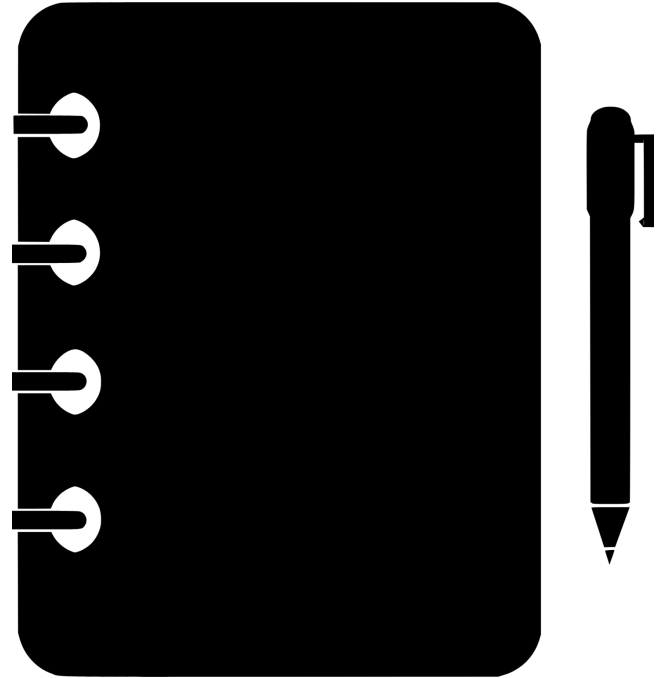


Open cast mining

Structure

- Introduction
- What is open cast mining
- Figures: coal land use worldwide
- Countries overview
- Values
- Economical x Ecological point of view
- Vision for coal/ possibilities

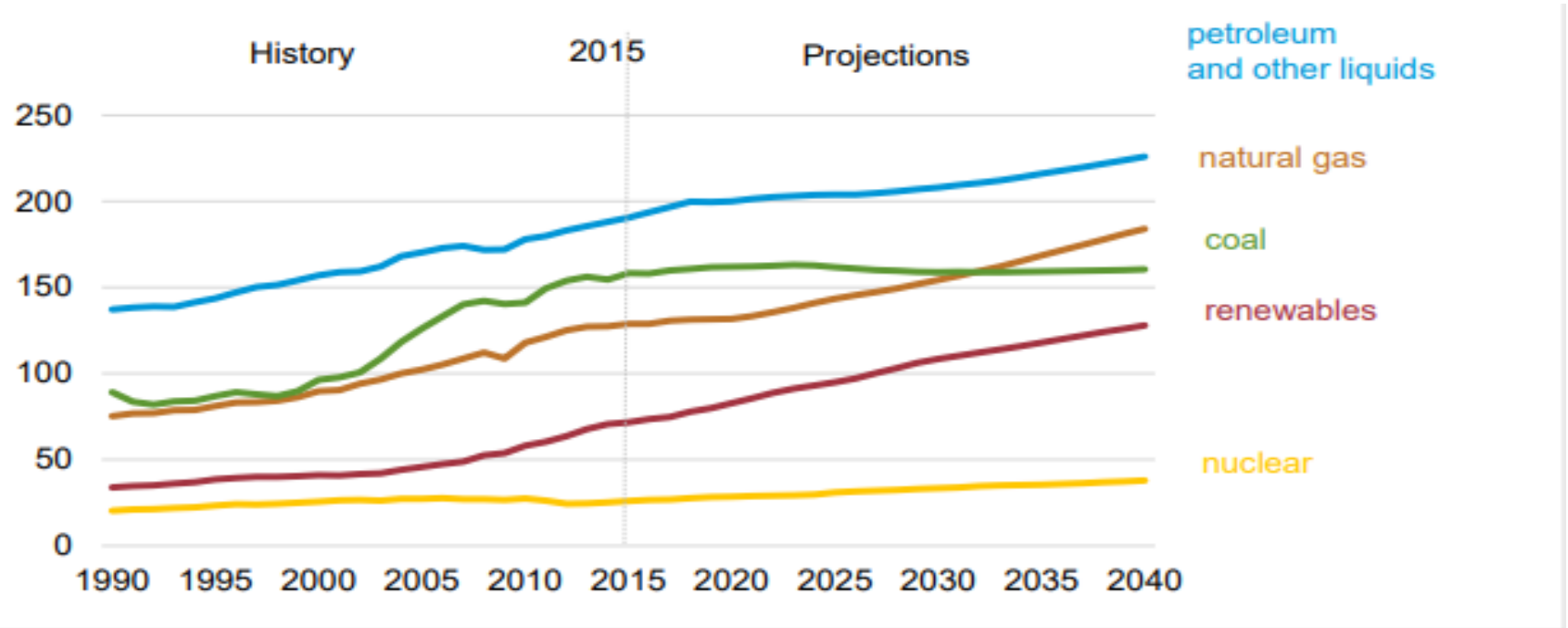


What is open cast mining



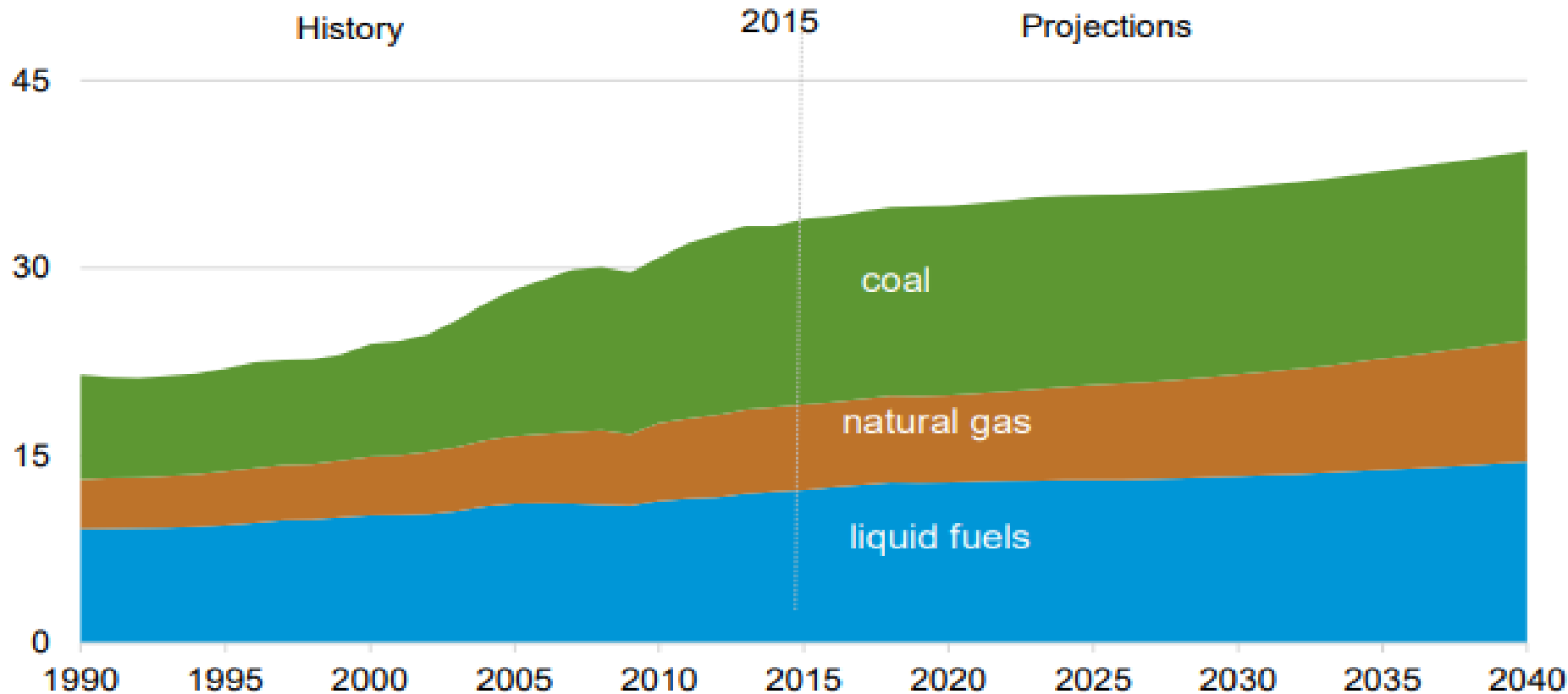
World energy consumption by energy source. *quadrillion Btu

(Source: US Energy information administration 2017)



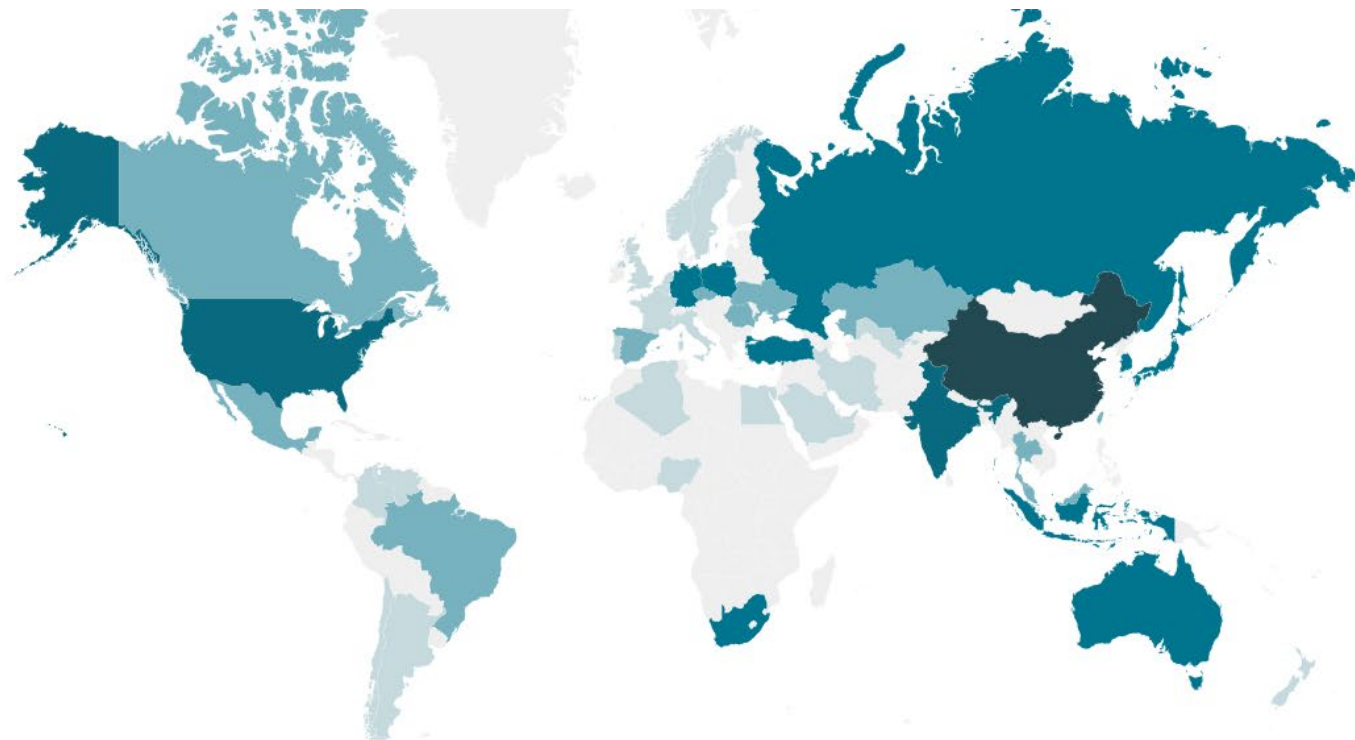
World energy related Carbon dioxide emissions by fuel type . *billion metric tons

(Source: US.Energy information administration 2017)



World Coal Consumption (2017)

Source: yearbook.enerdata.net

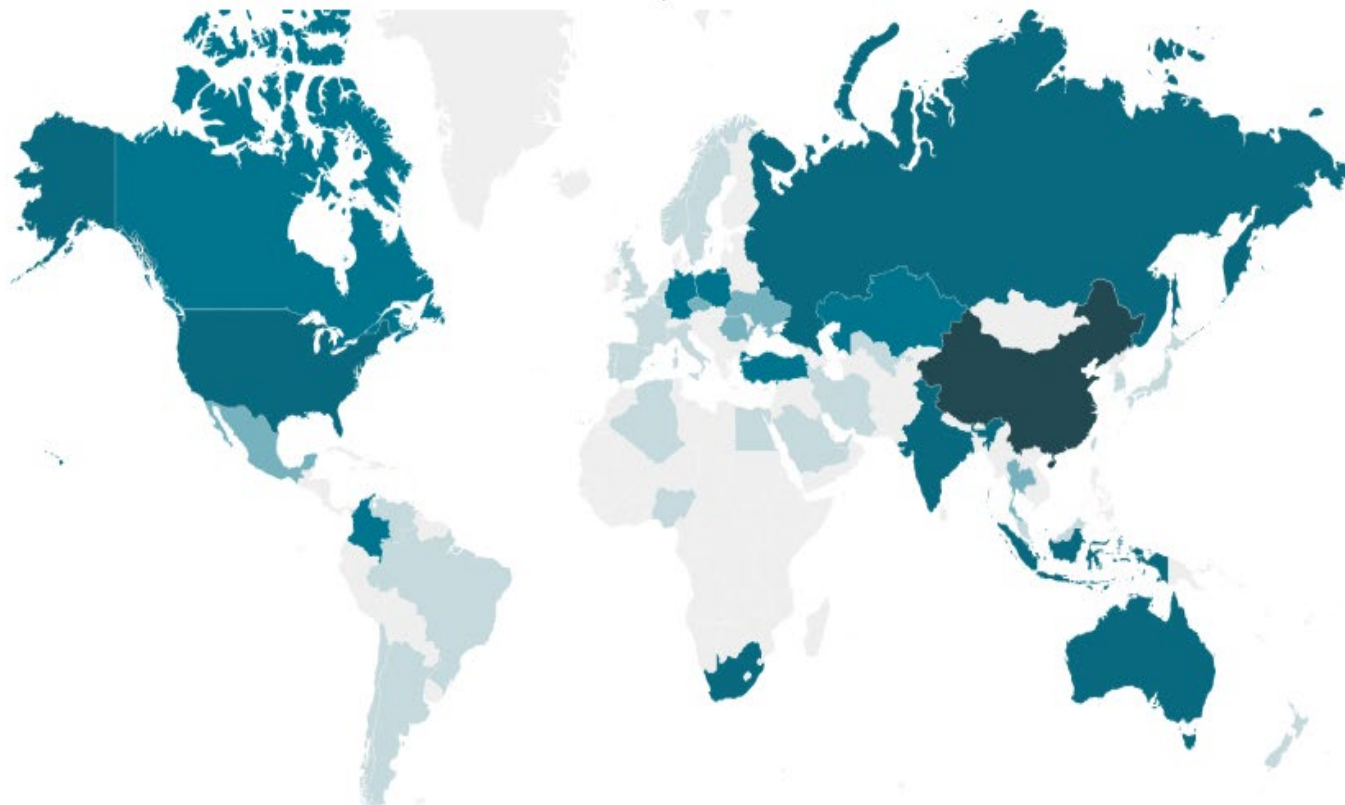


China	3,607
India	953
United States	649
Russia	232
Germany	222
Japan	196
South Africa	192
South Korea	136
Turkey	134
Poland	129
Australia	119
Indonesia	100

Below 20 20 to 100 100 to 500 500 to 3000 Above 3000

World Coal Production (2017)

Source: yearbook.enerdata.net



China	3,349
India	717
United States	701
Australia	478
Indonesia	461
Russia	387
South Africa	259
Germany	175
Poland	127
Kazakhstan	106
Turkey	100
Colombia	89

Below 10

10 to 50

50 to 200

200 to 3000

Above 3000

Coal global distribution data (source: Wikipedia)

Exports of Coal by Country and year (million tonnes)^[72]

Country	2016
Australia	391
Indonesia	369
Russia	165
Colombia	83
United States	54

Imports of Coal by Country and year (million tonnes)^[73]

Country	2016
China	256
India	196
Japan	190
South Korea	128
Taiwan	66
Germany	58
Turkey	36

Proved reserves (end 2017)

Country	% of world total
United Nations	24
Russia	16
Australia	14
China	13
India	9

Germany

Total amount produced Approx. 171,3 Mio. tons (2017)

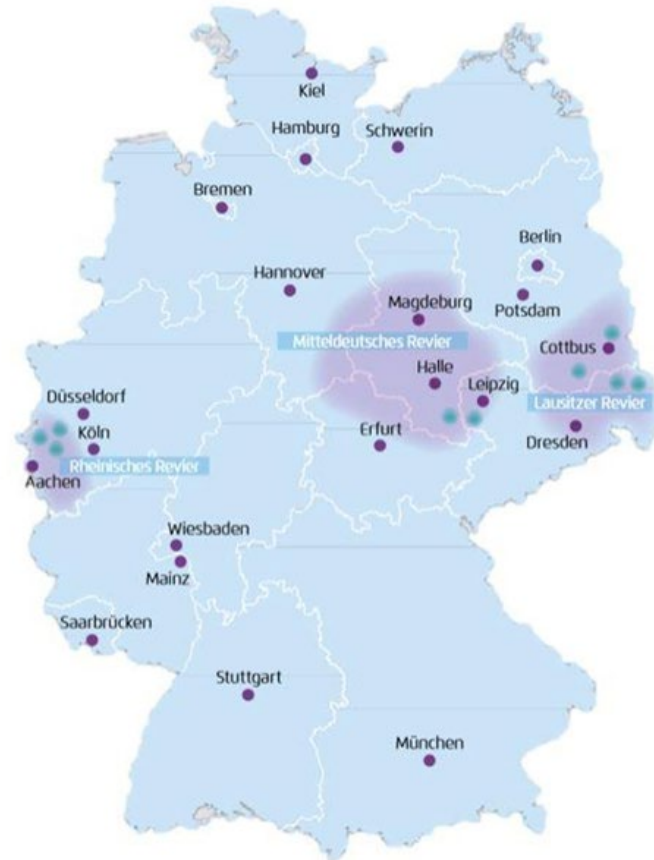
Usage Electricity, industry, heating

% of electricity 23

Reserves (bill. T) 72,6 geological
36,1 economically
3,8 authorised

German lignite mining districts

Source: Agora Energiewende (2017) with DEBRIV (2003).



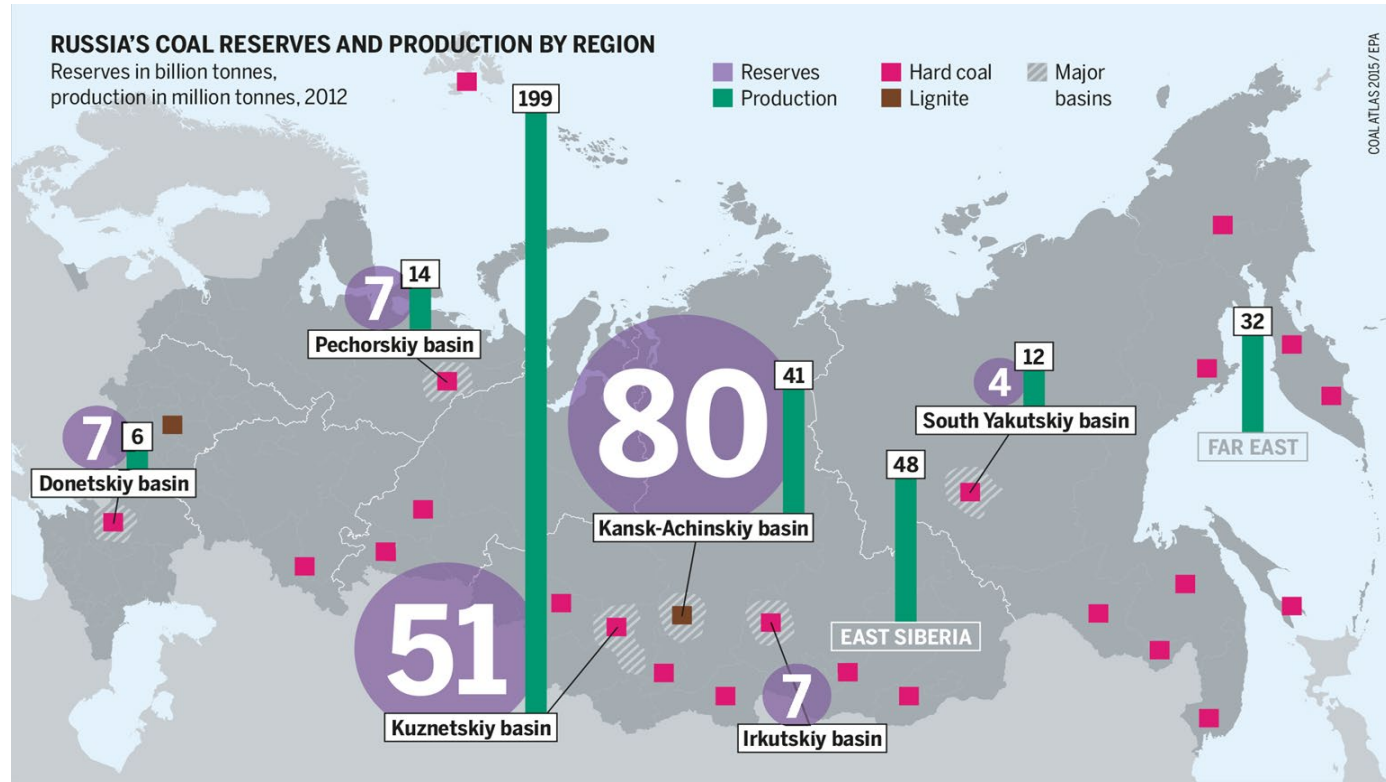
Russia

323 million tons

Electricity production

14,4%

173 billion tons



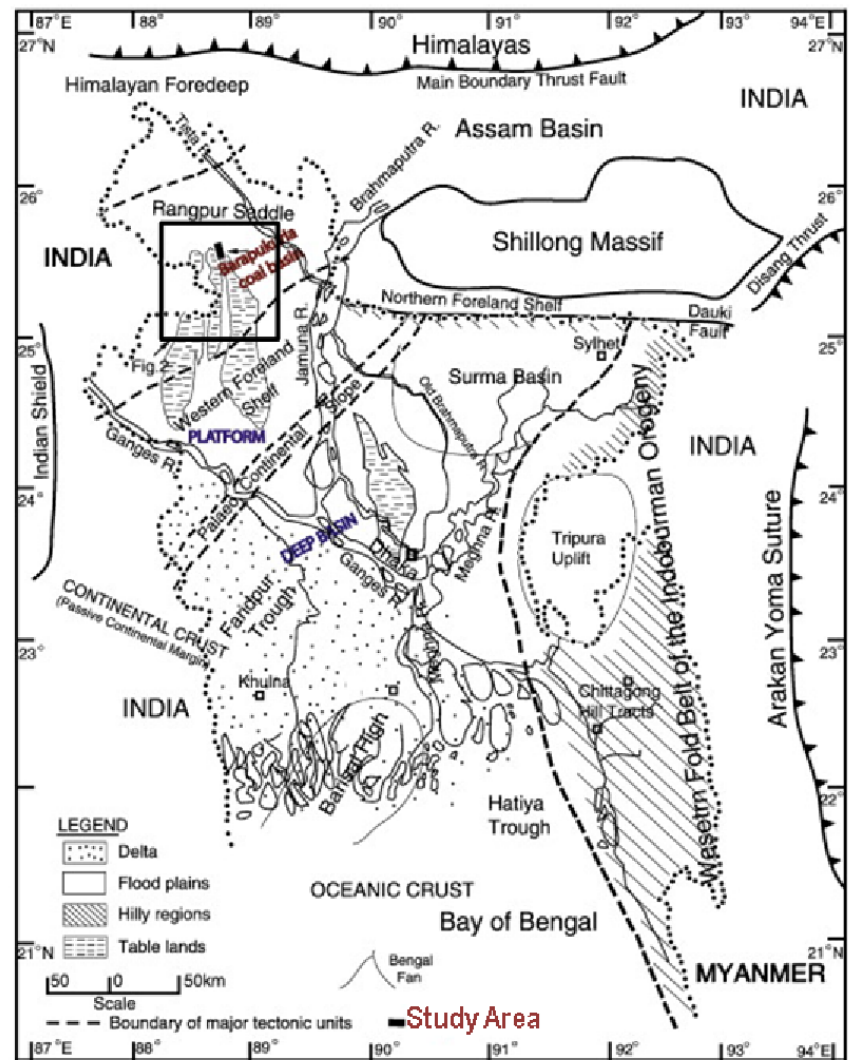
Bangladesh

1 million tons

Power generation

2 %

2527 million tons



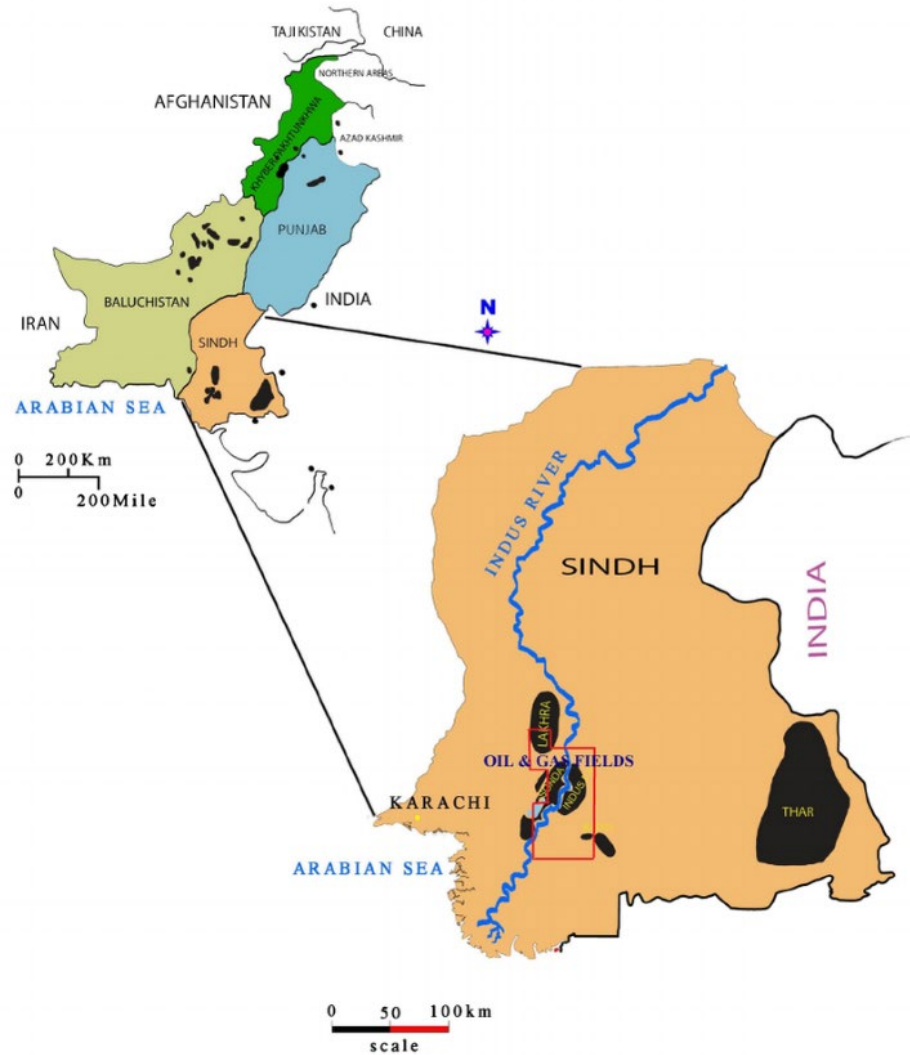
Pakistan

4 million tons

Heating, cooking, transportation

0 %

185 billion tons



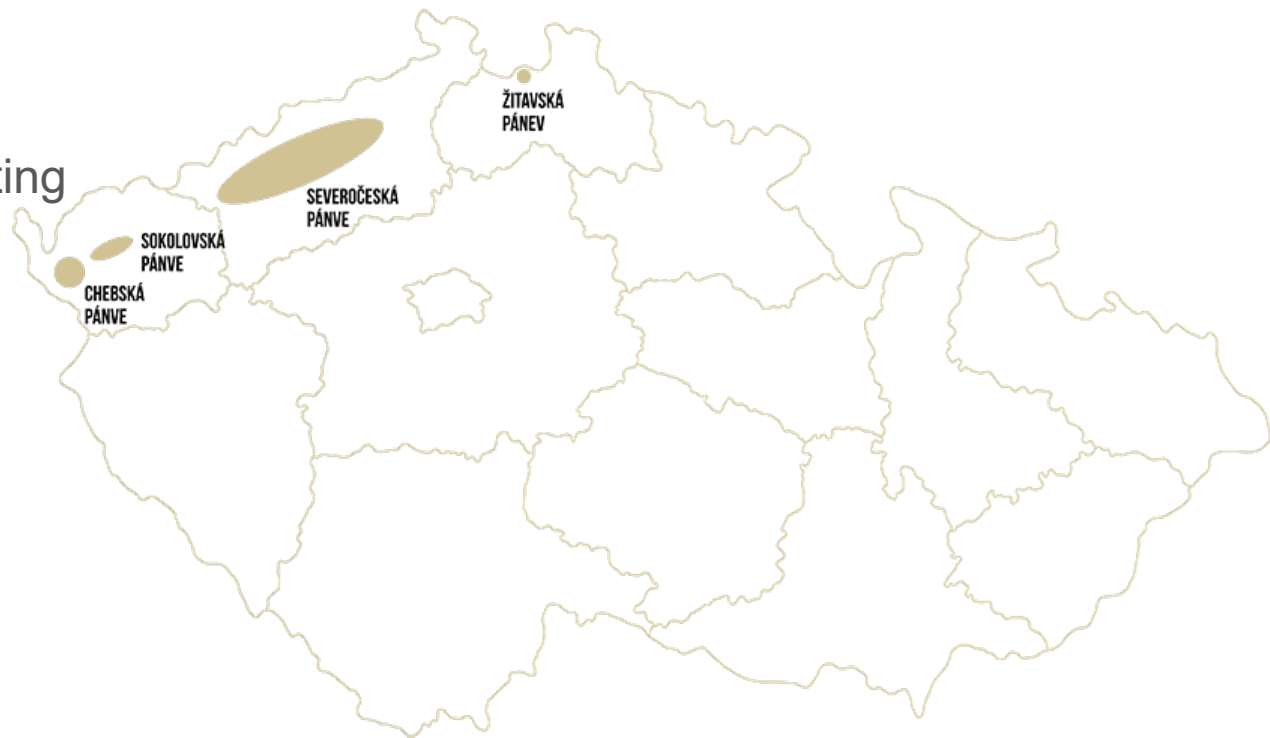
Czech Republic

39,3 mil. t. - 2016

Electricity, industry, heating

42% of electricity

800 mil. t.



Colombia



LOCALIZACIÓN DE CERREJÓN




- ✓ 61.4 million tonnes in 2017
 - ✓ Almost 100% of the production is exported to the Netherlands, Turkey, Argentina, Chile, and Panama.
 - ✓ Coal reserves in Colombia are estimated to be around 6434 million t.
-
- ✓ One of the world's largest open-pit coal mines, is located in northern La Guajira province. It has a railway line spanning more than 90 miles (150-km) and a seaport to handle shipments.

Geographical heritage/ resources

Political interest

Stabilising stratum in the earth

Electricity



What are the VALUES of coal in
your country/ for you?

Market driver

Biodiversity enhancement

Water reserve/ recreation

Ecological perspective and Impacts



Deforestation and Erosion



Displacement of Communities



Contamination of groundwater



Chemical, Air & Dust Pollution



Health Hazards

Economical perspective

New Jobs

Improved infrastructure

Helps the local economy

Tourists

Higher productivity



Question for you

Open-cast coal mining: Energy of the future or ecological ignorance of the past?

Thank you for your attention :)

Sources

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