

Scaling mineral circularity for global resilience

PRESENTS POTENTIAL BENEFITS FOR:

PEOPLE	NATURE	CLIMATE
By diversifying mineral supply chains reducing the risk of conflict over resources.	By minimizing further extraction of raw materials supporting biodiversity health while limiting pollution.	By widening access to essential minerals alleviating pressure on the green/digital transitions.



Mineral circularity provides a framework for a systematic approach to managing minerals throughout their life cycle. It involves recovering minerals from various waste streams such as end-of-life products, manufacturing scrap, and mining tailings. It also includes upstream measures to reduce the total demand for minerals through product design and lifetime extension.

Collaborate and partner with us – contact:
pace@wri.org to find out more.



KEY BENEFITS

People

At least 40 percent of all intrastate conflicts have a link to natural resources. Scaling mineral circularity can diversify global mineral supply chains, reducing conflicts over scarce or regionally concentrated mineral resources. By recapturing minerals from end-of-life products, for example, the dependence on specific countries or regions for critical minerals can be reduced. This diversification enhances global resilience and has the potential to mitigate geopolitical tensions and disputes related to mineral resource availability.

Nature

Minerals account for over half of all raw materials extracted and processed. This is a root cause of biodiversity loss and pollution. By slowing down the demand for virgin minerals, circular practices can lower air and water pollution, and protect biodiversity.

Climate

To reach net zero by 2050, mineral demand for clean energy is projected to rise by six times. The projected demand growth far exceeds the current supply capacity for some minerals, such as lithium, cobalt, nickel, copper, and rare earth elements. Circularity is a key lever to help bridge the minerals supply-demand gap and support the clean energy transition for climate change mitigation.

HOW PACE WORKS

