

Rare Earth Elements Map

Environmental Justice Conflicts and Impacts

Rare Earth Elements Impacts and Conflicts Map

The Rare Earths Elements Impacts and Conflicts Map documents environmental justice struggles across REEs supply chains (extraction, processing, e-waste and recycling sites).

Description

The Rare-Earth Elements Impacts and Conflicts Map documents contentious processes taking place across REE supply chains (extraction, processing and recycling sites). It documents more than 25 cases of socio-environmental contention in China, Chile, Brazil, Finland, Greenland, India, Kenya, Madagascar, Malaysia, Malawi, Myanmar, New Zealand, Norway, Spain, and Sweden, among other countries.

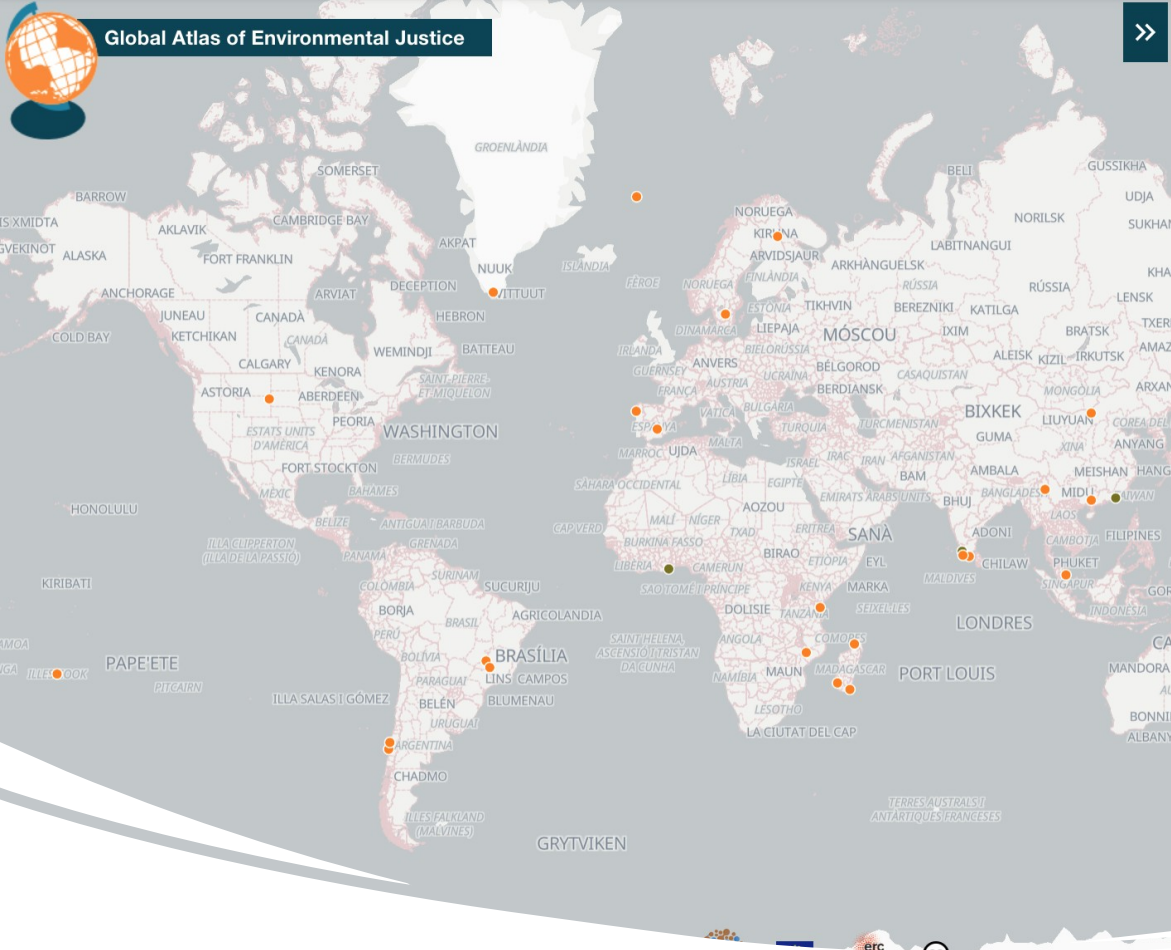
Legend

Cases

- Lynas Advanced Materials Plant (LAMP) in Gebeng/Kuantan, Malaysia
- Minería de Tierras Raras en Penco, Región del Biobío, Chile

<https://ejatlas.org/featured/rees-impacts-conflicts-map>





Rare Earth Elements Impacts and Conflicts Map



The Rare Earths Elements Impacts and Conflicts Map documents environmental justice struggles across REEs supply chains (extraction, processing, e-waste and recycling sites).

▼ Description

The Rare-Earth Elements Impacts and Conflicts Map documents contentious processes taking place across REE supply chains (extraction, processing and recycling sites). It documents more than 25 cases of socio-environmental contention in China, Chile, Brazil, Finland, Greenland, India, Kenya, Madagascar, Malaysia, Malawi, Myanmar, New Zealand, Norway, Spain, and Sweden, among other countries.

> Legend

▼ Cases



- Map aims to document, examine and make visible how the increasing pressure to access REEs is taking place on the ground.
- Collaborative effort led by the ODG, the Environmental Justice Atlas, The Institute for Policy Studies and CRAAD-OI, the Global Rare Earths Element Network and International collaborators.
- The map documents **25+** socio environmental conflicts across the supply chain of REEs (mining, processing, recycling, e-waste) in **18+** countries. Some common trends:

Impacts documented on the ground

Violence, criminalization and Human Right abuses

Common practices include the **lack of recognition of the rights of local and indigenous communities.**

Different forms of **violence against environmental defenders** (direct threats, intimidation, false charges, repression).

For instance, REEs mining is advancing in Myanmar in the context of a dictatorship, with frequent events of persecution and violence against local communities.



Environmental and Health impacts

- REEs are usually found in low concentration (large amounts of ores processed to obtain small amounts of REEs and large piles of waste).
- REEs often coincide with radioactive and hazardous elements (Th, U). Mining, beneficiation, separation and refining source of hazardous wastes and pollutants for water, soil, air and human health.
- REEs are usually combined with each other (large amounts of energy and materials to separate them).

Mining Impacts: Pollution of superficial and underground waters, soils and air, health of local ecosystems and communities.
(Bayan Obo ,China, Mountain Pass, US).

Processing Impacts: Socio-environmental impacts, radioactive waste mismanagement.
(Lynas operation in Malaysia).

E-waste and recycling impacts: heavy metals and REEs pollution in soil, water and even human blood.
(Guiyu (China), Agbogbloshie (Ghana)).





Impacts on Water

Water over-consumption by REE activities and competition with local uses (and impact on quality).

Impacts on fragile and protected ecosystems

- Many REEs mining projects are located in **protected areas or biodiversity hotspots**: in Asia (Myanmar, India), Africa (Madagascar, Kenya, Malawi), Latin America (Brazil, Chile) or even in Europe (Greenland, Sweden, Spain).
- Extraction of REEs from sand mining is disrupting **coastal areas and ecosystems** (e.g India).
- REEs also present in **Deep sea mining projects** in New Zealand or Norway on hold given the uncertain environmental and biological risks of this new mining frontier.

Image: REEs deposit & Monte Galiñeiro, Galicia, Spain



Impacts on traditional livelihoods and cultures, sacred places.

Many of the current and proposed mines are operating in **Indigenous territories** across the world, putting at risk their sacred sites as well as other culturally important areas where communities hunt and gather traditional medicines.

Madagascar, Malaysia, Chile or Finland among many other cases.

Image: Protests in Madagascar

Lack of information and public consultation

In the documented cases, companies provided little to no information about their projects, preventing meaningful community participation and, in the case of Indigenous communities, violating their rights to Free, Prior and Informed Consent.

In most cases documented there are complaints regarding **lack of transparency** and **poor participation spaces**.

For instance, in Chile, Spain, Sweden, Madagascar, India, Kenya, Malawi, etc.

Image: Norra Kärr project, near lake Vättern, Sweden





Final Remarks

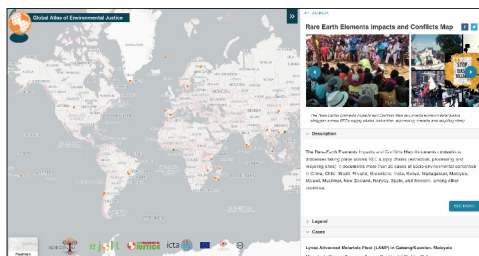
The Map documents how REEs supply chains are rapidly expanding generating significant environmental and social impacts and conflicts across the globe.

While the central question for industrialized economies has remained *how* to urgently secure the provision of critical materials; the map documents **the unsustainable and unjust distribution of environmental, social and health burdens on communities across REEs global supply chains.**

Note: While we have focused on REEs, the EJAtlas documents increasing conflicts related with many critical minerals and materials across the world.

Some questions that need to be urgently addressed:

- How can we ensure that transition(s) takes **biophysical limits into account**?
- How can we envision environmentally just and sustainable energy transition and digitalization processes that **do not exacerbate unjust and unsustainable practices** or violate Human Rights?
- How can we **challenge and rethink energy demand scenarios** (energy for what, for whom, at what cost) and establish limits?
- How can we **rethink products design** (prolonging products life, decreasing e-waste and waste generation and energy use, increasing recycling)?
- How can we develop energy transition policies that **do not push back environmental, social or participation rights in the name of climate urgency** (beyond technological fixes)?



Thank you for your attention!

More information on the map and related report in English/Spanish/French:

<https://ejatlas.org/featured/rees-impacts-conflicts-map>

<https://odg.cat>