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??2022??
??6%????????????????

VRE????????????????????????????????????40%??

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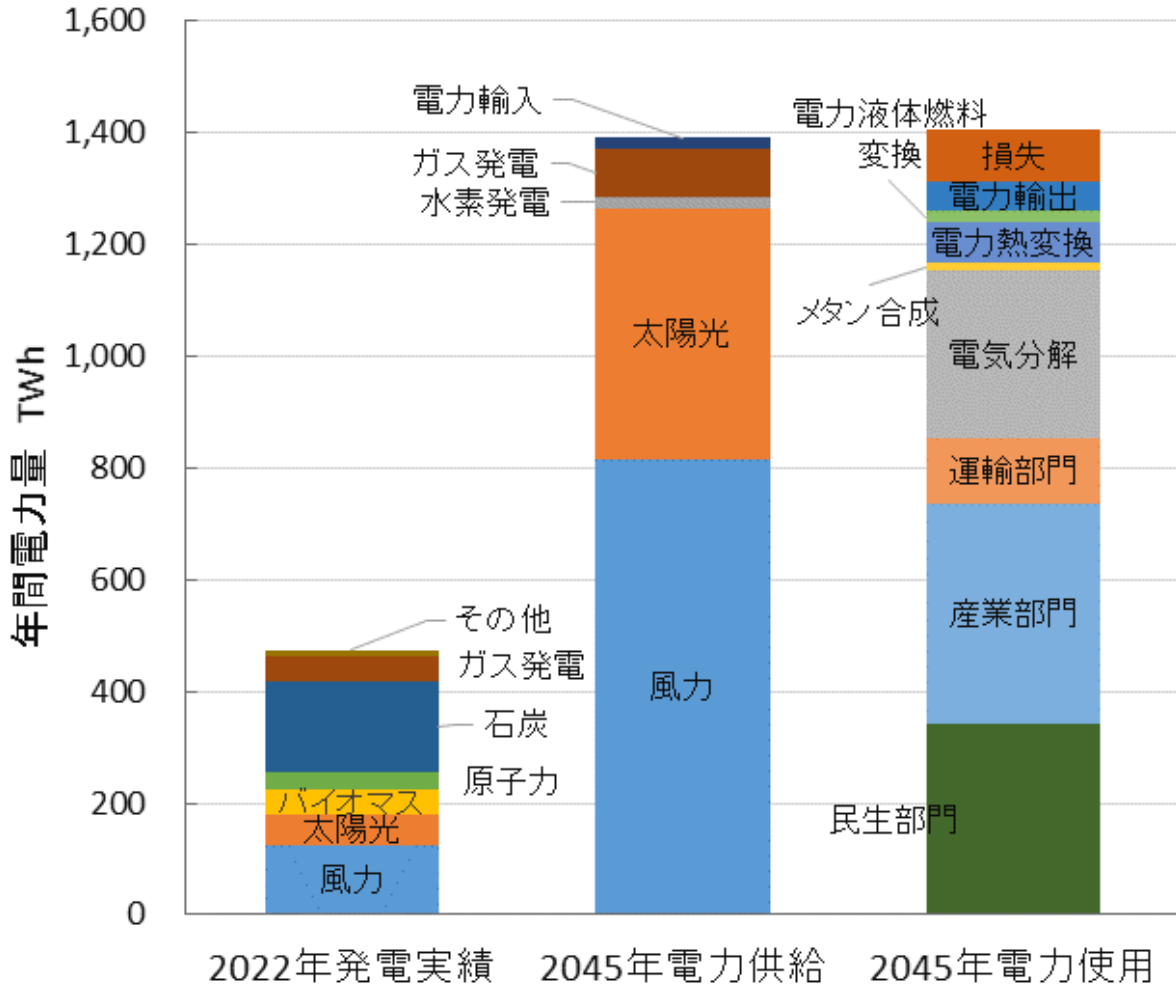
VRE??

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????2045?GHG????????????????????4??
??4???

??2????2022????????????????????????2045????????????????????2045????????????????2022????3?
????????58%????????32%????????90%????????2022????????37%????????????????????
????6%????????????????????4%???

図-22 ドイツ2022年実績と2045年「参照」シナリオ
出所: Energy-Chartsと「参照」シナリオのデータで作成



2045??6??????4????????????????????????3?????
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??Power-to-
X??CO2????????????????????????????????????3????????????

表-3 ドイツ2045年GHGネットゼロの風力・太陽光発電の変動対策

分類	技術名	電力不足時の対策	電力余剰時の対策
季節変動と発電ピークの抑制	風力と太陽光比率の適正化	風力発電と太陽光発電の季節変動を相殺	
	太陽光発電の抑制	ピーク発電量が大い太陽光発電比率を抑制	
電力貯蔵	定置バッテリー	高応答性の電力供給	余剰電力で充電
	移動(車載)バッテリー	同上	電力余剰時に充填負荷をノブ
	揚水発電	同上	余剰電力で揚水
余剰電力の燃料変換	電気分解H ₂ 製造		高応答性の電力利用、H ₂ 貯留可
	H ₂ ベースのメタン合成		発電・加熱用燃料
	H ₂ ベースの液体燃料合成		移動体燃料、貯留可
その他	メタン・水素複合サイクル発電	ディスパッチ可能電源	
	ヒートポンプ熱電供給複合地域暖房	熱電供給で暖房	ヒートポンプで暖房と蓄熱
	電気発熱体	常時使用だが、CO ₂ フリーのボイラ等代替	
輸出入	電力輸出入	再エネ発電の地域差を利用して欧州電力網を強化して輸出入	
	合成燃料・バイオ燃料輸入	国内燃料変換生産の不足を補完	
考慮されていない技術	CCS	CCSが石炭火力の延命になるという環境団体の反対による	
	原子力	原発分だけ再エネを減らせるが、福島第一事故で脱原発を決定	

出所: フ라운ホーファー ISE, 「気候中立的なエネルギーシステムへの道」, 2021年11月改訂の情報で作成

VRE??

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??3??1????????1/3?1/2?
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1990????????????CO2????CCS????????????????2010????CCS????????????????2015????????????CCS
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Posted in ??????????, ??? | No Comments »

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?? ?? · Sunday, December 10th, 2023



wildpixel/iStock

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IPCC????????????????????CO2????????????????2100????????????????????????????????
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Posted in ???, ????? | No Comments »

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GEPR??? · Saturday, December 9th, 2023



deepblue4you/iStock

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2020????????????????????6%????????3%????????5????????????????????????????????
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?14??15??7??
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EU-28????????????????GHG??

図-14 総発電量に対する風力発電比率の推移
出所: eiaデータで作成

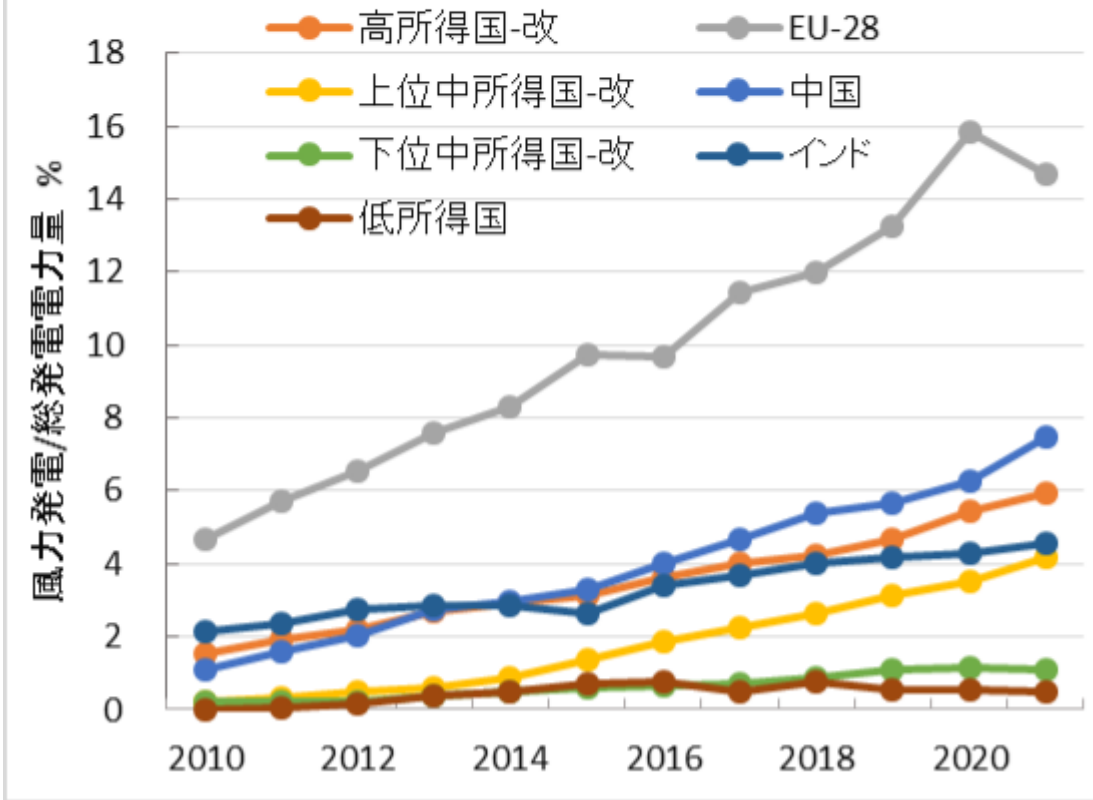
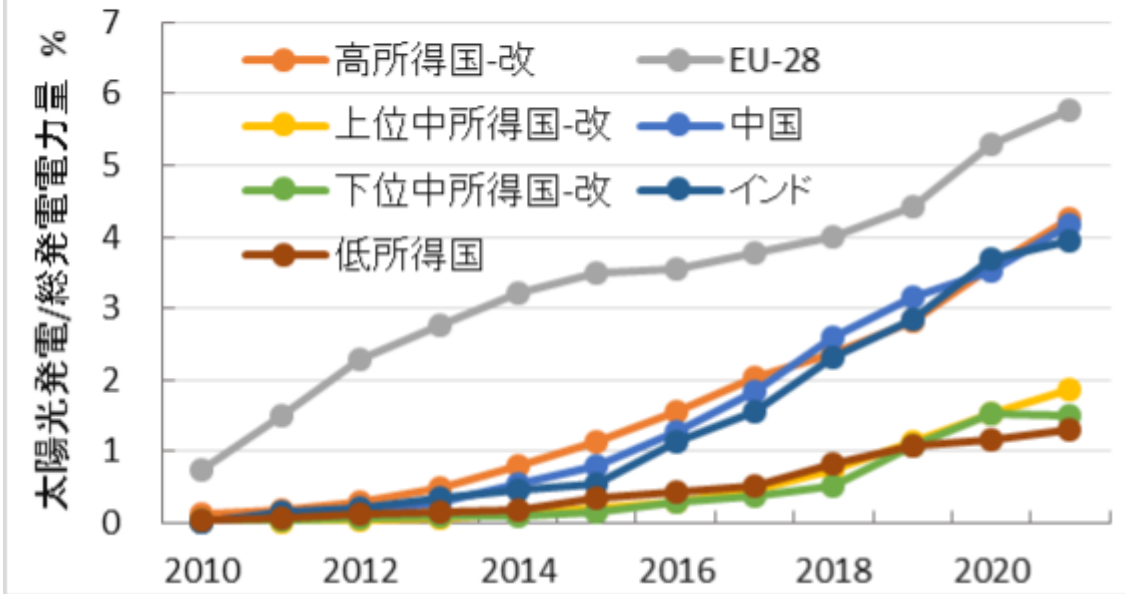


図-15 総発電量に対する太陽光発電比率の推移
出所: eiaデータで作成



??Variable Renewable Energy,
?VRE??GHG??VRE?????GHG?????????EU-28????????G
HG??

VRE??VRE?kW??

25?33% ??????14?17% ??????????????????????????????????kW????????????????????????????????
??VRE????????????????????

????????????VRE????????%??EU-28????????????VRE??VRE
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VRE??Energy-
Charts??

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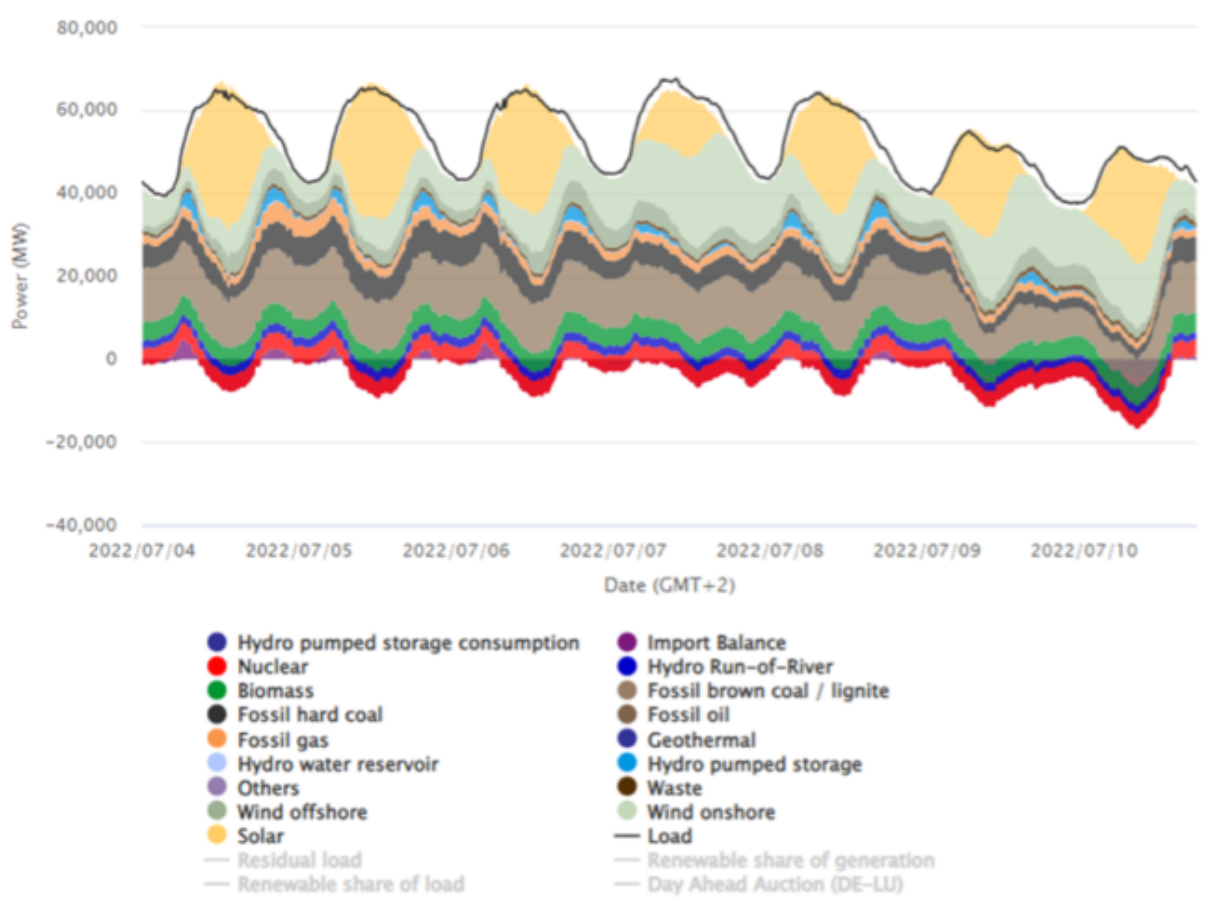
????????????????30??
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??CO2?
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??Energy-
Charts????????????????2022??27??74??10??
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Public net electricity generation in Germany in week 27 2022

Energetically corrected values



Energy-Charts.info - last update: 2023/06/02 18:13 GMT+2

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?2?2022?????????????????????????????????????1?kWh?1000TWh??

????????????????25%????????????12%??????????

表-2 ドイツの電源構成 (2022年公共正味発電電力量)

電源	正味発電電力量		正味発電容量 GW	設備利用率 %
	TWh	%		
太陽光	57.6	11.7	64.16	10.2
陸上風力	98.2	20.0	56.91	19.7
洋上風力	24.8	5.1	7.89	35.9
非再エネ廃棄物	5.3	1.1		
再エネ廃棄物	4.6	0.9		
その他	0.6	0.1		
貯水式水力	1.1	0.2		
地熱	0.2	0.0		
ガス火力	45.2	9.2	33.84	15.2
油火力	1.0	0.2	4.77	2.4
瀝青炭火力	55.4	11.3	19.06	33.2
褐炭火力	105.9	21.6	18.69	64.7
バイオマス	41.9	8.5	8.91	53.7
流れ込み式水力	15.8	3.2	4.94	36.5
原子力	32.8	6.7	4.06	92.2
年間正味発電電力量	490.4	100.0		
電力輸出入(輸入-輸出)	-27.6	-5.6		
揚水発電発電電力量	6.0	1.2		
揚水発電ポンプ動力量	-8.1	-1.7		
年間電力負荷量	482.3			
年平均1日発電電力量	1,344.0	GWh		
年平均発電量	56.0	GW		

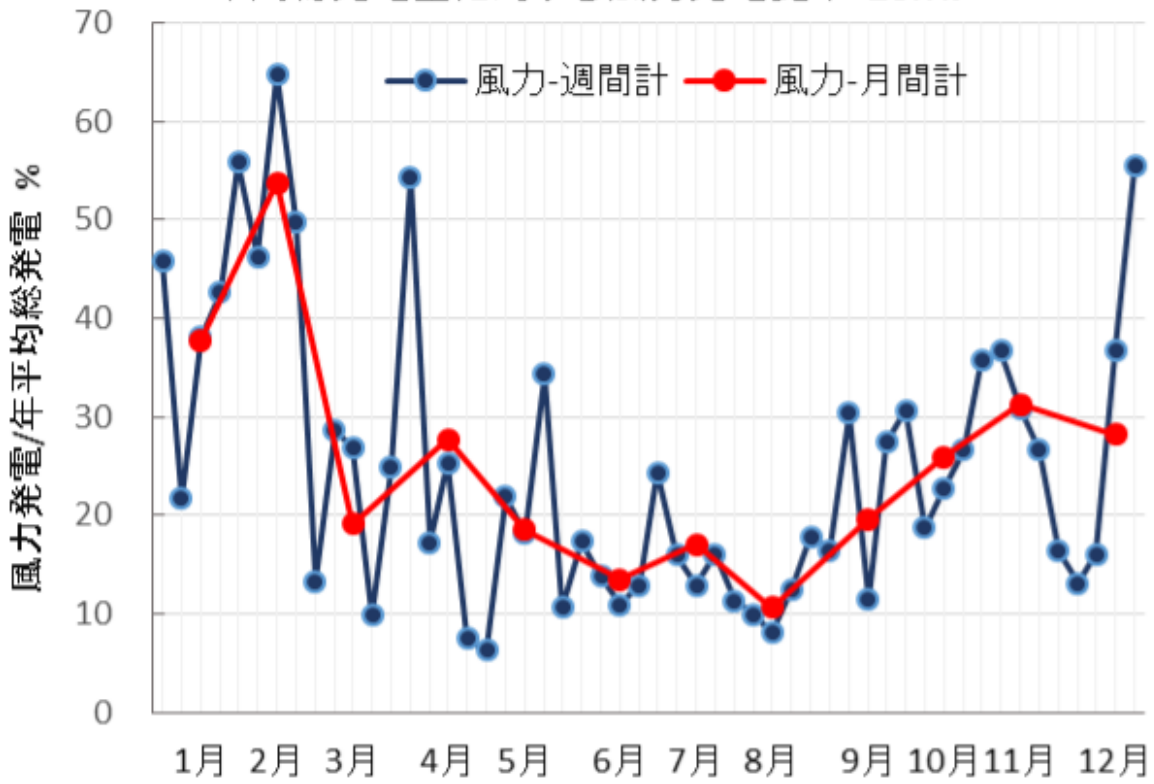
(注記)
 1) 公共正味発電電力量は、自家発を含まない、電力ユーザーのコンセントから出て消費される値。
 2) 太陽光、風力の発電容量は年間平均値、その他は2022年末の値。
 3) 電力負荷量は電力系統に投入された値。

16% 2022年 100%
 6% 65% 25% 10% 60%
 0.3 2.6
 1
 1

図-16 ドイツの風力発電電力量の変動(2022年)

出所: Energy-Chartsのデータで作成

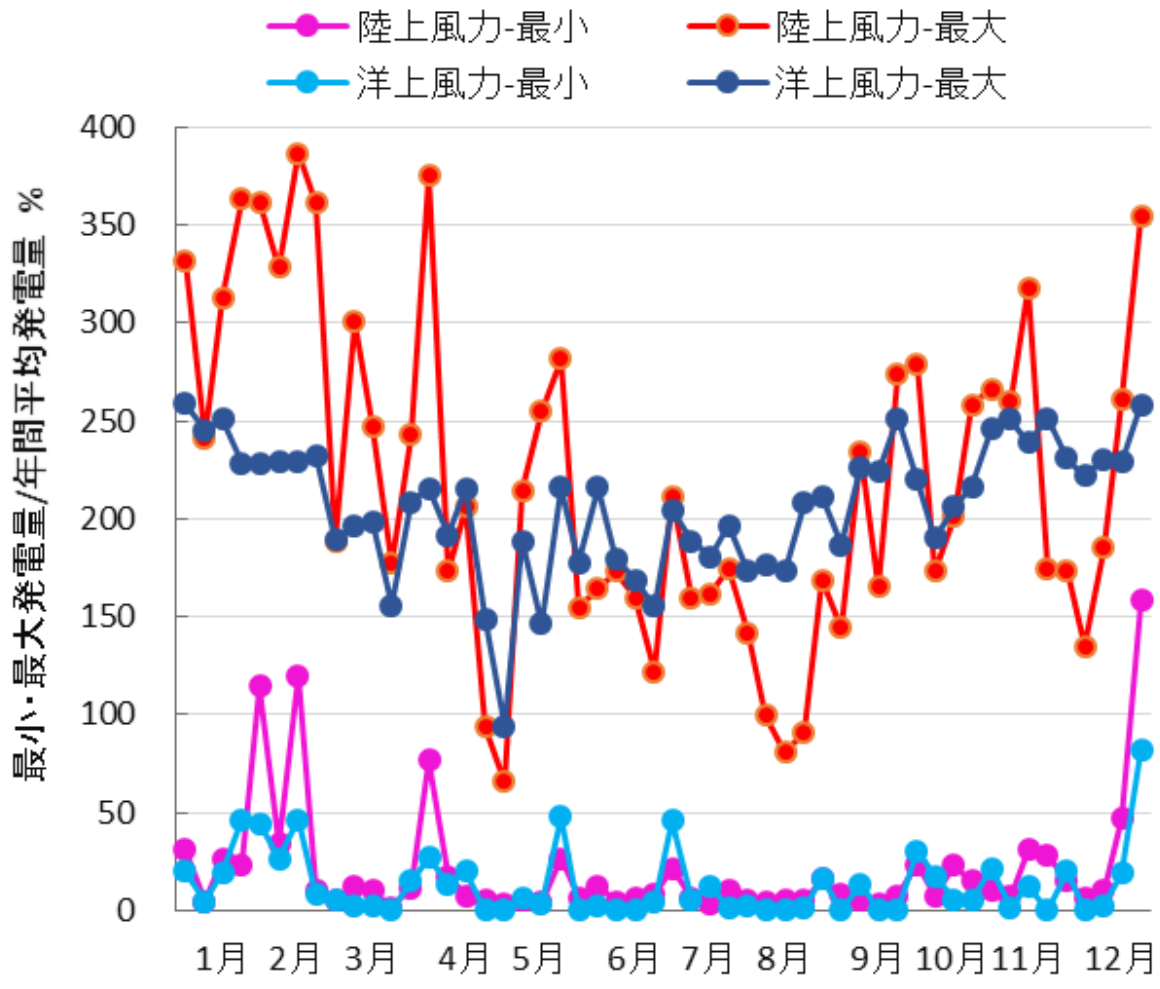
年間総発電量に対する風力発電比率:25.1%



17% 12% 23% 0.12.0

0.14 1.7

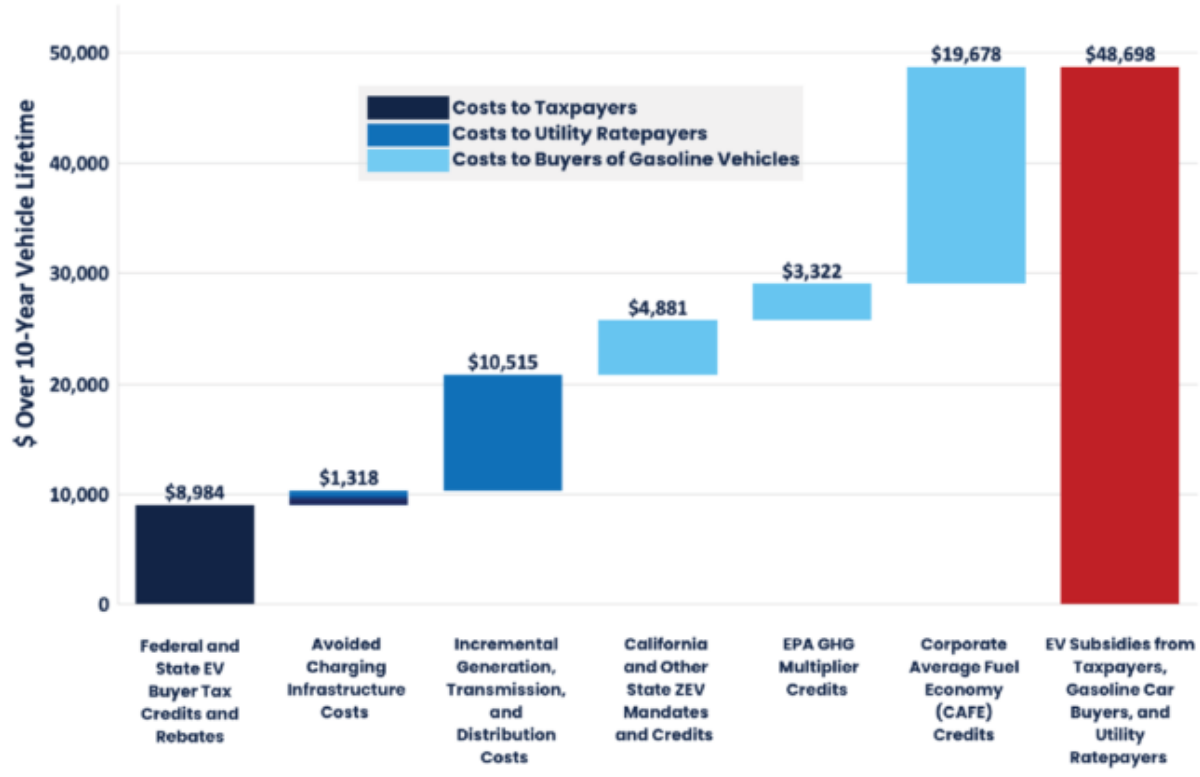
図-18 ドイツ風力発電の週間最小最大発電量 (2022年)
出所: Energy-Chartsのデータで作成



?19??1????6????????????
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- ?????????????????????????????????8984????1318????????????
- ?????????????????????????????????10515????1318????????????
- ???4881+3322+19678= 27881????????

Figure 1(a)
Subsidies and Regulatory Credits Accrued by a MY2021 Electric Vehicle Over 10 Years



????????8984??

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??EV????????????????

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Posted in ??????????, ??? | No Comments »

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?? ?? · Thursday, December 7th, 2023



alashi/iStock

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??2023?12?2???????????



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2020?6?17?CO2?2020?6?17?CO2?2020?6?17?CO2?2020?6?17?CO2?
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Posted in ??????????, ??? | No Comments »

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?? ?? · Thursday, December 7th, 2023



HunterBliss/iStock

1. IPCC?????

IPCC?CO2????????Princeton????????1??????1967??3??????1975??????????1979??MIT??????
?R. Newell ??????????????

????DOE??1979????????????????????????????????????CO2????????????????????????²¹?R.
Newell????????????R. Cess????????????Lawrence Livermore????????????R.
Newell????????????????

1986????????????2??1988??IPCC????????????????????
????????????????CO2??

??1990??Hadley????????????????????CO2????????????????????????????????CO2????????????????
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Hadley??????IPCC Working
Group1?????IPCC??R.
Courtney????????????????????

R. Courtney, ” Global Warming : How It All Began ”,(1999)

????CO2????????????????????fake science????????????R. Newell????????IPCC????????????R.
Cess????CO2????????????????S. Schneider?J. Hansen? M. Schlesinger?T.
Wigley????????????????????????????

R.
Cess????????????????????????????CO2?300ppm??600ppm????????????????????3????????????
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?????1????????CO2??2005????????????
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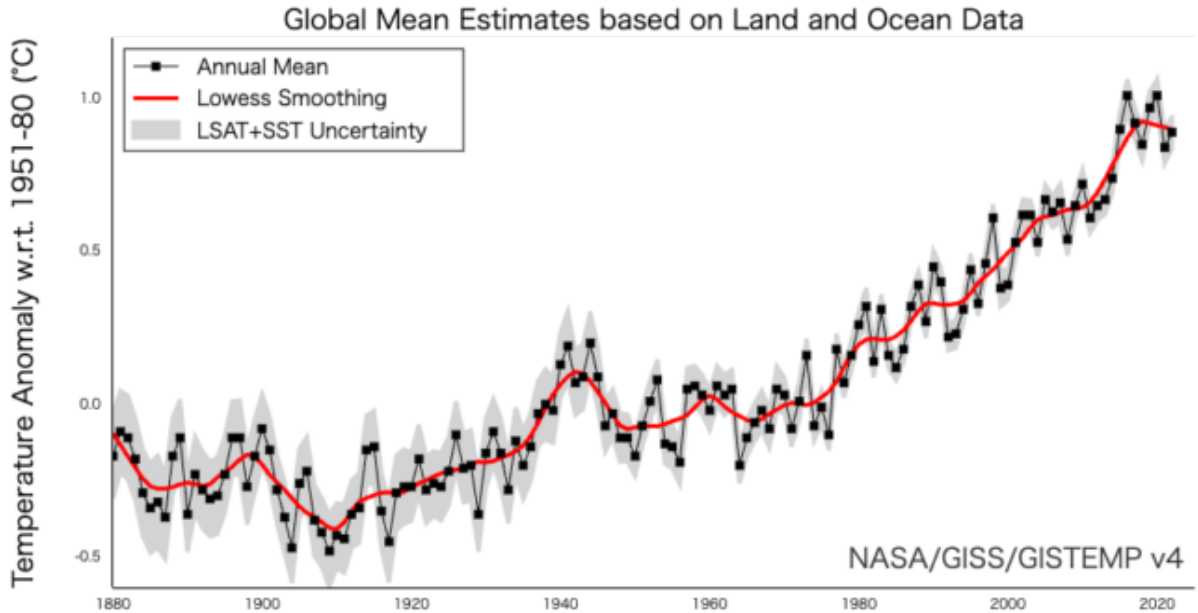
????????????????????????????????????Green New Deal??Clean Power
Plan????2015????????????????????EV????????????????????2050?Net
Zero????????????????????2020?10????????2050?Carbon Neutral????????

2. ?????????????????????

CO2????????????????????NASA GISS????IPCC?WMO?NOAA????????????????NASA
GISS?Director?1981-2013????J. Hansen????G. Schmidt????????????

J.
Hansen?1988????????????????????????????????99?CO2????????????????????
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<https://realclimatescience.com/overwhelming-evidence-of-collusion/>

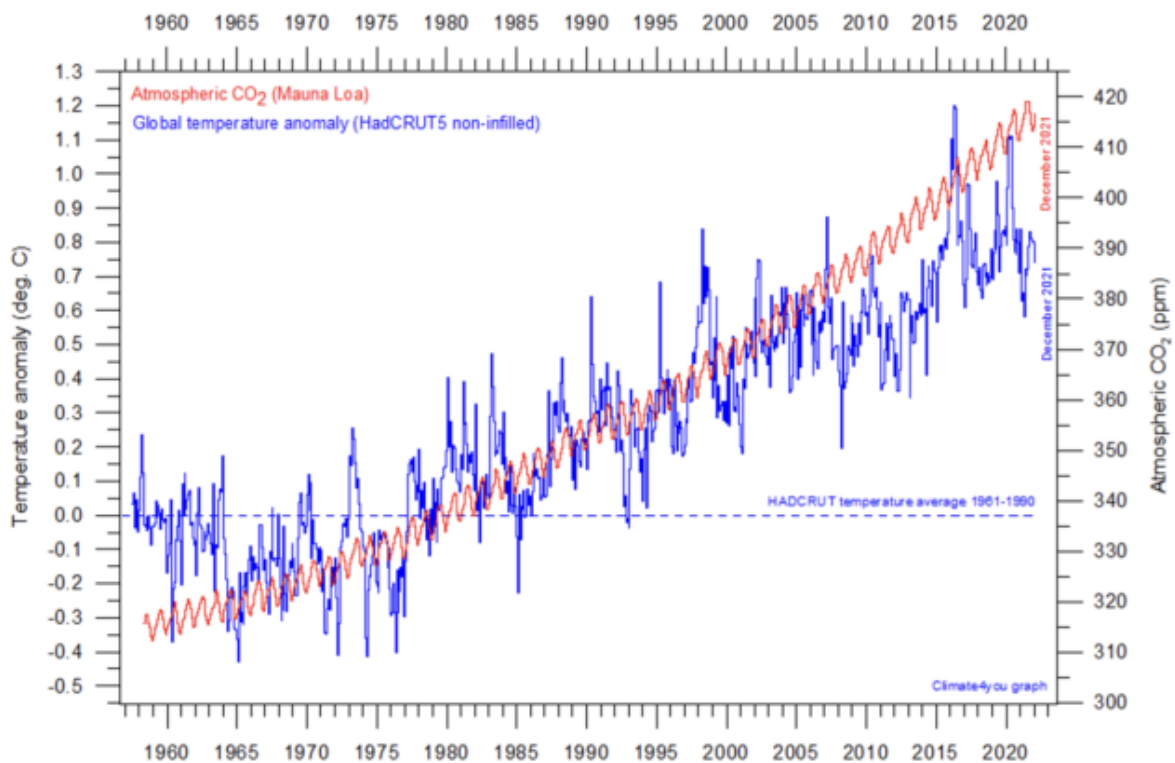


Data.GISS: GISS Surface Temperature Analysis (GISTEMP v4) (nasa.gov)

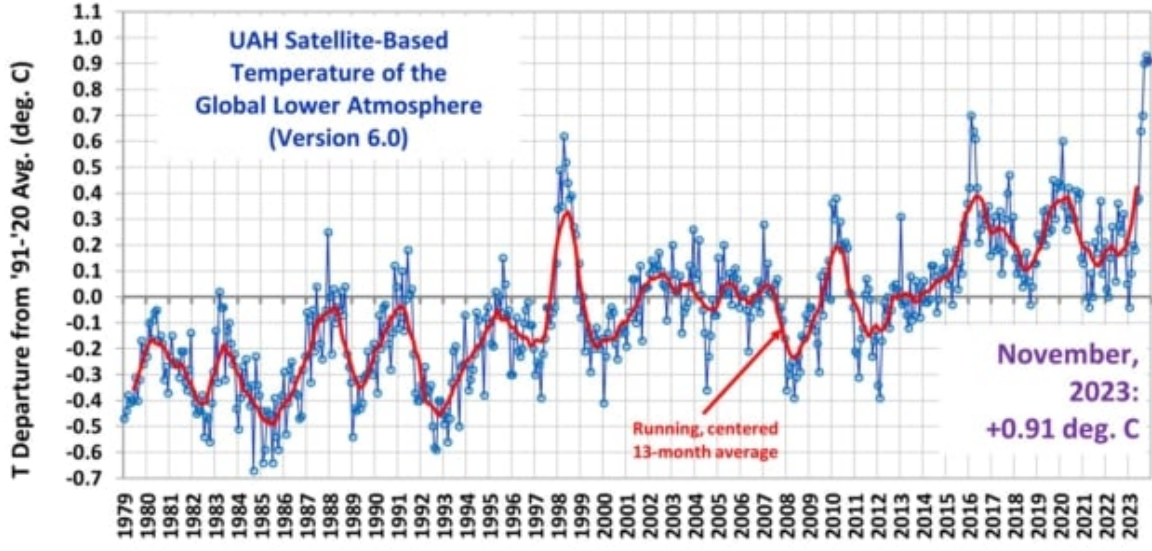
?? ? N A S A

GISS?????????????????????HadCRUT5?UAH?????????????????????CO2?????????????????2023?????

?????El Nino?????????????????????



<https://www.climate4you.com/>



<https://www.drroyspencer.com/latest-global-temperatures/>

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 ?????????2016?9??24-53??



Newton Special

熱波、大干ばつ、集中豪雨——世界を襲う気象災害
異常気象と地球温暖化の脅威

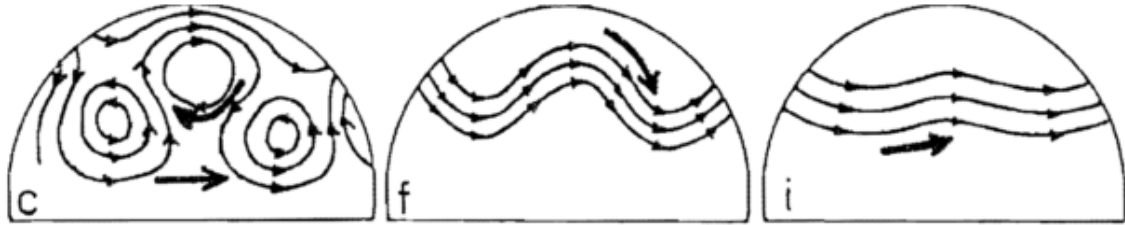
協力 江守正多 / 木本昌秀 / 塩塚秀夫 / 坪木和久 / 森 正人 / 渡部雅浩
 執筆 宮内 諭 (編集部)

現在、地球は過去に例を見ないペースで「温暖化」が進んでいる。異常気象と地球温暖化はどのように関与しあっているのだろうか。そして、今後、地球環境はどのように変化していくと考えられているのだろうか。

Amazonでのご購入はこちら Amazonで買う

Newton ????????

?????????????????Bucha??



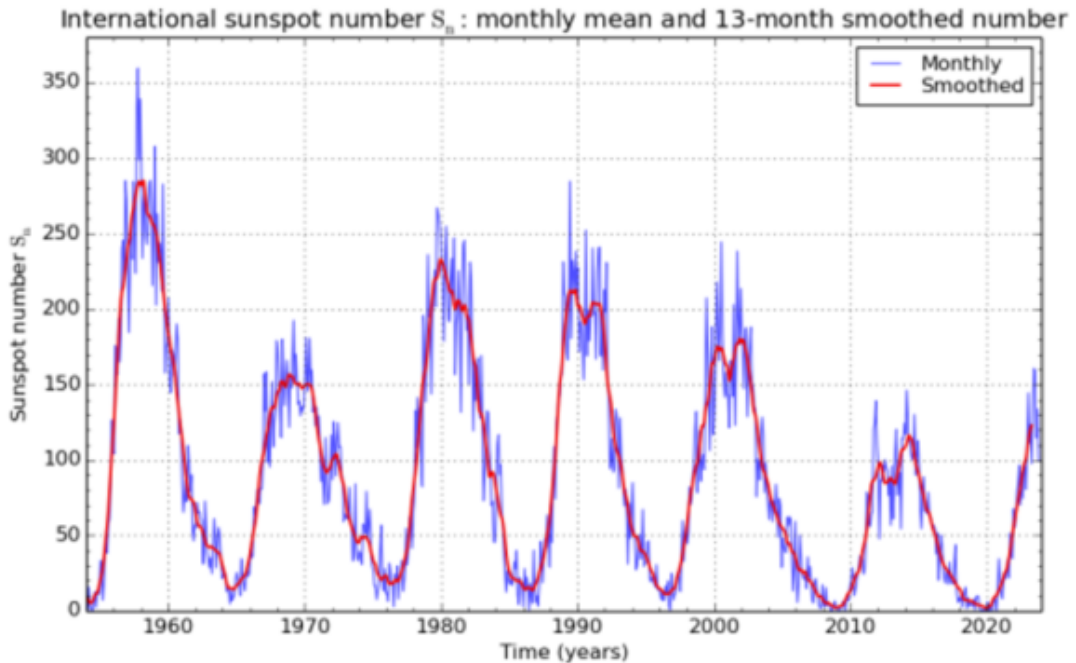
太陽活動低い
偏西風蛇行大
異常気象多い

太陽活動中位
偏西風蛇行中
異常気象中位

太陽活動高い
偏西風蛇行小
異常気象少ない

???V. Bucha, Annales Geophysicae, Vol.6, 513-524 (1988)

???SIDC????????????????cycle20?1964-1976??cycle24,25?2008-????????????????



SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2023 November 1

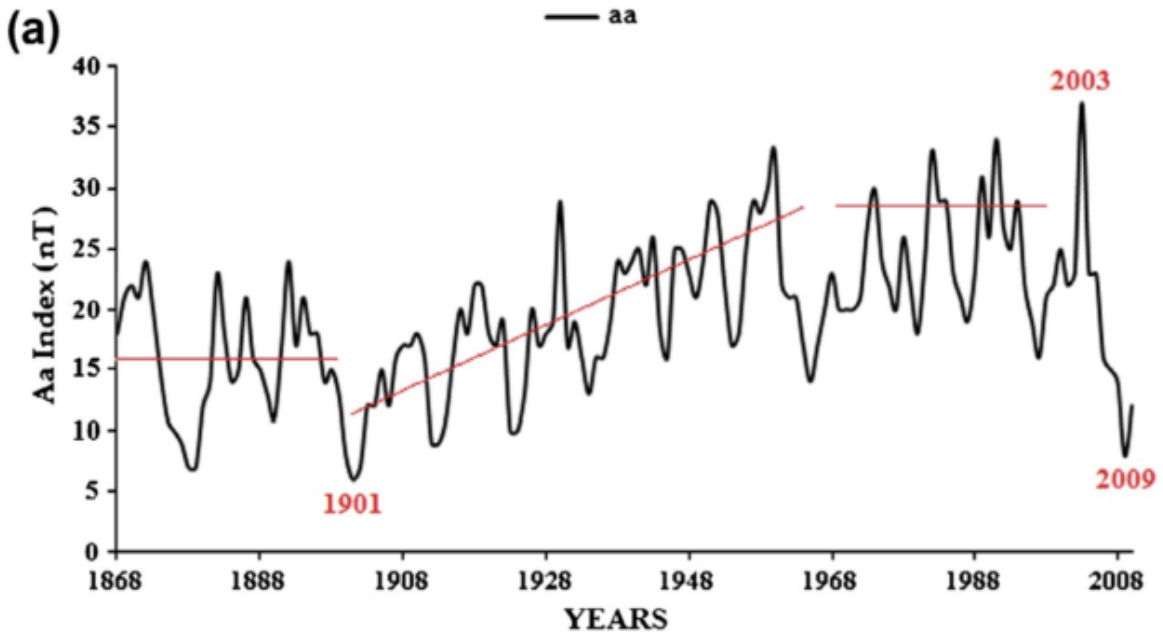
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science??44???????

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- 2006??18???
- 1963??38???
- 1918?????
- 1877??????????25cm???
- 1833????1m???

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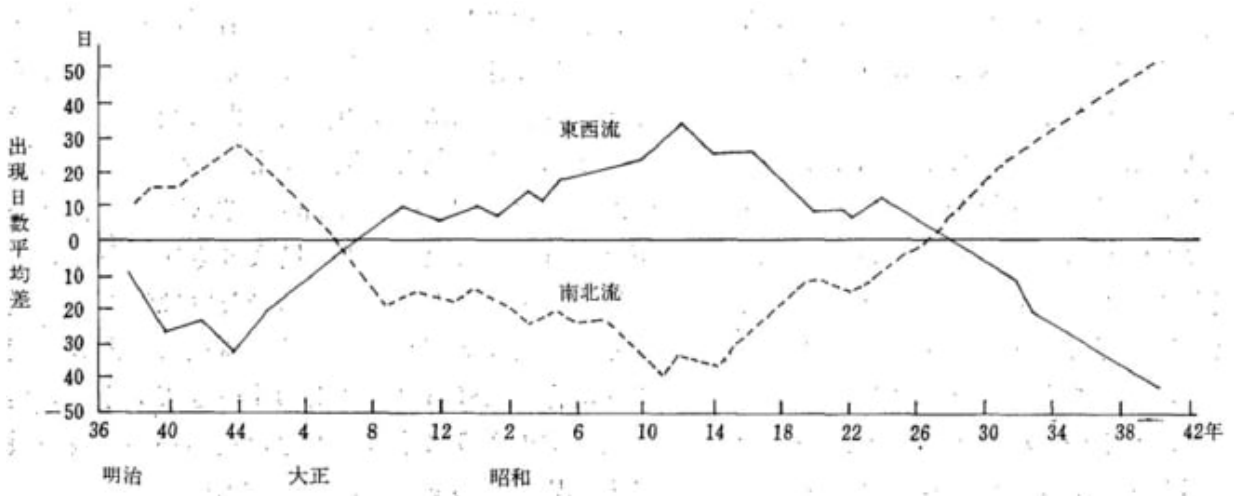


?????Zebro, J-L et al., Journal of Adavanced Research (2013),4, 265-274

1300?1918?	???	???????????
1919?1962?	???????	???????????
1963?1976?	???????	???????????
1977?2005?	???????	???????????
2006???	?????	???????????

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 ???1975?????????????????????Bucha????????
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??1918?????????1952???
 ?cycle20????????????????????????????



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????????????????????1963??38??

1963?	38?????????
1964?	????????????????
1965?	?????????9?100?????
1966?	????????????????
1967?	??????
1968?	?????????????????????????10??
1968??1969?	????????????1969?3??
1969?	?????????100?????????2000??
1969?	?????????6-8000??
1971?	1??????3????????100??
1972?	????????????????????????
1973?	????????????
1973?	????????????????????????????250?????????????????????????????????9?????

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IPCC?????1988????1977-2005?????????????????????????????????????2000???Independent???CO2?
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2017??	????????????????
2018??	????????????????????

2019??	??????????
2019???2020?2?	??????????????????
2021??	??????????????
2021??	??
2022?1?	?????????50.7??
2022??	????????????????????????????????????
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4. ??

?????????1967,1975?????CO2?????????????R. Newell?????????????????1979?????????

CO₂?????1979?????????

???IPCC?????????CO2??
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??EV????EV??????50?????????????1???CO2?
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COP28????????CO2??
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?????? 1 ? ? ? ? J -
POWER?????????????????BBC??
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?1?

1985?????????DOE????Lawrence Livermore??????
DOE Report: PROJECTING THE CLIMATIC EFFECTS OF INCREASING CARBON DIOXIDE (1985)

1990?????????R. Newell?????????H. W. Ellsaesser??
W. Ellsaesser, A different view of the climatic effect of CO2-Updated*, Atmosfera (1990), 3, pp. 3-29.

??2011?157-171??
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Posted in ???, ????? | No Comments »

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GEPR??? · Tuesday, December 5th, 2023



deepblue4you/iStock

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GHG??GHG????????????????????1????????1?
????GNI??4??????????

表-1 世界銀行データベースの所得分類 (2021-2022年)

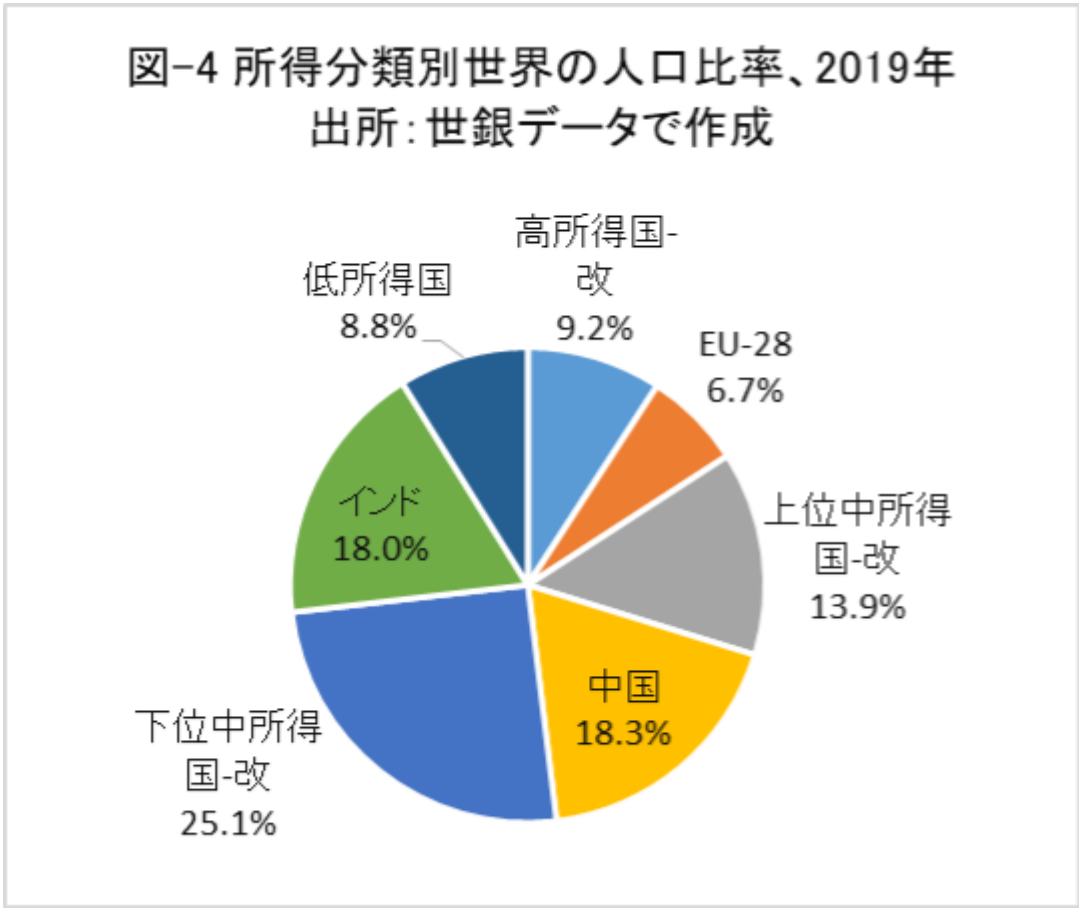
所得グループ	所得範囲 (1人当り名目GNI, US\$)
高所得国	> 12,695
上位中所得国	4,096-12,695
下位中所得国	1,046-4,095
低所得国	< 1,046

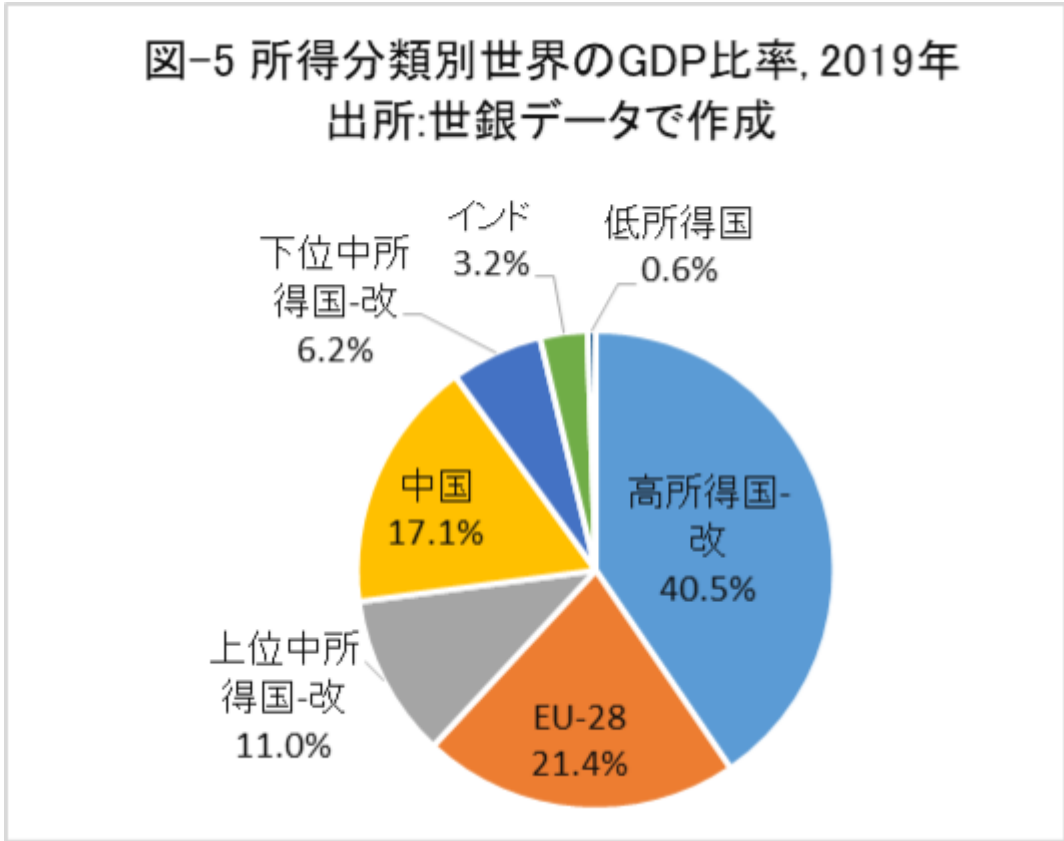
?????EU-28??

EU-28??

????????????????????????4?5?2019????????GDP????????????????GDP????2/3????????????????????16 %????????

図-4 所得分類別世界の人口比率、2019年
出所：世銀データで作成





????GHG???

????????????????????GHG????????????????10??1%????
 ?????????2050?GHG??

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 ?????????????????????????????????GHG??????????????

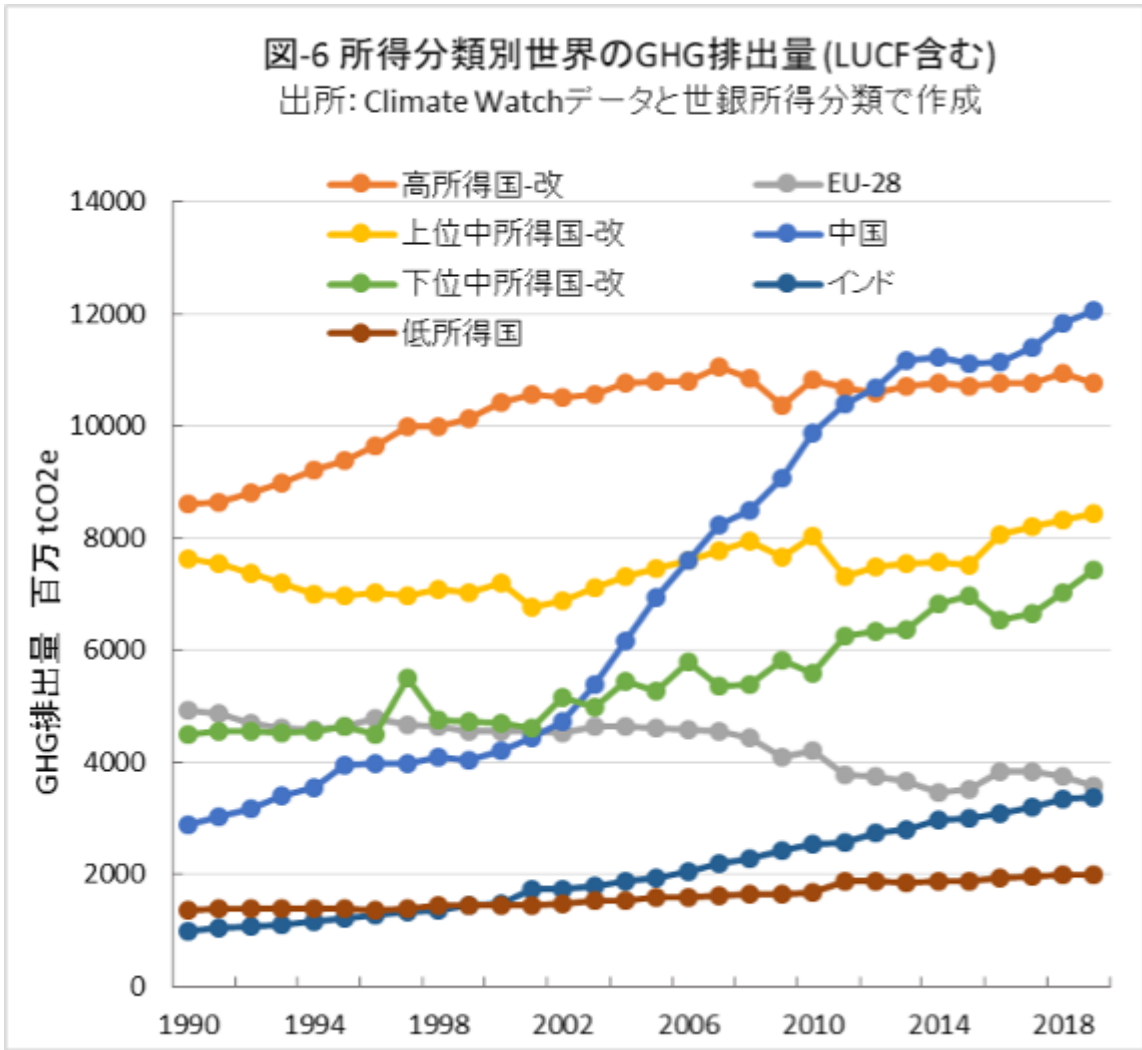
GHG??GHG????????????????????

????GHG?????

?6?????GHG????????????????GHG?????Climate
 Watch????????????????????GHG????????????????Climate
 Watch????????????????????1????????????????IPCC?6????????????????

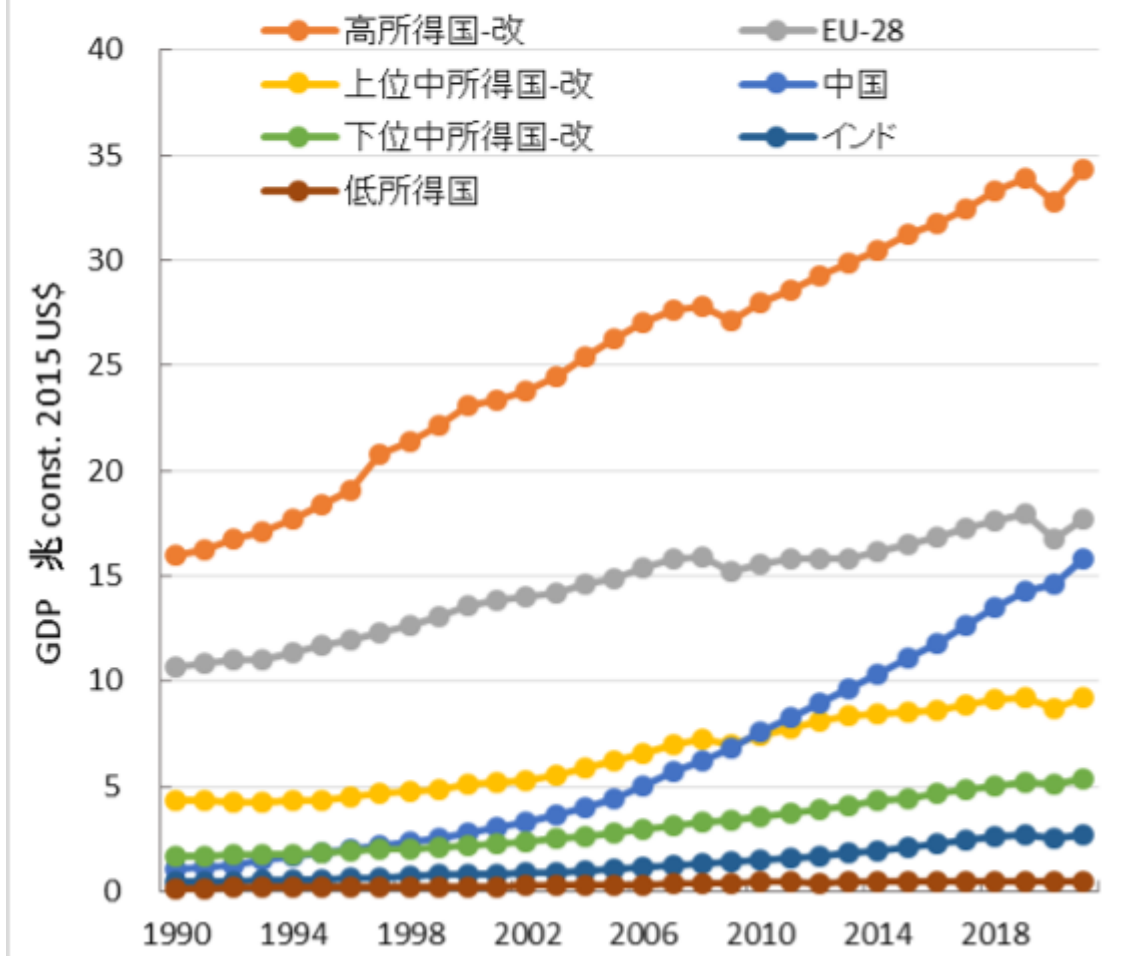
6?????WG3????????????????CO2????????????8%????????????????CH4????F-
 ?????30%?N2O??60%????????????????
 CO2?????70%????????????????GHG????????????10%????????????

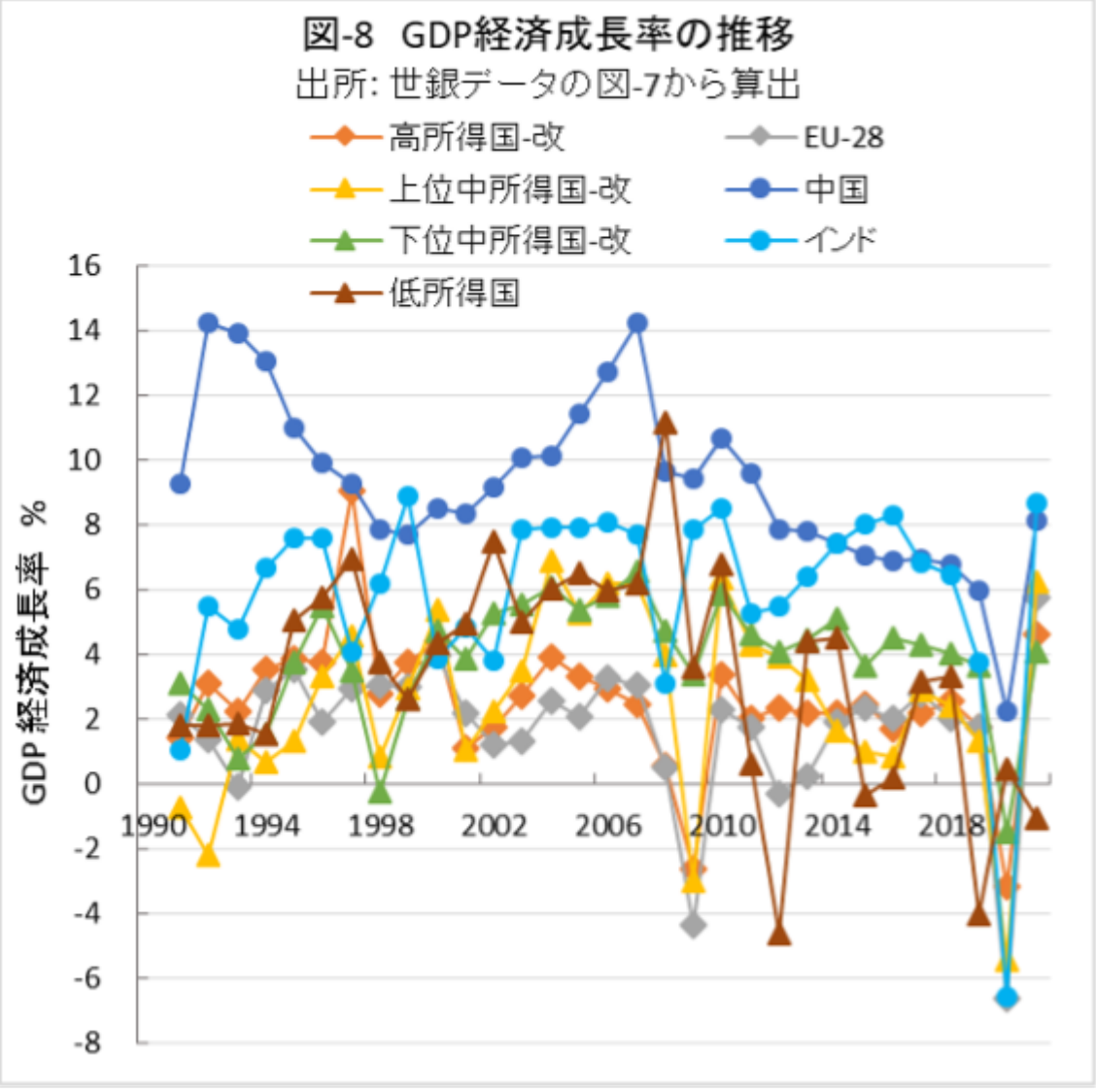
????GHG??6????????????GH
 G?????????GDP????????????



????????GDP????8??GDP????????GDP??
?

図-7 所得分類別実質GDPの推移
(constant 2015 US\$)
出所: 世銀データで作成





??-
 ??EU-28????????2008????????????????3?4%????????????????2%????????????????-
 ??GHG??EU-28?GHG????????????????????
 ???????????????

????????????????????10%????????????????9%????????????GHG????2002????2013????????
 ?????????????????????????????????6%????????????GHG????????????

??????-?????????-
 ?????????????2005????????6%????????????2.5%?4%?3.4%???GHG????2000????????????
 ??????????????-????????????

????2%????????????GHG????GHG????????EU-28????????GHG????????????????
 ???4?5%????????????????????????GHG????GHG????????????????GHG??
 ?????????????

1???GDP?GHG

????????????????GHG????????GHG????????????????1????????1????????
 ?GDP????????GHG1????????????????

????????1????GHG????????????????1????GHG????????????????????????????????????2?????
 ???GHG????????????????????????
 ?9????????1???GHG??10??1???GDP????????????

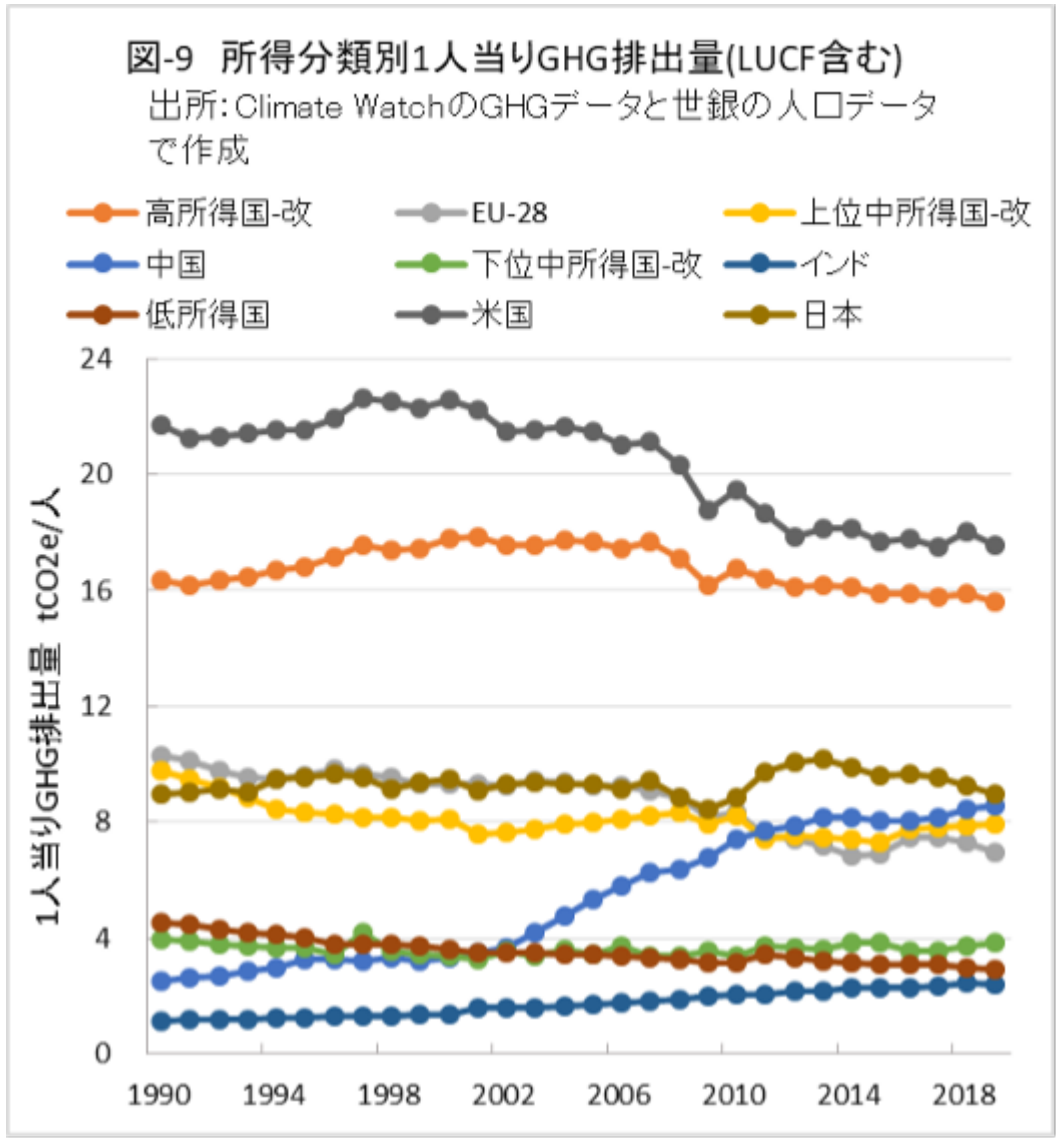
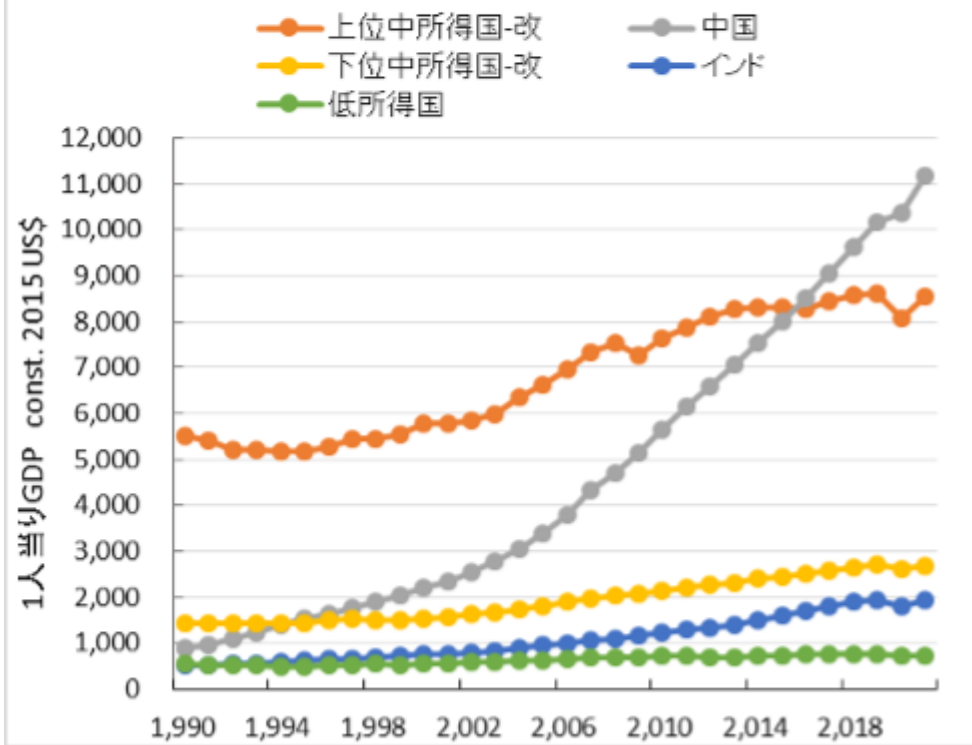


図-11 所得分類別1人当り実質GDP
(constant 2015 US\$)

出所: 世銀データで作成



1990年GHG排出量は約16t CO2e/人であった。EU-28の平均は約10t CO2e/人であった。中国は約1.5t CO2e/人、インドは約1.2t CO2e/人であった。

GHG排出量

2020年のGHG排出量は、中国が約100億t CO2e、インドが約60億t CO2eであった。

中国のGHG排出量は、2000年から2020年にかけて約10倍に増加した。

2023年のGHG排出量は、中国が約100億t CO2e、インドが約60億t CO2eと推定される。

中国のGHG排出量は、2000年から2020年にかけて約10倍に増加した。

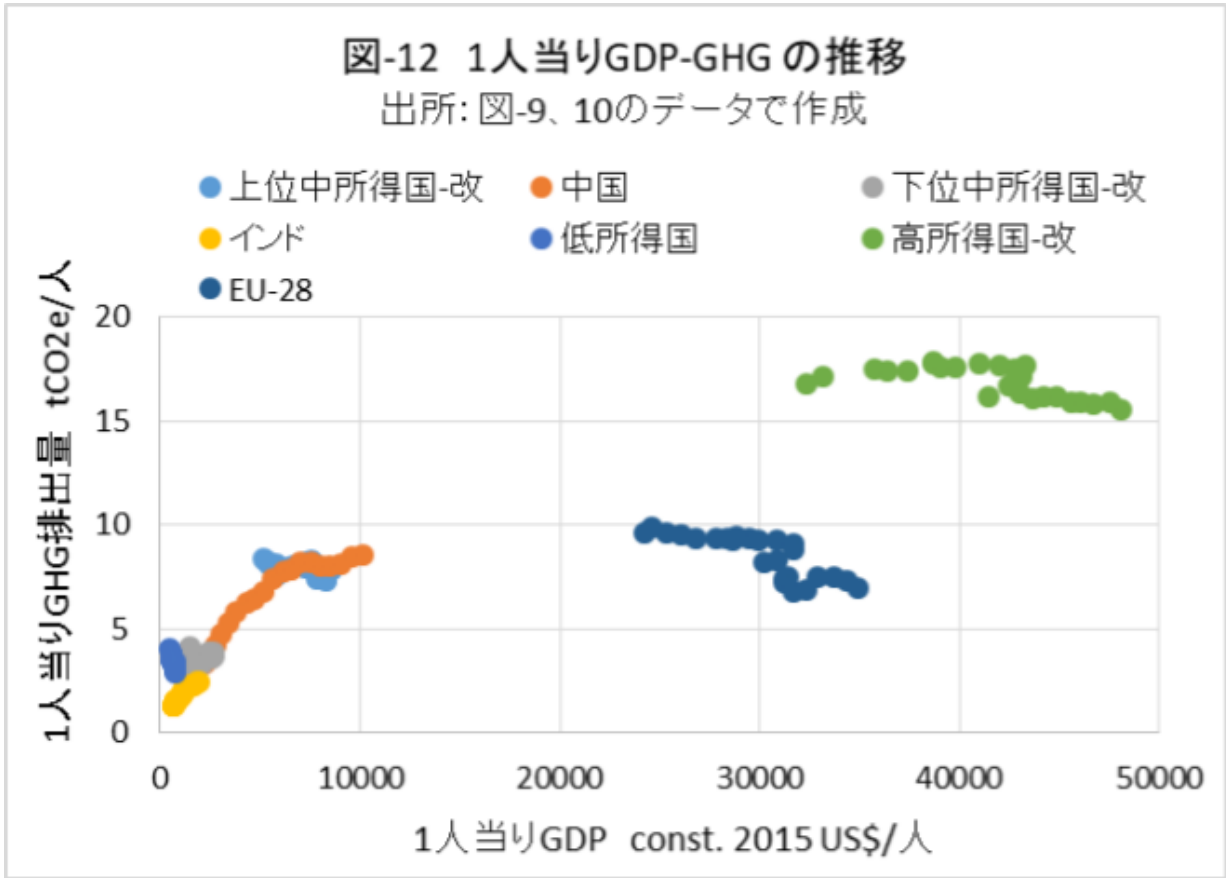
2000年のGHG排出量は、中国が約10億t CO2e、インドが約6億t CO2eであった。

1990年のGHG排出量は、中国が約1.5t CO2e/人、インドが約1.2t CO2e/人であった。

GHG排出

中国のGHG排出量は、2000年から2020年にかけて約10倍に増加した。

12 GDP GHG 1995 10 1995
GDP GHG EU-28 GHG
???



13 GHG
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Heiness/iStock

1. COP28??

COP28?UAE??10?21????????????????????
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COP??CO2??
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??27????COP??CO2??????27????????????????????????CO2
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CO2??CO2??
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2. ??????

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?????????2006?????2022????1990????????50????CO2??
??45???????????????

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Request to Reconsider Proposed Regulations on Battery Electric Vehicles

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1. BEV????????????????
2. BEV????????????????
3. BEV????????????
4. BEV????????????????

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????????2010????????????2022????????2050??

Renewables*	36.59%
Coal	27.96%
Gas	14.86%
Nuclear	12.26%
Hydro	3.30%
Oil	0.83%
Other	4.20%

How is Electricity Generated in Germany?(2019/2022)

(*) Wind:56.2%, Solar: 21.2%, Others:22.6% ?

??14.9????????78??

Oil	35.2%
Natural gas	25.1%
Renewables	14.9%
Lignite	9.1%
Coal	8.6%
Nuclear	6.4%
Other	0.7%

What Primary Energy Sources are Consumed in Germany? (2019/2022)

???Lignite????:????????????????????????????

????????????????????????????



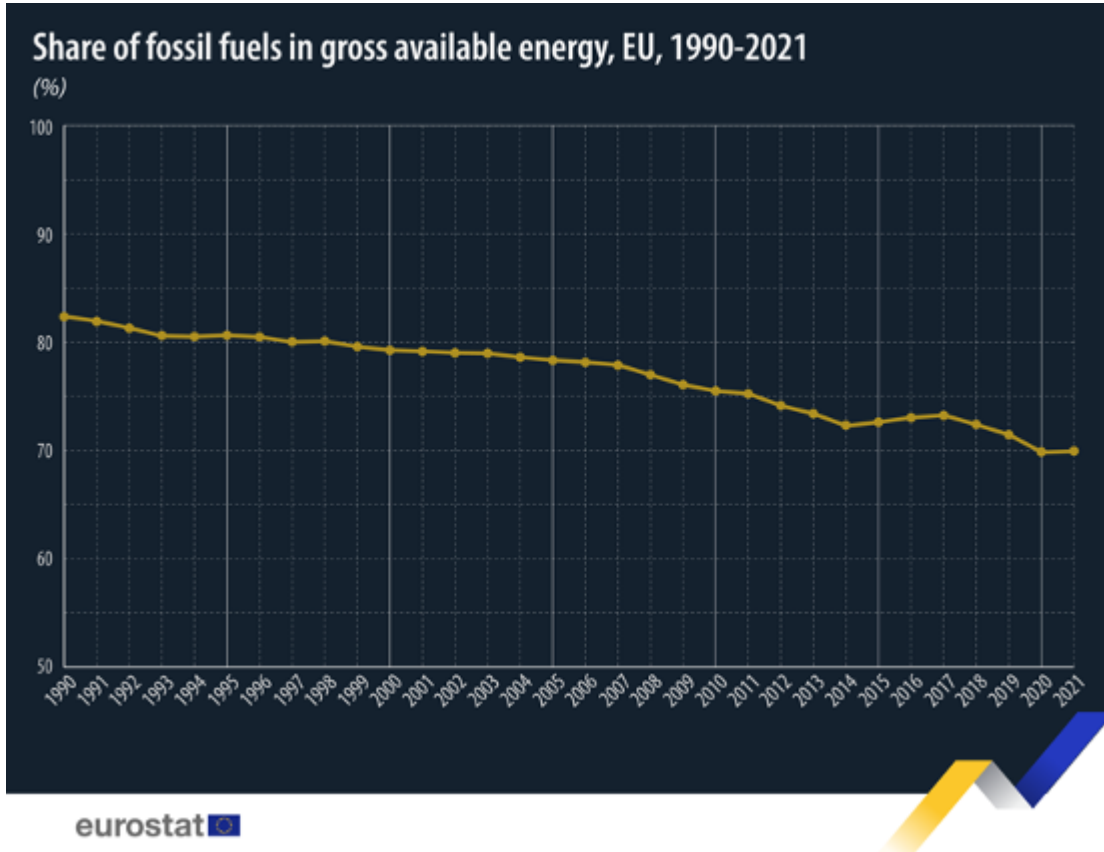
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EU??

EU??70??????????



???Fossil fuels stabilised at 70% of energy use in 2021

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????????????KPMG??80??????????????

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??2006????CO2????????????65?????15????????????10???
????????????100??CO2????????????25????????????

??CO2??
??CO2??
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3. ???

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??COP28????????????????????

Posted in ??????????, ??, ????? | No Comments »

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GEPR??? · Monday, December 4th, 2023



deepblue4you/iStock

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?????????GHG????????????????????

?????GHG?????????1/3?????2050????GHG?????????????????GHG????????????????????
??EV????????????????????????????

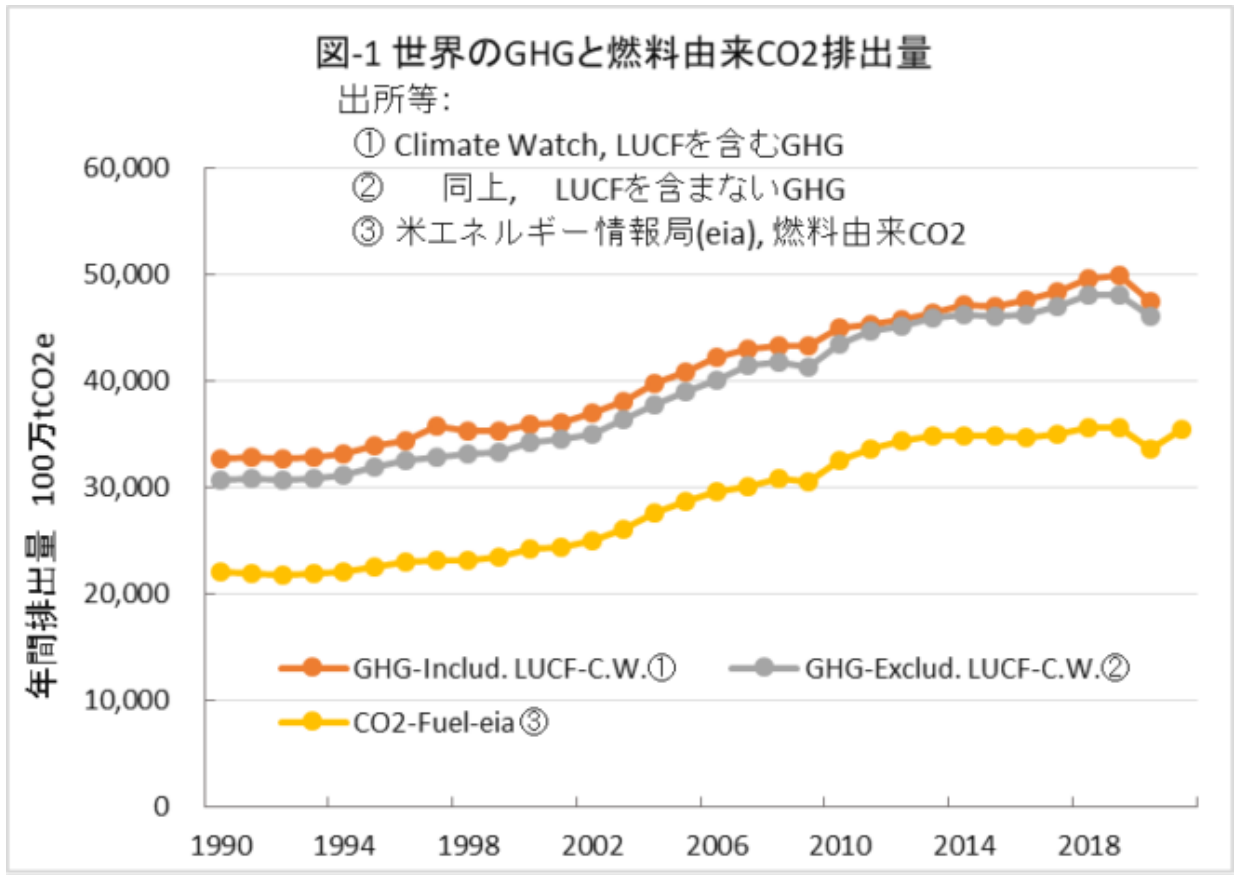
????????????GHG??
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????????????????2050?GHG????????????????????

??5???

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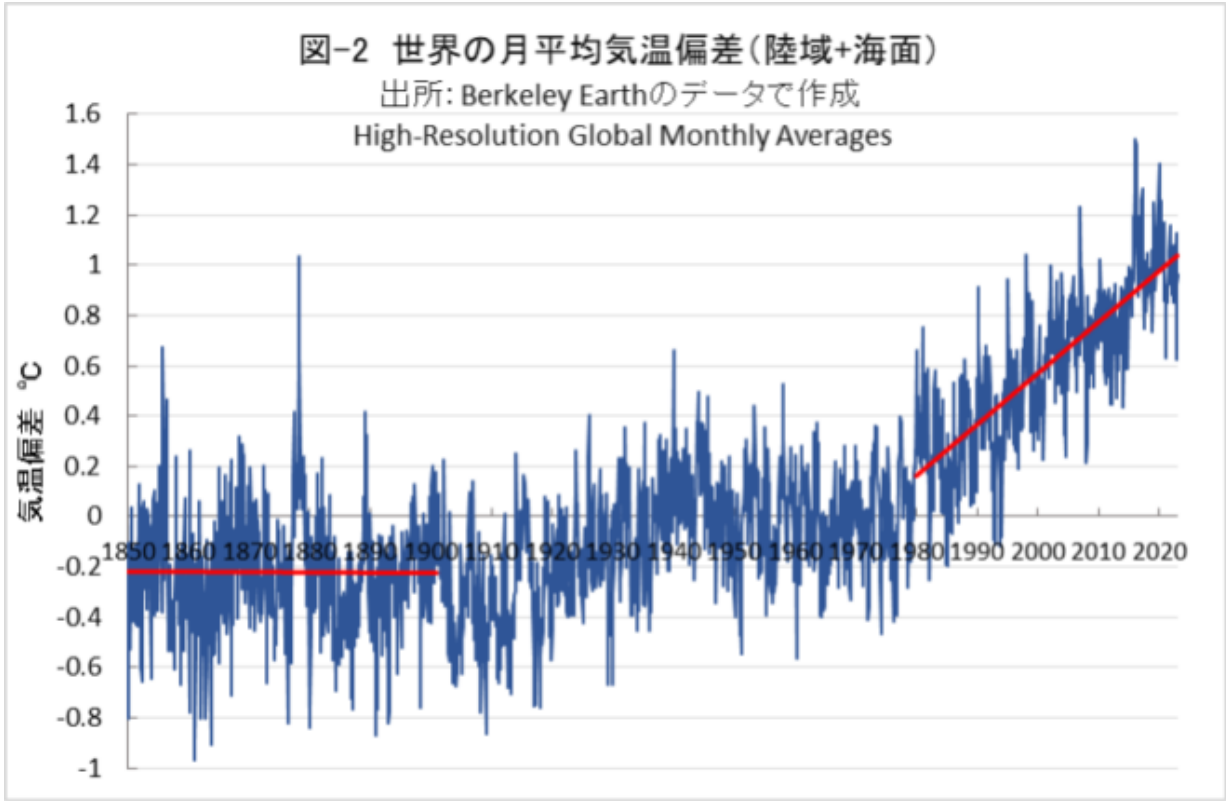
?1?????GHG?CO2?????????????????GHG?Climate
Watch?????LUCF?????????????????????????????????CO2?????????????eia???????????



2009????????COP15????????2????????2050????????????50%????????80%????????????20
15?COP21????????????2????????1.5????????????????

?????1?????GHG????????????????????2009????????????????2020????????????????
CO2????????2021????????????????

?2?????Berkeley
Earth????????????????????????????????1850?1900?1980?2022????????????????

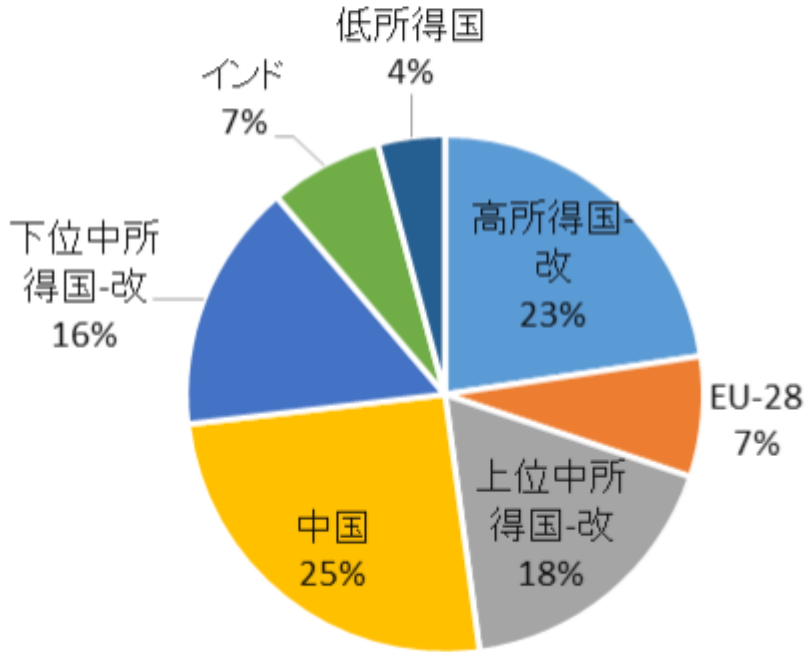


1850??????2022??????1.2????????????????????????????????2030????1.5????????????????????????1.5??
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??GHG????????????????????????????????2050????????????????????GH
G????????????????????2060????????2070????????????????

?3????????????????????????GHG????????1/3????????????????1/3????????1/3????????????????
????????????????GHG????????????????????

図-3 所得分類別世界のGHG排出量比率
(2019年, LUCF含む)
出所: Climate Watchデータで作成



????????????GHG??GHG????????????
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Posted in ??????????, ??? | No Comments »

????????SMR????

?? ?? · Saturday, December 2nd, 2023



mrdoomits/iStock

????SMR????????????

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??1942????????1????????????????????????????
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???Wikipedia

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????SMR????????????????????NuScale????????????????????????????11????????
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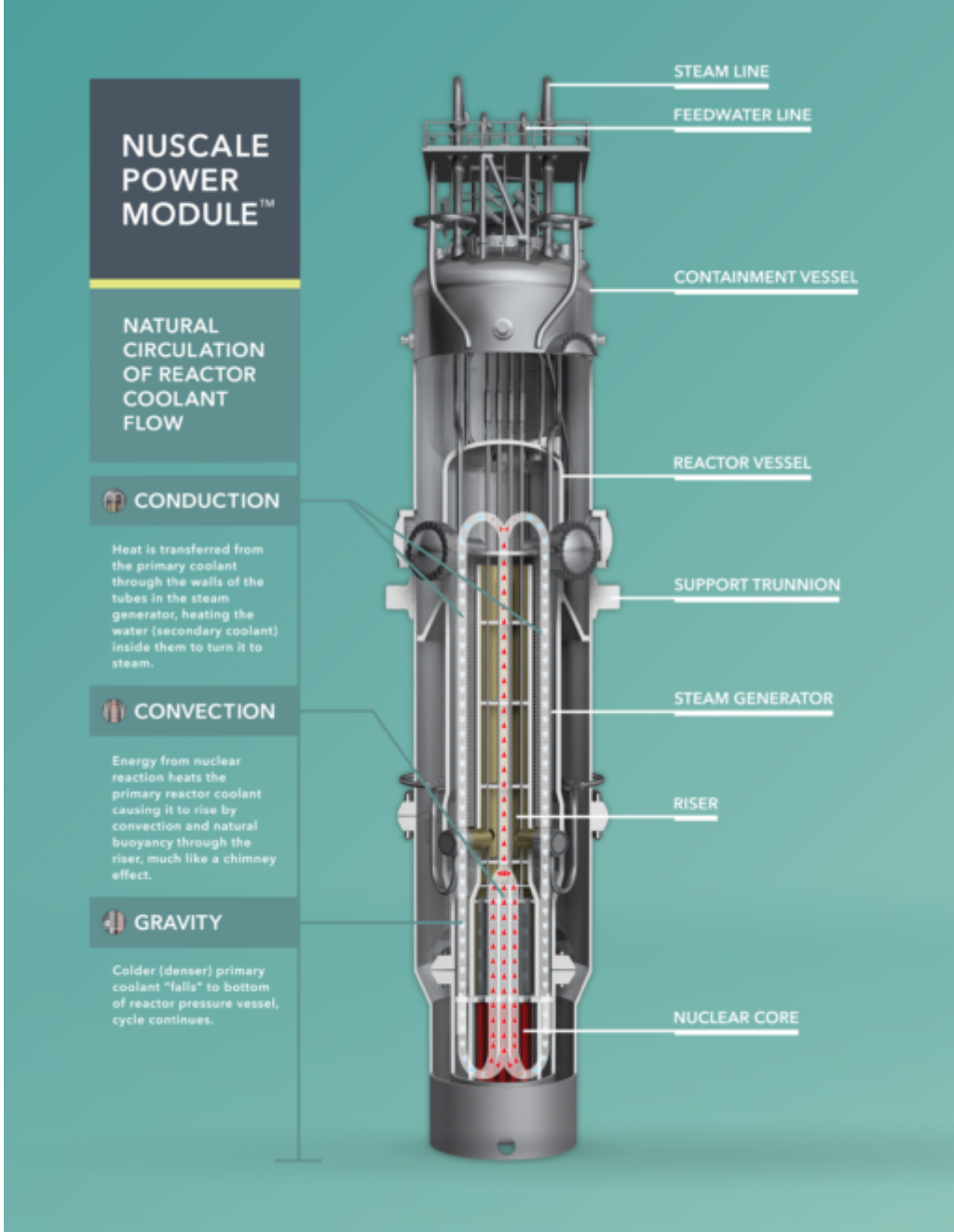
GX????????????????



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??SMR????????SMR????????

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SMR????

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Posted in ???, ????????? | No Comments »

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?? ?? ? - Thursday, November 30th, 2023



???????????? bluejayphoto/iStock

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11?15????????????????2????????????????????????????????2021????????????????????????????
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??EV????????????????????????????
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CDU??
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??“????”????????????????????????

Posted in ???, ?? | No Comments »

COP28????????????????????????????????

?? ?? · Wednesday, November 29th, 2023



Darwel/iStock

COP28?11?30????????????UAE??
????????????????????????????????????

????????????????????????1.5????????²¹????????????2030????????????CO2????????
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????5?????????G7??????????????



????2035????????????????????????????????????1.5????????????????????????????????
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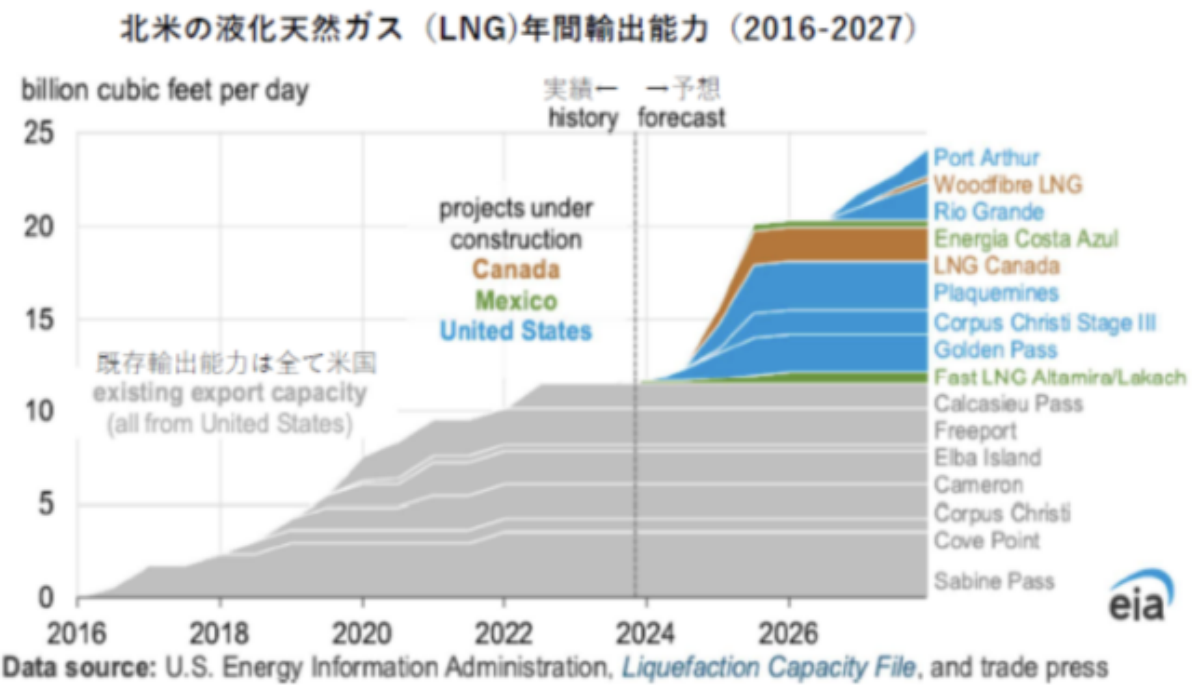
????????11??EIA????????????????????

11?2????????????²²³??
????????????2022?8????1???23?7????????????????????????????1????22????3310???²³³????????
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????????????1440????51%????????1860????6????????????????????????????????????
????????300/????????????????????????????????????100????????????????????20????????

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??EIA?11?13????²⁴²??2027????LNG????
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????????????????????129?Bcf/????????????11?Bcf/????21?Bcf/????97?Bcf/????
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??21(a)????????????????????????????????1.5????
????????????????2????????????1.5??COP26????????????????????

?2?“EU sanctions on Russia’s coal increase U.S. coal exports to Europe”, Today in Energy, November 2, 2023, EIA

?3???

?4?“LNG export capacity from North America is likely to more than double through 2027”, Today in Energy,
November 13, 2023, EIA

Posted in ??????????, ???, ????? | No Comments »

????COP28? ????????????

?? ? · Monday, November 27th, 2023



1274??14????????????????????????????????????COP28????????COP6????????????????????????17???CO
P????????????????????????

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COP28????COP????2023????????14????????????????????????GST????1????????????????????

GST??
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??????2025?????????Nationally Determined Contribution:
NDC??

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COP28????????GST??

??5??G????????????????????????G????????????1.5????2050????????????????????IPCC?6????????????
????2025????????2030??43????2035??65????????????GST????????????????????

????????G??2030????????????2050????????????????
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??9??G20????????????????????1.5????????????????
????????GHG????2025????????????????IPCC?6????????????????????IPCC????????????????
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????????2025????????????????????????????????????NDC????????G????2035?65????????????
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Third World Network

Third World Network



IPCC 2025 2030 43 2030 60

GST BASIC LMDC Like Minded Developing Countries: 1.5

1.5 2050

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GST IPCC 1.5 2025 2030 43 2034 60 IPCC 1.5

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GST

GST

1.5 2050

G20 NDCs 2030 5.8 5.9 2020 1000 78 1000 1.5

COP28

ADB AFDB

LDC

liability compensation 1000 2025

1

CO2????????1.5????????????

?? ?? · Saturday, November 18th, 2023

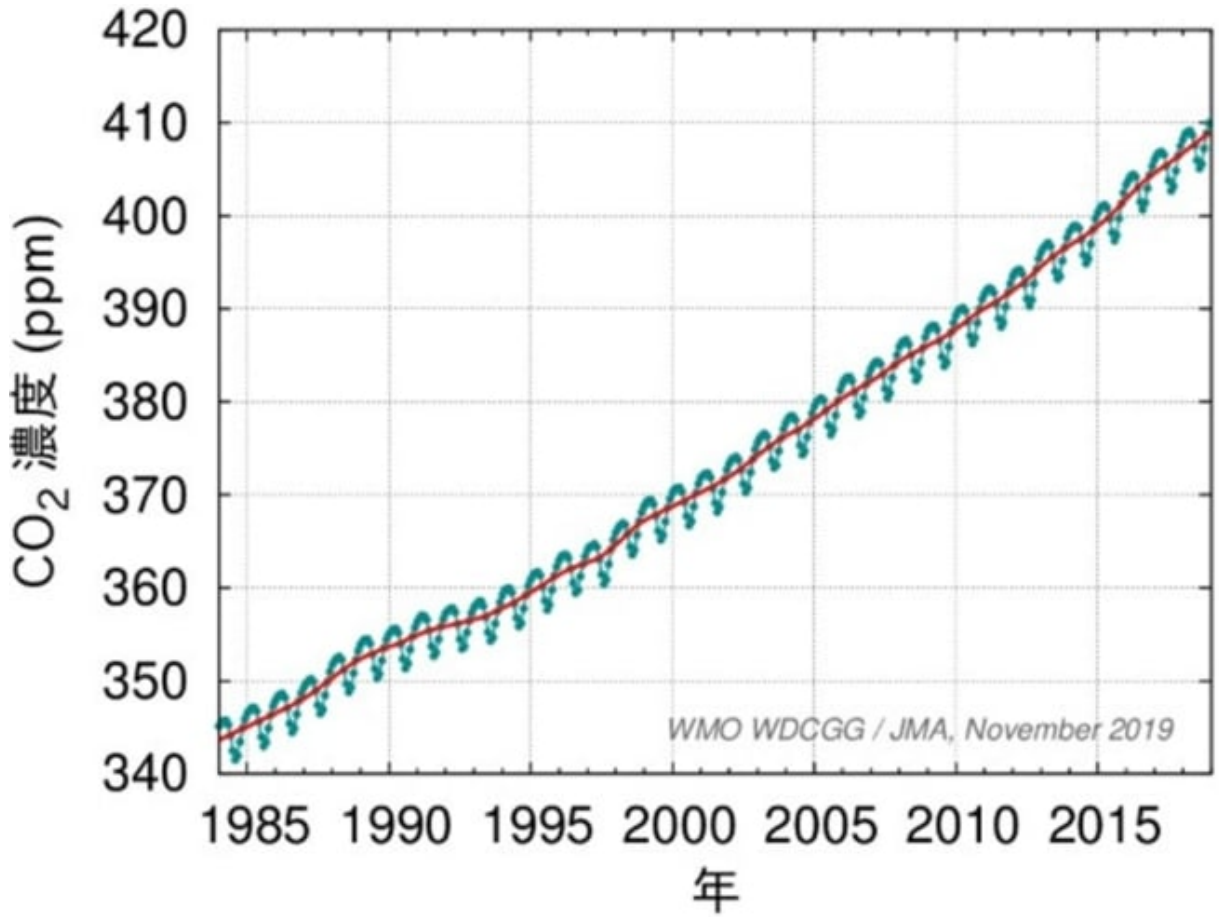


MR1805/iStock

CO2????????420ppm????????1850????280ppm?1.5????????????????

???CO2????????1.5????????...????????????????????????????

??CO2??
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????CO2????40????2ppm?????
 ???HP??

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??1850??280ppm??

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??????RCP8.5????CO2????????????

????????????RCP6.0????????1.5??630ppm????2090????

CO2????????????1????????420ppm?1.5??630ppm????420ppm?28

0ppm????560ppm????????????????????CO2??
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????????150??1????????????CO2????????????????2090????????????1????????70????????1????????????
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Posted in ???, ????? | No Comments »

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?? ?? · Sunday, November 5th, 2023



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<https://agora-web.jp/archives/230217005900.html>

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Posted in ????????????, ??? | No Comments »

????3?CO2??????

?? ?? · Friday, November 3rd, 2023

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Posted in ??????????, ??, ???? | No Comments »

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?? ?? · Thursday, November 2nd, 2023



PhonlamaiPhoto/iStock

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中間貯蔵施設の概要

● 中間貯蔵施設は、原子力発電所で使用した燃料(使用済燃料)を金属キャスクと呼ばれる頑丈な専用容器に入れて、再処理工場へ搬出するまでの間、安全に保管する施設です。

イメージ図

【金属キャスク】

- 閉じ込め機能:** 二重のふたに金属製のパッキン(ガスケット)を挿んで、密封性を保持
- 遮へい機能:** キャスク前後は、ガンマ線遮へい層と中性子遮へい層で、放射線をキャスク内の、100万分の1まで減衰
- 使用済燃料**
- 臨界防止機能:** パレットと呼ばれる仕切り板で、使用済燃料の臨界(核分裂の連鎖反応)を防止
- 発熱機能:** 使用済燃料から発生する熱も、強制ファンを通じて表面に伝え、外気で冷却

施設に持ち込む前に、発電所内で頑丈な金属の容器に入れて二重のふたで密封します。(輸送時は、さらに3つ目のふたと緩衝体も装着します)密封された状態のまま搬入、保管、搬出され、施設内で燃料を取り出すことはありません。

出典:日本原子力文化財団「原子力・エネルギー図鑑集」

● 水や電気を使わず、外気による自然空冷により使用済燃料から発生する熱を除去するため、設備自体は非常にシンプルです。

● 施設内では、使用済燃料を取り出したり入れ替えたりすることもなく、建物内に置いて保管する形になります。

【建屋内の空気の流れ】

建物の外から取り込んだ空気で自然に冷やします。(電気も水も不要)

【東海第二発電所での貯蔵風景】

金属キャスクに備わった安全機能により、触れられるほど近づいても全く問題ないくらいまで放射線量は低くなります。また、施設では金属キャスクの温度・圧力を常時監視します。
(東海第二発電所の乾式貯蔵施設は、2001年より運用開始しており、これまでにトラブルもなく、20年以上の貯蔵実績があります)
※写真提供: 日本原子力発電株式会社

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Posted in ??????????, ??, ????????? | No Comments »



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EU?EV?????????????e-fuel???

??2023?4?1????????????????

????????????????10?25????????????????????????EV????????

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JAPAN MOBILITY SHOW 2023 Toyota Press Briefing

??EV????????????????????

2. ?????EV????

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????????GM??EV????????50????????????????GM????????????????GM????????????????
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More alarm bells sound on slowing demand for electric vehicles

3. ?????

EV??EV????????????????
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Young????????????????EV????????????????2????EV????????2035??
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????2050????????????????????EV????????????????

????EV????????

Posted in ???, ????, ?? | No Comments »

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?? ?? · Monday, October 30th, 2023



Stock photo and footage/iStock

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2018??	8???	10??
2019??	9???	9??

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Posted in ??????????, ???, ????? | No Comments »

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?? ?? ? - Saturday, October 28th, 2023

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Royale““??
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5
15.1

BSI



3DFOX/iStock

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“???”??

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Posted in ???, ?? | No Comments »

????????????????????????TSI????????????

?? ?? · Wednesday, October 25th, 2023



Tero Vesalainen/iStock

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1. ????????????????

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??2026
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??EV??????

2023 Cox Automotive Mid-year
Review????????2023??2????????????????????????????????
92,000????????????2022????2????????????342% ???????

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??????EV??????????????????

2. RFK Jr.?

RFK Jr. 2024



COVID

RFK Jr. 2024

3. UN IPCC

UN IPCC



MIT CO2 "heavily saturated" EPA

CO2

IPCC 2

The Detection and Attribution of Northern Hemisphere Land Surface Warming (1850–2018) in Terms of Human and Natural Factors: Challenges of Inadequate Data

IPCC

4%

IPCC TSI 1950 TSI 2

IPCC

CERES



1850????????????IPCC????????????????????????????????IPCC????????????
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4. ??????

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Posted in ???, ????? | No Comments »

????????ESG???????

?? ?? · Tuesday, October 24th, 2023



LifestyleVisuals/iStock



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??HP??

3. ?????????

??????ESG????????????????2024??ESG????????????????????
??ESG????????????????????????

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ESG??
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Wikipedia??

4. ???????????????



ESG??



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Wikipedia??

5. ?????????????????????????



ESG??



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ALPS???????????????? ???

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?? ?? · Friday, October 13th, 2023



Liudmila Chernetska/iStock

1. ?????????????

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- 1976????????? ?????????????????????
- 1980????????????????????
- 1989????????????????? ??????????????????
- 1989????????? ?????????????????????

1989??1988?????????WMO?????????UNEP?????????????????
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2. ?????????????

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Don't overstate 1.5 degrees C threat, new IPCC head says



1.5????????????1.5??
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Bill Gates sees 'a lot of climate exaggeration' out there: 'The climate is not the end of the planet. So the planet is going to be fine'



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CO2 ?????????????????????????????????



CO2??
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3. CO2??????????

2009??Climategate????????????IPCC??
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430ppm????????????????CO2????????????????????????????????????

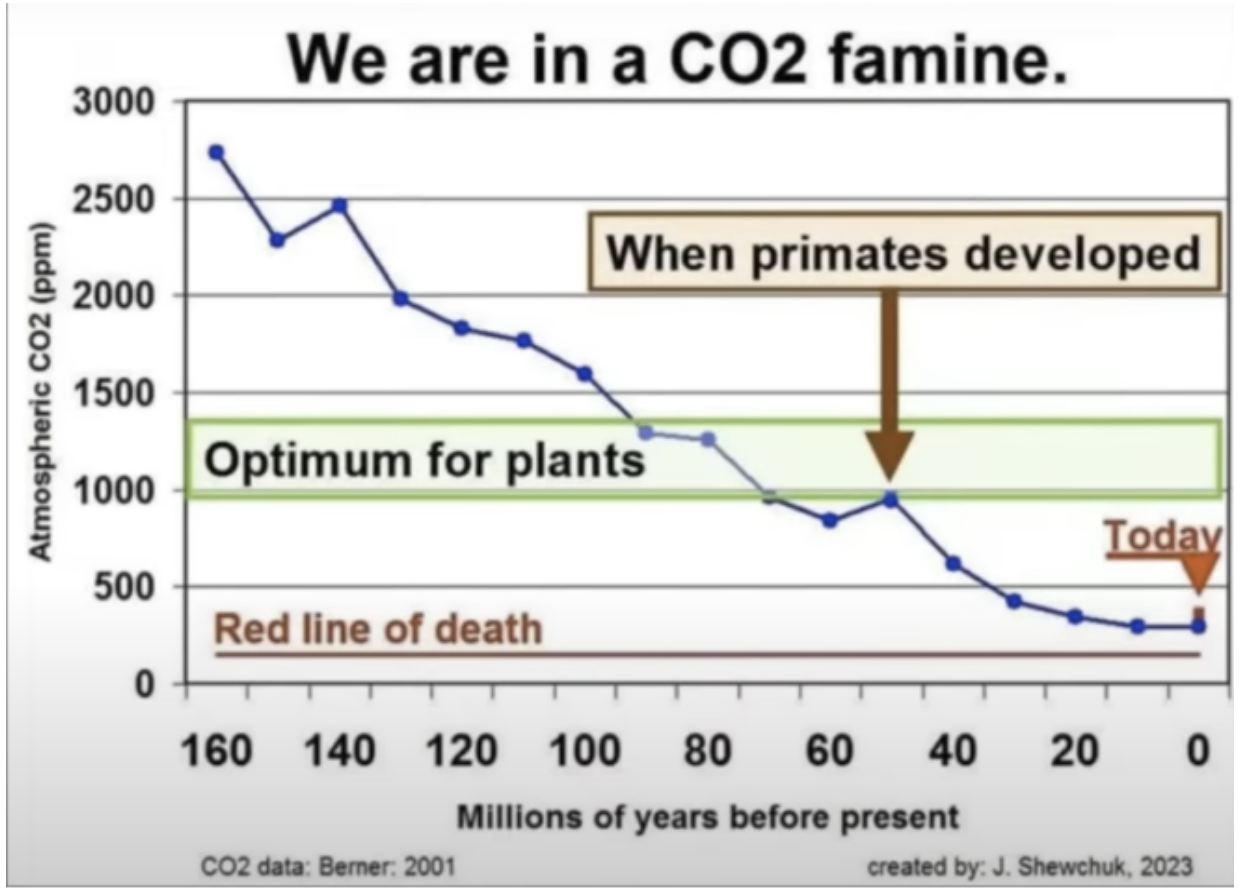
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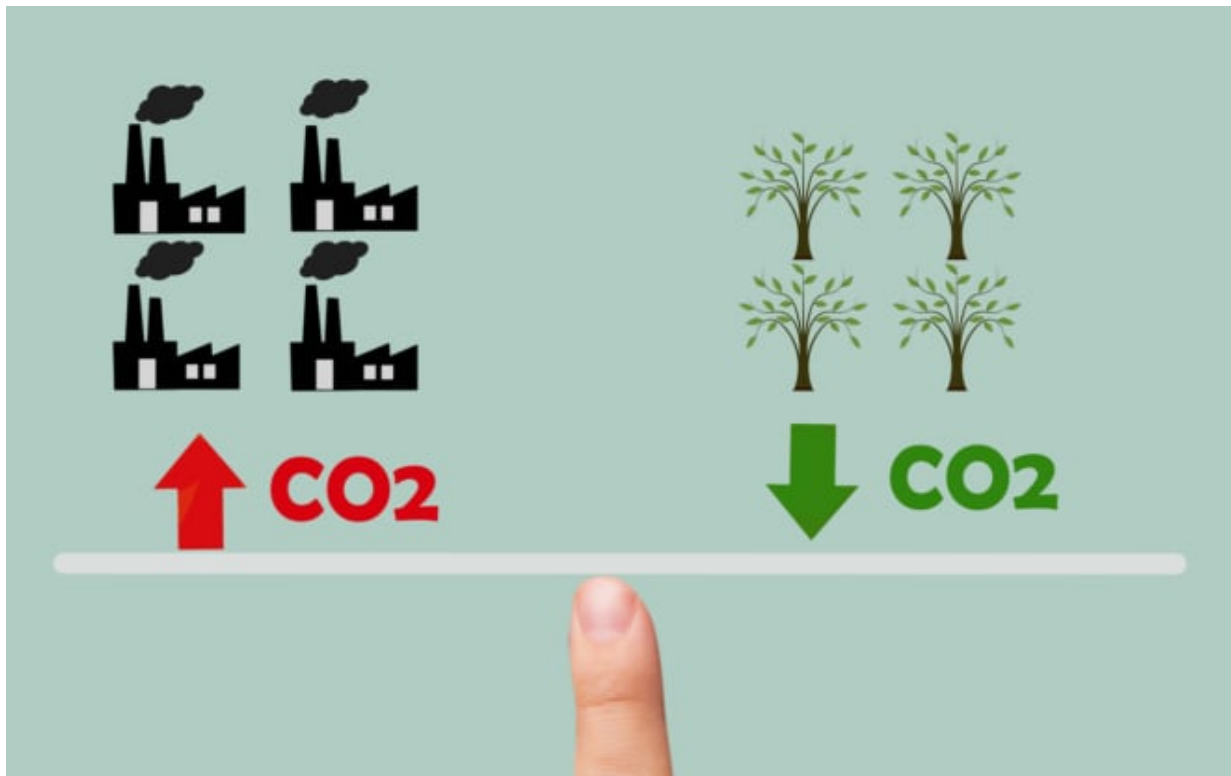
The main conclusion of this part of the study is that even an order of magnitude increase of CO₂ in the atmosphere by human activities, which at the present rate of input is not expected within the next several thousand years, may not be sufficient to produce a runaway greenhouse effect on Earth. On the short time scale, if CO₂ is augmented by another 10 percent in the next 30 years, the increase in the global temperature may be as small as 0.1°K.

??CO2?????1????????????????????????????????
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Posted in ???, ????? | No Comments »

2026????????????????????????????????

?? ?? · Saturday, October 7th, 2023



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919 EU UCPD CRD 26 20 25 26

EU

2026 EU

EU-ETS EU-ETS

J- CO2 CO 2 1 kWh

NGO CO2

COP27 2023 13

2050 2030 CO2 1 2 3

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2023????????????????

?? ?? · Wednesday, October 4th, 2023



2023 ESG 2030 2040 2023 CO2 1 CO2 CO2

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?? ?? · Tuesday, October 3rd, 2023



KEN226/iStock

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?? ?? · Monday, October 2nd, 2023



metamorworks/iStock

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Dialogue?Openness????????????????

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