Due to instability in the global market place in recent years, the price of gold has risen to its highest historical levels. From 2000 to 2010, the price increased over 300% and continues to rise. When the price of gold is high, miners who normally wouldn't extract gold in marginal areas are able to do s without economic losses. In the Amazon, this results in rampant artisanal mining at the base of the Andes where millions of years of sedimentary runoff have accumulated small deposits of gold.

The Madre de Dios region of Peru is considered a 'low-governance' area, meaning the government lacks the capability to monitor mining operations. The result is the environmental impact of mining in the region is not regulated. Large landscapes are deforested, existing vegetation and trees are burned, dangerous quantities of mercury are released into the environment. Recent studies have suggested that the impact of gold mining outpaces the impar from traditional development.

Gold mining is responsible for the destruction of important Amazonian habitat. Andean cloud forests are a hotspot for biodiversity and contain many endemic species. In addition, the release of mercury into the environment allows the methylated form of mercury to enter local food chains. As many lo populations depend on freshwater fish for a protein source, this release has become a public health issue.



The Cycle of Gold

After locating gold deposits, miners cut down forests in the area to access the soil. This destroys habitat for rainforest plants and animals, and the rui from the clearing process flows into rivers and negatively affects aquatic species. After the trees are cut down, miners burn the remnant trees, a proc that releases large quantities of carbon dioxide into the atmosphere. Deforestation and the burning of trees is the source of 15% of carbon dioxide emissions worldwide.



In industrial-scale mining operations, heavy equipment is brought in to clear the area completely and move the soil. Dump trucks are filled with dirt fron riverbanks which is then dropped into a large sluice. Hoses are used to filter the soil and separate the tiny gold flecks from the rocks and clay. The slu acts like a sieve to break up larger pieces of clay. It carries the smallest pieces of soil towards a series of mats where laborers await.



Once the dirt reaches the bottom of the sluice, miners shake it onto specialized mats in order to filter out the tiny gold flecks. The remaining mud it handled by miners and placed into barrels containing mercury and river water. Mercury chemically binds to the gold, and by stirring the mixture, miners accelerate the binding process. When the gold and mercury congeal into a solid, it is removed and the toxic mercury waste-water is poured back into river. Over 100 tons of mercury are poured into Amazonian rivers each year. Mercury is known to cause neurological damage to humans, especially chi and the elderly, and also harms aquatic species that are sensitive to heavy metals in their environment.



The gold and mercury conglomerate is placed in a small vessel and heated with a blowtorch to burn off the mercury, leaving a purified gold nugget. T process releases harmful mercury vapors into the atmosphere which later enter the food chain during rainstorms. Once the mercury is burned off, a p gold nugget remains. This is taken to a casa de oro, a gold trading post, where it can be sold at up-to-the-minute prices. The prices of gold have increexponentially during recent years, which accelerates this process and the destruction of the pristine rainforest.



Areas which were once covered with lush rainforest have been turned into barren and toxic wastelands - all for the price of gold.