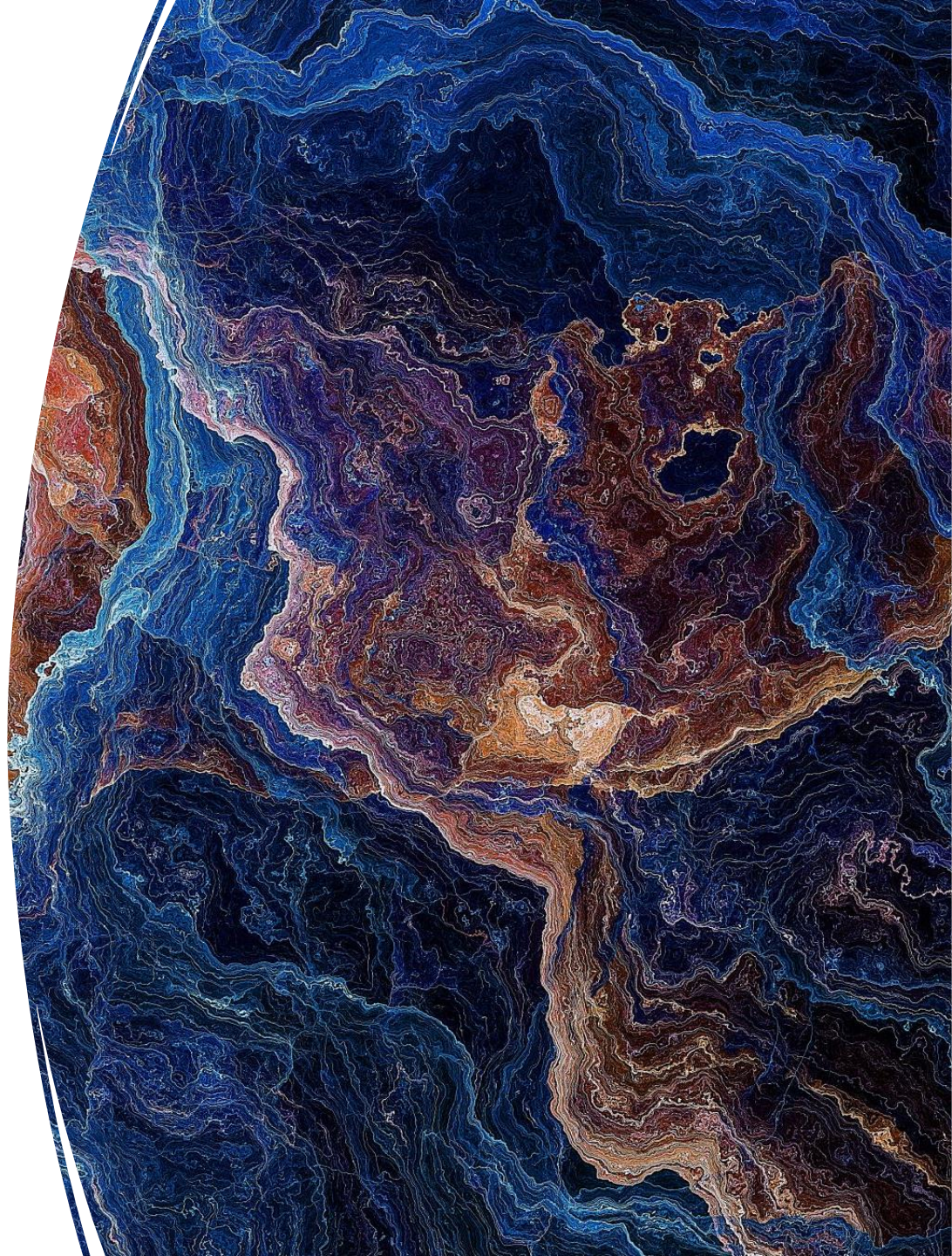


*ENERGIA VERDE,
NEGOCIOS Y
GEOPOLITICA*

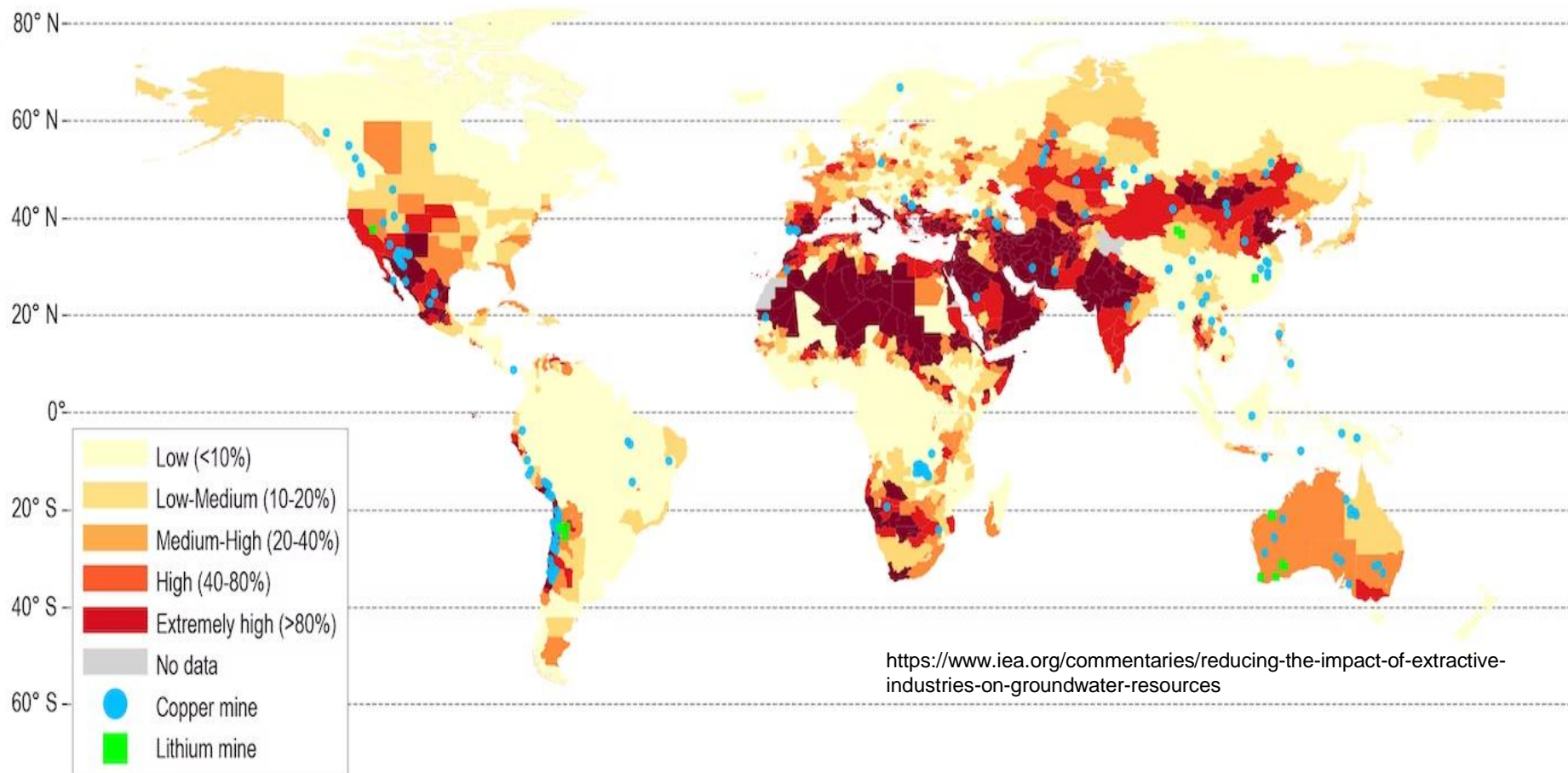
CEDIB
Pablo Villegas Nava
pablorone@gmail.com
+591 76262060



AUNQUE SEA
VERDE, EL
LITIO ES UN
MINERAL

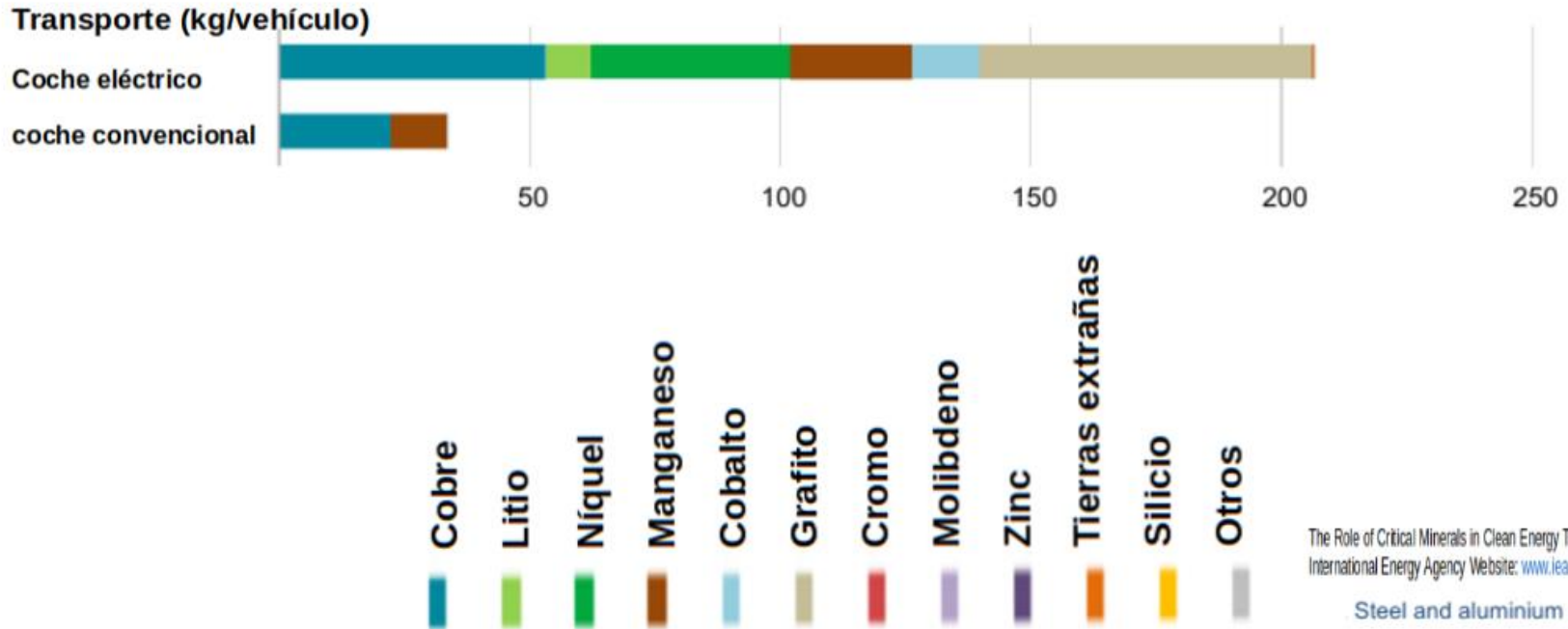


Ubicación de minas de cobre y litio y niveles de estrés hídrico, 2020

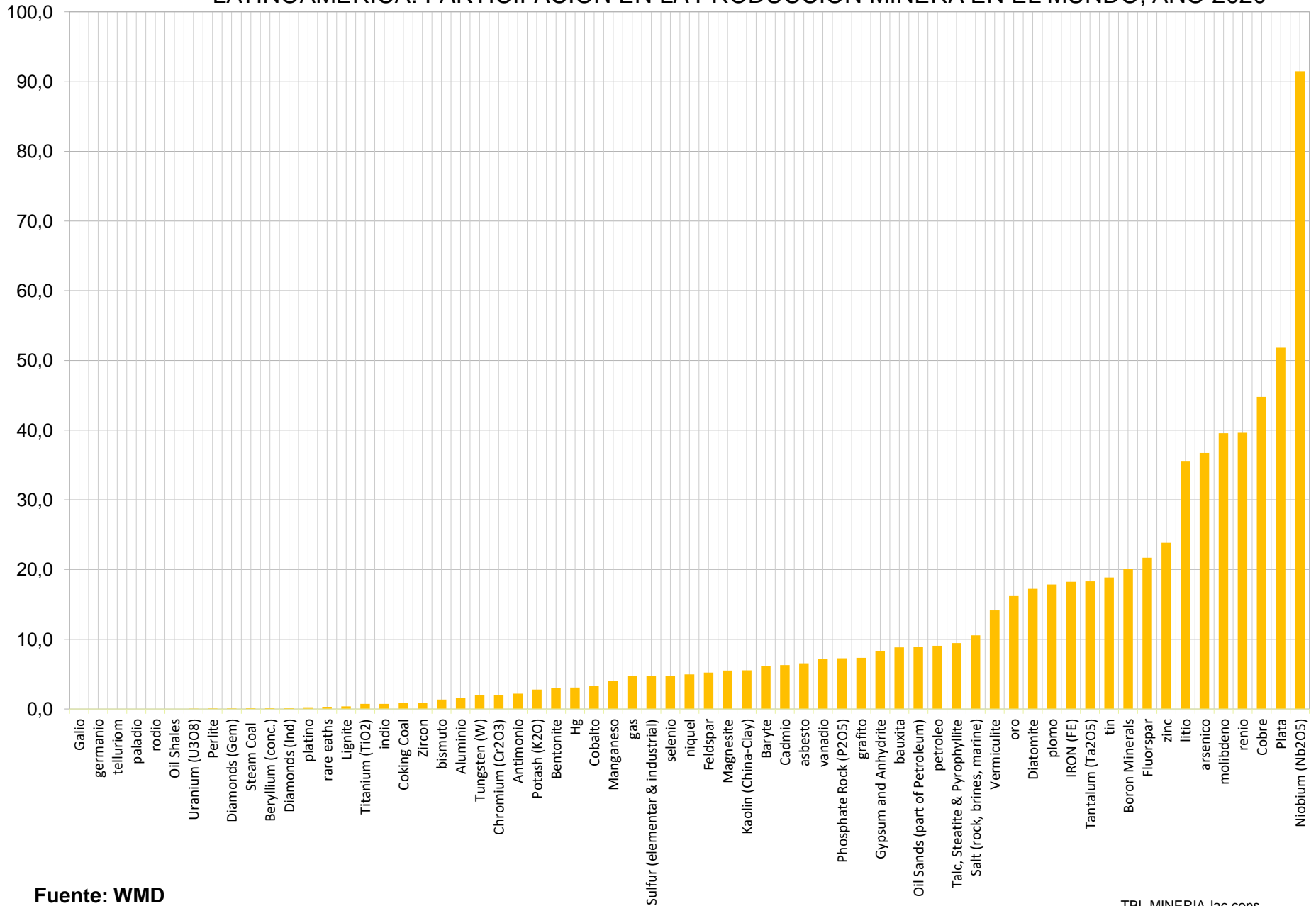


Las tecnologías de energía limpia implican un aumento significativo en la demanda de minerales

Minerales utilizados en tecnologías de energía limpia seleccionadas



LATINOAMERICA: PARTICIPACION EN LA PRODUCCION MINERA EN EL MUNDO, AÑO 2020



Fuente: WMD

TBL MINERIA lac cons

SALVAR EL PLANETA O SALVAR LA
INDUSTRIA AUTOMOTRIZ

Mineral	Cell Part	Amount Contained in the Avg. 2020 Battery (kg)	% of Total
Graphite	Anode	52kg	28.1%
Aluminum	Cathode, Casing, Current collectors	35kg	18.9%
Nickel	Cathode	29kg	15.7%
Copper	Current collectors	20kg	10.8%
Steel	Casing	20kg	10.8%
Manganese	Cathode	10kg	5.4%
Cobalt	Cathode	8kg	4.3%
Lithium	Cathode	6kg	3.2%
Iron	Cathode	5kg	2.7%
Total	N/A	185kg	100%

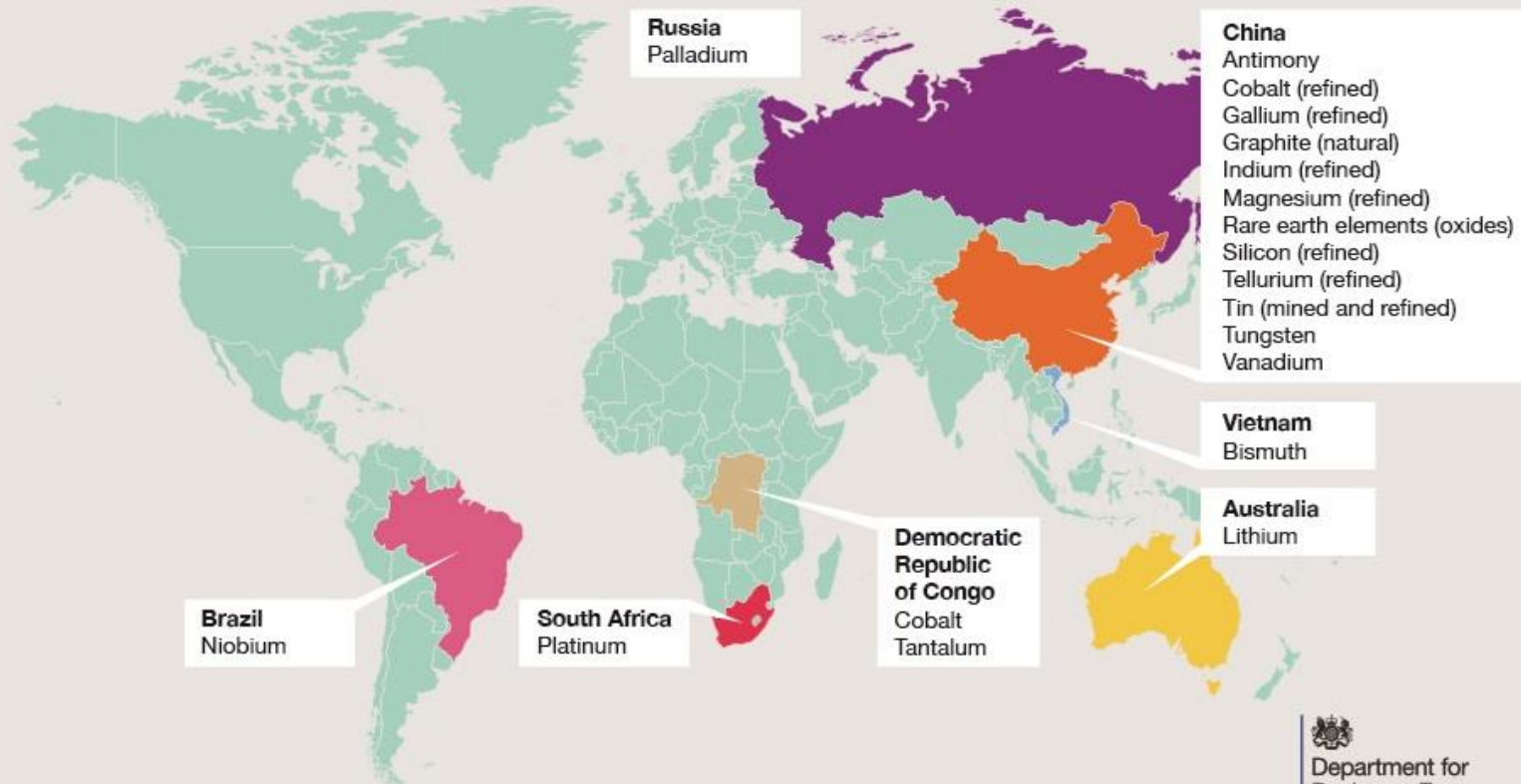
<https://elements.visualcapitalist.com/the-key-minerals-in-an-ev-battery/>

EL MUNDO ESTA DIVIDIDO ENTRE

Los que tienen minerales (verdes) y los que no

Top producers globally of the 18 critical minerals

Country with the highest production of each critical mineral; refers to mined production, unless otherwise stated.
5-year average production 2016-2020.



DISRUPTIVE MATERIALS

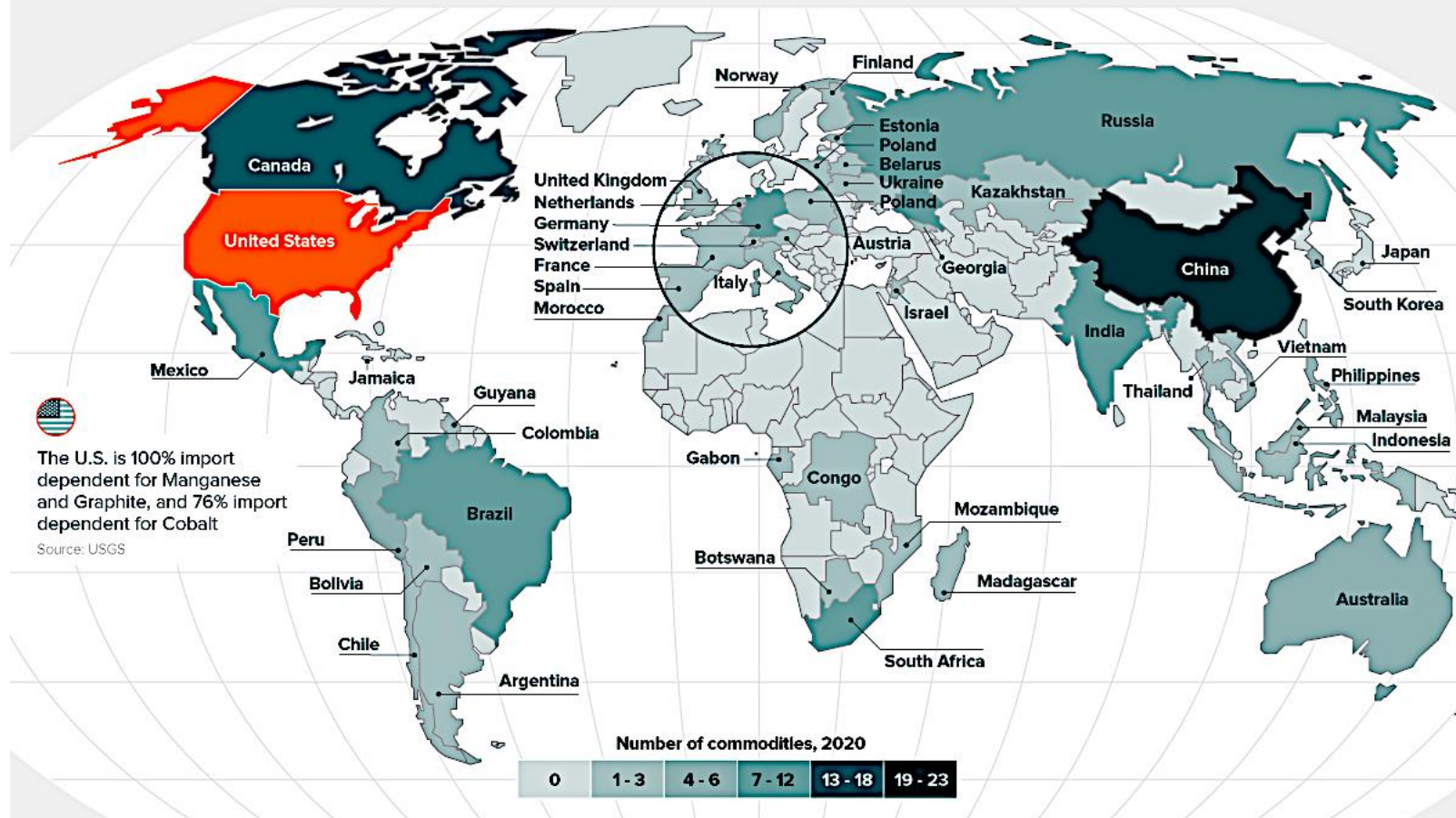


Visualizing America's Import Dependency

The U.S. is expected to see a surge in demand for disruptive materials in the coming years, but most of these materials are supplied by foreign entities.

U.S. MINERALS AND MATERIALS NET IMPORT RELIANCE

① Countries highlighted show the number of materials in which the U.S. was more than 50% net import reliant in 2020.



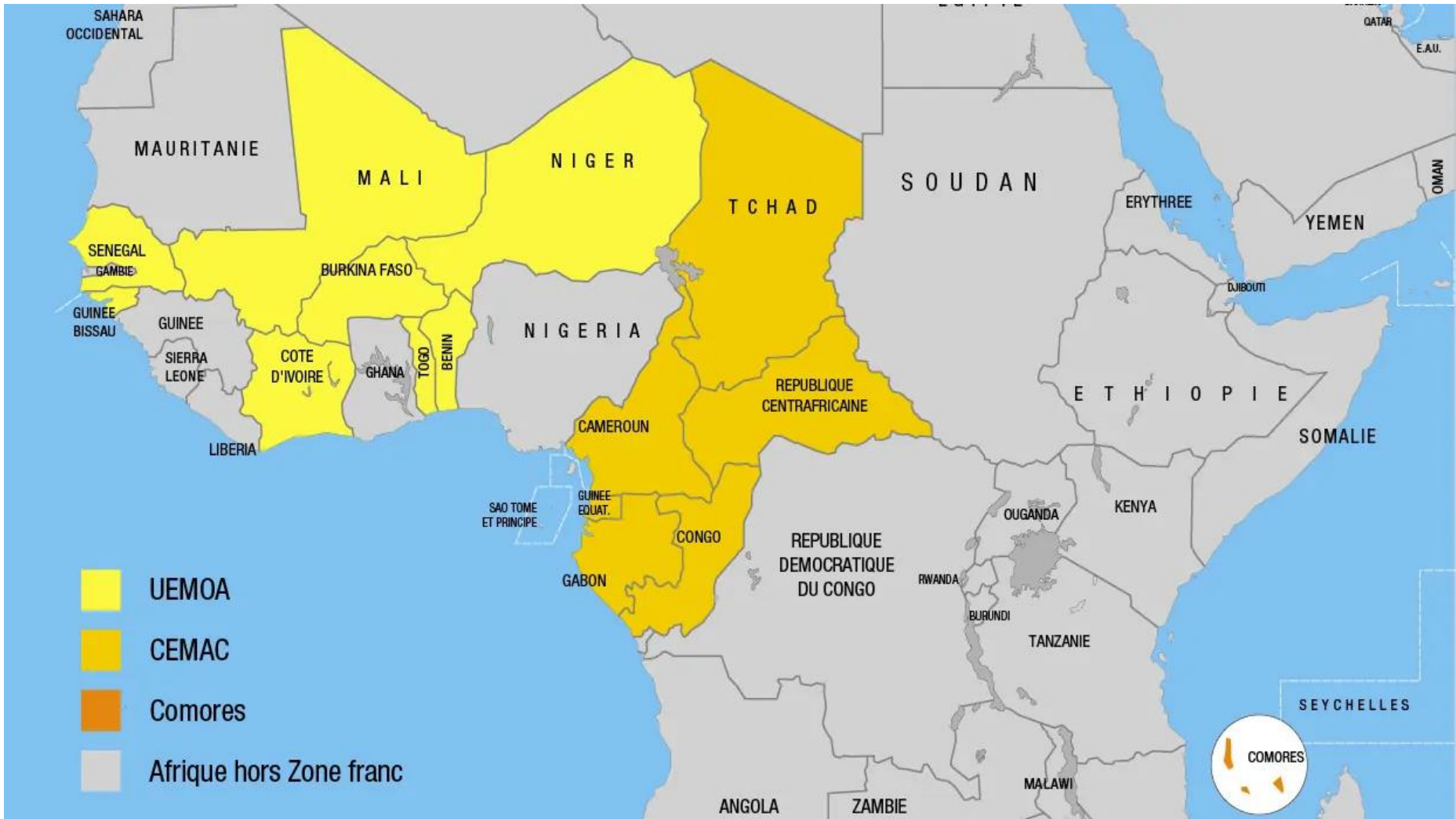


**LOS QUE NO TIENEN
MINERALES HACEN LAS
REGLAS**

**EL MERCADO
INTERNACIONAL NO ES
LIBRE**

UNCTAD, Investment Dispute Settlement Navigator: full data release as of 31/07/2022 (excel format), available at <https://investmentpolicy.unctad.org/investment-dispute-settlement>

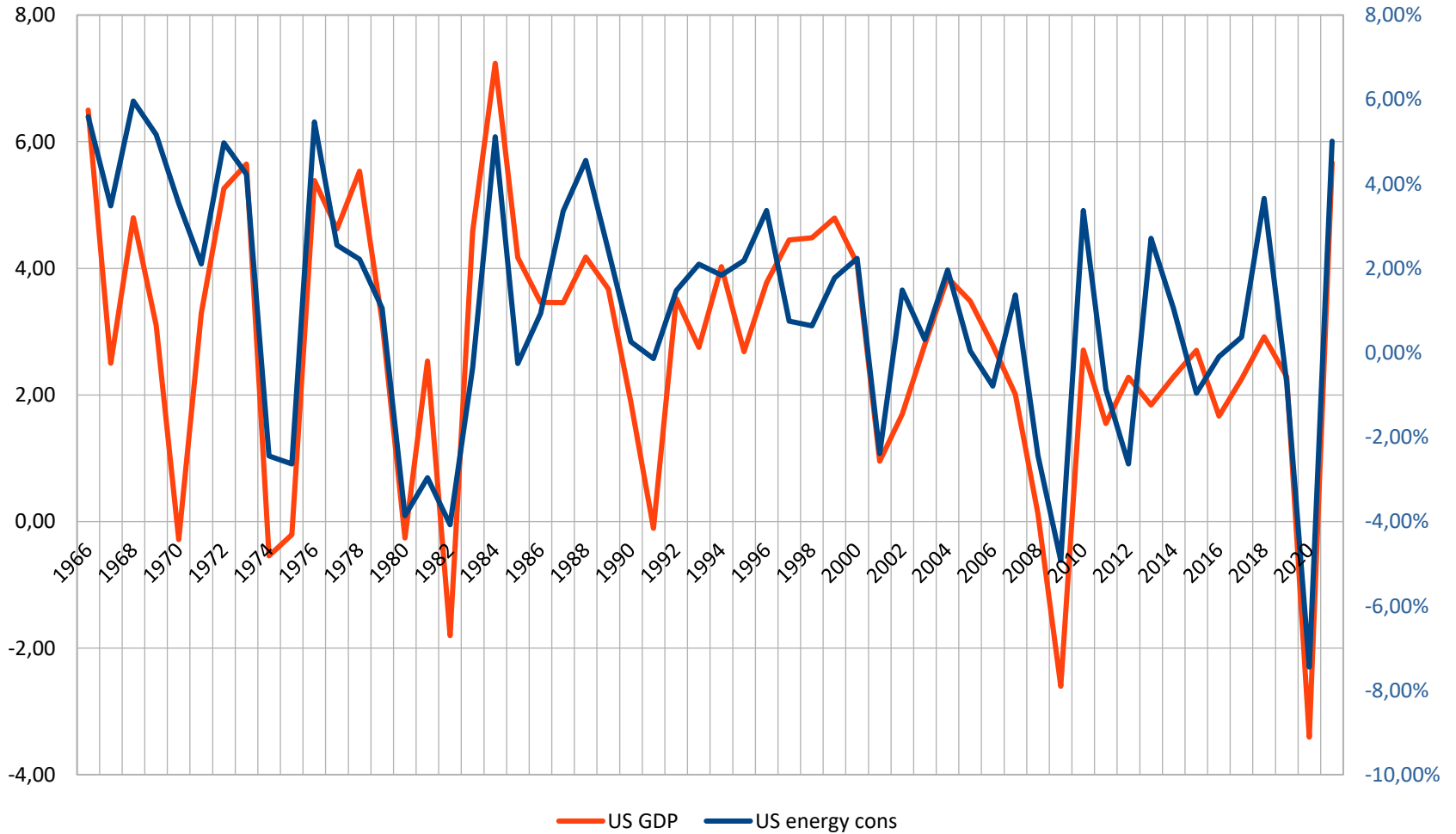
PAISES DESARROLLADOS COMO ACUSADORES	N 1340
Israel	7
Japan	6
Netherlands	128
United Kingdom	100
Germany	78
Spain	68
France	63
Italy	48
Switzerland	44
Luxembourg	43
Austria	32
Belgium	20
Sweden	12
Australia	9
Denmark	7
Portugal	7
Norway	5
Finland	3
Ireland	2
EE.UU.	207
Canada	64
Total	953
Porcentaje	71.12%




LAS LISTAS DE MATERIALES CRITICOS

**SON UN PLAN
GEOPOLITICO**

DESVINCLAR LA ENERGIA DEL PIB? SI, PERO COMO?



Fuente, BP statistical Review

A black and white photograph of a forest path. On the left side of the path, there is a large pile of cut logs, stacked in a somewhat haphazard manner. The path itself is narrow and appears to be made of dirt or gravel, leading into the distance. The background is filled with trees and foliage, creating a dense forest atmosphere. The lighting is bright, suggesting a sunny day, with some shadows cast on the path.

**Al bosque no le importa
si la motosierra con que lo tumban
funciona con gasolina o con litio.**