The Great Horse Manure Crisis of 1894

By the late 1800s, large cities all around the world were drowning in horse manure. The London Times predicted in 1894 that in 50 years time, every street in London would be buried under nine feet of manure.

Source:

https://www.historic-uk.com/

https://Wikipedia.org

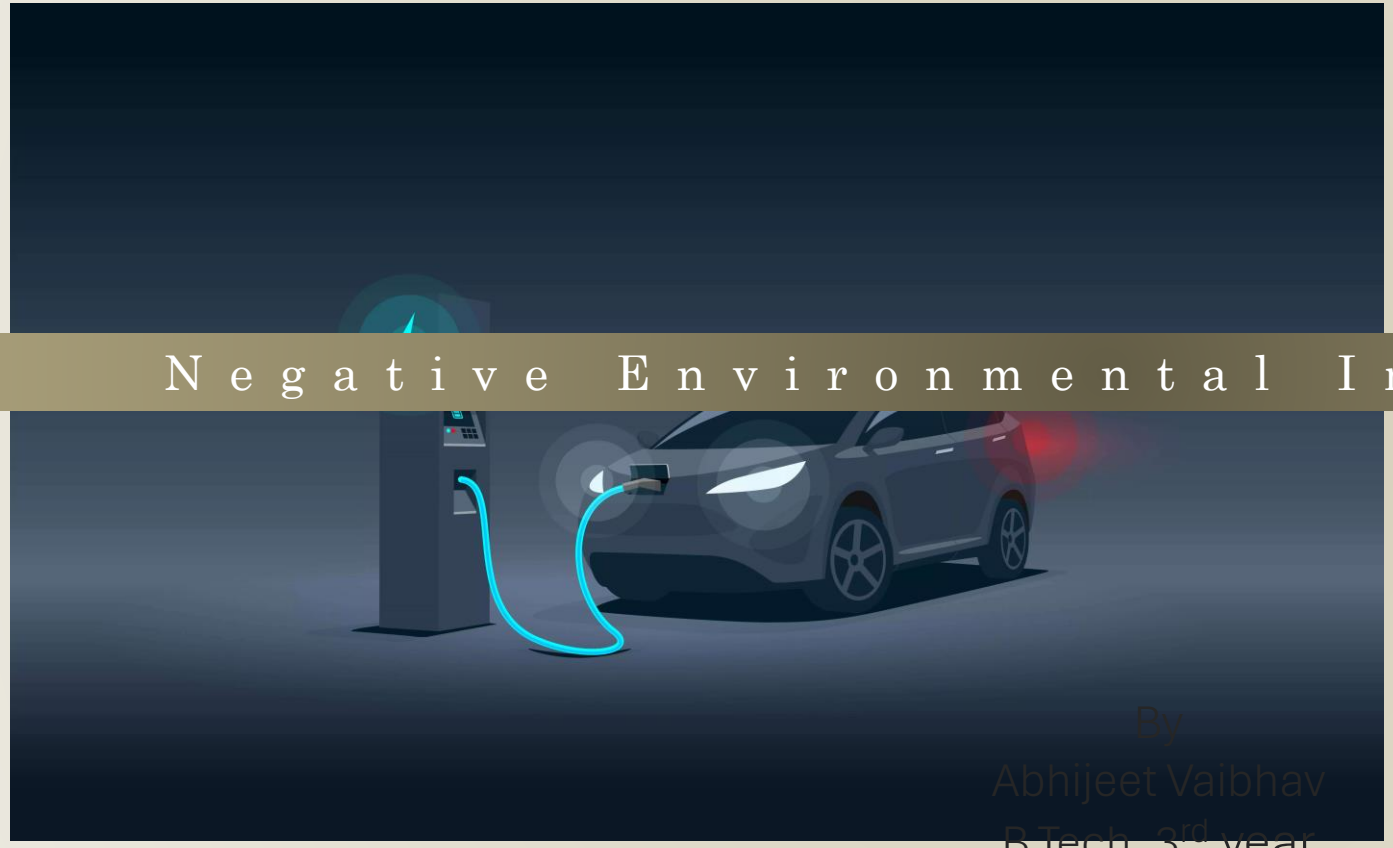
In a recent collaboration between the Delhi government and IIT-Kanpur, findings revealed that on Wednesday, vehicular emissions contributed to approximately 38% of the capital's air pollution. 16 Nov 2023

Times of India
https://timesofindia.indiatimes.com › ... › delhi News

Delhi's air quality severe, vehicular emissions largest contributor

Source:
Digit Insurance
ET AUTO
Times of India
https://www.knocksense.com/

Negative Environmental Impacts of EVs



By
Abhijeet Vaibhav
B.Tech. 3rd year

Source:
Google Images

Vehicle Whole Life Carbon Emission Analysis

Vehicle Type	Estimated lifecycle emissions (tonnes CO2e)	Proportion of emissions in production	Estimated emissions in production (tonnes CO2e)
Standard Gasoline Vehicle	24	23%	5.6
Hybrid Vehicle	21	31%	6.5
Battery Electric Vehicle	19	46%	8.8

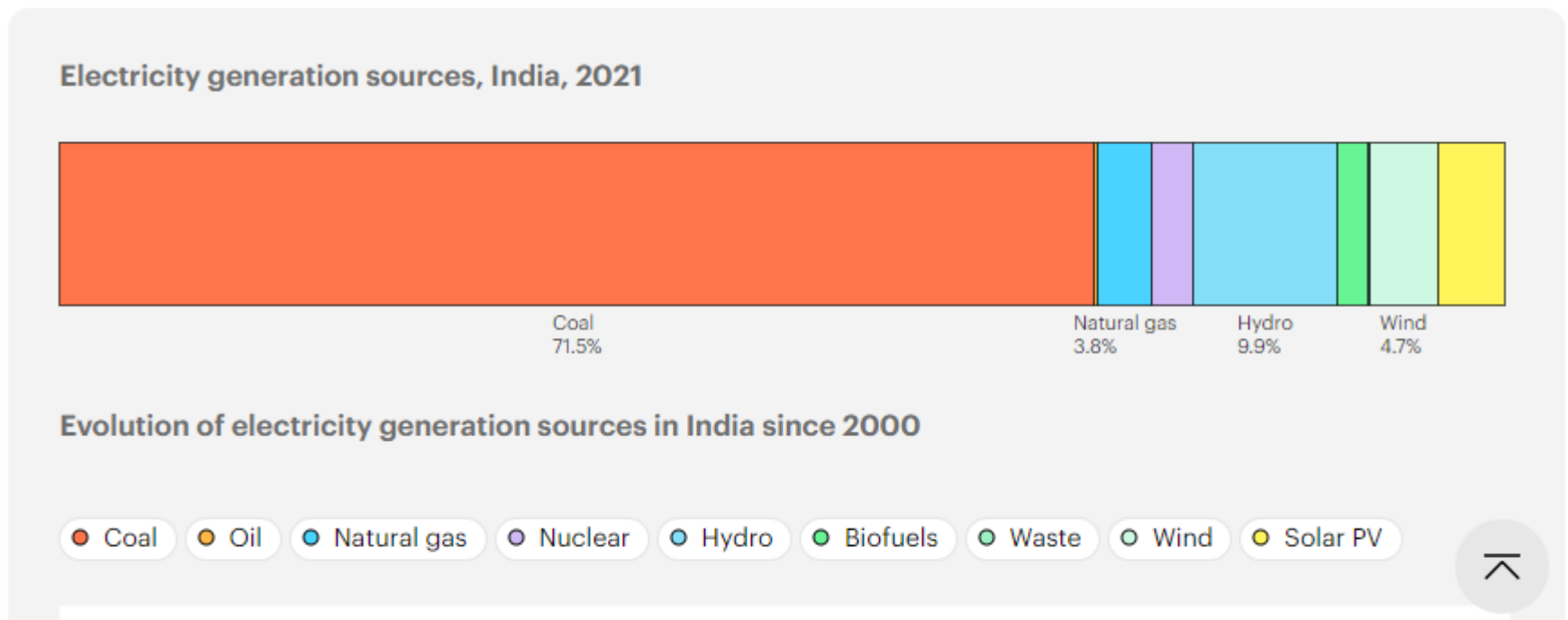
Source:
https://www.earth.org

EVs are Not Green

- To produce one tonne of lithium (enough for ~100 car batteries) requires approximately 2 million tonnes of water, which makes battery production an extremely water-intensive practice.
- In Chile, 65% of region water was used for lithium extraction.
- Nickel and cobalt have similar reputations
- Only 5% of the world's total batteries are currently recycled
- Nickel, cobalt, and lithium, which are finite resources, leading to even more environmental harm

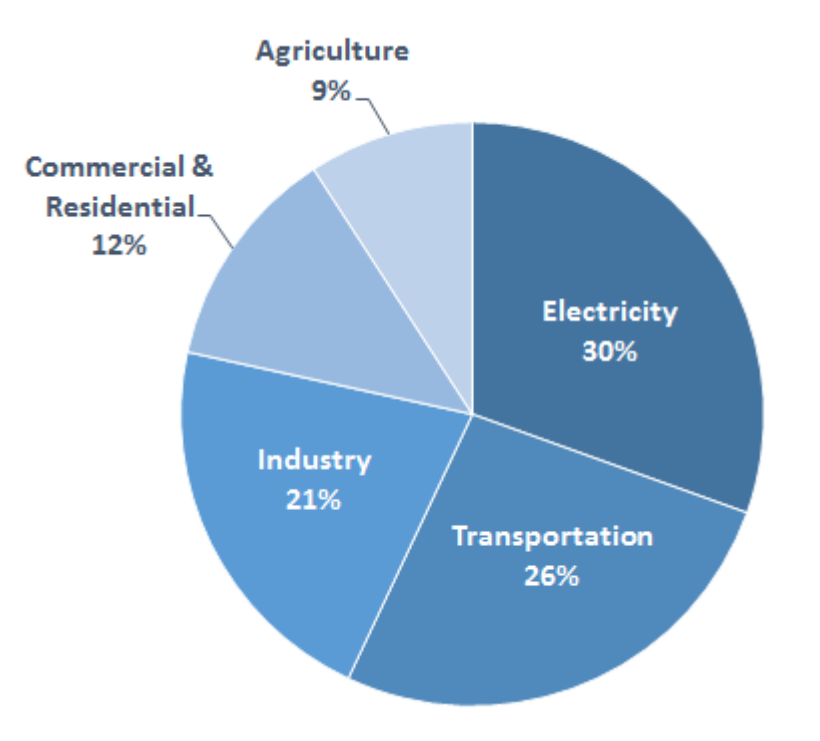
Source:
https://www.iea.org

Distribution of electricity generation in India in 2022, by energy source



Source:
https://www.iea.org

Total U.S. Green House Gas Emissions in 2014



Global energy-related CO_2 emissions grew by 1.1% in 2023, increasing 410 million tonnes (Mt) to reach a new record high of 37.4 billion tonnes (Gt). This compares with an increase of 490 Mt in 2022 (1.3%). Emissions from coal accounted for more than 65% of the increase in 2023.

Source:
https://www.climatechange.Chicago.gov

Negative Impacts of EVs on Environment

- More rolling blackouts
- Loss of biodiversity, air pollution and decreased freshwater supply
- Mining could cause massive destruction, corrupt an already fragile ecosystem and pillage the country's natural resources all in the name of "green progress"
- EVs battery are not designed to be recycled (recycling methods are still in early stage)
- buying tires more often

Source:
https://www.biofriendlyplanet.com

Indian blackouts of July 2012 – 30 and 31 July

On 30 and 31 July 2012, two large-scale power blackouts occurred in India, which can easily be termed as the worst power crisis ever in the history of mankind. The first of the two outages affected nearly 350 million people, while the second one involved a whooping 670 million people, one-tenth of the world's population and spread over 21 out of 28 Indian states.

Source:
https://www.slideshare.net
https://medium.com

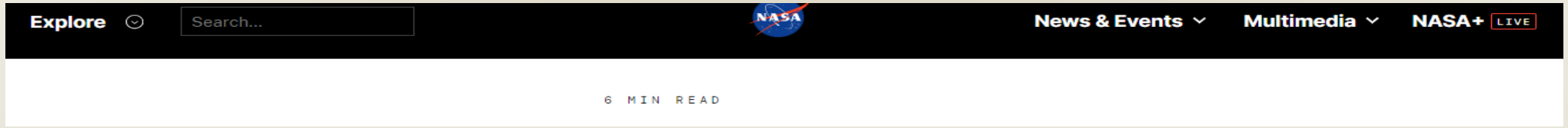
Mumbai Grid failure 2021

Maharashtra cyber cell submits report on Mumbai power outage, confirms malware attack hit power grid

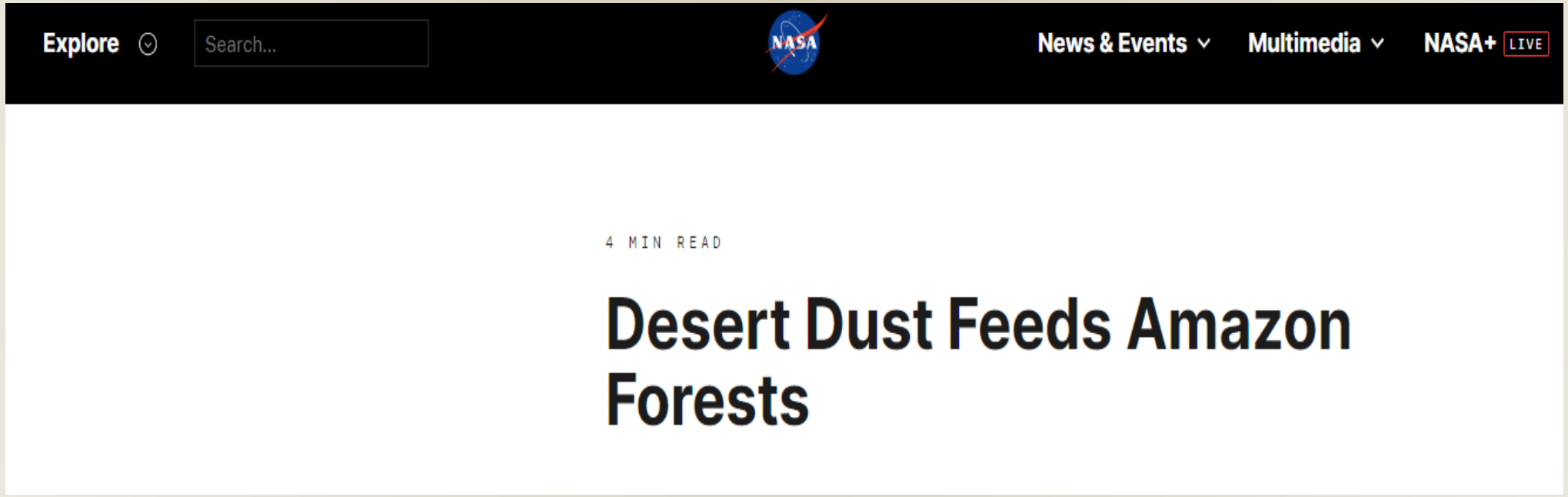
The 100-page report confirms a malware attack was behind the blackout and said that about 14 Trojan Horses and 8 GB of unaccounted data was found in the system, which according to the investigation was installed in the Maharashtra State Electricity Board (MSEB) system by unverified sources.

Source:
https://www.indiatoday.in/
https://www.timesnownews.com/
https://www.indiatvnews.com/

Conclusion



The main takeaway is EVs, in certain circumstances, can have an improved environmental impact vs. conventional gas-powered vehicles. However, batteries, charging and various manufacturing processes still negatively affect the environment. More work must be done to ensure these vehicles are as eco-friendly as possible.



Source:
https://www.nasa.gov

Any Question ?