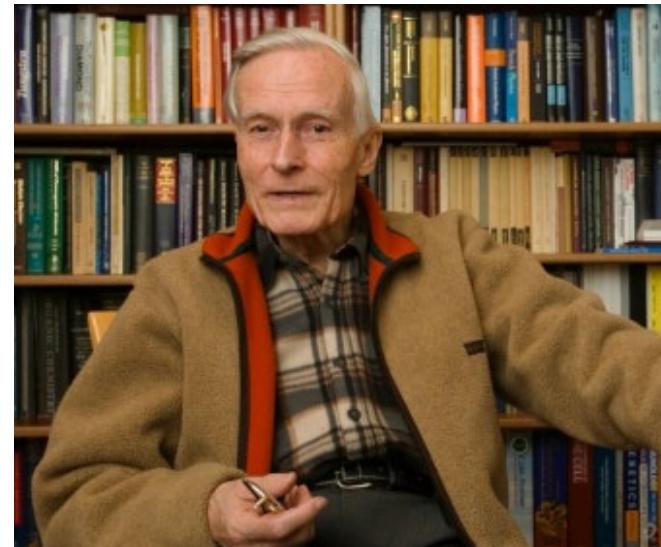




Kliimamuutustest teadlaste pilguga

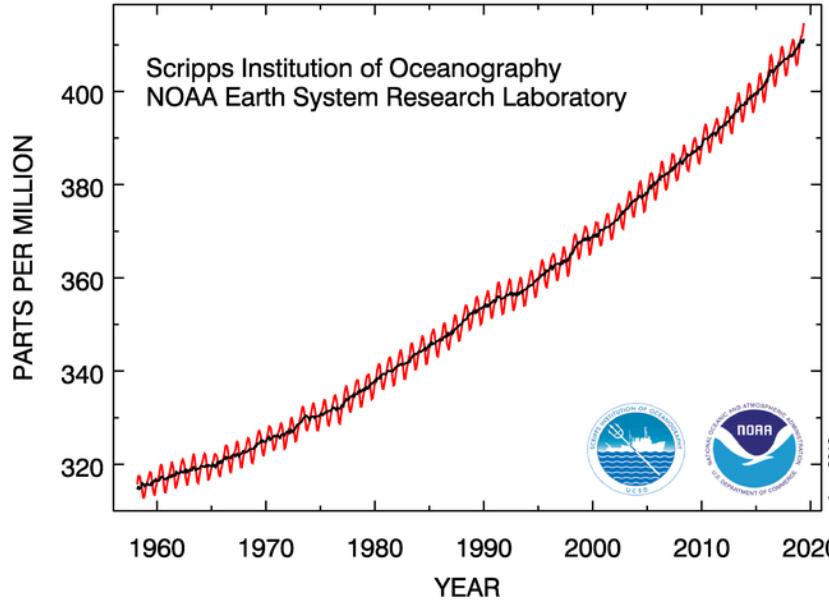
Erik Puura

18.10.2019

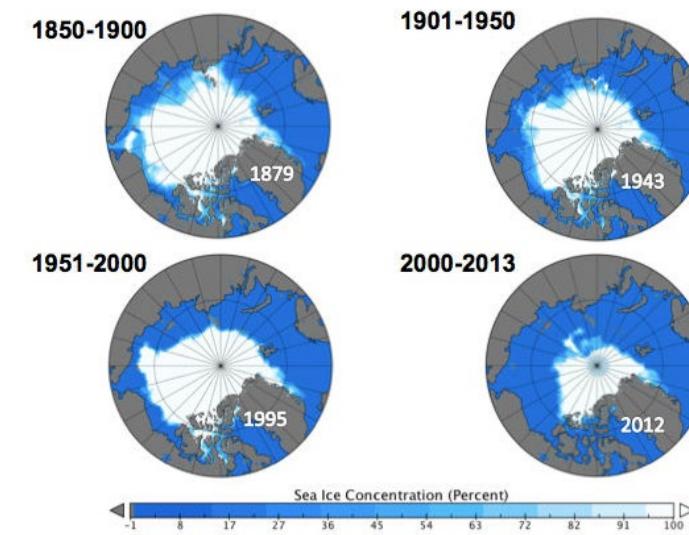
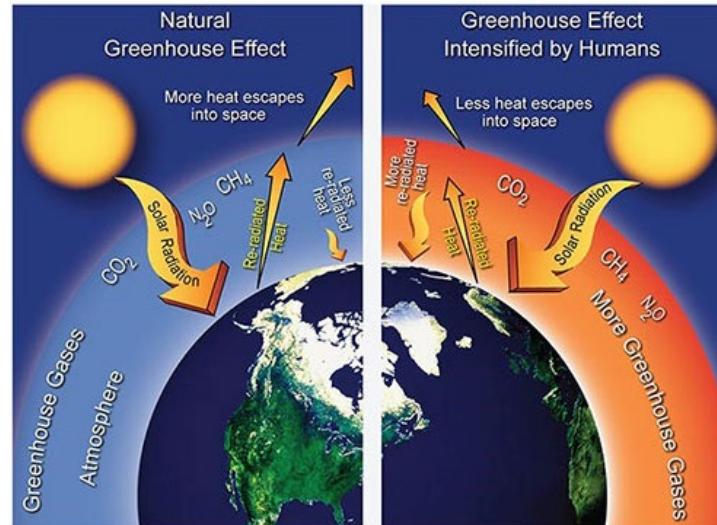


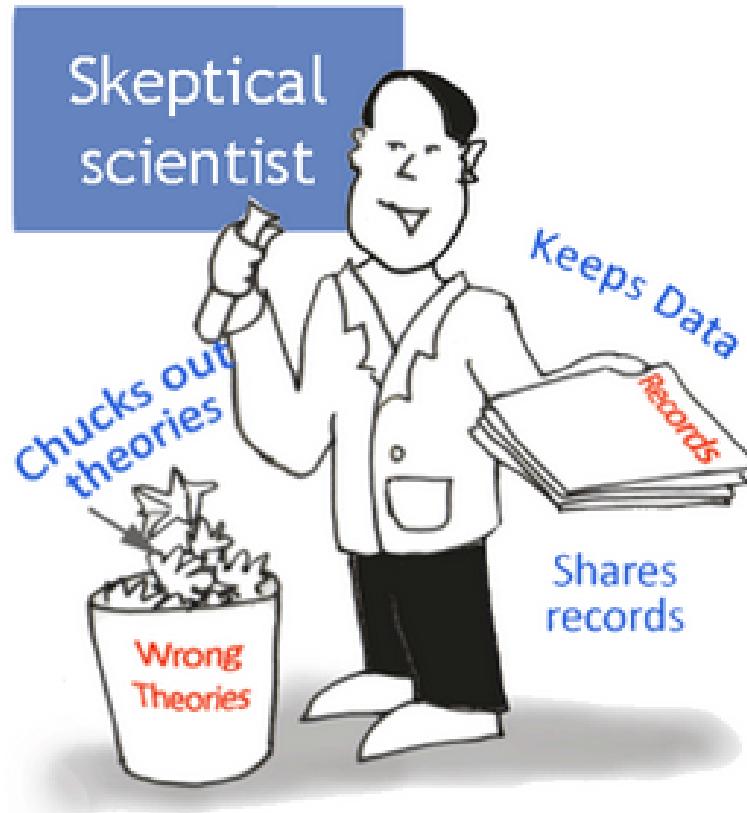


Atmospheric CO₂ at Mauna Loa Observatory



Human Influence on the Greenhouse Effect





- Holds observations above theory
- Doesn't break rules of logic and reason
- Answers questions
- Gives out all their data, all their methods, everything other people need to repeat their experiment.
- Is helpful
- Is polite
- Can explain what would falsify their theory
- Adjusts their theory to fit the facts



Climate sceptic researcher investigated over funding from fossil fuel firms

Willie Soon from Harvard-Smithsonian Center for Astrophysics probed over failure to disclose more than \$1.2m from energy industry when submitting articles



TARMO SOOMERE:
TOONA OLI LIPPMAA ÕIGUS,
KUID TEADUS ON NÜÜD
KÖVASTI EDASI LIIKUNUD

Akadeemik Lippmaa arvamus peegeldab tolle aja üht köige kuumemat uudist kliimamuutustega valdkonnast. Just siis selgus, et Maa keskmine temperatuur ei kasva üldse ühtlaselt. Lausa vastupidu, viimase sajaga aasta jooksul on mitmeid kordi ette tulnud 10–15 aasta pikkusi ajavahemikke, kui õhu temperatuur on märgatavalt langenud. Praegu on see üldlevinud teave, tollal aga põhimõtteliselt uus teadmine, sest varem oli kliima kontekstis vaadeldud asjade muutumist 30 aasta kaupa. Täpsemaid andmeid lihtsalt polnud.

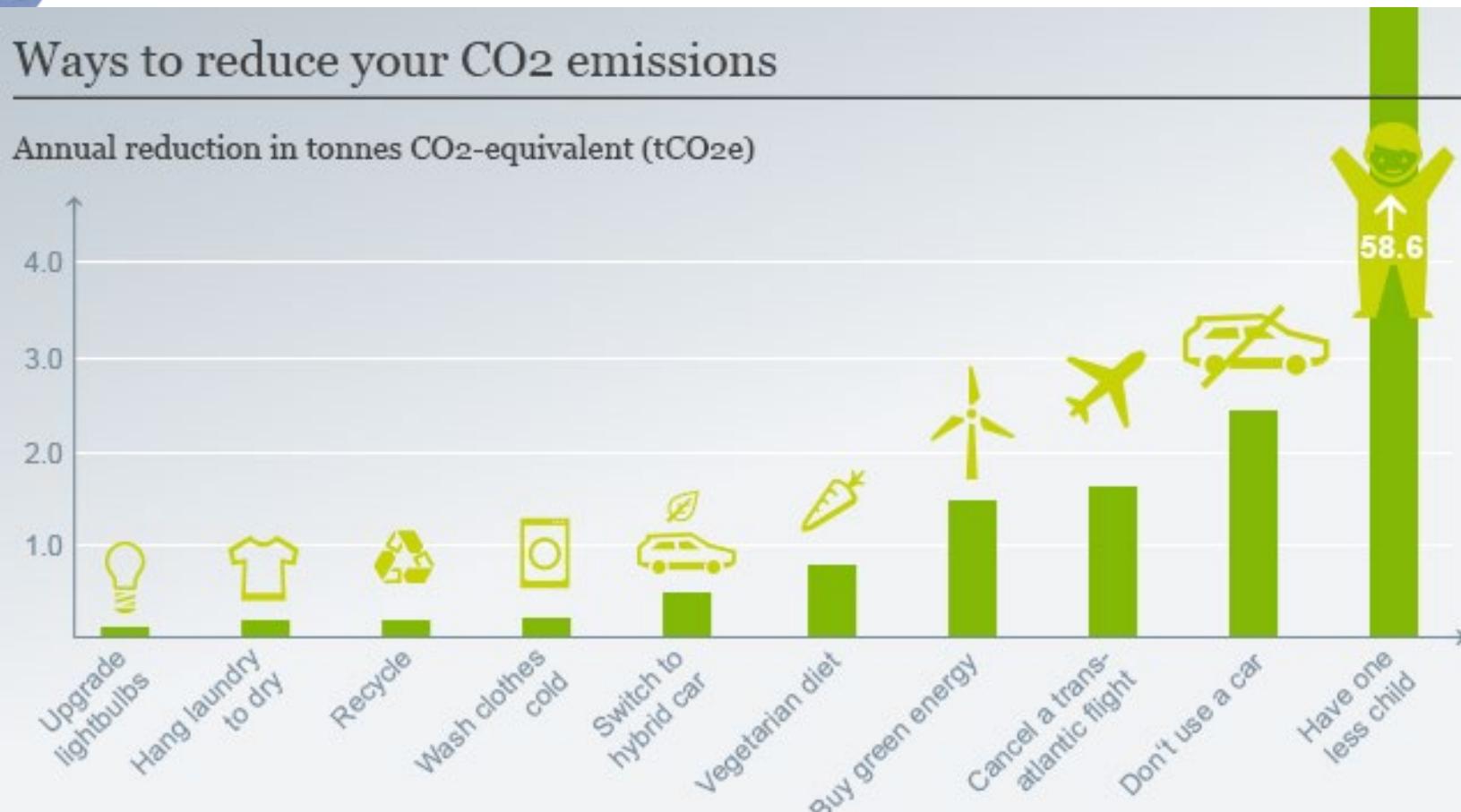
Globaalne vaade (isiklik nägemus)



Rootsi 90ndad: näide

Ways to reduce your CO₂ emissions

Annual reduction in tonnes CO₂-equivalent (tCO₂e)



Source: Seth Wynes; Kimberly A Nicholas | Environmental Research Letters, Volume 12, Number 7

© DW



20%



of total electricity demand will be attributable to the ICT sector by 2025, which equates to...



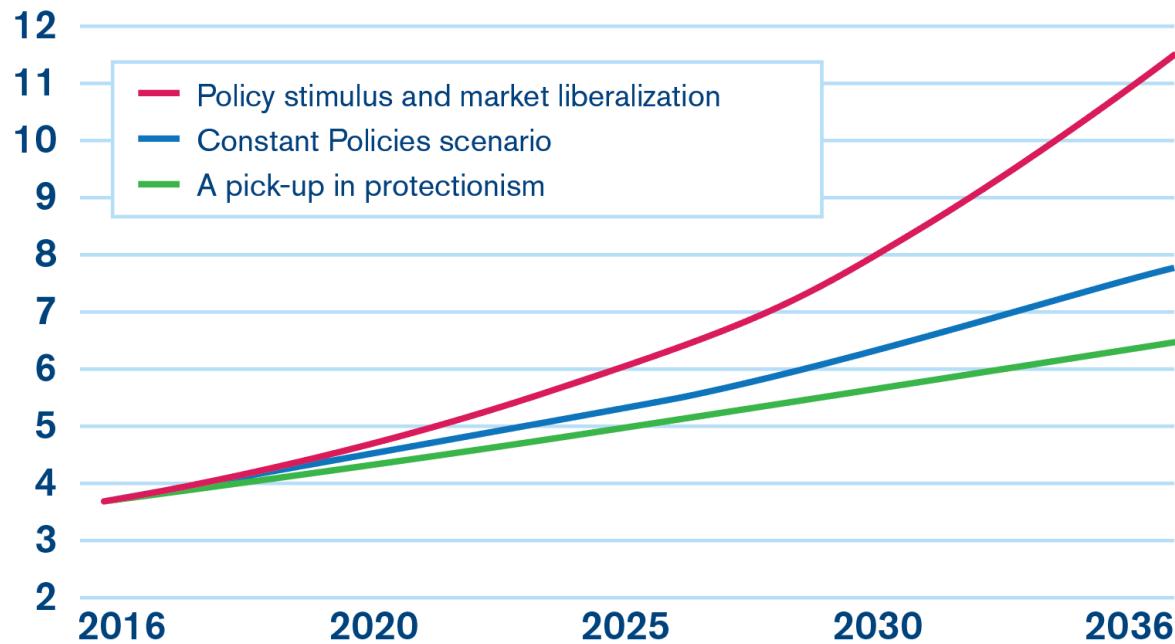
5.5%



of the world's carbon emissions

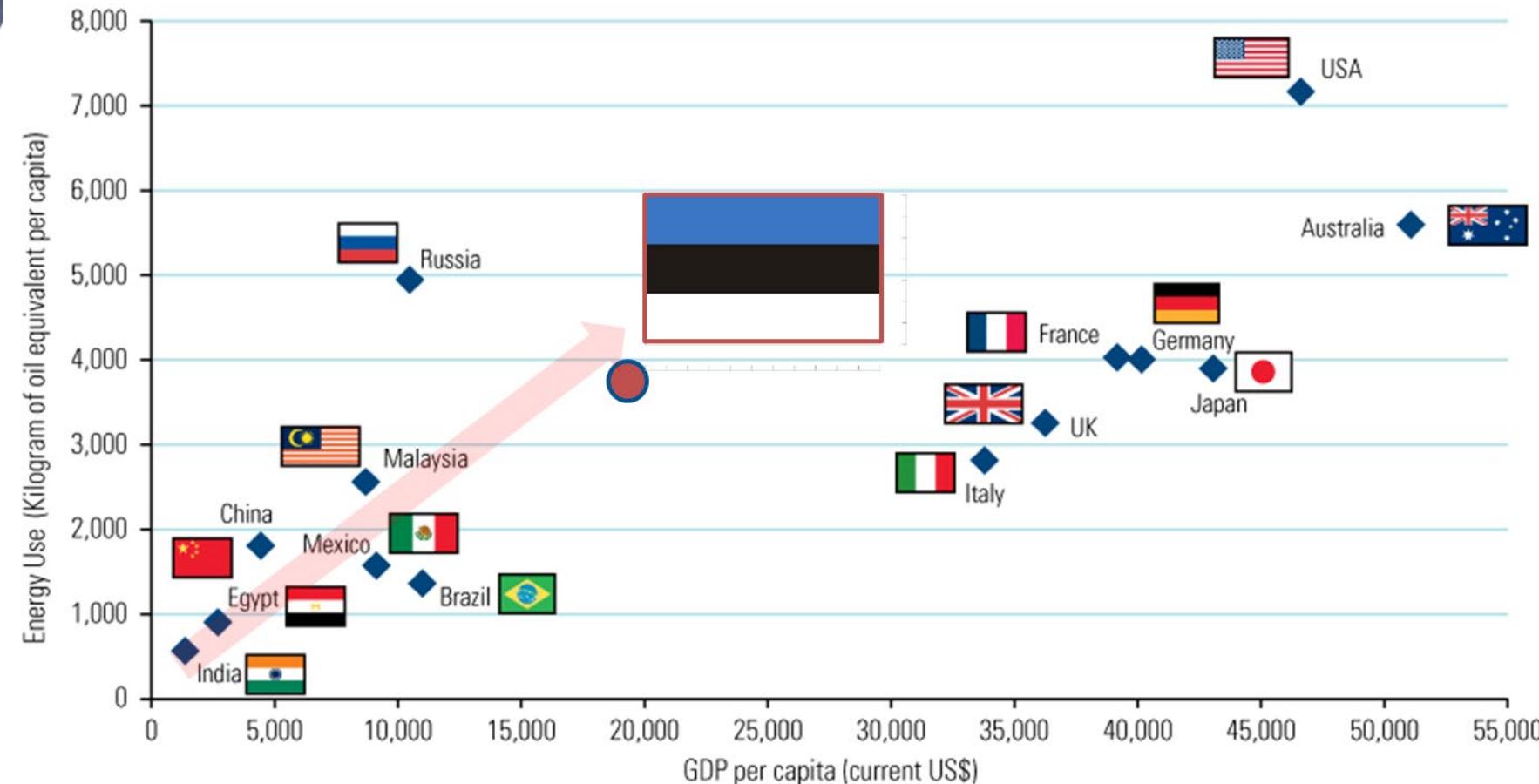


Global Passengers (billion, segment basis)

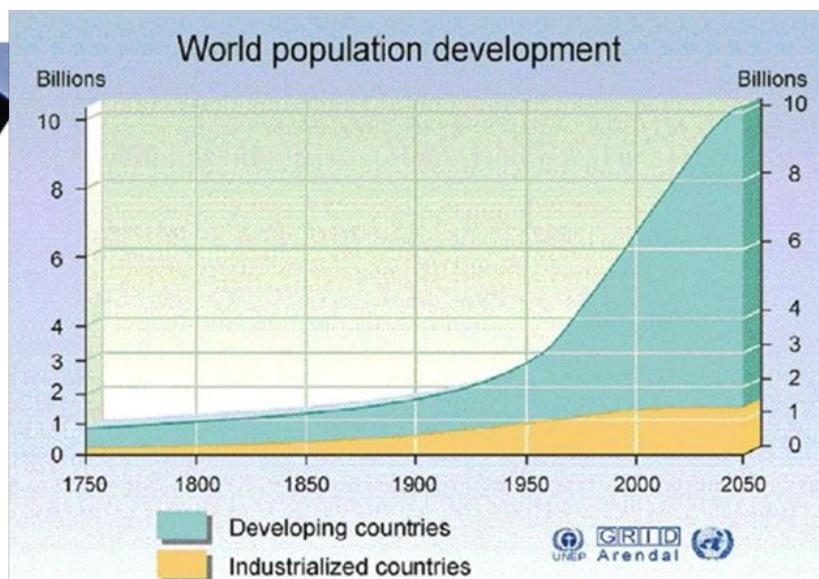


Huge Potential Increase in Energy Use From Emerging Markets

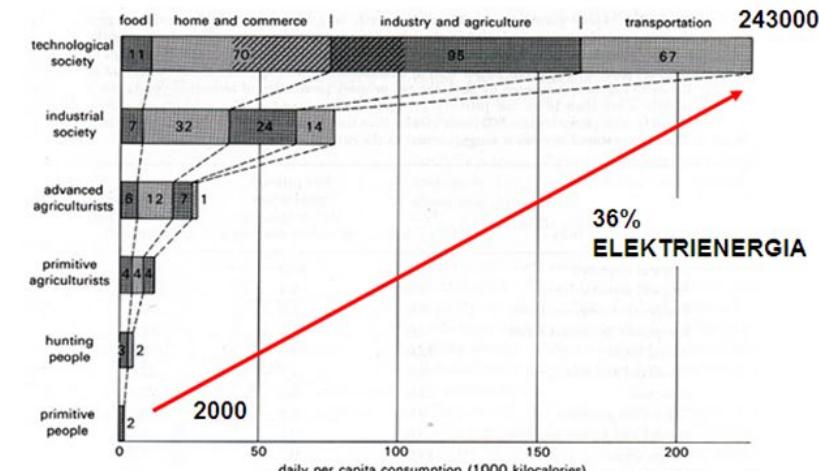
Energy Use Per Capita



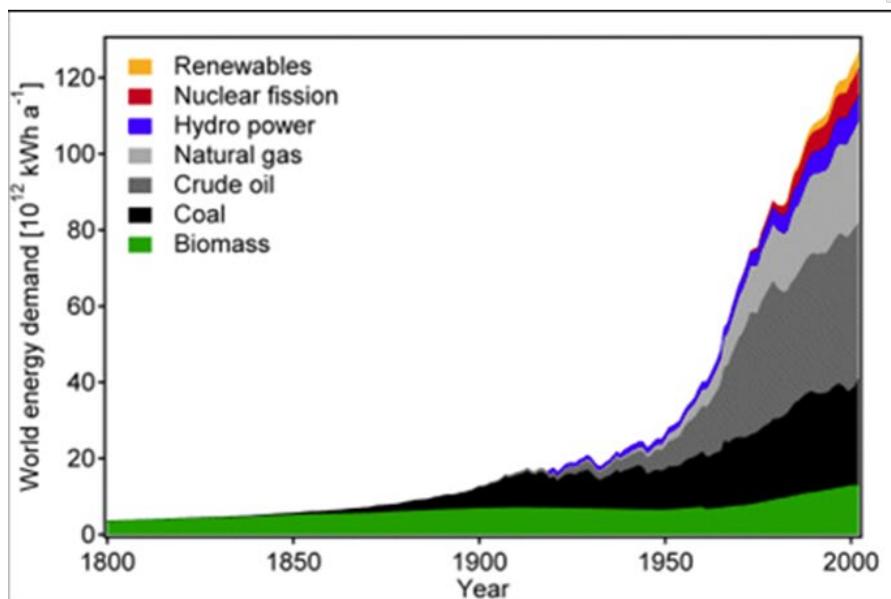
Source: World Bank, ETF Securities Data



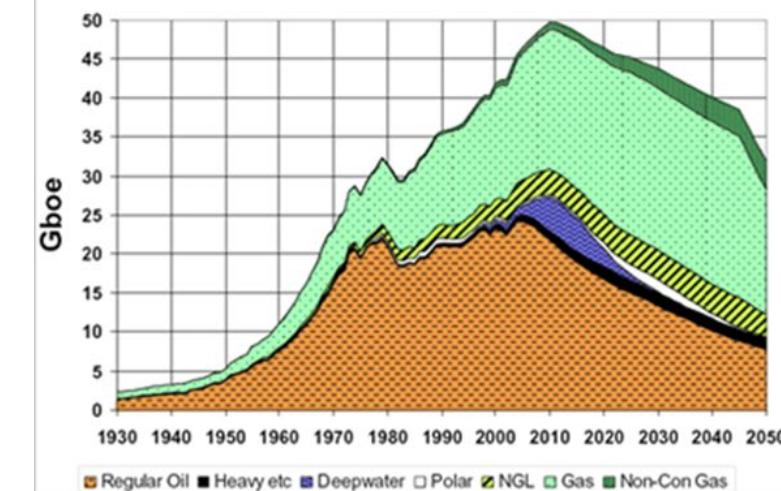
Iga inimene soovib tarbida järjest rohkem

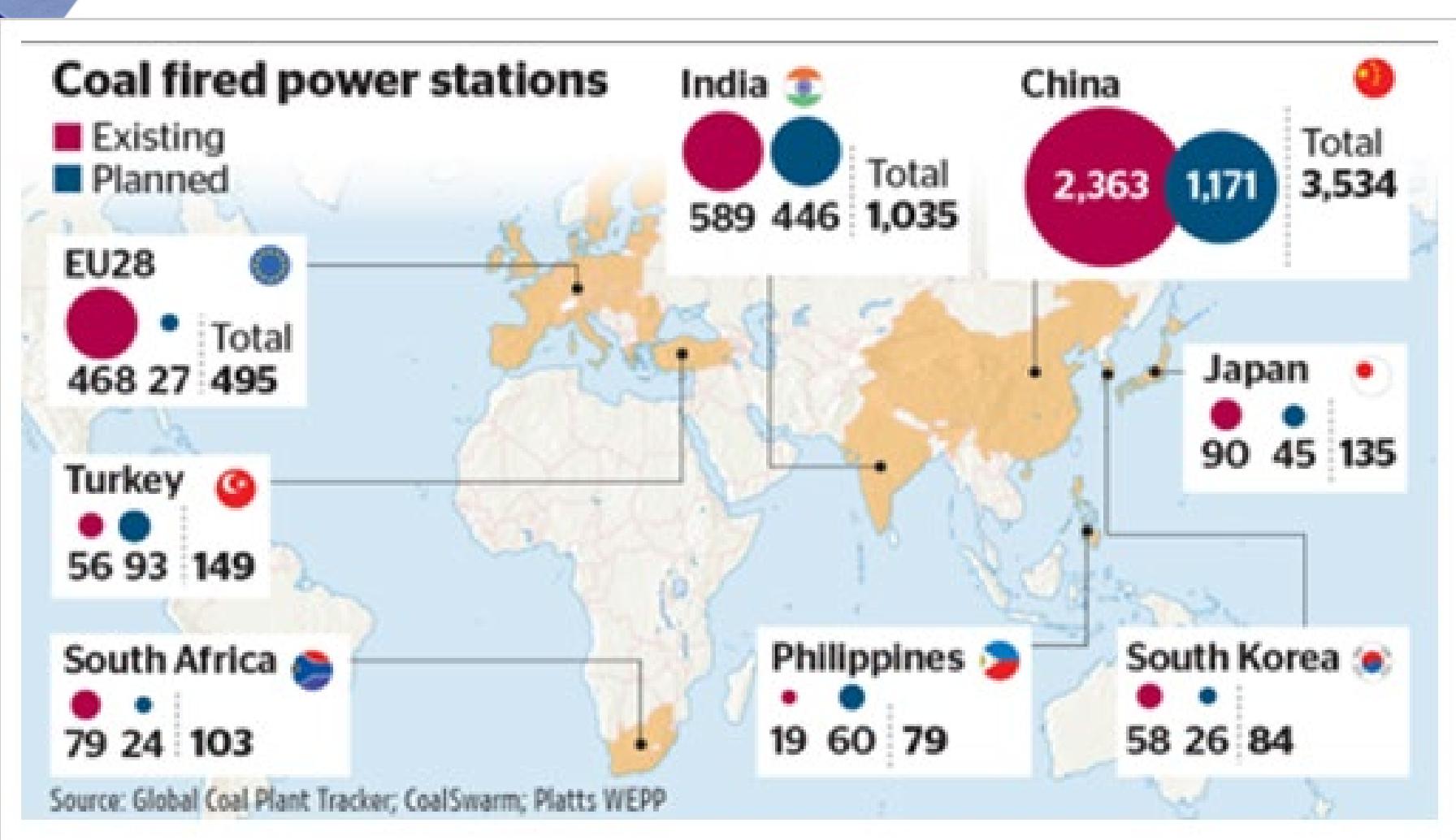


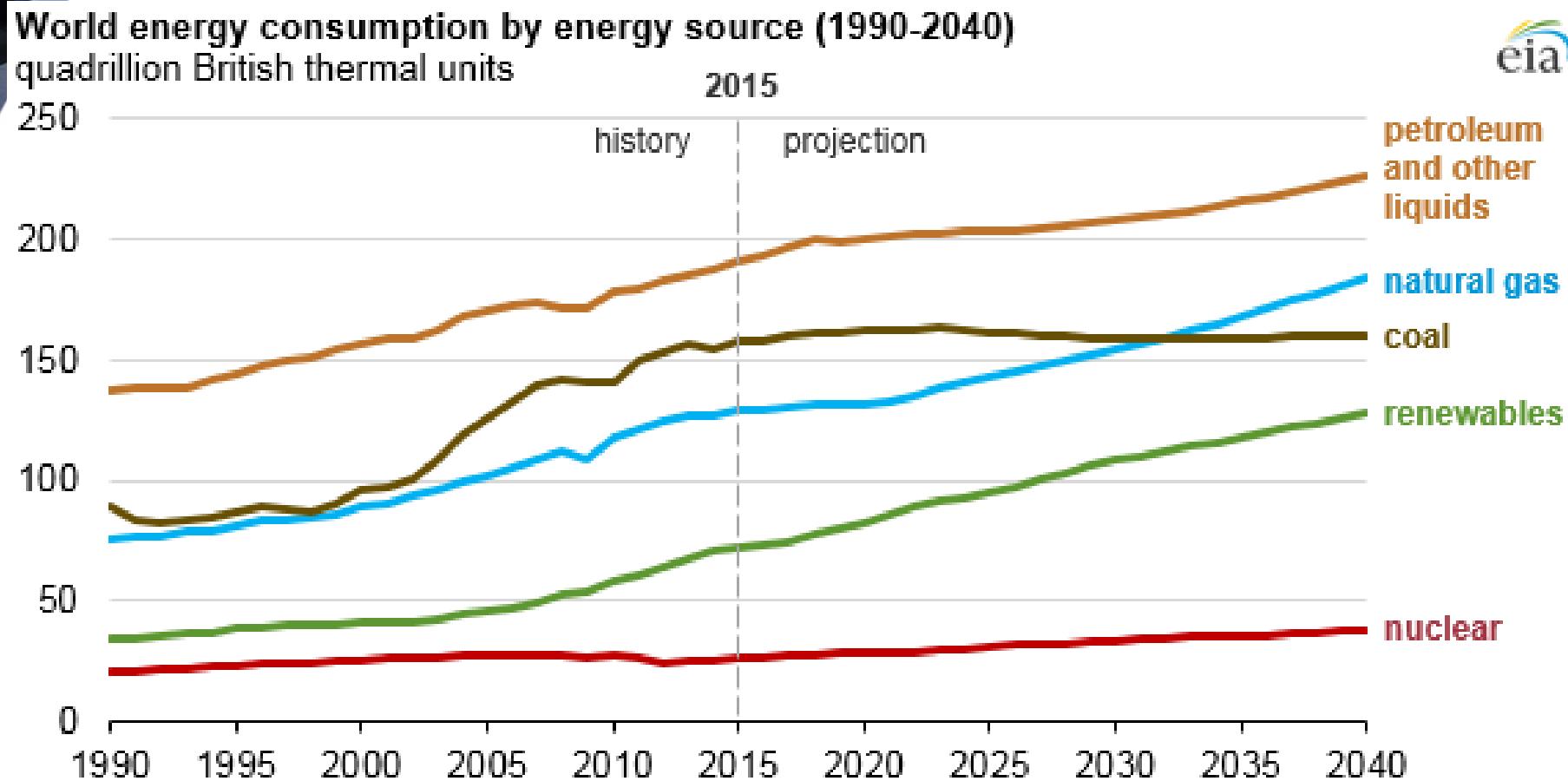
PÄEVANE TARBIMINE TUHANDETES KILOKALORITES



ASPO: OIL & GAS PRODUCTION PROFILES
2005 Base Case









	Fossil CO ₂ Emissions (Mt CO ₂ /yr)			Fossil CO ₂ Emissions		2017 – Fossil CO ₂ Emissions	
	1990	2005	2017	2017 (% of world)	2017 vs 1990: increase (%)	Intensity (t CO ₂ /km ² /yr) ^[14]	Per Capita (t CO ₂ /cap/yr)
Estonia	38.467	19.643	17.890	0.05%	46.5%	396	13.7
Germany	1,018.097	837.284	796.529	2.15%	78.2%	2,230	9.7
Finland	57.242	58.360	46.846	0.13%	81.8%	138	8.5
European Union (EU28 – Not a country)	4,409.339	4,249.995	3,548.345	9.57%	80.5%	793	7.0
Norway	36.463	44.191	46.943	0.13%	128.7%	145	8.8
United States	5,085.897	5,971.571	5,107.393	13.77%	100.4%	519	15.7
China	2,397.048	6,263.064	10,877.218	29.34%	453.8%	1,133	7.7
Malaysia	59.225	182.503	258.783	0.70%	436.9%	782	8.2
India	605.968	1,210.754	2,454.774	6.62%	405.1%	747	1.8
Australia	275.408	391.590	402.253	1.08%	146.1%	52	16.5
United Arab Emirates	56.922	122.395	202.802	0.55%	356.3%	2,426	21.6



Aitäh kuulamast