

# **Right relationships** U.S. CLIMATE CHANGE POLICY



Too often we seek simple, topdown solutions for deep, complex problems. At the root of the greenhouse gas emissions that led to climate change were human decisions and human failings.

In the U.S. and globally, the extraction and burning of fossil fuels has exploited natural resources and human workers, disproportionately polluted historically marginalized communities, and stolen and desecrated sacred indigenous lands.

In order to untangle the web of climate change, resource extraction, inequality, racism, colonialism, and corruption, we must seek to be in right relationship with one another. It is imperative that affected communities be involved in making policy decisions to ensure that rash actions do not cause unintended harm.

We can be climate peacemakers if we approach changemaking with an attitude of love, humility and listening, restoring right relationships as we restore God's Earth. \*

Clair Good, an MCC representative for Kenya, talks with Joyce Ngumbao at her farm in Kwa Kavisi, Kenya. Utooni Development Organization, an MCC partner, works with farmers who are suffering the impact of climate change – unpredictable rainy seasons, decreased rain, and flooding when it does rain.



# **Critical minerals**

Tammy Alexander and Micah Buckwalter

aking the transition to clean energy is an important step in addressing the climate crisis, but an often-overlooked result of the expansion of renewables is the expansion of mining for critical minerals. Current clean energy technologies depend on minerals like cobalt and lithium, and demand for these minerals could increase sixfold by 2040.

Renewable energy technologies such as solar, wind and electric vehicles require components made from critical minerals. Critical minerals are hardrock substances necessary for manufacturing high technology devices where there is a short supply, or the potential for shortages. In addition to cobalt and lithium, other critical minerals include nickel, silver and rare earth elements such as neodymium and dysprosium.

With the boom in electrical vehicle production and the switch to other clean energy sources some estimates show that, by the year 2040, we will need six times the production of these minerals in order to keep up with demand and stay on track to meet global emissions reduction goals.

Because critical minerals must be extracted from the earth through mining, the rapid transition to renewables could have significant unintended environmental and social consequences.

#### The problem

In the U.S. and globally, while mining can bring jobs, economic opportunities and tax revenue, it can also cause

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The Chemetall Foote Lithium Operation in Clayton Valley, Nevada.

Currently, companies in the U.S. rely heavily on imports for their critical mineral supply, but policymakers in the White House and Congress are seeking to increase domestic mining.

The primary law governing hardrock mining in the U.S. is the General Mining Law of 1872. This law, signed by President Ulysses S. Grant more than 150 years ago, gives private companies wide latitude to mine on federally owned lands and limits the federal government's ability to reject mining projects once a company or individual has "staked" a section of public land.

The General Mining Law gives mining on public lands priority over all other uses (such as recreation or preservation), does not require mining companies to pay federal royalties, and does not require any specific environmental protections. And, although indigenous lands are often adjacent to the public lands where mining occurs, the law also does not require any consultation with indigenous communities whose land, water and sacred sites are at risk of harm from mining operations.

#### Policy solutions

#### The Clean Energy Minerals Reform Act (H.R. 7580 / S. 4083)

This proposed bill would reform the General Mining Act of 1872 by requiring mining companies to consult with indigenous communities, observe more rigorous environmental standards, and pay royalties for mining on public lands (12.5% royalties on new mines and 8% on existing mines). Seventy-five percent of royalties paid to the federal government would support the Hardrock Minerals Reclamation Fund that would be used to clean up abandoned and hazardous mining sites.

Pushback against this bill includes the concern it would drive up the price of critical minerals. Rep. Raúl Grijalva (D-Ariz.), the bill's lead sponsor, responded to this criticism by arguing, "Minerals like copper and lithium are essential for our clean energy future, but that doesn't mean we should sacrifice our environment, health, and sacred or special places just to get them."

#### The Battery and Critical Mineral Recycling Act (S. 1918)

Recycling of critical minerals in both the products already in consumer hands and in future products reduces the need for mining and the potential for environmental and social harms





A 2021 report from the Institute for Sustainable Futures found that recycling could provide 25% of the demand for lithium, 35% for cobalt and nickel, and 55% for copper by 2040. The report argues that, "it is technologically possible to recover all four metals at rates above 90% and current recovery is limited by the lack of a strong economic driver or policy that could encourage the use of recycled materials."

The bipartisan Battery and Critical Mineral Recycling Act would fund research into better battery design and recycling programs and initiate a voluntary labeling program for batteries to help with both consumer education and proper recycling practices.

#### International engagement

The Extractive Industries Transparency Initiative (EITI) is a coalition of nations, industries and civil society groups that work toward increasing transparency within oil and mining industries to reduce corruption. The U.S. joined the EITI as an implementing member in 2014 but withdrew its implementation membership in 2017. The U.S. should fully rejoin as an implementing member of EITI.

#### Corporate responsibility

While current laws are not sufficient in protecting against mining practices harmful to the environment and human health, some independent organizations offer auditing and certifications to increase mining standards. The Initiative for Responsible Mining Assurance is one such organization, certifying mines based on social and environmental best practices. While this is a voluntary service, some industries, such as car manufacturers, are beginning to require that components use critical minerals from certified mines.

#### Potentially harmful proposals

Some policy proposals that could increase the harmful effects of critical minerals mining include:

- a Presidential declaration of a "climate emergency" which could accelerate mineral extraction without strengthening environmental and social safeguards;
- proposals that require a rapid transition to U.S.-sourced minerals, such as the electric vehicle provisions in the recently-passed Inflation Reduction Act; and,
- other executive orders and legislation that aim to increase critical minerals mining or processing by removing regulatory barriers.

#### In conclusion

We are at a pivotal point in the transition from fossil fuels to clean energy. While solar and wind energy, electric cars, and efficient batteries can help stave off the worst effects of climate change, we cannot accelerate the usage of clean energy without considering the "dirty" impacts of critical minerals mining. By supporting policies that promote better recycling systems, require stronger environmental regulation at mine sites, and require consultation with affected communities, we can fulfill our commitment to care for God's creation and protect God's people from harm. 🜟



Representatives of the Dismantling the Doctrine of Discovery Coalition meet with Wendsler Nosie, Apache Stronghold leader, and Rev. John Mendez of the Poor People's Campaign.

#### **Oak Flat**

Chi'chil Bildagoteel, also known as Oak Flat in the Tonto National Forest of Arizona, is a part of the ancestral, sacred land of the San Carlos Apache and other local indigenous nations. This rich desert ecosystem is listed on the National Register of Historic Places and was protected from mining in 1955 by President Eisenhower.

However, in 2014, two senators attached a "midnight rider" into a must-pass defense spending bill, trading the land to Resolution Copper which is poised to mine the land, collapsing the area into a one-mile-wide, 1000-foot-deep crater. The mine would not only desecrate indigenous sacred sites, it would also heavily deplete and pollute the area's water resources.

The Apache Stronghold, an Apache-led organization, along with both indigenous and settler allies have managed to temporarily postpone the swap with prayer, action and lawsuits. The Save Oak Flat Act (H.R. 1884/S. 915) would guarantee long-term protection for Chi'chil Bildagoteel.

-Excerpted from a June 2022 piece by the Dis-

mantling the Doctrine of Discovery Coalition, dofdmenno.org. More information at tinyurl. com/4zs49cxa and apache-stronghold.com.





## Worship resources

#### **Call to worship**

- God's goal is not to pluck human souls out of a world damned to destruction.
- The Word became flesh and camped out with us here in the mud of earthly existence.

God became a human creature so that, in Jesus, God could show us how to better imagine and fully become creatures ourselves.

#### God embraces the material world.

- We feel the crushing burden of responsibility.
- God is already at work ahead of our humble efforts,
- birthing new life out of despair and inviting us to join in.

God promises to stick with us no matter what.

We might prefer a God that would blow in like a storm cloud

- and fix climate change with mighty acts of power.
- But, to walk in the steps of the suffering Savior will surely involve coming face to face with

places of environmental destruction. God is at work through vulnerability

and suffering.

As we are touched by the Earth's pain we also discover

that our World is more intricate and magical than we ever dreamed.

God wears the wounds of places that are hurting.

God does not give up on us. Amen.

—Adapted from Session 1 of Every Creature Singing, Mennonite Creation Care Network, mennocreationcare .org

#### A prayer for Oak Flat

by Jennifer Schrock

God of the desert– God whom Hagar named "the God who sees me," look again.

See the place where water flows, nourishing ancient oak trees and the San Carlos Apache come to gather acorns. "Oak Flat" we say in English, But the Apache have a name more like music, much older and wilder.

It is easy to see our voracious need for copper:

In pipes, wires, wind generators, solar panels, hospitals.

The Apache tell us of beauty, history, peoplehood,

the presence of God.

We may not know Oak Flat,

but we know Bethlehem.

We know Mount Sinai and the Swiss caves where Anabaptists worshipped;

where people still sing hymns. Help us feel the pain of our brothers

and sisters.

We have no solutions, only fervent prayer

For the San Carlos Apache

- For the corporation, Resolution Copper
- For You to act in ways that bring justice and peace.
- For a way forward beyond all imagining.

*—mennocreationcare.org/a-prayer* -for-oak-flat

#### Songs

- VT 712 Beauty for Brokenness
- VT 806 Called by Earth and Sky
- VT 205 Light Dawns on a Weary World
- VT 788 The Garden Needs Our Tending Now

VT = Voices Together hymnal, Harrisonburg, VA: MennoMedia, 2020.

### **IMPORTANT ADDRESSES**

#### Senator \_

U.S. Senate Washington, DC 20510 (202) 224-3121 senate.gov

#### Representative

U.S. House of Representatives Washington, DC 20515 (202) 224-3121 house.gov

President Joseph Biden The White House Washington, DC 20500 (202) 456-1111 whitehouse.gov/contact

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All biblical quotes are from the New Revised Standard Version, unless otherwise noted.

# Climate change: Critical minerals

MCC global partners share how their communities are being adversely affected by a changing climate. In order to reduce the greenhouse gas emissions that cause climate change, countries such as the U.S. must enact policies that work to phase out fossil fuel-reliant energy and move to renewable sources such as solar and wind power. Such policies, however, open the door to an oftenoverlooked problem: the dependence of clean energy systems on critical minerals. The rapid transition to clean energy could create unforeseen environmental and social costs with the extraction of these minerals.

#### Key critical minerals used in renewable energy components

| Lithium-ion batteries      | cobalt, lithium, nickel, manganese                    |
|----------------------------|---|
| Electric vehicles          | rare earths (neodymium and dysprosium)                |
| Solar photovoltaics        | cadmium, indium, gallium, selenium, silver, tellurium |
| Wind power                 | rare earths (neodymium and dysprosium)                |
| All renewable technologies | aluminum and copper                                   |

### Terms

**Critical minerals:** A mineral necessary for the manufacture of high technology, national defense or green growth-related industries with potential for disruptions to the supply chain.

**Rare earth elements (REEs):** A relatively abundant group of 17 elements composed of scandium, yttrium, and the lanthanides.

Hardrock mining: A surface or underground operation to extract hardrock minerals, which includes base metals, precious metals and industrious minerals.

Above photo: Pure (99.9 %) cobalt chips, electrolytically refined, as well as a high purity (99.8 % = 2N8) 1 cm<sup>3</sup> cobalt cube for comparison. By Alchemisthp (talk) (www.pse-mendelejew.de) - 0wn work, FAL, https:// commons.wikimedia.org/w/index.php?curid=11530303

Source: Earthworks (2019)

While recycling and reuse are important, sourcing critical minerals will require mining to meet demand. By 2040, mining is expected to increase sixfold over current production. Mining for critical minerals can lead to human rights abuses and environmental degradation, especially considering the current lack of regulation in the U.S. While domestic and global mining can provide jobs and tax revenue, governments and corporations must take steps to reduce the potential for corruption, pollution and exploitation.





IEA (2021) The Role of Critical Minerals in Clean Energy Transitions, iea.org/reports/the-role-of-critical-minerals-in-clean -energy-transitions. All rights reserved.

# **Policy Recommendations**

What you can do

## **U.S. Congress**

#### Support the Clean Energy Minerals Reform Act, H.R.7580 / S.4083.

This bill would add environmental standards, require consultation with indigenous communities prior to mining, and establish a mining royalty to fund clean-up projects.

## Support the Battery and Critical Mineral Recycling Act, S. 1918.

Due to the expected future demand, responsible mining for critical minerals will be essential. Better systems and incentives for recycling could recover several minerals at rates of nearly 90%.

**General Mining Act of 1872** 

• Susan B. Anthony was fined for voting

• Mining was done with a pickaxe

• Yellowstone became the first national park

Also in 1872 . . .

### **Administration**

**Rejoin the Extractive Industries Transparency Initiative as an implementing member** to promote U.S. engagement in international mining transparency

Appoint a director to the Office of Surface Mining Reclamation and Enforcement

to oversee the clean-up of pollution from abandoned mines.

- Contact your members of Congress and the White House to call for changes to the way critical minerals are mined, imported and recycled.
- Wait to upgrade items such as electronics and cars.
- When you do need to upgrade, recycle. Information on recycling electronics can be found at epa .gov/recycle/electronics-donation -and-recycling.
- If you are able, use public transportation or ride a bicycle to reduce reliance on both gaspowered and electric vehicles.

### Learn more

#### Earthworks

earthworks.org/campaigns/mining

#### **EarthJustice**

earthjustice.org/blog/2022-may/ critical-minerals-mining-reform

#### **Maryknoll Office for Global Concerns**

maryknollogc.org/resources/newsnotes/ mining-renewable-energy

A worker at an artisanal mine in Lakwev, Haiti. MCC Photo/Ted Oswald



Mining on public land in the U.S. is still governed by a law signed by President

Ulysses S. Grant more than 150 years ago, designed to accelerate westward

expansion and push indigenous communities off their land.

Sources: Cornell Law School, Earthworks, Earthjustice, International Energy Agency, U.S. Geological Survey

Mining for critical minerals can lead to human rights abuses and environmental degradation.

