Gold may glitter and diamonds may be a girl's best friend, but there's more to jewelry than meets the eye—especially when it comes to the environment and human rights. We unearthed the truth about metals and gems, and found sustainable alternatives that really sparkle.

Jewelry. It conveys our most intimate messages of love and commitment, style and individuality, beauty and power. A single diamond or string of glittering gems speaks volumes about the one we love—or about ourselves.

There's a shadowy side, though, as precious metals and stones come at a cost that doesn't tally up at the register. The mining of these pretty pieces, unfortunately, can leave a substantial environmental footprint. What's worse, some of the best gemstones often come from the world's poorest countries, where pay is low and working conditions treacherous.

It's a devastating picture, but not a hopeless one. A campaign for better practices in developing mining nations is underway. Meanwhile, some jewelers are creating pieces with ethical responsibility in mind. Here, we sort the good from the bad, and map out the best options.

BY KATHERINE BOWERS
PHOTOGRAPHY BY BURCU AVSAR
SARAH PERLIS teamed up with ABC Home to create her Grounded Jewel collection, which incorporates recycled gold and responsibly mined alluvial diamonds that were panned—not drilled—in Sierra Leone. Hammered band, $165, in The Rough diamond ring, $875, above left. 212-529-7791, sarahperlis.com

Artisanal goldsmith TOBY POMEROY crafts graceful hammered bracelets, hoops, and pendants from 100 percent recycled gold and silver. Cuff, $3,615, above. 800-361-8781, tobypomery.com

BRILLIANT EARTH carries ethically sourced sapphires from Australia and Africa, set in recycled gold or platinum, as well as Canadian diamonds. Five percent of profits go to health and education initiatives in African states harmed by the diamond trade. Marquise earrings, $400, above right. 800-891-5852, brilliantearth.com

TIFFANY & CO. sources nearly all its gold and silver from a single U.S. mine. It sells Canadian and other Kimberly Process-certified diamonds, does not buy coral (considered endangered because of global warming and illegal harvesting) or new Burmese rubies, and in many cases owns its manufacturing and cutting facilities. Peloma’s Sugar Stacka rings, $950 to $5,500, right. 800-843-3289, tiffany.com

For its My Karat program, GREENKARAT will recycle gold donated by friends and family to forge your wedding band. They also sell “created” emeralds and diamonds, lab-grown gems compositionally identical to naturally occurring stones. Fros chain, $2,950, above. 877-330-4605, greenkarat.com
METALS
ACCESSING GOLD, silver, and platinum is no easy task. These metals exist in minute quantities, threaded through tons of rock and ore. Mining operations displace huge amounts of earth to get to them. A standard gold wedding band, for instance, leaves 20 tons of mine-site waste. “The scale of destruction is unimaginable,” says Payal Sampat, international program director at Earthworks, a responsible mining advocacy group. It doesn’t end there. Miners commonly use cyanide or mercury to extract the metal out of the ore, and even with proper containment, these toxic residues can persist for decades, contaminating community wells and entering the food chain.

Best bet The most ecofriendly option is to buy antique (also known as estate) jewelry or recycle what you have. Ask your local jeweler to melt down your old pieces and design something new. For recycling platinum, you will need to work with a specialty refiner such as Hoover & Strong (hooverandstrong.com). If you must buy new, check out nodirtygold.org, which lists jewelers that have pledged to support socially and environmentally responsible mining.

DIAMONDS
THE GOOD NEWS IS, miners don’t need chemicals to extract them. But our quest for diamonds causes other problems. Like gold mines, gemstone pit mining carves away chunks of landscape. In Canada, diamonds have been found under lakes, which are then drained to dig mines. Getting to the site requires companies to build infrastructure, often on pristine lands.

Then there’s the most infamous example of the diamond-trade dark side: the conflict, or “blood,” diamonds used to fund violence and civil wars. According to the human rights group Global Witness, in the late 1990s about 15 percent of diamonds fell into this category. Now the figure lies between 1 and 4 percent, thanks in part to the establishment of the Kimberley Process, a monitoring system backed by 71 nations that certifies diamonds as conflict-free and individually tracks them from mine to jeweler. The system, however, relies on participant countries to uphold its principles with limited accountability. Liberia, the Ivory Coast, and the Democratic Republic of Congo don’t comply with the Kimberley Process at all.

Best bet For starters, Canadian and Australian diamonds are conflict-free, miners receive a fair market wage, producers monitor safety, and, in some cases, unions are involved. On the eco-front, several mining companies in Canada have pledged to restore the land once the diamond source is depleted. The most earth-friendly choice? Human-created diamonds, also known as cultured diamonds, are identical to naturally occurring gems. Grown in a lab such as the one at Apollo Diamond (www.apollodiamond.com), they don’t require the disruption of large quantities of earth, and they sell for about 10 percent less. Even trained gemologists can’t tell them apart without specialized equipment.

COLORED GEMS
LIKE DIAMONDS, some colored gemstones have been linked to destructive pit mining and violence. Taliban warlords in Afghanistan have historically controlled much of the mining for lapis lazuli, a deep blue semi-precious stone. As for rubies, most of the world’s supply is locked in Myanmar, formerly Burma, a Southeast Asian nation controlled by a despotic military government. Imports from the country have been banned, but rubies enter the United States through a loophole that legalizes stones cut in Thailand.

On top of this, nearly all colored stones receive some form of treatment (radiation, heat, resin fillers) to enhance color and correct flaws. While this poses no risk to you, the wearer, those who work in poorly filtered factories in China and India can develop lung diseases from continually breathing the damaging dust released as stones are cut and polished.

Best bet Colored gemstones create less ecological damage than diamonds because they sit closer to the rock surface. Peridot from Arizona, tourmaline from California, and fire opal from Oregon are all abundant and easy to access. “For emeralds, look to the Brazilian state of Goias,” says Saleem Ali, Ph.D, an associate professor of environmental planning at the University of Vermont who has studied the global ecological impact of mining. “It has become more active in reducing mine-related pollution and enforcing cleanup of sites.” As always, resetting unused gems or buying estate jewelry remains the top choice for minimizing your eco-impact.

BE THE CHANGE
Help push the jewelry industry to do the right thing by asking questions about where and how the gems and metals you’re buying were procured. “If people start demanding that jewelers have this information, eventually they will,” says Eric Braunwart, president of Columbia Gem House and a pioneer in ethically sourced gem supply efforts. We as consumers always hold the power to demand change.
Most of the materials in LUCIMA JEWELRY’s earrings, bracelets, and necklaces are sourced from women and fair-trade cooperatives. The company also specializes in conflict-free gemstones. Chestnut teague and citrine earrings: $28, right. 607-237-2004. lucima.com

KIRSTEN MUESTER uses a mix of recycled, reclaimed, or repurposed materials for her line of rings, bracelets, and necklaces. Most of her stones are found in the United States or taken from vintage pieces. Rubellite quartz necklace: $220, right. kirstenmuester.com

LEBER JEWELER sells all responsibly sourced and conflict-free gems. Its Earthwise collection features Canadian diamonds set in recycled metals. Anna ring, $15,000, above. 708-246-1455, leberjeweler.com

DREAMS OF AFRICA is a collection of Kimberley Process-certified diamond jewelry. Profits are donated to children, including those affected by the diamond trade. Dual-sided pendant, $4,350. right. 877-612-6770. dreamsafrique.org

B+S ONLINE See a slideshow of more of our favorite jewels at bodyandsoulmag.com/eco-jewelry.