

The Unknown Costs of Electronic Devices

By Gina 6D

Electronic devices are directly responsible for destroying World Heritage sites in Africa and leading rare Gorillas on the path towards extinction.

We don't often consider the full history of the items we use on a daily basis. To us, they appear in stores, we buy them, and then they disappear when discarded. This cycle becomes more noticeable when electronic products contain materials that have been destructively obtained. It is time we understand the full consequences of electronic devices and find out the primary reason all four species of Gorillas are now critically endangered, with only a couple of thousand left in the wild.

The everyday items humans are craving most these days are electronic devices such as phones, laptops and video game consoles. Since the majority of these products are very light and small, it may seem to consumers that electronics are not resource-intensive to create. In fact, making them lightweight has established new problems for engineers. Fortunately for them, there is coltan, a dull metallic ore constructed of niobium and tantalum. When refined, coltan becomes a heat resistant powder, which has the unique properties required for storing high electronic charges. Consequently, coltan has become a vital component in the manufacturing of today's electronics. Cellular News states that the estimated amount of coltan mined, increases by approximately 14% every year due to the high demand for new electronics.

Coltan is only found in a few places on earth, with approximately 80% of the world's reserves located in Central Africa. Of that, 80% is found in the Democratic Republic of Congo. Unfortunately, the forests in the Eastern regions of Congo are home to a variety of rare and diverse wildlife, in particular the Mountain Gorillas.



Lunchtime for a Gorilla at Taronga Zoo

Due to the small and decreasing population of the Gorillas inhabiting that area, these forests have been declared as National Parks as well as being enlisted as World Heritage sites. Mining coltan in national parks is illegal, considering the environmental costs, human rights and safety issues. However, due to a lack of enforcement of national and international laws, coupled with ineffective judiciary systems, coltan mining continues undeterred in the region.

Groups of men in the Congo mine coltan by hand, scraping off the surface mud from riverbeds to form basins. Stirring river water around the basin causes the coltan to settle to the bottom, where it is retrieved by the miners. Even though most coltan miners are Congo men, around a third of all the children in Eastern Congo have abandoned education in order to mine coltan.

Militias from at least ten countries have invaded parts of Congo and are relying on forced labour to extract coltan for them to sell to manufacturers of electronic devices. Since a coltan miner earns roughly twenty times more than an average Congolese worker, it is easy to see why so many have chosen to mine it over education and other jobs.

Tens of thousands of people have moved into the National Parks of the Congo in an attempt to make an income from coltan deposits. As a result, forests are being rapidly destroyed by coltan miners who clear large areas of land in order to make their jobs easier. However, these forests offer all the necessities required by Gorillas to thrive in the wild. As a result of deforestation, Gorillas are being displaced as well as being exposed to poverty and starvation. Miners have dug out the riverbeds, panning for coltan.

This poisons and pollutes the waterways on which much of the wildlife depends on for water. With no drinkable water, fresh food, and shelter, this makes it harder for gorillas to sustain their lives. In addition, more land is being cleared near gorillas' habitat for farming which also detracts from the food and shelter available to the gorillas. Scientists estimate that at the current coltan mining levels, gorillas will be extinct in five to ten years.



Gorillas at Taronga Zoo

Taronga zookeepers believe that since all four species of Gorillas are critically endangered, their populations should be monitored carefully.

There are many other threats placed on the survival of gorillas, as a result of increased human interaction in the Congo forests from coltan mining. Human diseases from miners, rebels and other inhabitants on the region can be fatal to Gorillas. In particular, measles, chicken pox, Ebola and common colds pose threats in addition to starvation and habitat loss. In four decades, Ebola has wiped out a third of the remaining gorillas' population in the world, and if this continues, the long term effects will be devastating.

There is also a strong link between coltan mining and the bush meat trades. A dramatic increase in human population in a particular regions means that the competition for food is magnified. Considering the lack of fresh fruit and vegetables, miners and rebels have turned to gorillas for food. Commonly known as bush meat in Central Africa, gorillas are easy targets for hunters, who also favour them due to the amount of saleable meat. Since gorillas are often butchered and consumed immediately or packed for selling later, it is hard to estimate how many are poached. Even low levels of poaching can cause a population decline, which could take many generations to restore due to gorillas' low reproductive rates. Ten years ago there were 17,000 gorillas in the wild.

Since the war for coltan began, their population has halved in five years and halved again in the successive five years. Currently, there are only around 5,000 Gorillas left in the wild, and their numbers are still decreasing fast.

Since coltan is not a visible component of electronic devices that can be easily substituted, there is little consumers can do to directly prevent the exploitation of it.

However, there are a few organizations that focus on aiding the displaced gorillas and raising money for additional patrolling to take place in the National Parks in the Congo.

“Public awareness is one of the best things that you could do to save the gorillas and help them.” says staff from Taronga Zoo.

Taronga Zoo is calling on you to help save one of our closest living relatives, by simply donating your old mobile phone to an electronic recycling program. By doing so, consumers are raising money for Taronga organizations and the Jane Goodall Institute’s Conservation Programs, through the sale of recycled coltan and refurbished mobile phones.



Feeding Time for Gorillas at Taronga Zoo



The Jane Goodall Institute

Producing coltan benefits us humans, but we are sacrificing our gorillas for more pointless, upgraded electronics. Coltan mining presents major obstacles to be overcome by both the wild gorillas of Congo and humans. Gorillas, victims of war, human greed and high technology, face extinction. It is not worth any amount of phones or video games to permanently remove such intelligent species from Earth.■