

Impacts of Globalization on the Mineral Resource Exporting Countries



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Disclaimer

All numerical statistical figures have been compared between the data from the IMF, The World Bank, The United Nations and other reputable sources collected in 2020, 2019 and 2018 – Slight differences in the total figures may occur.

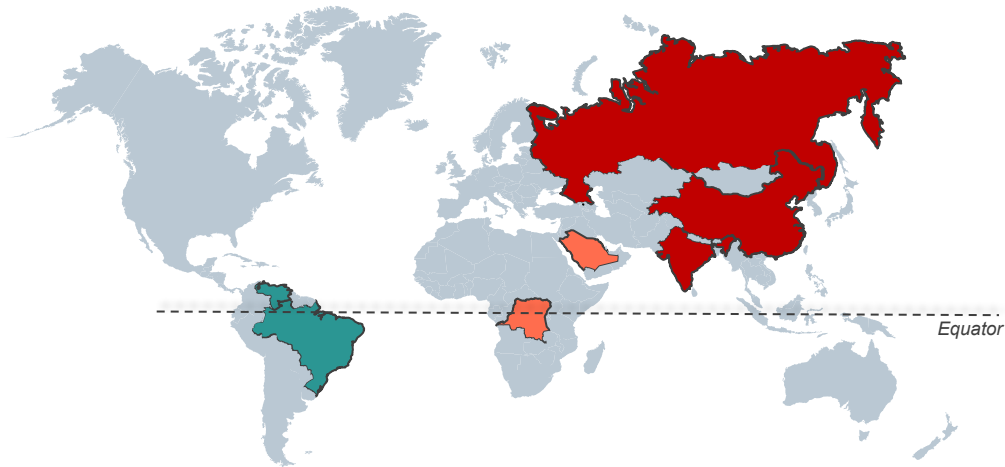
We appreciate your comprehension

Mineral-Resource Exporting Countries

South America – Brazil and Venezuela

Central Africa/Middle East – The DRC and Saudi Arabia

Asia – Russia, China and India



Brazil

(Federative Republic of Brazil)



(ECI of 0.55, 49 of 157)



- Population of approximately 213.5 million => 2.73% of world population (+ annual growth of 0.72%)
- 71% in services, 19.7% in industry and 9.2% in agriculture
- Quite low population density with 25 people per km²
- Huge urbanization trend – city population > rural population

- Nominal GDP is 1.84 trillion USD => 2.1% of world's economy
- GDP per capita is 8,920 USD
- Gross debt makes up 89.50% of Brazil's GDP => 2.4% of worldwide debt
- 9th largest recipient of FDI in the world (640 billion USD)

- Amazonian Rainforest runs through the north of the country
- It is the 5th largest country in the world with total area of 8,5 million km², covers roughly half of the South America
- 465 million metric tons of Co2 were produced in 2019, 311 million tons is from oil => 1.28% of world's Co2 emissions

- Exports in 2019: 224 billion USD => 1.23% of world exports
- Imports in 2019: 177 billion USD => 0.96% of world imports
- Top 3 export commodities were Soya beans, Petroleum oils and Iron ores, import commodities were Mineral fuels, Electrical machinery and boiler (heavier machinery)

Brazil

(Federative Republic of Brazil)

- In the terms of mineral resources Brazil is considered as a **truly rich country**
- **+72 mineral resources** are produced here (bauxite, tin, granite, manganese and huge offshore **reserves of petroleum and natural gas**)
- Main mineral resource mined there is high quality **iron ore** of which Brazil is the world's **3rd largest producer**
- Due to increasing construction of roads, plantations and settlements the **rainforests are often exploited**
- Brazil's agriculture is considered self-sufficient in most areas; **main exports are soya beans and coffee** of which Brazil is number 1 producer in the world

Brazil

(Federative Republic of Brazil)

- Country is currently being ruled by right-wing president Jair Bolsonaro who is both chief of state and the government
- With his rise to power came his policies concentrating on tackling sky-high levels of criminality -> in 2015 Brazil had nead 60,000 murders per year
- Lately his uncaring approach to any social policies; mainly healthcare was criticized due to high levels of mortality and infection rates of COVID-19
- His government is often accused trade-driven deforestation; turning a blind eye to illegal logging and encouraging cattle farmers as well as miners expansion thus hastening deforestation -> the number of Amazonian wildfires has sharply increased in 2019

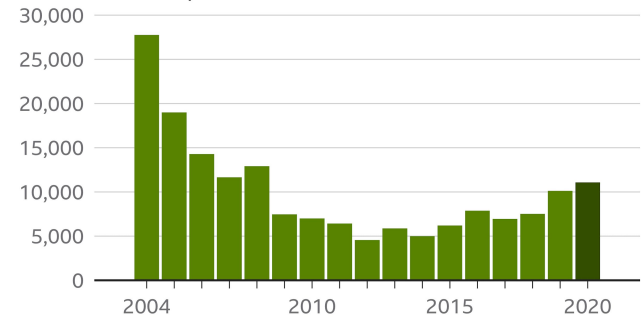
Brazil

(Federative Republic of Brazil)

- Currently the deforestation rates are at their highest since 2008
- Timber from the rainforests were exported by questionable Brazilian companies who were in the past fined by Brazil's environmental enforcement agency for illegal logging mostly to European, North American and Asian companies
- Just in 1996 Asian companies invested all together approximately 500 million USD into Brazilian timber industry
- Exports of timber nearly doubled in 2019 and controls over suspicious Amazon timber exports were reduced

Amazon deforestation highest since 2008

Annual rate in square kilometres



Note: Annual figures August-July

Source: PRODES, Inpe

Venezuela

(Bolivarian Republic of Venezuela)



(ECI of -0.73, 118 of 157)



- Population of approximately 28.4 million => 0.36% of world population (- annual decrease of 0.28%)
- 75% in services, 16.3% in industry and 8.31% in agriculture
- Low population density with 32 people per km²
- Huge urbanization trend – city population > rural population

- Very sharp GDP decline in 2012 and steady decline since 2015
- Nominal GDP is 69.96 billion USD => 0.15% of world's economy
- Large gross national debt makes up 232.79% of Venezuela's GDP => much higher than was originally expected (152%)
- Recently inflows of FDIs were increased to 934 million USD => Despite its petroleum richness this is a fairly low number

- Amazonian rainforest covers the very southern tip of the country
- Country covers roughly 912,050 km² of South America
- 116 million metric tons of Co2 were produced in 2019, 47.2 million tons is from oil => 0.38% of worlds Co2 emissions

- Exports in 2019: 14.7 billion USD
- Imports in 2019: 5.57 billion USD => Enormous decrease
- Top 3 export commodities were Crude Petroleum, Acyclic Alcohols and Gold, import commodities were Refined Petroleum, Machinery and Vegetable products

Venezuela

(Bolivarian Republic of Venezuela)

- Former **2nd largest Latin-American producer of coal** until sharp decline in 2006; currently there are talks about reigniting the coal production (planned investments of 2 billion USD)
- Dependant on exporting their mineral resources; **for example in 2014 export of mineral resources accounted for 26% of HDP** but despite that the level of development is underwhelming
- Main mineral resources produced in Venezuela are **Crude Oil, Direct-reduced iron, Bauxite and Aluminum**
- Due to expected huge investments into the coal and oil industries **Venezuela's mineral mining sector will likely improve in the future and contribute more to the country's economy**

Venezuela

(Bolivarian Republic of Venezuela)

- Under the leadership of socialist leaders ever since 1999 -> president Hugo Rafael Chávez; who styled himself as the leader of the socialist “Bolivarian Revolution”
- Implementation of policies to end the corruption, increase spending on social programs, and redistribution of the country’s oil wealth; for example imposed price controls on basic goods causing their price to cap and thus driving their production to a halt
- In 2013 president Nicolás Maduro continued in socialist policies but faced freefall of the economy caused by his own and his predecessor’s policies
- Massive shortages of basic supplies caused hyperinflation, rising unemployment, anti-government protests as well as opposition being formed which were heavily suppressed
- In retaliation to government’s suppression and illegal gold mining US imposed sanctions on Venezuela’s oil sector crippling it

Venezuela

(Bolivarian Republic of Venezuela)

- IMF estimated that in 2019 the inflation rates would reach **10 million %**
- All economical problems and government's approach caused a **massive wave of migration of Venezuelans to other countries**
- Some of the migrants headed into the US and despite Donald Trump's anti-immigration policies they were **supported and they deportations were temporarily halted**

The routes of Venezuelan migrants

Tension rising as the intake of surrounding countries rises rapidly



The DRC

(The Democratic Republic of the Congo)



(ECI of -1.67, 152 of 157)



- Population of approximately 89.5 million => 1.15% of world population (+ annual increase of 3.19%)
- 65.43% of population is employed in agriculture
- Countryside population and agriculture produces 40% of GDP
- 72% of the population in the north lives in extreme poverty



- Until 2018 GDP was growing by 5.8% but recently it slowed down to 4.4%
- Nominal GDP is 47.23 billion USD => 0.07% of world's economy
- Pandemy is expected to cause economic recession (-2.2%)
- FDIs have been steadily increasing but between 2018 and 2019 a slight decrease was reported => 3.3 billion USD



- Country is covered by the 2nd largest rainforest in the world
- Country covers about 2.3 million km² of land and is considered to be the 2nd largest country in Africa
- 9.9% of land is used for agricultural purposes and 3% of this area classified as arable land



- Exports in 2019: 8.16 billion USD
- Imports in 2019: 7.28 billion USD => Steady increase
- Top 3 export commodities were Refined Copper, Cobalt and Copper Ore, Import commodities were Packaged Medicaments, Refined Petroleum and Sulfuric Acid

The DRC

(The Democratic Republic of the Congo)

- In 2019, Democratic Republic of the Congo was the world's biggest exporter of **Cobalt** and **Cobalt Ore**
- Mining produces almost **nine-tenths of total exports**
- With the limitless water provided from the 2nd largest river Africa, rich soil and huge deposits of copper, gold, diamonds, cobalt, uranium, coltan and oil it is considered **one of the mineral richest countries in Africa**
- **The world's largest supply of rubber** is present in the country and in the past it was brutally harvested
- Former hub of slavery in Africa for its colonial masters
- **Hydroelectric resources make up about one-eighth of global capacity** and perhaps half of Africa's potential capacity

The DRC

(The Democratic Republic of the Congo)

- The country has a dark history of brutal colonial rule under the Belgian administration from 1869 to 1960; in which the Congolese workers suffered in appalling conditions rivaling those of Holocaust victims in WW2 producing the materials that supplied industrial production in Europe and North America
- Interest for Congo came mainly thanks to its mineral resources which found their uses across the western world; for example the brass casings of allied shells fired at Passchendaele and the Somme were 75% Congolese copper
- Historically the country has also been used for its great agricultural aspects so no industry or proper manufacturing and education centers had a chance to be developed
- Majority of Congolese depend on firewood as a source of domestic fuel which leads to further logging in the area

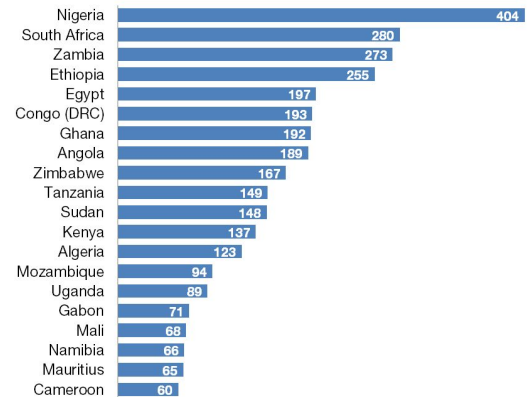
The DRC

(The Democratic Republic of the Congo)

- Country is often mentioned as being one of the victims of **Debt-trap diplomacy tactics** of the Chinese owned businesses
- As of 2020 Congo has the **4th largest Chinese owned debt in Africa**
- **Over a third of China's oil comes from Africa**, as does 20% of the country's cotton and as was said **Congo possesses half of the planet's cobalt** which is necessary for making rechargeable batteries
- Chinese influence in Africa has been **steadily rising** and is beginning to rival that of Western companies

Where has China invested?

Top 20 destination countries for African investment
by number of projects



Source: <http://brook.gs/1KWTFcX>

Tip: Document about Chinese business activities in the DRC - **Empire of Dust (2011)**

Saudi Arabia

(Kingdom of Saudi Arabia)

(ECI of 1, 33 of 157)



- Population of 35 million - rank number 41 in the world (0.45 % of whole world population)
- Population density of only 16 people per km²
- 84% of the population is urban
- 72.9 % of active population in services, 24.8% in industry and 2.3 % in agriculture

- Nominal GDP - 793 billion USD - rank 18 in the world and 0.66 % of world's economy
- GDP per capita -> 23,266 USD (rank 40)
- Gross debt (180 million USD) made 22.8 % of country's GDP in 2019 and 33.4 % in 2020 = 0.2% of world debt
- FDI flows had gradually declined (political factors, oil prices)
- New projects - FDI flows increased by 7% between 2018 and 2019 reaching 4.6 billion USD

- 2,15 milion km²
- Across most of the northern and central Arabian Peninsula
- East, along Persian Gulf - oil fields

- Exports: 228 billion USD (26th in the world)
- Imports: 149 billion USD (32nd in the world)
- Top export commodities = Crude Petroleum, Refined Petroleum
- In 2019 - biggest importer of armored vehicles

Saudi Arabia

(Kingdom of Saudi Arabia)

- Some of the world's largest reserves of phosphate and tantalum + reserves of untapped mining potential (valued at 1.3 trillion USD) with 20 million ounces of gold reserves
- 1/4 of the world's reserves of tantalum (rare earth element)
- Largest mineral deposits in the Middle East + largest producer of gold in the Middle East, production of around 4 million ounces (2019)
- Range of over 48 minerals and metal sources
- The central and northern parts - large amounts of bauxite, silver, zinc, copper, magnesite
- Saudi Arabia = 3rd largest net importer of copper, 4th largest net importer of aluminium products + iron and steel among the largest commodity imports
- Can compensate for the diversification (oil, gas)

Saudi Arabia

(Kingdom of Saudi Arabia)

- Saudi Arabia is becoming **significant market for mineral extraction and processing**
- The supply gap presents multi-billion dollar **opportunities for local production**
- Emphasis on the sector = expectation that metals and mining - significant beneficial impact on the economy, **increase of GDP contribution to 64 billion USD by 2030, 90 000 jobs**
- Great cost advantages awaits (**strong demand, local utilities, raw materials, suppliers, contractors, talent pool**)
- Saudi Arabia - economic and industrial growth -> **significant increase in demand for mined commodities** (serve key developing sectors)
- Strong opportunities = **export of sodium chlorate to Asian and MENA importer markets**
- KSA's demand for metal and mineral exceeds local supply (great potential for mining industry)

Saudi Arabia

(Kingdom of Saudi Arabia)

- Significant government commitment and support
- Preparing for rapid expansion -> **Saudi Vision 2030** - mining sector to contribute at full potential to the national company
- Mining sector - priority, listed as the **third pillar of economic diversification**
- Support through megaprojects - 2,750 Km North-South railway (Al-Jalamid mine with processing facilities in Ras-al-Khair Industrial city + more than 25 billion USD invested in new mining ventures and plants to process industrial ore
- Changes in mining law = **better access, joint ventures, working with local companies**
- Investors can feel **confident in the future growth of the industry**
- Requires mineral processing technology, equipment, proven expertise to develop mineral-based manufacturing

Russia

(Russian Federation)

(ECI of 0.64, 44 of 157)



- Nominal GDP 1.70 trillion USD
- GDP per capita 11,585 USD
- Gross debt 236.8 billion USD = 13.9 % of GDP (0,3 % of world debt)
- FDI flows decreased in 2020 by 96 % from 32 billion USD to 1.1 billion USD
- Weak international demand for crude oil and price conflict -> historically low levels
- Before 13 billion USD (2018) and then enormous increase of 139.9% to 31.7 billion USD

- Exports: 407 billion USD
- Imports: 238 billion USD
- Top export products = petroleum products and natural gas
- 2019 - world's biggest importer of Refractory cements
- One of the main exporters of cereals

- Population of 145.9 million = 1.87% of world population
- 9 people per km²
- Urbanization at 74%
- 54% of working population in services, 27% in industry and 6 % in agriculture
- Owns 10% of the world's agricultural land
- Northern regions = livestock
- Southern regions and western Siberia = cereals

- Area - 17 million km² -> largest country in the world - covers app. 1/8 of world's land surface
- Stretches over a vast expanse of eastern Europe and northern Asia

Russia

(Russian Federation)

- Largest country in terms of landmass - wide range of mineral commodities (copper, iron ore, diamond, lime, gold, magnesium compound, aluminium, cobalt and other)
- One of the countries with the richest raw material deposits
- Vast platinum reserves, leading palladium producer
- Russia produces 11 % of global aluminium
- 3rd-largest exporter of primary aluminium and steel, 2nd-largest coal reserves in the world (15 %) +among the leaders for nickel, copper, cobalt
- Ranks in top three for production of platinum, gold and iron ore
- June 2019 - fourth largest reserves of rare earth minerals in the world (12 million tons) = above Australia and the USA
- Strength in this industry is connected to vast mineral reserves - 176 billion tons of coal - the second biggest in the world

Russia

(Russian Federation)

- Leading producer of artificial and natural diamonds - 20% of industrial grade diamond production and 25% of global gemstones produced in the world (2017 - 36.6 million carats)
- 25-40% of unmined gold reserves - **6th biggest gold producer**
- World's largest gold mine Olimpiada - 1.4 million ounces a year, **world's largest diamond mining complex** - Aikhal facility, more than 12 million carats produced in 2017
- Russia **controls 10% of the uranium world reserves** (supplies 8 % of the global uranium requirements)
- Produced **14% of the world's total mineral extraction**
- July 2020 - mining sector contributed over 20 billion USD to the economy
- Natural resources worth an estimated 75 trillion USD - potential to dominate global mining industry

Russia

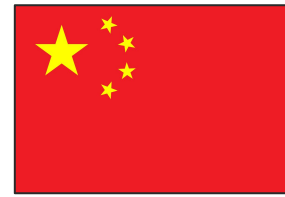
(Russian Federation)

- 25-40% of unmined gold reserves - **6th biggest gold producer**
- Mining industry challenged by the **increasing amount of economic sanctions** - result = difficult for russian companies to obtain international financial support as well as advanced mining technology and equipment - growth rate of 3%
- Number of plans to improve mining sector in the long term
 - initiative to **increase domestic production of rare earths** (competes with China and USA)
 - re-open Mir mine (diamond) in Siberia (produced 9% of total 38.5 million carats/p.a.)
 - 1.5 billion USD investment in rare earth mining and infrastructure (currently produces 1.3% of global total -> aims to produce 10% within next decade)
- Taxes increase for most profitable industries - from 135.15 USD per ton to 217.81 per ton
- Key challenges = insufficient funds to explore new areas/deposits

China

(People's Republic of China)

(ECI of 1.06, 29 of 157)



- Has the population of 1.44 billion => 18.47% of world population
- 47.4% in services, 27.5% in industry and 25% in agriculture
- High urbanization trend => 60% of the population lives in the cities

- Nominal GDP in 2019 was 14.28 trillion USD => 2nd largest GDP in the world; makes up 17% of world's economy
- Latest data project national debt to be around 317% of their GDP but simultaneously has the 2nd biggest share of US debt
- China has overtaken US as the world's top destination for FDI (163 billion USD compared to 134 billion USD; but not in 2019)

- Considered to be the 3rd largest country in the world covering of 9.9 million km² of the land => 6.1% of world's landmass
- Produces more than 10 million m³ tons of Co2 => along with the USA that makes it a top producer
- Arable land represents 10% of world's arable land feeding over 20% of the world's population

- Exports in 2019: 2.57 trillion USD => World's biggest exporter
- Imports in 2019: 1.58 trillion USD => 2nd biggest importer
- Top 3 export commodities were Broadcasting Equipment, Computer Parts and Office Machine Parts; imports were Crude Petroleum, Integrated Circuits and Iron Ores

China

(People's Republic of China)

- Country has extensive deposits of coal, oil and natural gas
- China is the top producer of aluminum, magnesium, antimony, salt, talc, barite, cement etc. which the country also exports
- Despite its natural resource wealth China has entered business partnerships with the natural resource wealthiest countries in Africa; these countries are becoming dependant on China as their number 1 export destination
- China ranks 6th in the world for water resources availability which provides it enough water to sustain their crops, fields etc. as well as provides enormous potential for hydroelectric power
- China's agricultural sector has become increasingly more dependent on import; like in other areas China prefers to use from other rather than exhaust its own

China

(People's Republic of China)

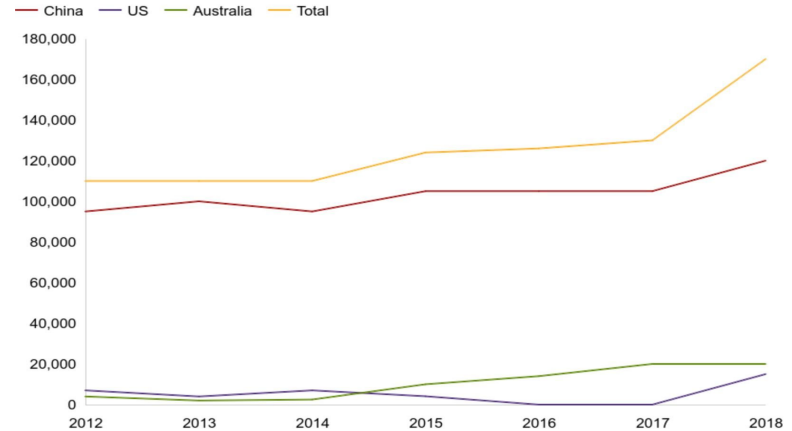
- Chinese behavior is often considered as greedy predator-like and is condemned by international institutions as well as countries around the world; this kind of behavior is most recently being monitored in the fishing industry which is worth billions
- Chinese illegal fishing activities have earned a notorious reputation around the world; its illegal fishing fleet has around 800,000 ships which often invade other countries waters to wish on their account adding to the destruction to the ecosystem
- As was said before China's activities are most active in Africa and its surroundings; in this particular case it is in Sierra Leone
- This illegal fishing causes economic losses of tens of billions of dollars a year, lost tax revenue and depletion of food supplies

China

(People's Republic of China)

- As was said before China is the world's biggest exporter of pretty much everything, including **17 rare earth minerals** of which it holds absolute advantage compared to everyone else (70% of global output)
- These rare earth minerals are used in many hi-tech industries and a lot of China's hi-tech competitors are **dependant on Chinese imports** (US imports 80%; critical for US economy)
- In relation to the US-CH trade wars China threatens to **restrict the export of these materials to US**

China's dominance of rare earth mining
Yearly mine production (tonnes)



Source: US Geological Survey

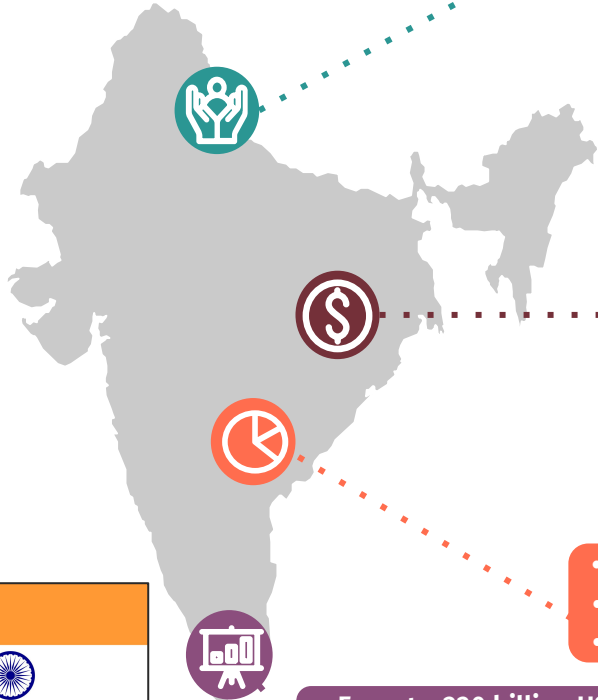


Some of the rare earth minerals are:
**Neodymium, Lanthanum, Cerium,
Praseodymium, Gadolinium, Yttrium,
Terbium and Europium**

India

(The Republic of India)

(ECI of 0.63, 45 of 157)



- Population of 1.38 billion (17,7% of world population, 1/6 of world's total population)
- Second most populous country after China with density of 464 people/km²
- Urbanization rate = 35%
- 41.49% works in agriculture, 32.3 % works in services, 26.1 % works in industry
- World's fourth agricultural power
- Main agricultural products: wheat, millet, rice, corn, sugarcane and tea
- Second largest producer of cattle, third of sheep and fourth in fishing production

- Nominal GDP 2.6 trillion USD (services contribute in almost half -> 49.3 %)
- GDP per capita only 2,100 USD (continues to suffer from low GDP per capita)
- Gross debt 2.02 trillion USD (2.7 % of world debt)
- FDI - all time high of 51 billion USD in 2019 - an increase of 20% from 2018
- India ranks 12th among the top 20 host economies for FDI
- Accounts for 70-80% of inflows in the region
- Growth of FDI - high degree of specialisation in services with a skilled english-speaking and inexpensive labour force and a potential market of one billion inhabitants + relaxed administrative regulations for foreign investors in some industrial sectors by abolishing the requirement for approval by the Reserve Bank

- 3.16 million km²
- Occupies the greater part of South Asia
- 2.65 million m³ tons of Co2 - third biggest producer

- Exports: 330 billion USD - top exports of refined petroleum and diamonds -> world's biggest exporter
- Imports: 478 billion USD - top exports of crude petroleum, gold and coal briquettes -> world's biggest importer

India

(The Republic of India)

- Coal is the country's main energy source; India is 3rd largest producer of coal in the world
- India's major mineral resources also include iron ore, manganese ore, mica and bauxite
- India is considered to be rather self-sufficient since its own oil reserves meet about 25% of the country's demand
- Country has the 2nd largest amount of oil reserves in the Asia-Pacific region right after China; country also has around 1,4 billion m³ of confirmed natural gas reserves
- Most of India's crude oil reserves are located on the western coast and in the southeastern parts of the country
- A huge mass of India's natural gas production comes from the western offshore regions

India

(The Republic of India)

- Metallic minerals available from India are gold, zinc, iron ore, manganese ore, bauxite, silver, lead, tin, copper and chromite
- India represents about 0.75% of total world gold production
- As of 2010, India has the world's largest copper reserve beating that of Russia; however as of 2019 China has toppled India in having copper reserves
- It is considered one of the 20 major copper producers
- Some of the domestic demand is met through scrap recycling; In India the copper scrap is recycled to make 4 wheeled cycles which is a hazardous process
- Contribution of the mining industry to the GDP varies from 2.2% to 2.5%
- The mining and metal industry was worth over 106,4 billion in 2010
- Indian mining industry provides job opportunities to around 700,000 individuals

India

(The Republic of India)

- India has the World's **fourth largest zinc reserve** as of 2013
- India is the world's **third biggest exporter of iron ore** as of 2013
- **Wollastonite** - India is one of the largest reserves
- **Ilmenite** - As of 2013, India has 21% of the world's reserves and constitutes 6% of the world's production
- As of 2012, India is the largest producer of sheet mica, **2015 the fourth largest producer of iron ore, aluminium, chromite and bauxite in the world.** Coal and iron ore - fifth largest reserves in the world
- Accounts for **12% of known and available thorium**
- One of the most challenging issues - lack of assessment of India's natural resources
- The mining and metal industry was worth over 106.4 billion USD in 2010

Used Sources

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- <https://www.worldbank.org/en/home>
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- <https://www.statista.com/>
- <https://www.britannica.com/>
- <https://www.export.gov>
- <https://www.worldometers.info/>
- And many of more...

The End

Thank you for your attention and have a nice day.