



“Since the market tends to promote extreme consumerism in an effort to sell its products, people can easily get caught up in a whirlwind of needless buying and spending.” -- Pope Francis, Laudato Si #129

The Hidden Cost of Our Gadgets

The quantity of raw materials, rare earth elements and conflict minerals in our electronic devices – and the ecological and social cost of mining these elements -- is sobering. We’re not just talking about our iPhones or ear buds or light bulbs. These minerals are required in high technologies, advanced medical equipment, entire military defense systems, and most especially, [they are in all of the emerging clean energy](#) in which we place our hope: solar, wind turbines, advanced transportation and electric cars.

Background

Raw material is a basic substance in its natural state used in a production process and transformed into a new product.

Rare Earths are elements that are present in the Earth’s crust, called rare because they are rarely found in sufficient abundance in a single location for their mining to be economically practical. [Most of the mines are in China](#), some in Australia, India, Brazil and the Democratic Republic of the Congo, and there is a financially floundering mine in California. “Because of their unique magnetic, luminescent, and electrochemical properties, these elements help make many technologies perform with reduced weight, reduced emissions, and energy consumption; or give them greater efficiency, performance, miniaturization, speed, durability, and thermal stability,” according to the [Rare Earth Alliance](#).

Conflict minerals refer to raw materials that come from areas of the world where extractivism and violent conflict are intertwined; you might remember Blood Diamonds. [Conflict minerals fund armed groups](#), many of whom use rape and violence to secure control of mines and trading routes. Militant groups usually do not concern themselves with animal displacement or even the killing of endangered species.

Reflection

Pope Francis has urged us to reject the throw-away culture and to consider the care of Earth and care of people who are poor as one interconnected issue. Arguably, we “mostly” need our communication devices, computers, smart phones, iPads and all, so how do we respond when we know that these electronic devices are built to be obsolete? Are we ever challenged to make do with the device we have for years before upgrading or are we always looking for the next best gadget? Can we choose to repair a device rather than toss it away for a new version? Do we challenge the industry to do better because we know better now?

How might we respond when we contemplate that mining for the minerals that fuel our devices is like all mining: it leaves gaping holes in the ground, it often involves child labor and human rights violations, and it results in a degraded environment for the people who live near and work the mines complete with toxic tailings ponds and pollution of air and water?

Actions

1. [Recycle all electronics](#). To put some figures on it, the EPA states that for every 1 million cell phones recycled we can get these amounts of precious metals: 35,274 pounds of copper, 772 pounds of silver, 75 pounds of gold and 33 pounds of palladium. At least this would reduce the 3 million tons of U.S. electronic waste.

2. Demand conflict-free products from manufacturing companies. We can buy our cell phones, computers, cameras and other items from companies that are making efforts to go “conflict free” and we can avoid companies that are not. You may find [here](#) a list of

companies with the best track, those with room for improvement and those that have done little or nothing to go conflict-free.

3. [Watch Apple's progress](#) in meeting its goal to stop relying on mining minerals from the Earth entirely and to make all of its products from recycled or renewable sources.

4. [Follow the progress of Section 1502](#) of the Dodd-Frank financial reform act of 2010 and push back against attempts by the Trump Administration and members of Congress to limit full implementation of this rule. Section 1502 requires companies registered with the U.S Securities and Exchange Commission to carry out due diligence and disclose whether their products contain conflict minerals from the Democratic Republic of the Congo and adjacent countries. Mercy Investment services was among more than 100 investors calling on congressional leaders to reject any attempts at limiting the SEC's ability to implement these reporting requirements.