already be 500 million unused cell phones in the United States, with as many as 100 million added each year.

The San Diego Zoo is among 46 zoos that have joined the recycling program, which is run by Eco-Cell, a cell phone-recycling firm based in Louisville, Kentucky.

Eco-Cell collected 21,000 phones last year and hopes to triple that figure this year. The phones are sold in bulk to a handful of refurbishing companies that in turn resell the handsets in developing markets, such as Africa and Latin America.

Eco-Cell started in 2002 but began honing in on zoos in 2005. The proceeds it makes from selling the phones go to supporting various conservation groups, primarily zoos.

“It just made business logic to focus on zoos, since 130 million-plus people went to North American zoos last year,” said Eco-Cell president Eric Ronay. “We set up a collection point at the front gate of those zoos and invited the public to bring in their old cell phones.”

Ronay said learning about the devastating impact of coltan mining on African gorillas “really made lightbulbs go off for us.”

Illegal Miners

Columbite-tantalite—coltan for short—is a metallic ore that, when refined, becomes metallic tantalum, a heat-resistant powder that can hold a high electrical charge.

These properties are ideal for making capacitors, which are used in many electronic devices, including cell phones.

Eighty percent of the world’s known coltan supply is in the Democratic Republic of the Congo. There, it is mined by hand by groups of men digging basins in streams, scraping away dirt to get to the muddy coltan underneath.

The cell-phone boom in the last decade induced a flood of more than 10,000 illegal miners into protected parks in central Africa.

“The mining itself certainly destroys habitat, so human activity at the very least disturbs the animals there. But more of what happens is that the animals are hunted and killed,” said Killmar, the San Diego Zoo curator. “The impact is nothing but negative.”

Conflict, illegal mining, and the growing bush-meat trade (the hunting of wild animals for food) have all contributed to a 70 percent population decline of the eastern lowland gorilla, according to some estimates.

Congo’s coltan trade has cooled off, however, as prices for the ore have plummeted. While the tech boom caused the price of coltan to skyrocket to U.S. \$220 per pound (\$480 per kilogram) in 2000, a pound was worth about \$30 (\$66 per kilogram) in 2004.

E-Waste

Sharon Dewar, a spokesperson for the San Diego Zoo, says the objective of the recycling program is conservation education.

“Many people have cell phones at home in a drawer that are old, and they don’t know what to do with them,” she said.

“These phones contain toxic elements. What we’re saying is, Please don’t throw your cell phone into a landfill.”

“If a cell phone can be refurbished, that might also help diminish the demand for coltan mining, which could in fact help gorillas and other animals in their habitat,” she said.

To Ronay, the Eco-Cell president, used cell phones are only one part of a growing e-waste problem.

“No one really understands how critical this is going to be, especially as technology progresses and more technology becomes abandoned,” he said.

“We are going to look up one day and be in the middle of a crisis.”