The Rise of Green Extractivism: Investigating Local Resistance to Lithium Mining

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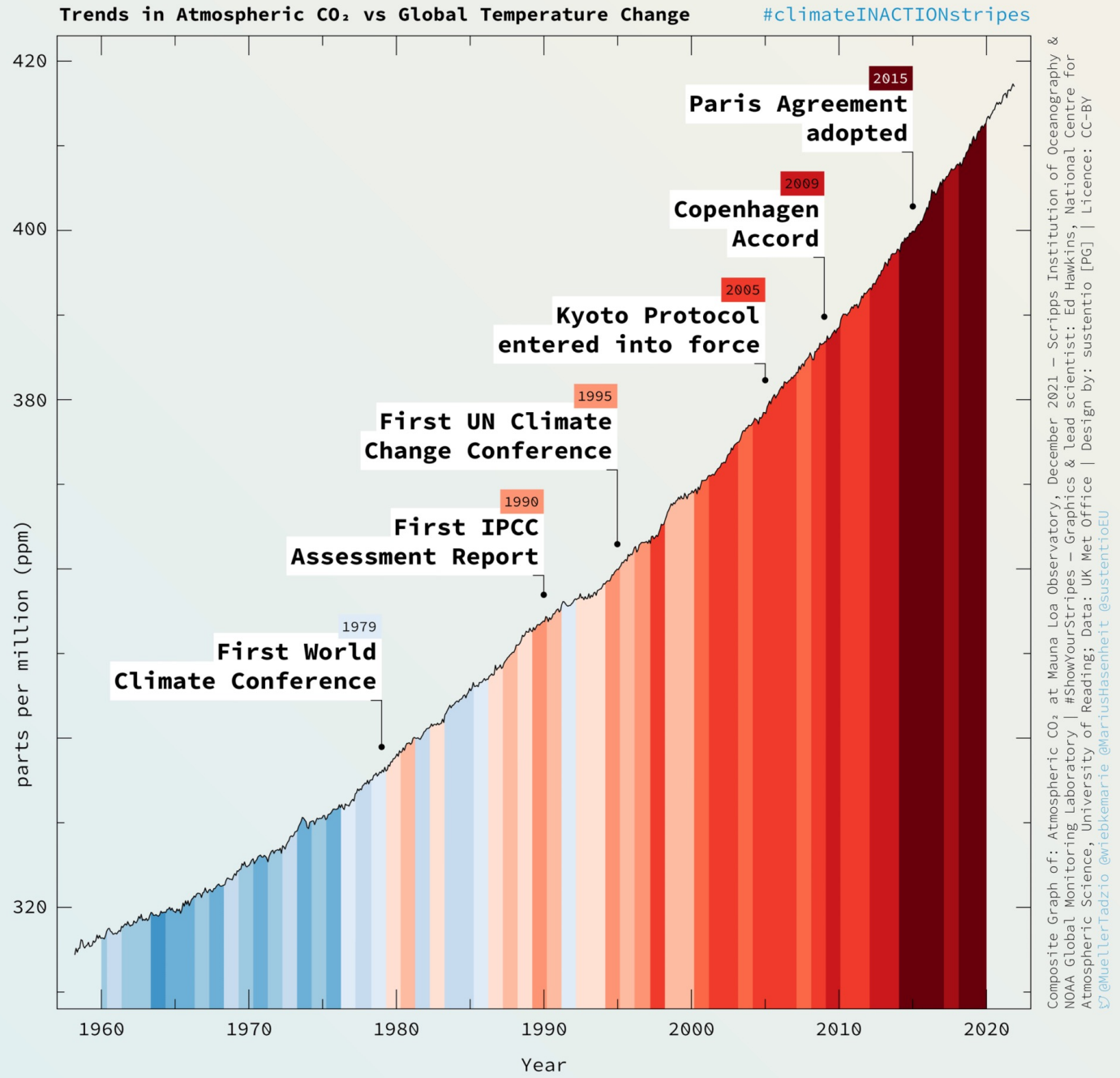
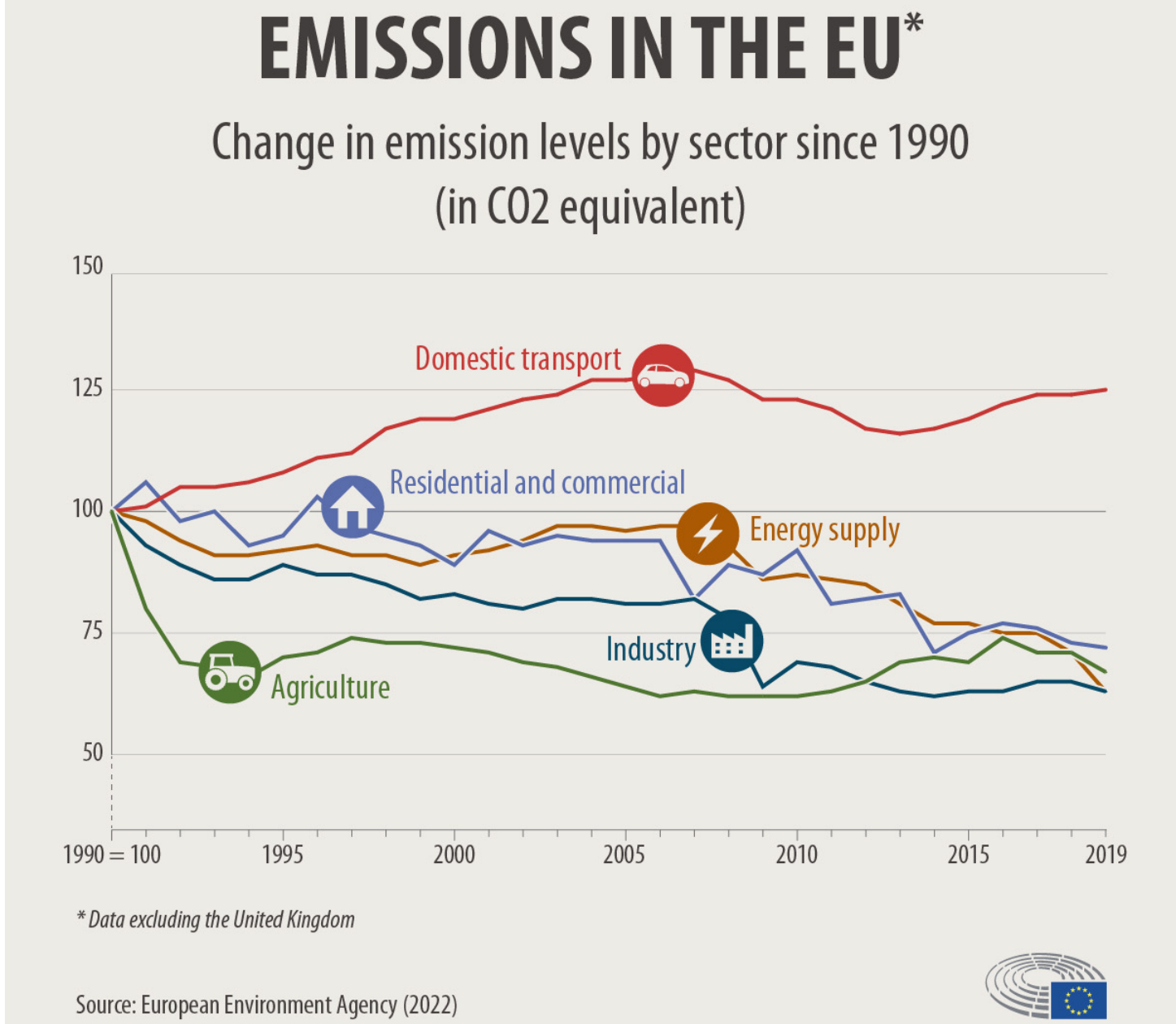


CO2 emissions are rising despite global diplomatic efforts

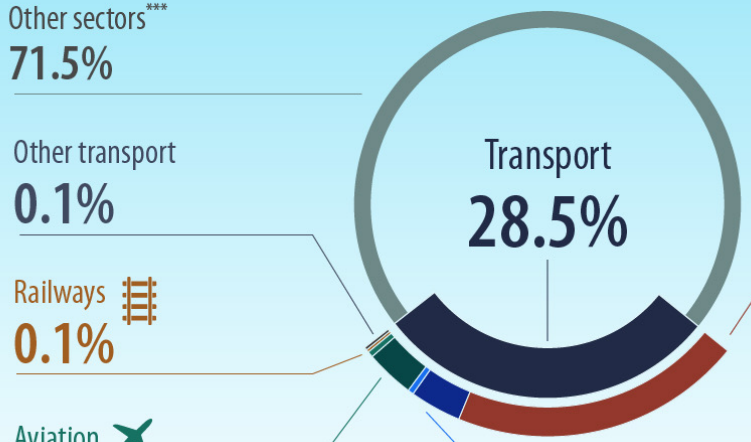
Source: #ShowYourStripes



Transport as a sector has seen the lowest decrease in CO2 emissions

Transport emissions

as share of the EU*'s total greenhouse gas emissions (2019)**



Other sectors***
71.5%

Other transport
0.1%

Railways
0.1%

Aviation
Domestic 0.4%
International 3.4%

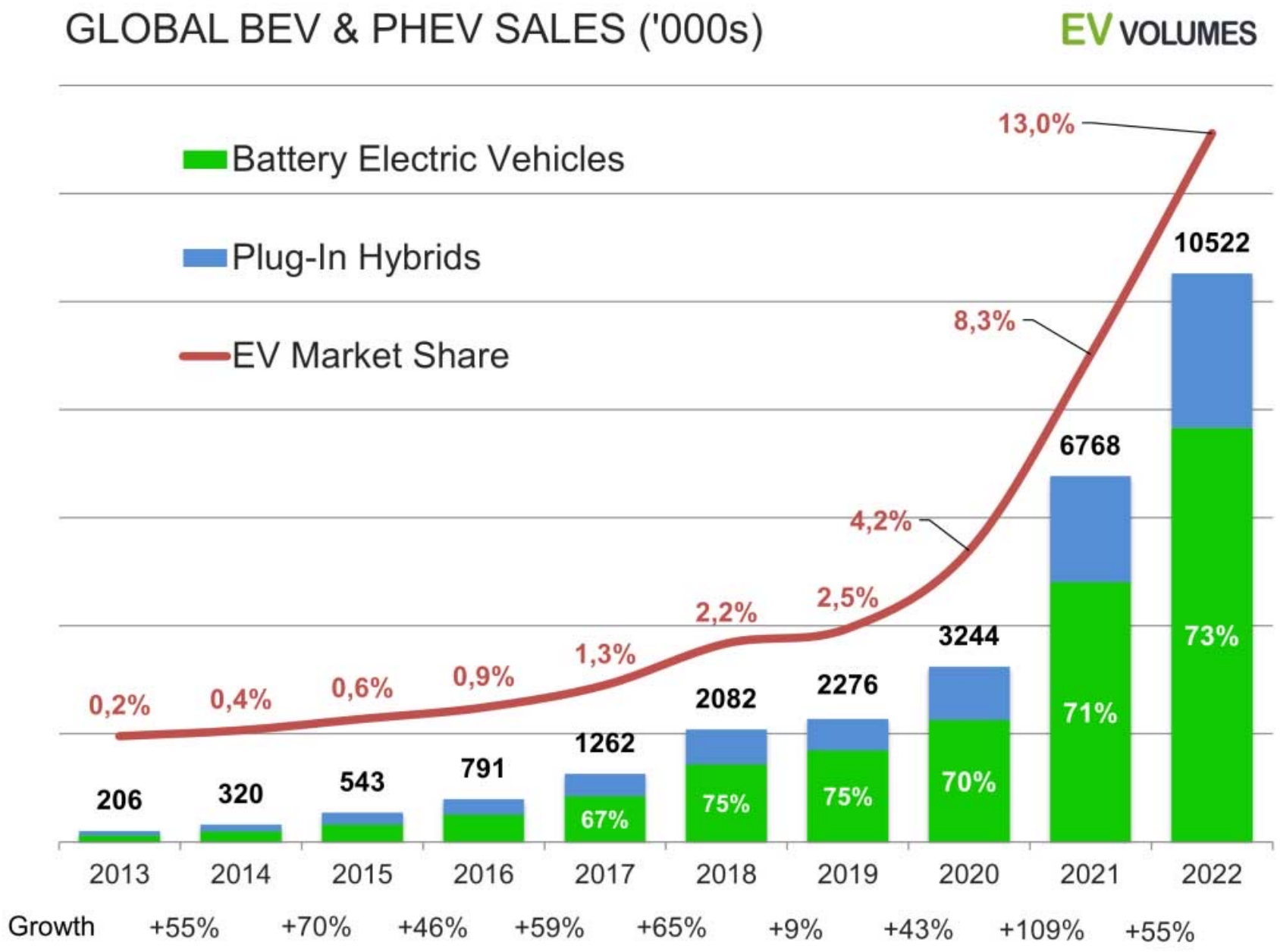
Road transport
20.5%

Navigation
Domestic 0.4%
International 3.6%

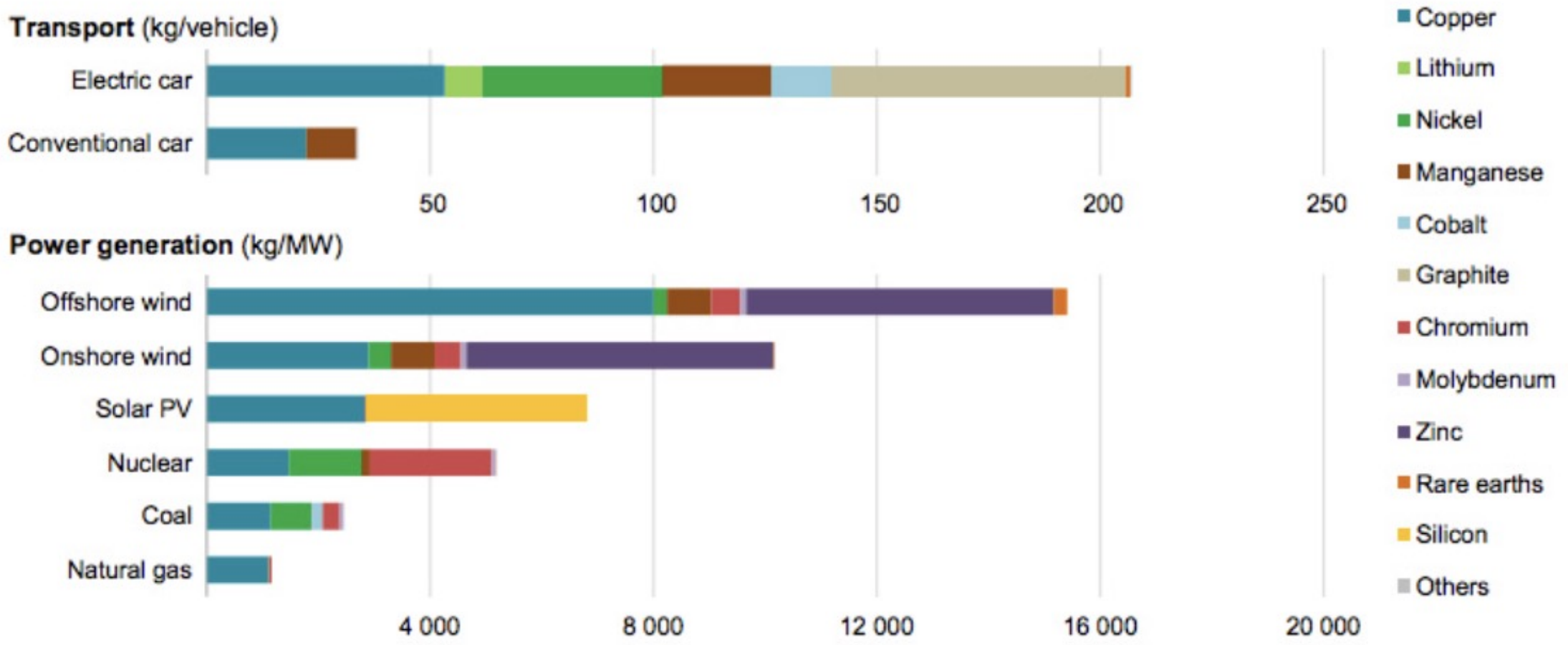
*Excluding the United Kingdom
**Excluding land use, land-use change and forestry
***Energy, industry, residential, commercial, institutional, agriculture, forestry, fisheries and other

Source: European Environment Agency (2022)

Cars as we know them are changing



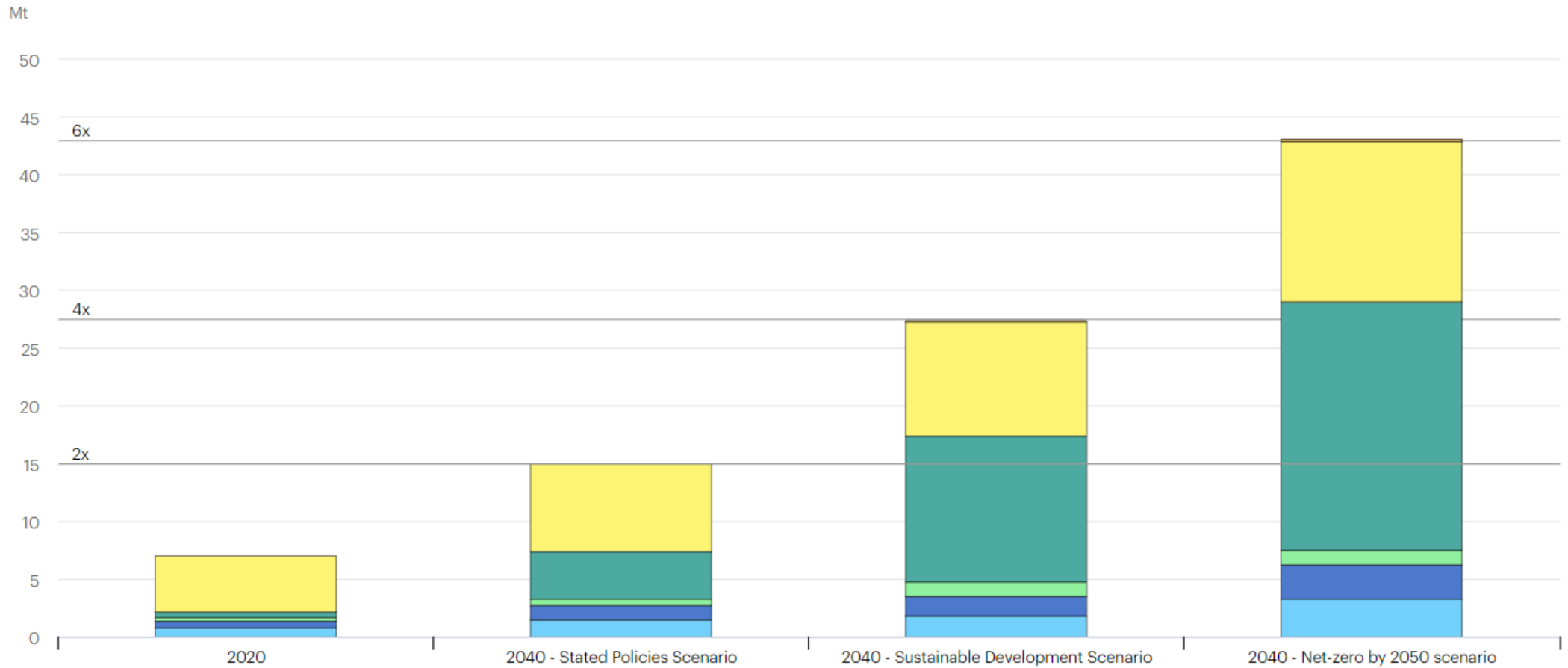
Low carbon technologies require a significant amount of minerals



Minerals used in selected clean energy technologies and fossil fuel technologies. Source: IEA.

Total mineral demand for clean energy technologies by scenario, 2020 compared to 2040

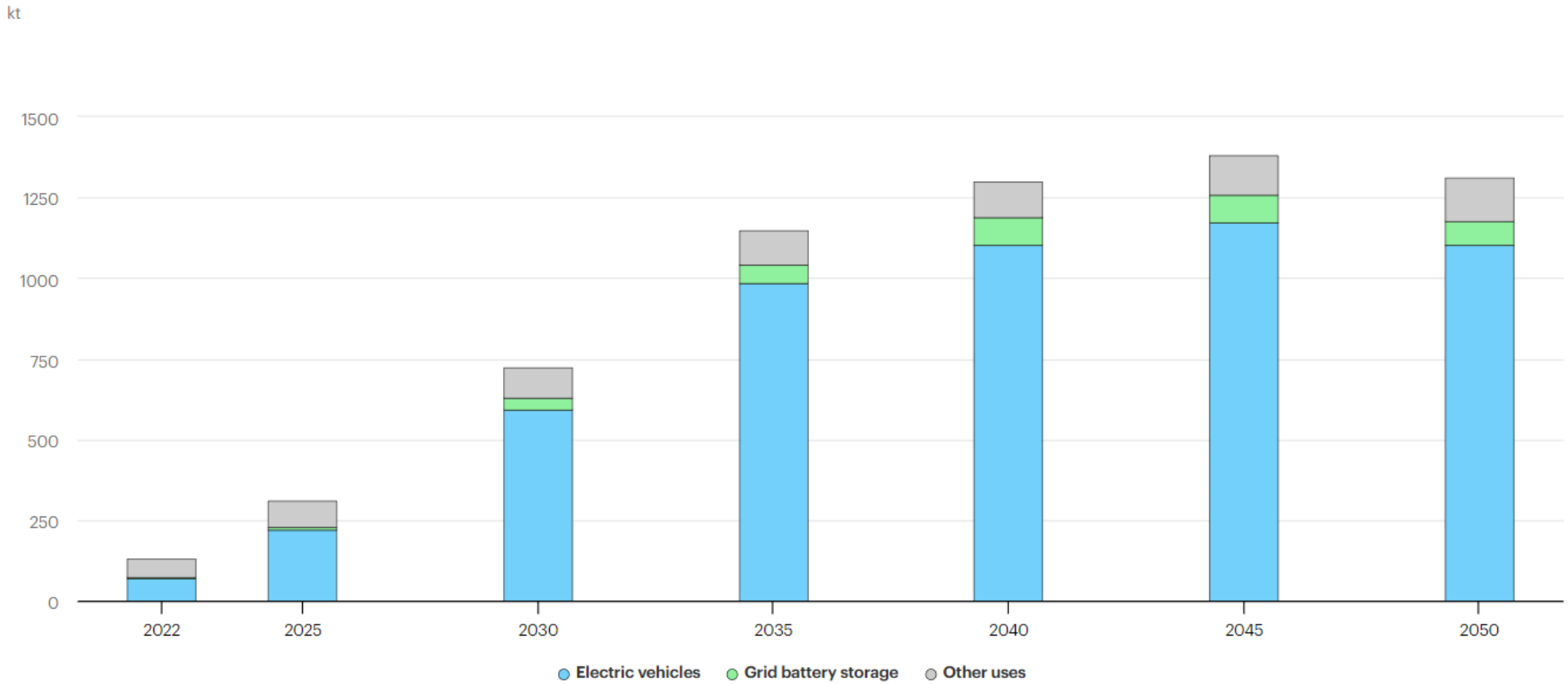
Open



Solar PV · Wind · Other low-carbon power generation · EVs and battery storage · Electricity networks · Hydrogen

Total demand for lithium in the Net Zero Emissions by 2050 Scenario

Show as percentage



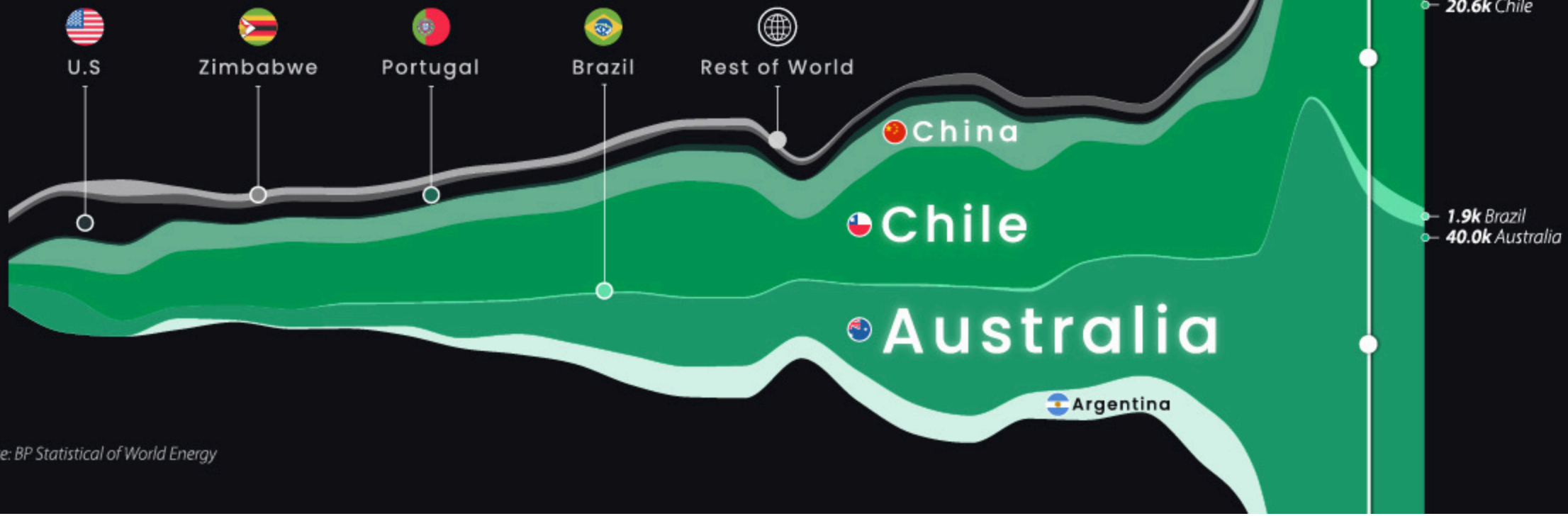
LITHIUM PRODUCTION BY COUNTRY

1995-2020

Mine Production of Lithium
(tonnes of lithium content)

2020 Global Production
86,300 tonnes

Australia, Chile, and China accounted for **86%** of worldwide lithium production in 2020.

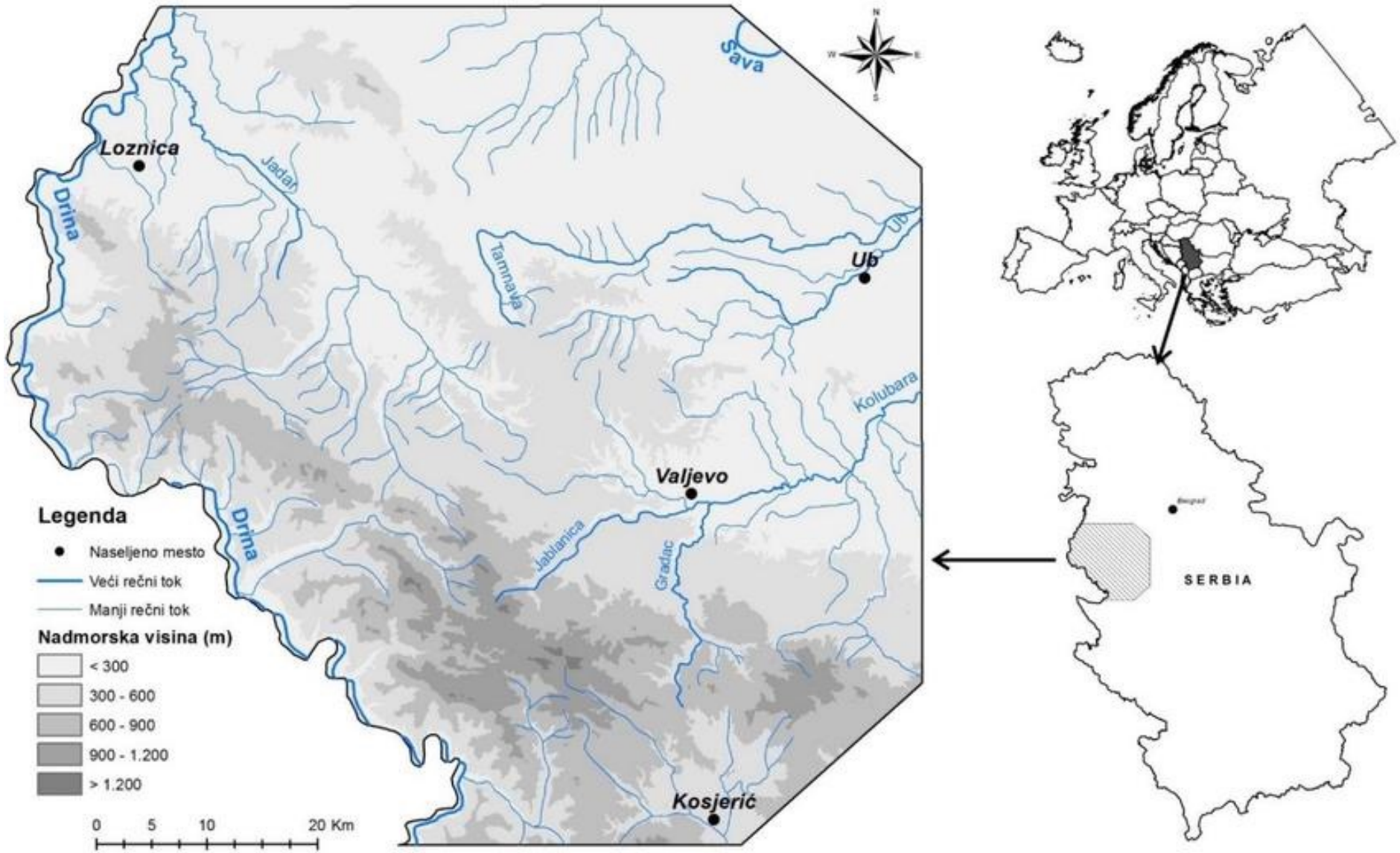


2020 production (tonnes)

- 0.5k Rest of the world
- 1.2k Zimbabwe
- 0.9k U.S.
- 0.9k Portugal
- 14.0k China
- 20.6k Chile
- 1.9k Brazil
- 40.0k Australia

Source: BP Statistical of World Energy

Economist.com


Sava
Loznica
Jadar
Drina
Tamnava
Ub
Kolubara
Valjevo
Drina
Jablanica
Gradac
Kosjerić
Legenda
Naseljeno mesto
Veći rečni tok
Manji rečni tok
Nadmorska visina (m)
< 300
300 - 600
600 - 900
900 - 1.200
> 1.200
0 5 10 20 Km
SERBIA

Kryptonite Discovered in Serbian Mine

It doesn't glow green, but an unidentified mineral discovered in a Serbian mine matches the molecular composition of Kryptonite described in the movie Superman Returns. When minerologists tried to find other substances that matched the white, grainy rock they found in a mine near the Serbian region of Jadar, they came up with nothing — [...]

It doesn't glow green, but an unidentified mineral discovered in a Serbian mine matches the molecular composition of Kryptonite described in the movie *Superman Returns*. When minerologists tried to find other substances that matched the white, grainy rock they found in a mine near the Serbian region of Jadar, they came up with nothing -- until they searched the Web. According to British Natural History Museum minerologist Chris Stanley:

> Towards the end of my research I searched the webusing the mineral's chemical formula - sodium lithium boron silicatehydroxide - and was amazed to discover that same scientific name, written on a case of rock containing kryptonite stolen by Lex Lutherfrom a museum in the film *Superman Returns*.
> The new mineral does not contain fluorine (which itdoes in the film) and is white rather than green but, in all otherrespects, the chemistry matches that for the rock containing kryptonite.

Hooray for the internet and all that. Sadly, the newly-discovered mineral can't be named Kryptonite, as there is already an element in the periodic table called Krypton. It will be named Jadarite, after the region where it was discovered.


Rio Tinto
Јадарит
LiNaB3SiO7(OH)
Откривен 4. 12. 2004.
Јадарски басен, Србија


SAY "HELLO" TO YOUR WORST ENEMY, SUPERMAN
AND I AIN'T TALKING ABOUT THE KRYPTONITE!

Thousands demand revoking Serbia's commitments to Rio Tinto

Photo: Građanske inicijative/Twitter


НЕ ДАМО
ЈАДАР!
MARŠ SA DRINE!
RIO TINTO
DUNDEE
MRŠ!!!


RIO TINTO
ТУБИ СЕ ХИТНО!
RIO TINTO,
МАРШ СА ДРИНЕ!
GET OFF THE DRINA!

Serbia scraps plans for Rio Tinto lithiu mine after protests

Government revokes lithium mining licences after being accused of ignoring project's potential for environmental harm

Ana Brnabić said all decisions and licences regarding Rio Tinto's plans had been annulled. Photograph: Darko Vojinović/AP

What emerges out of the protests is the insistence on the importance of nature, biodiversity and a strong relationship with the land as fundamental to the green transition.

Reducing the demand for CRMs is one of the most effective ways of tackling climate change as well as environmental injustice.

Serbia set to give green light to Rio Tinto lithium mine

Exploitation of one of the world's largest deposits of the metal would boost Europe's electric vehicle industry

Conclusions

What are the consequences of the rise of green extractivism for the communities across the world?

How can the green transition be not only suitable but also just?

How can reducing the demand and degrowing the economy help us achieve these aims?