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28. Further recognizes the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5 °C pathways and calls on Parties to contribute to the following global efforts, in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches:

- (a) Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030;
- (b) Accelerating efforts towards the phase-down of unabated coal power;
- (c) Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century;
- (d) Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science;

Draft decision -/CMA.5?Outcome of the first global stocktake

??????

- calls on Parties ??COP????????????????????????
- contribute to the following global efforts ?????????????????????????????????
- in a nationally determined manner ?????????????????????????????????
- different national circumstances,..., in a just, orderly and equitable manner ?
??
- accelerating action in this critical decade??????2020??

??300????????????????????????????????6????????????????????
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??2030????????1????????????20
30????????5.8-5.9????2050????????5????????????????

67. *Highlights* the growing gap between the needs of developing country Parties, in particular those due to the increasing impacts of climate change compounded by difficult macroeconomic circumstances, and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting that such needs are currently estimated at USD 5.8–5.9 trillion for the pre-2030 period;⁵

68. *Also highlights* that the adaptation finance needs of developing countries are estimated at USD 215–387 billion annually up until 2030, and that about USD 4.3 trillion per year needs to be invested in clean energy up until 2030, increasing thereafter to USD 5 trillion per year up until 2050, to be able to reach net zero emissions by 2050;⁶

1????1????????????150???1?????15??2030??????????????????
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????COP????????????????

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

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GEPR??? · Thursday, December 14th, 2023



deepblue4you/iStock

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????????????????????VRE??VR
E????????????????GHG????????????

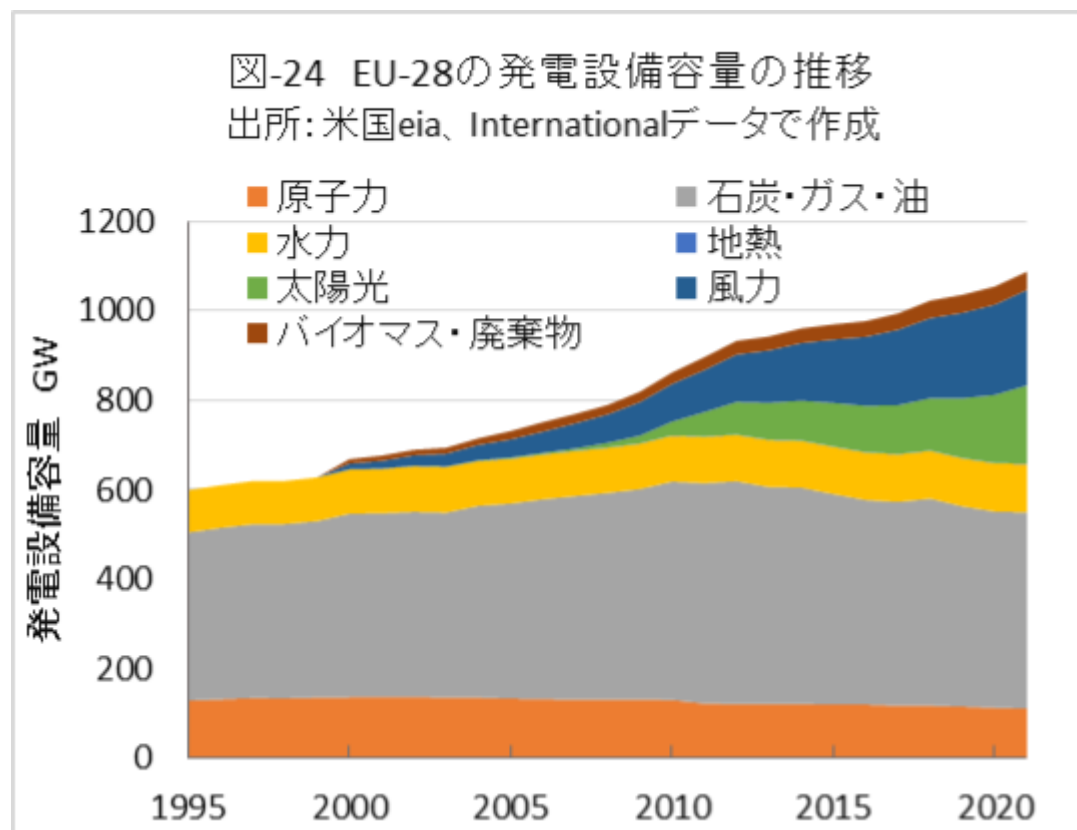
?23??-

??EU-28??10??

GHG????????????????????EV????????????????????VR
E????????????????

EU??VRE???

?24??EU-28????????????????????2000????VRE?????2010?????????
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VRE????????GHG????????VRE????????CO2????
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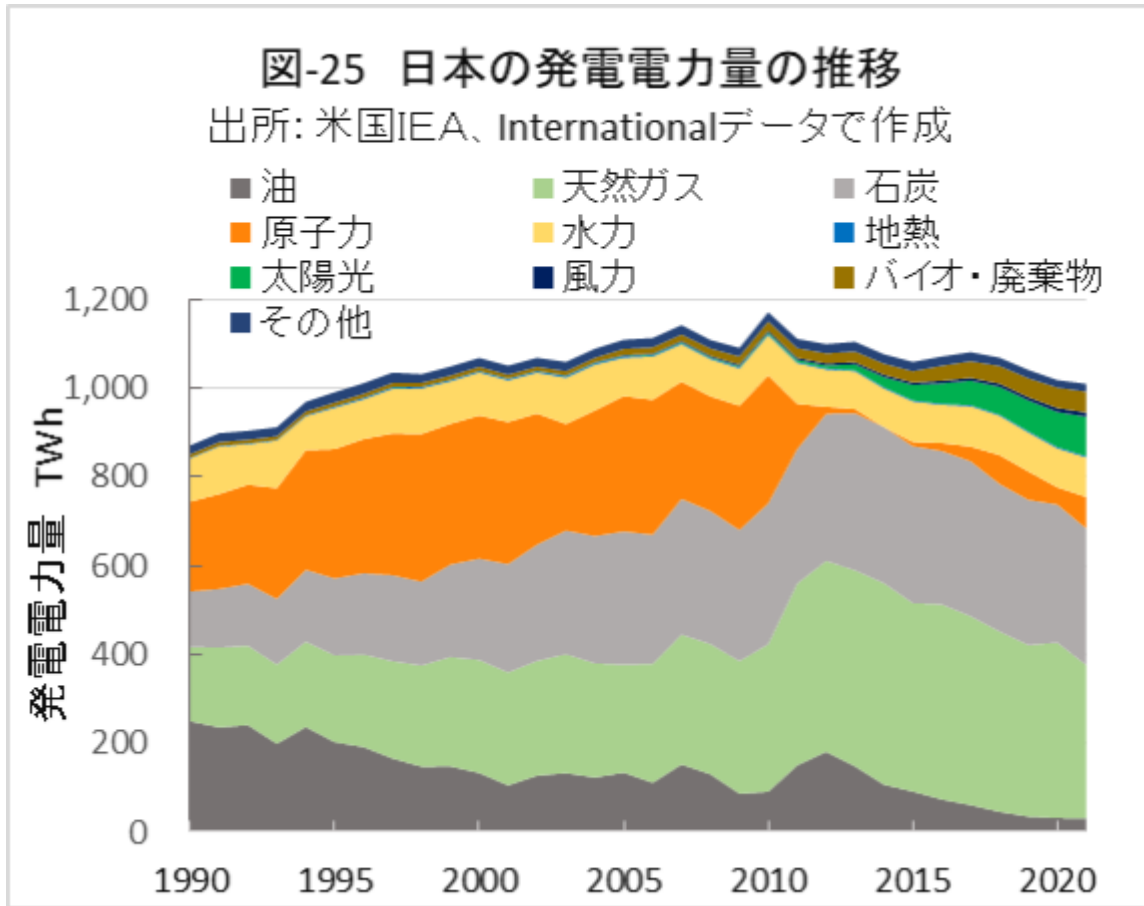
VRE????????????????????????????????????

????5%????10%????????

???EU-28??VRE????GHG????VRE????GHG????
??VRE????????????

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????25????1990????1kWh????
????2009????????



2011年3月11日の東日本大震災以降、発電電力量は約25%減少し、LNGの導入が進んだ。

2012年7月のFIT導入により、再生可能エネルギーの発電電力量は急増し、2017年には約25%に達した。FITの終了後は、再生可能エネルギーの発電電力量は減少する見込みである。

再生可能エネルギー(VRE)

VREはGHG削減に有効なVREである。

VREはGHG削減に有効なVREである。

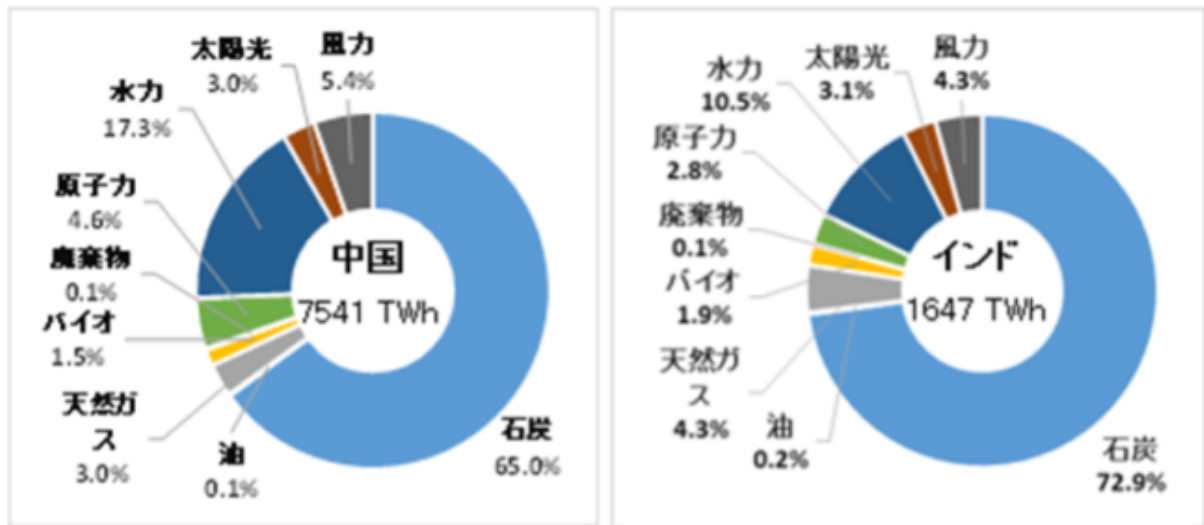
VREはGHG削減に有効なVREである。

GHG削減に有効なVREである。

26年間のGHG削減に有効なVREである。

図-26 中国とインドの電源構成 (2019年)

出所: IEA データで作成



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????GHG????2/3????????????????????2050?GHG????????????????????GHG????????????????

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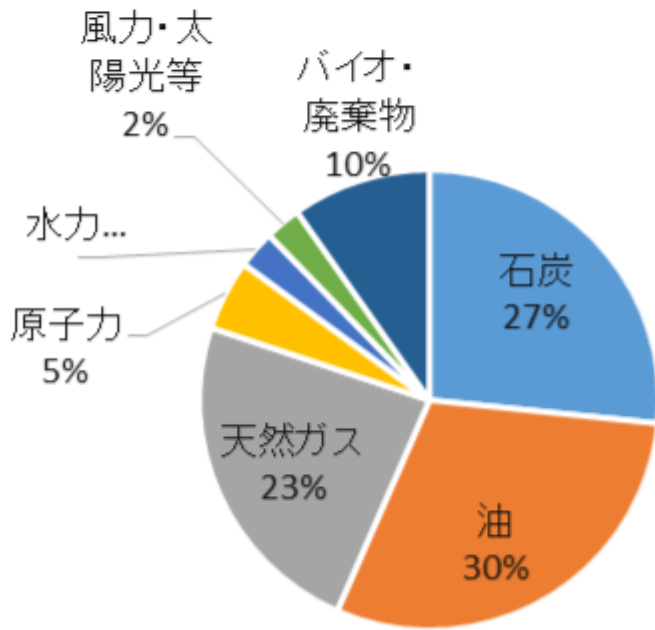
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2050?GHG??GHG????????????????

????????GHG??VRE????????????????27????

????????TES????????????????27%????????

図-27 世界の一次エネルギー供給量
(2020年) 出所: IEAデータ



28??29????????????????CO2??????????

図-28 グループ別 一次エネルギー供給量
(2020年) 出所: 米国eia、Internationalデータ

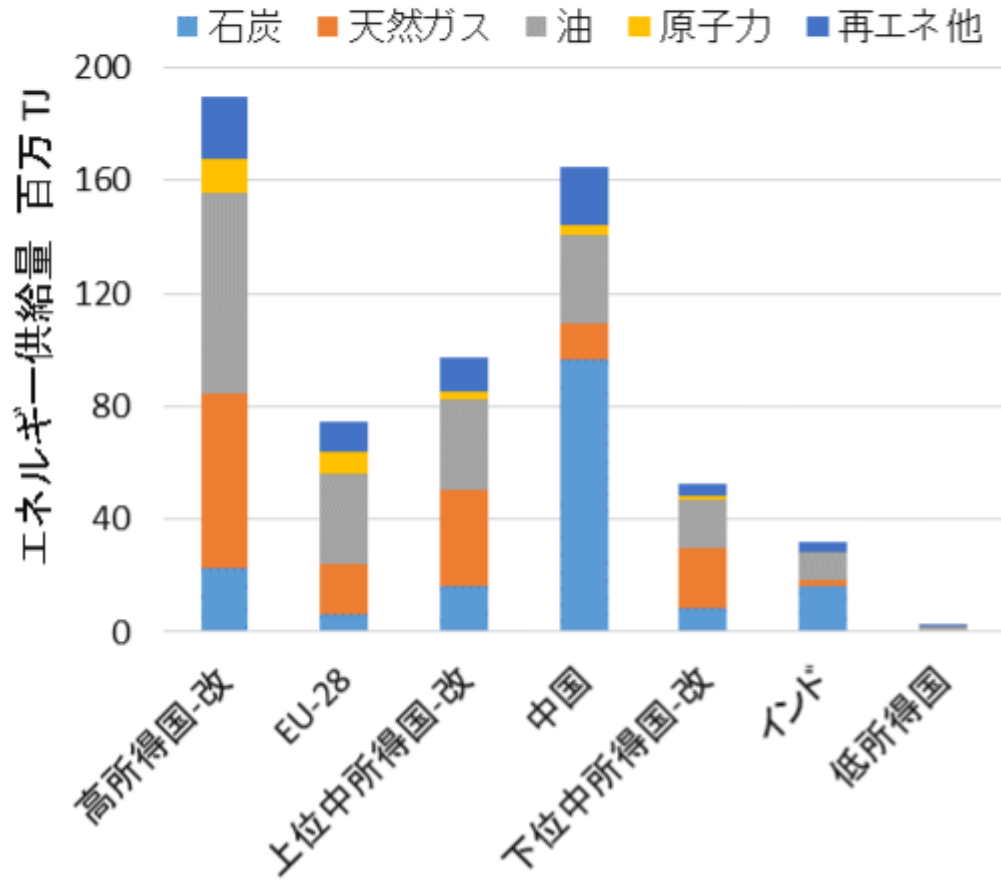
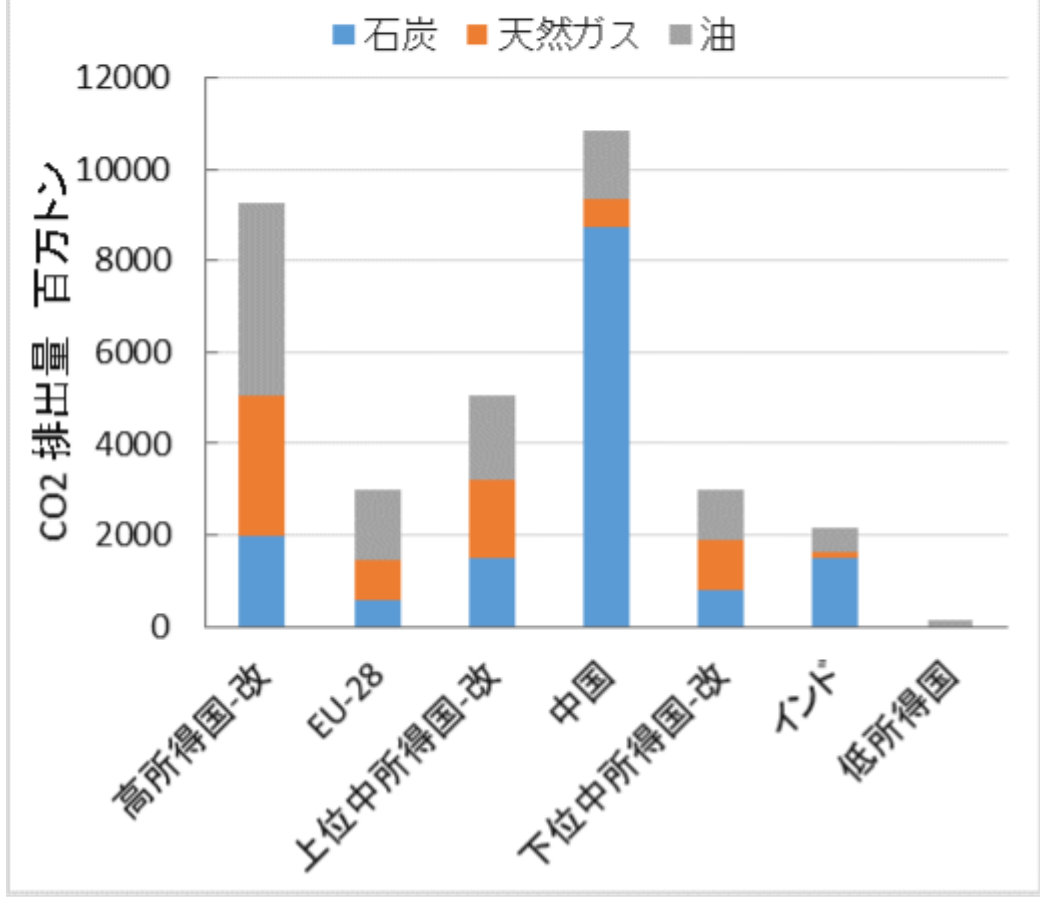


図-29 グループ別燃料燃焼CO2排出量 (2020年) 出所: 米国eia, Internationalデータ



2020年、世界のCO2排出量は52%増加し、16%減少した。2020年のCO2排出量は、

2019年と比較して、0.56億トン増加した。

LCA (Life Cycle Assessment) は、LNG (Liquefied Natural Gas) のCO2排出量を0.6から0.65に削減し、35%削減した。

18%の削減は、IEA (International Energy Agency) の2020年の推定値57%と比較して、GHG (Greenhouse Gas) の削減に貢献した。

70%の削減は、再生可能エネルギーの導入によるもので、2020年の再生可能エネルギーの発電量は、1970年と比較して、

30%増加した。

1970年と比較して、再生可能エネルギーの発電量は、2020年には、

2倍に増加した。

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

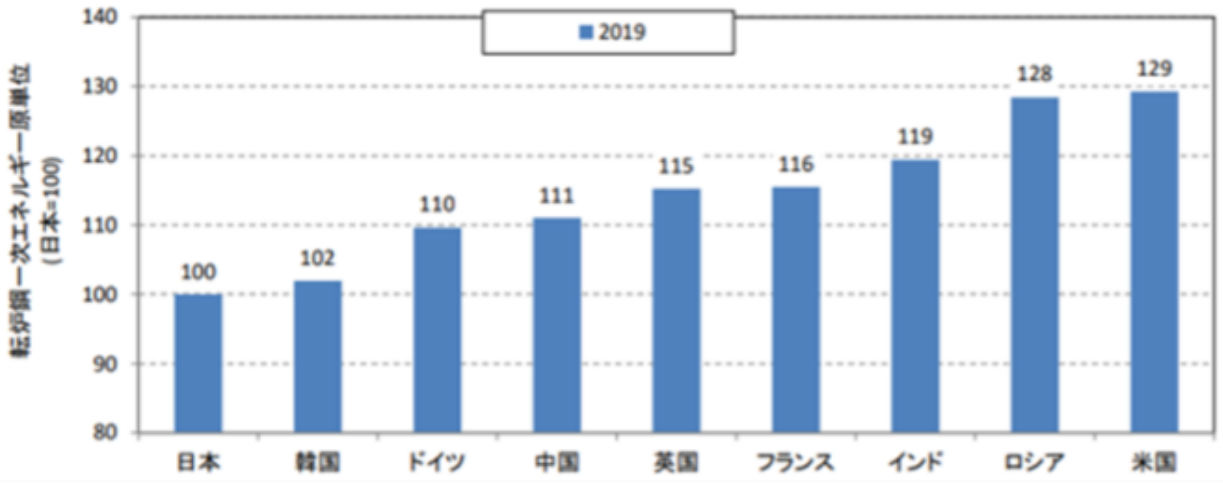
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????????????????GHG??

????????????????????23????????475??
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??30????????
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図-30 高炉-転炉鋼の一次エネルギー原単位 (2019年)
出所：2019年時点のエネルギー原単位の推計(鉄鋼部門-転炉鋼)、RITEほか



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??CO2????????

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GHG????????????????????GHG????????????????????????2050????????????GHG????????
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GHG????????????????????????????????????EU????????GHG???60?70%????????????GHG?
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Posted in ??????????, ??? | No Comments »

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GEPR??? · Monday, December 11th, 2023



deepblue4you/iStock

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????????????????VRE??Energy-

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

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

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VRE??

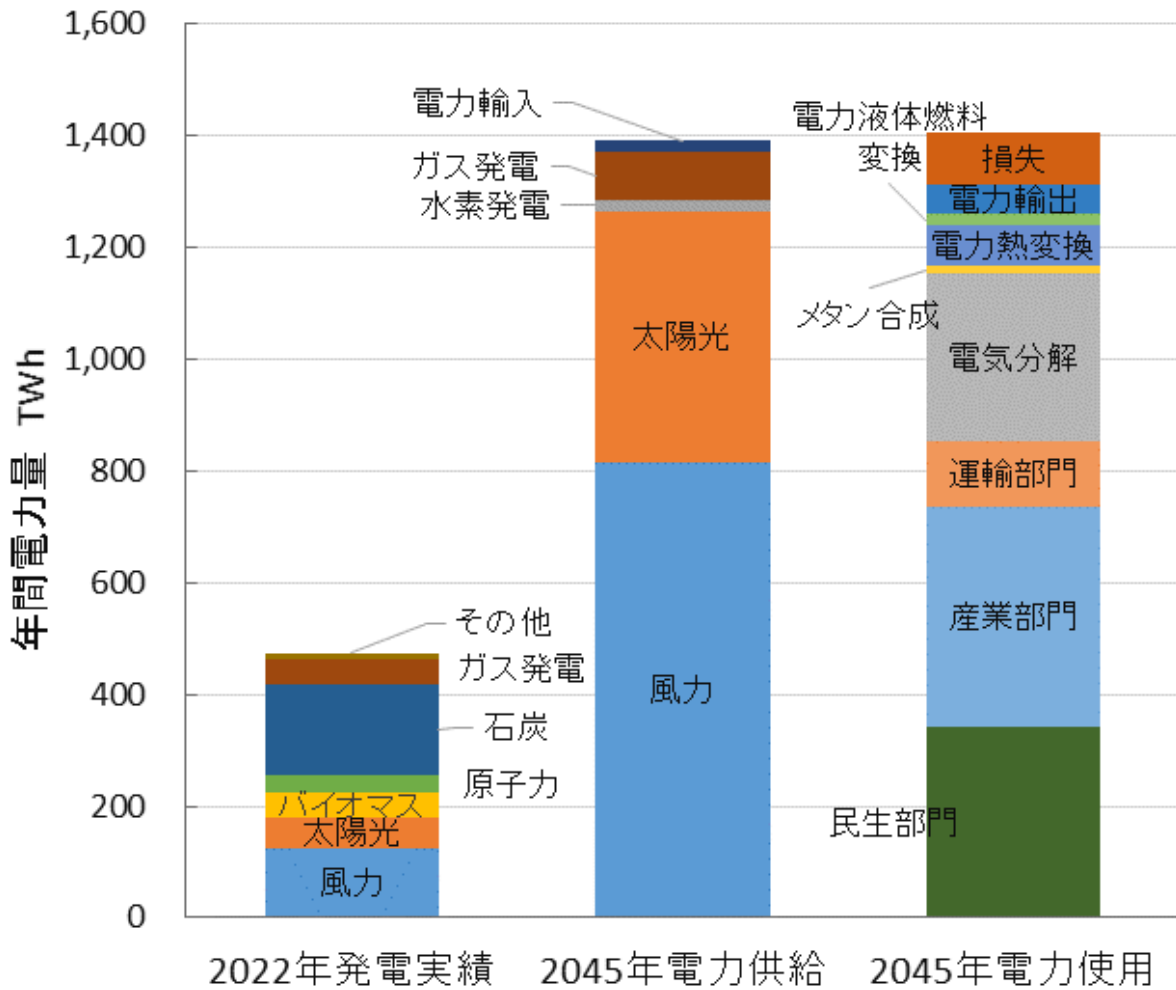
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????2045?GHG????????????????????4??
??4????

?22????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????????????

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??30%????????????????

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1990????????????????CO2????????CCS????????????????2010????CCS????????????????2015????????????CCS
????GHG????????????????????????????????

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VRE????????????????????VRE????????????????????????????????????

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

??2050????????????????????????????????

?? ?? · Sunday, December 10th, 2023

????COP28??



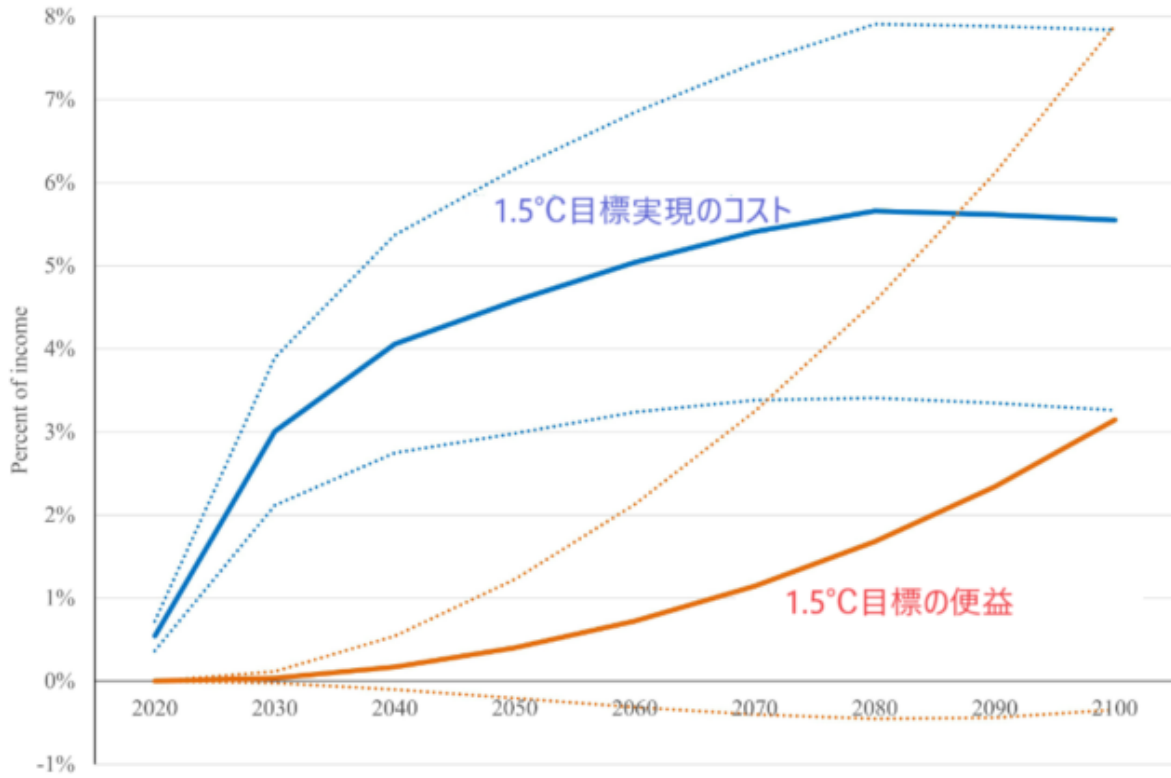
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??????100????????????????????100??
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1.5????????????2?10?

??Richard
S.Tol????????????????????61????????39??

????????1????2050????1.5????????????????GDP????4.5????????????????0.5????2100????5.5???
????????3.1?????



1.5°C (Tol)

IPCC SSP5-8.5 2100

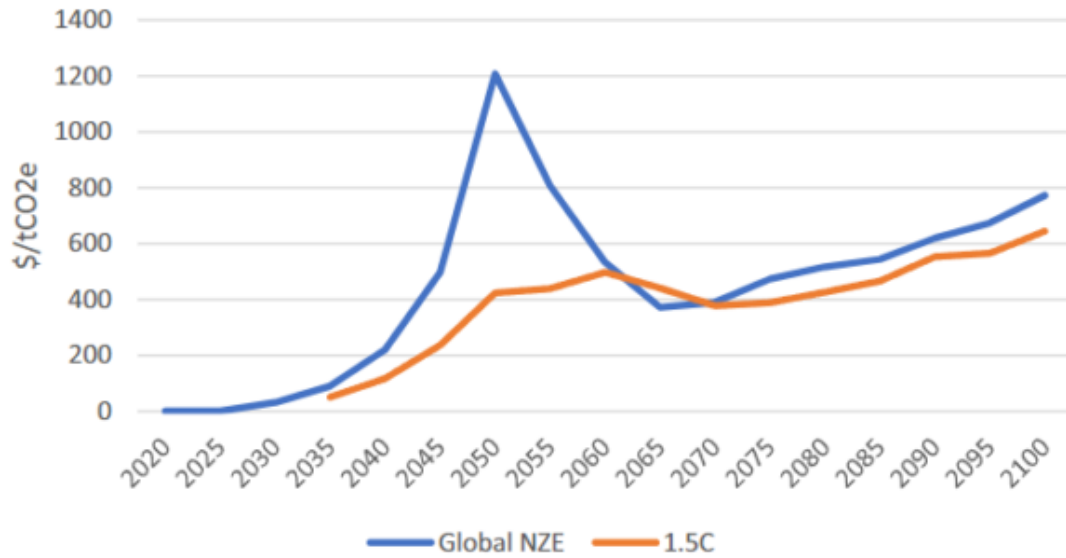
1.5°C

2100

1200

Jennifer Morris et al. 2050 CO2 1200

Global Emissions Price



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5????2050????????????????????????????????????

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wildpixel/iStock

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IPCC????????????????????????CO2????????????????2100????????????????????????????????????
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GEPR??? · Saturday, December 9th, 2023



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2020????????????????????6%????????3%????????5????????????????????????????????
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EU-28????????????????GHG??

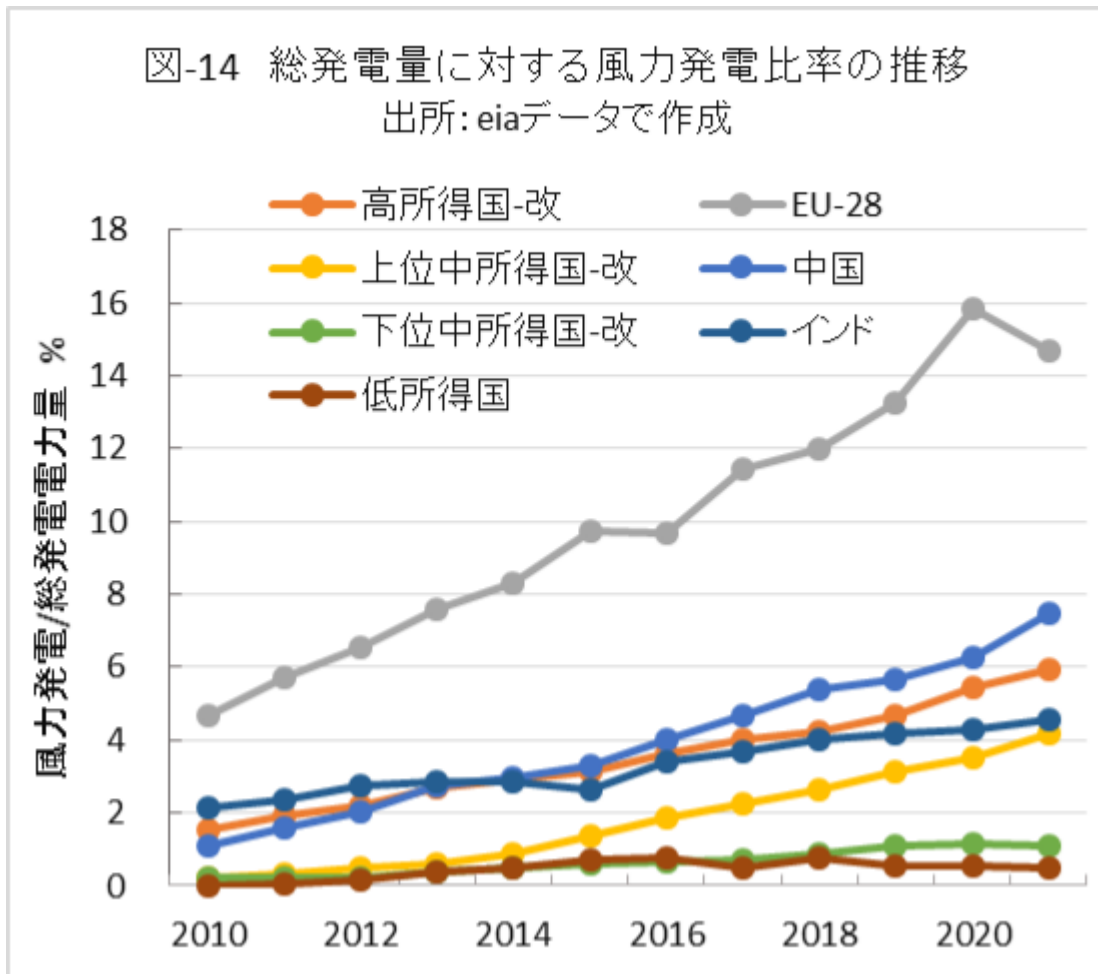
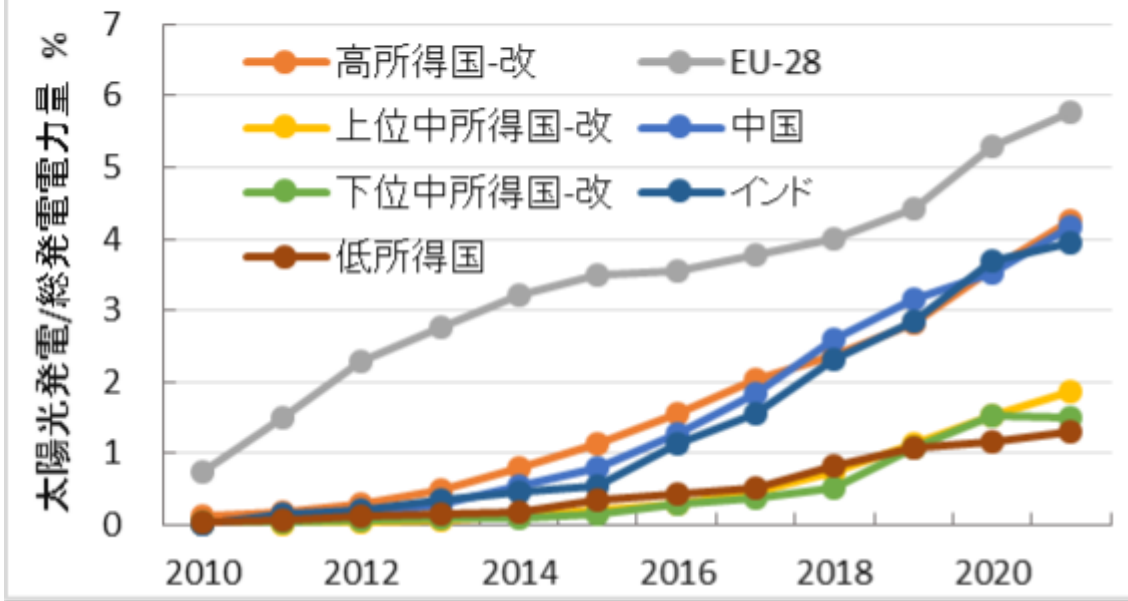


図-15 総発電量に対する太陽光発電比率の推移
出所: eiaデータで作成



Variable Renewable Energy, GHG, VRE, GHG, EU-28, GHG

VRE, kW, 25.33%, 14.17%, kW, VRE

VRE, EU-28, VRE, VRE

VRE, VRE, VRE

Energy-Charts

Energy-Charts, Energy-Charts, ISE

Energy-Charts

Energy-Charts

Energy-Charts, ISE

30, CO2

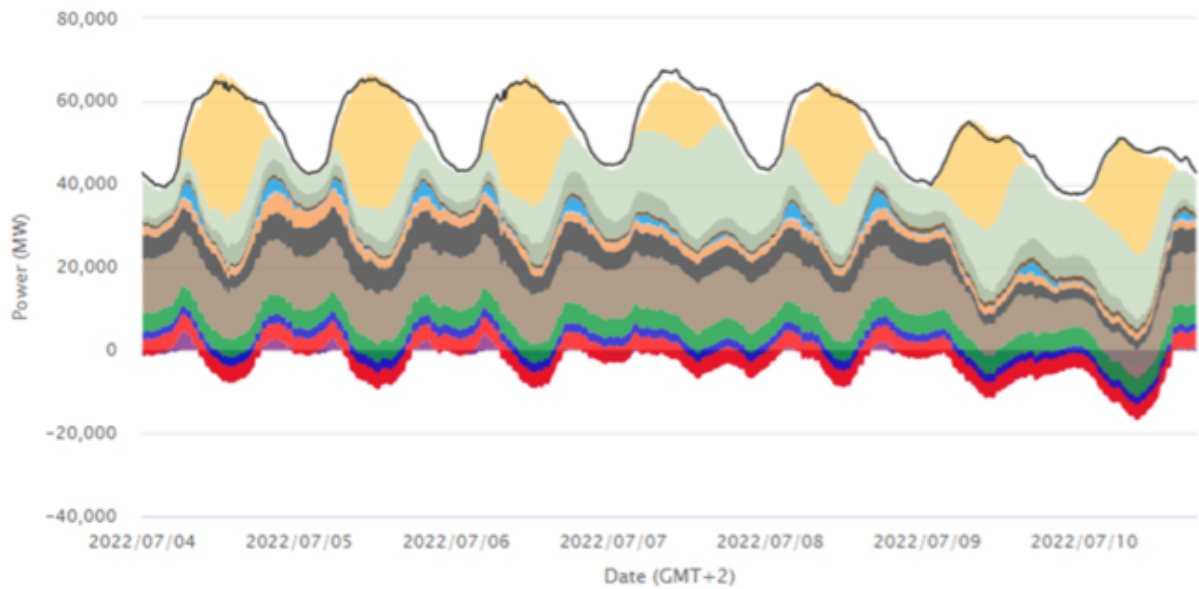
CO2

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		

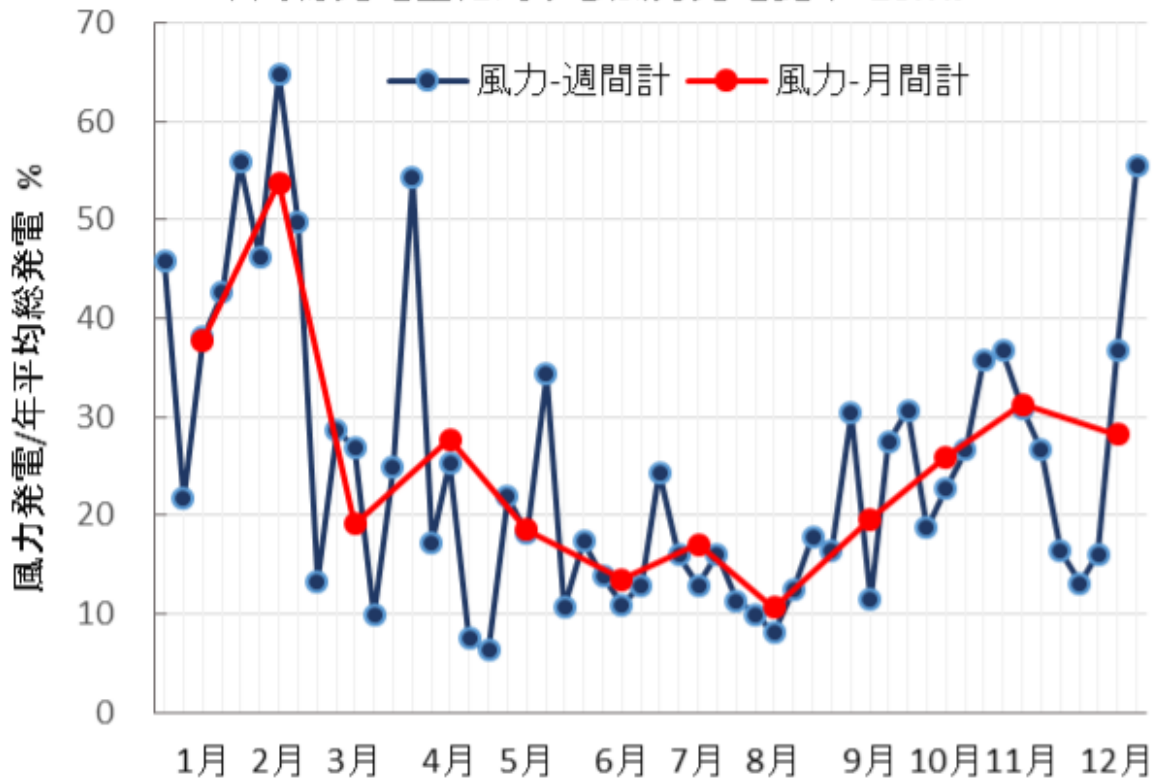
(注記)
 1) 公共正味発電電力量は、自家発を含まない、電力ユーザーのコンセントから出て消費される値。
 2) 太陽光、風力の発電容量は年間平均値、その他は2022年末の値。
 3) 電力負荷量は電力系統に投入された値。

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%



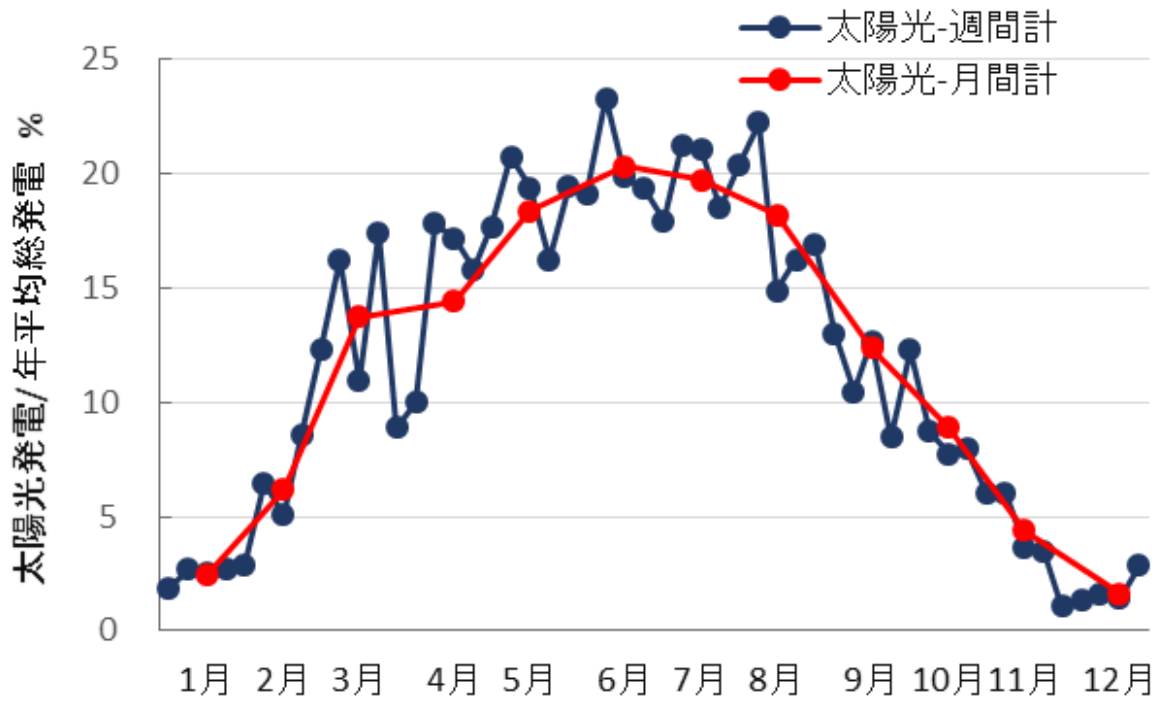
17% 12% 23% 12.0%

0.14 1.7

図-17 ドイツの太陽光発電電力量の変動(2022年)

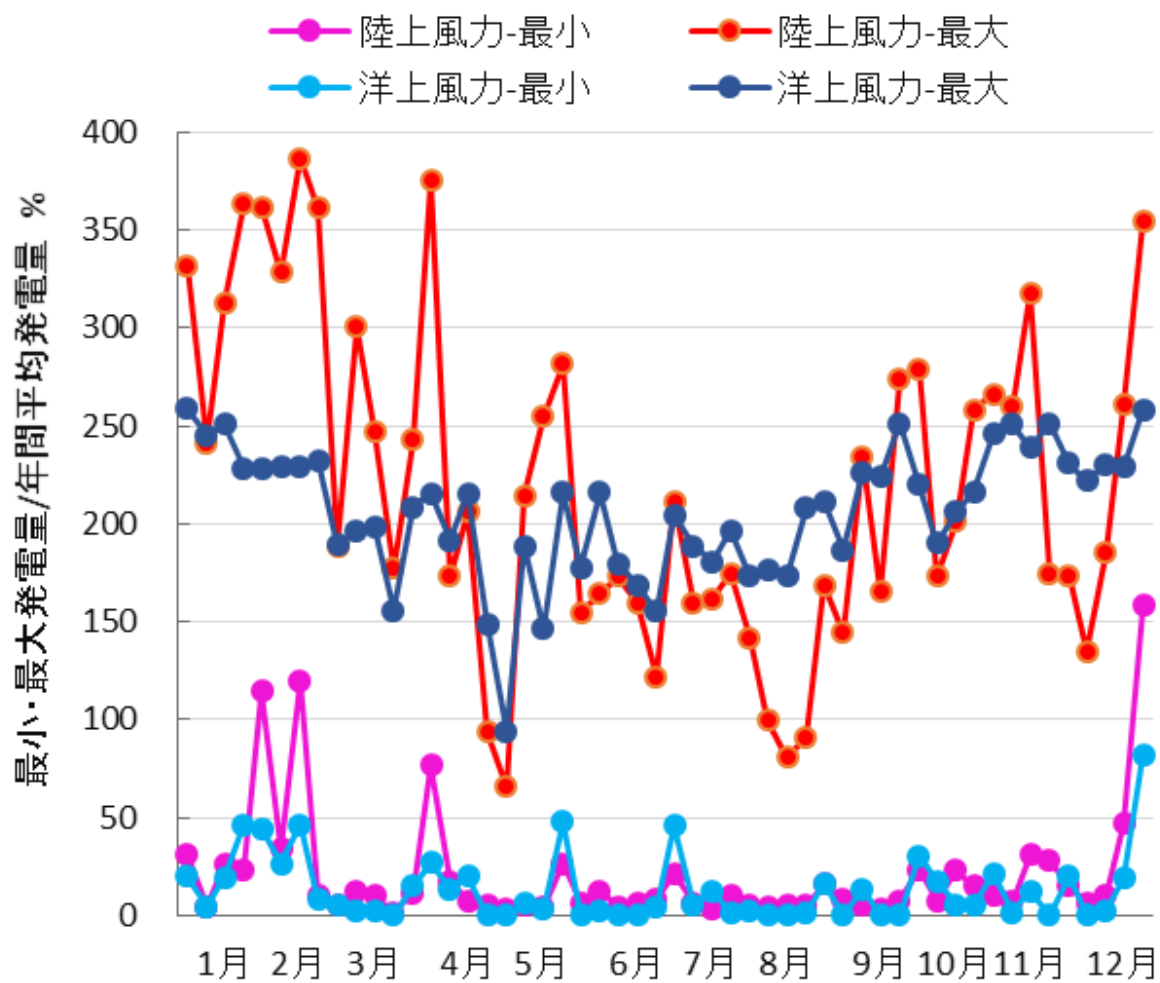
出所: Energy-Chartsのデータで作成

年間総発電量に対する太陽光発電比率: **11.7%**



18%
10% 4%

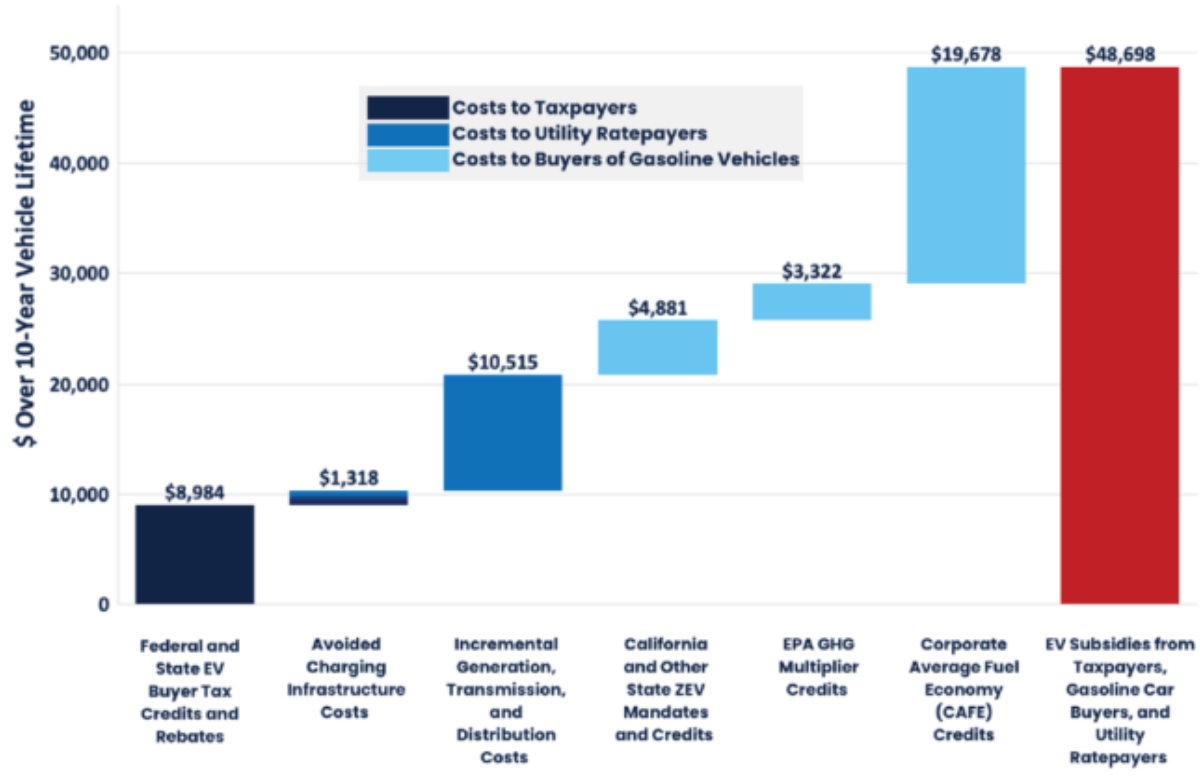
図-18 ドイツ風力発電の週間最小最大発電量 (2022年)
出所: Energy-Chartsのデータで作成



??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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????1??????3.4????????????

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GX??CO2????????????????
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2020?6?17?CO2?2020?6?17?CO2?2020?6?17?CO2?2020?6?17?CO2?2020?6?17?CO2?
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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????????????
????CO2????????????????????????????

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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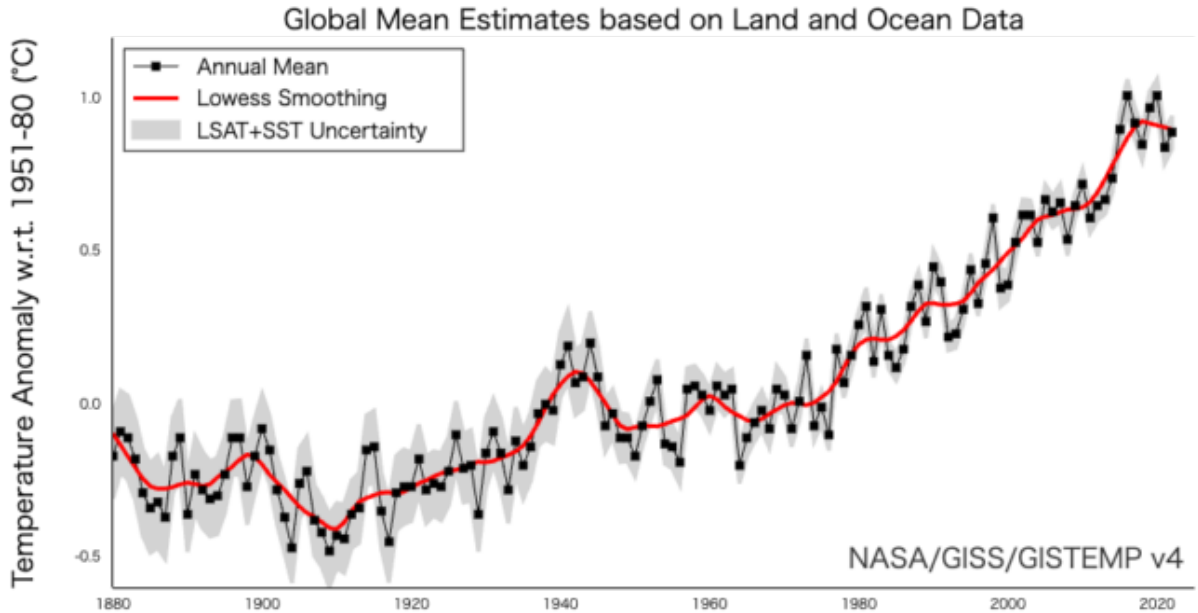
????????????????????????????????????Green New Deal??Clean Power
Plan????2015????????????????????EV????????????????2050?Net
Zero????????????????2020?10????????2050?Carbon Neutral????????

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/>

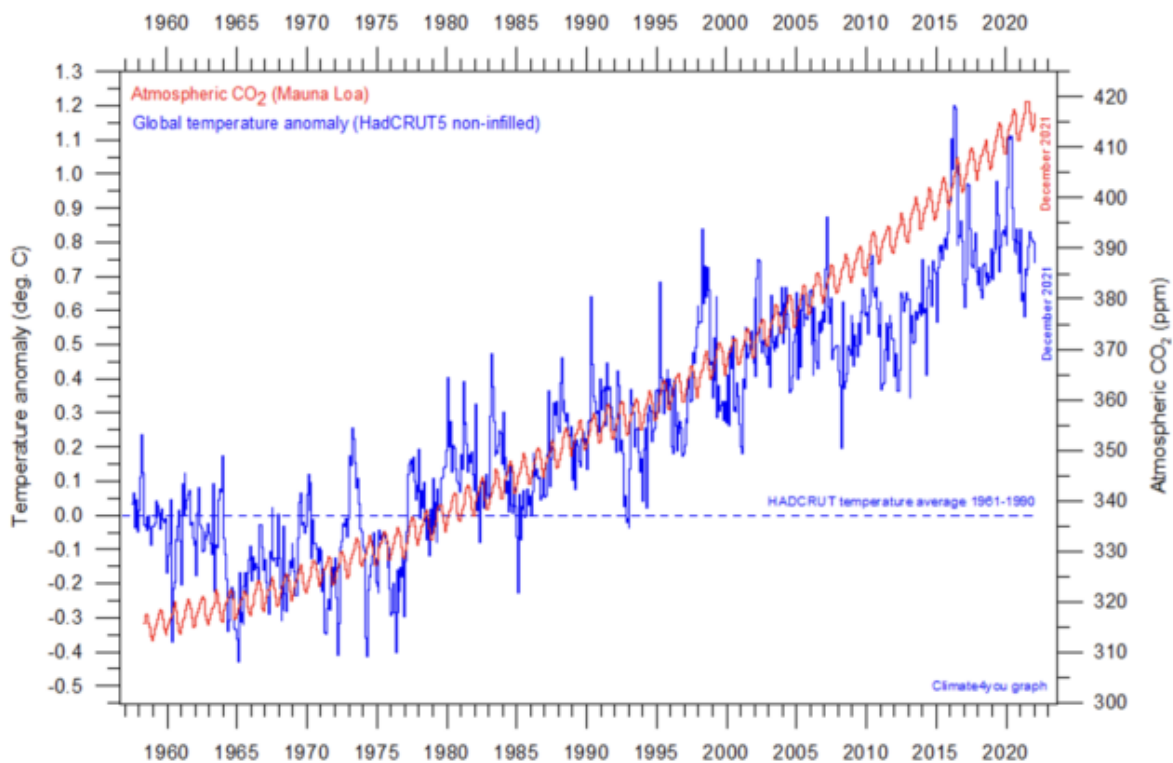


Data.GISS: GISS Surface Temperature Analysis (GISTEMP v4) (nasa.gov)

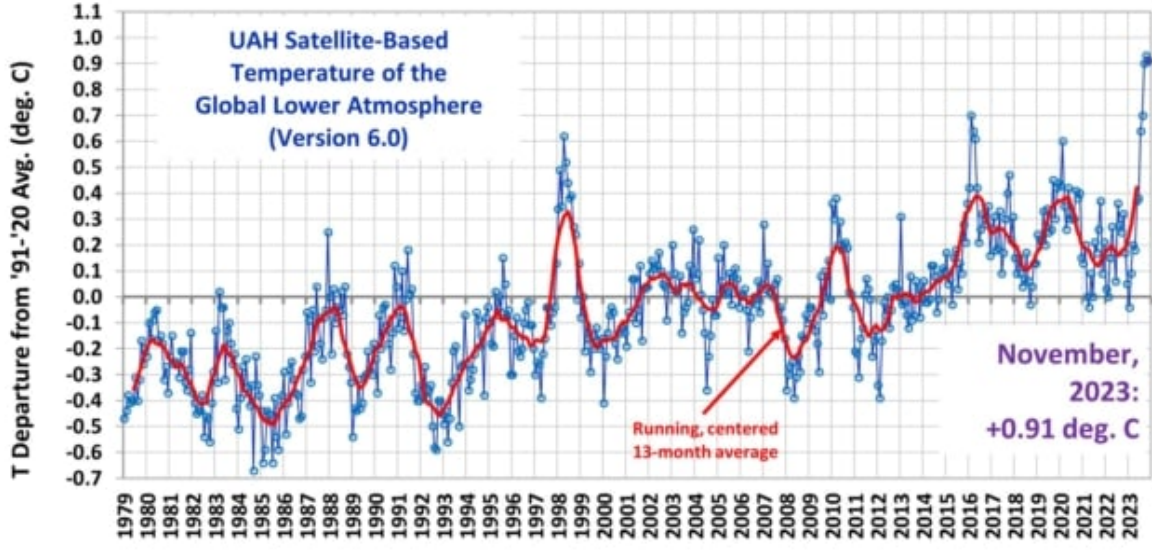
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GISS?????????????????????HadCRUT5?UAH?????????????????????????????????CO2?????????????????????2023?????

?????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

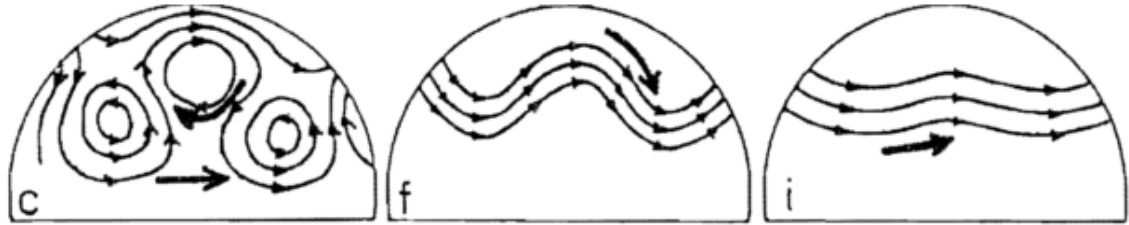
協力 江守正多 / 木本昌秀 / 塩塚秀夫 / 坪木和久 / 森 正人 / 渡部雅浩
 執筆 宮内 諭 (編集部)

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 ????????

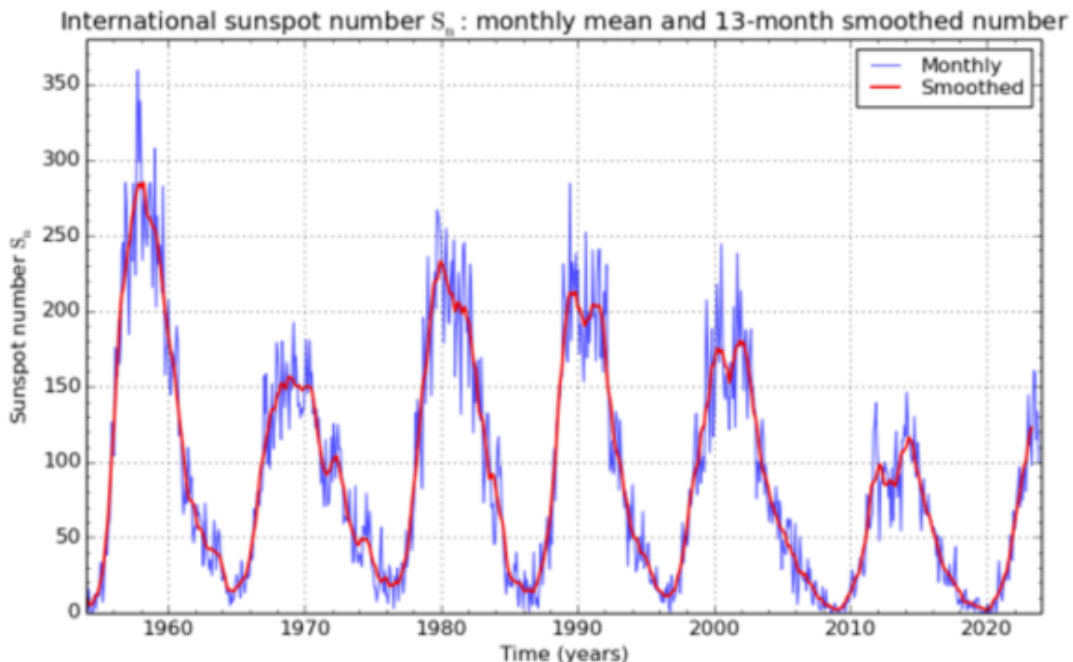
?????????????????Bucha??



太陽活動低い	太陽活動中位	太陽活動高い
偏西風蛇行大	偏西風蛇行中	偏西風蛇行小
異常気象多い	異常気象中位	異常気象少ない

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

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

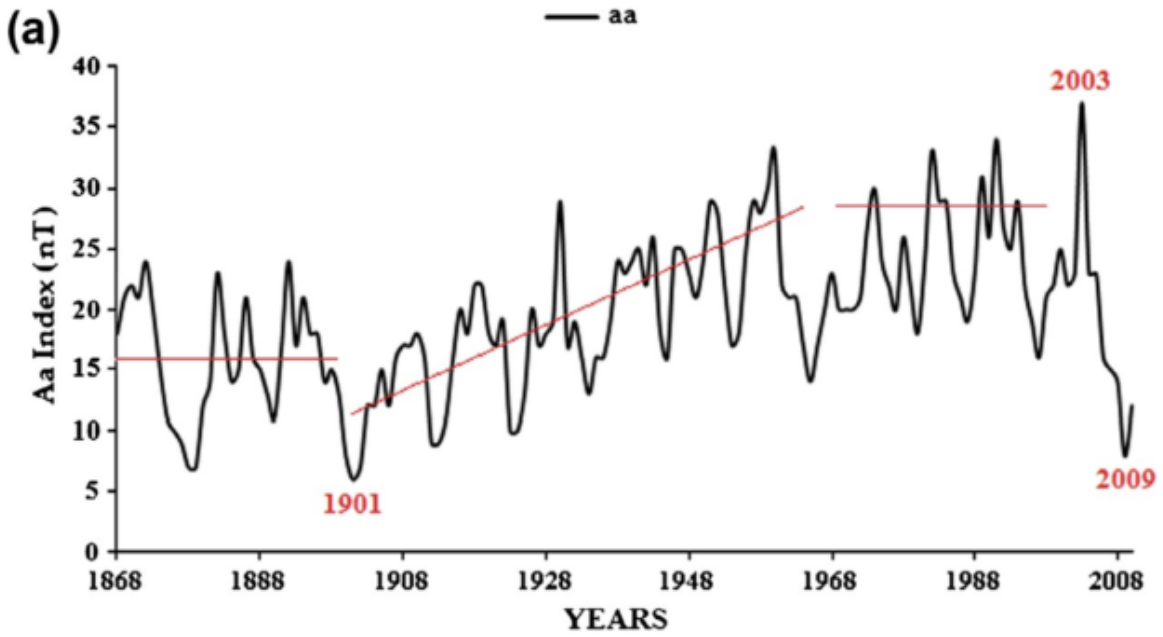


SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2023 November 1

????????????????fake
 science??44??????
 ?????????????????????????????11??22??44??????????????

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

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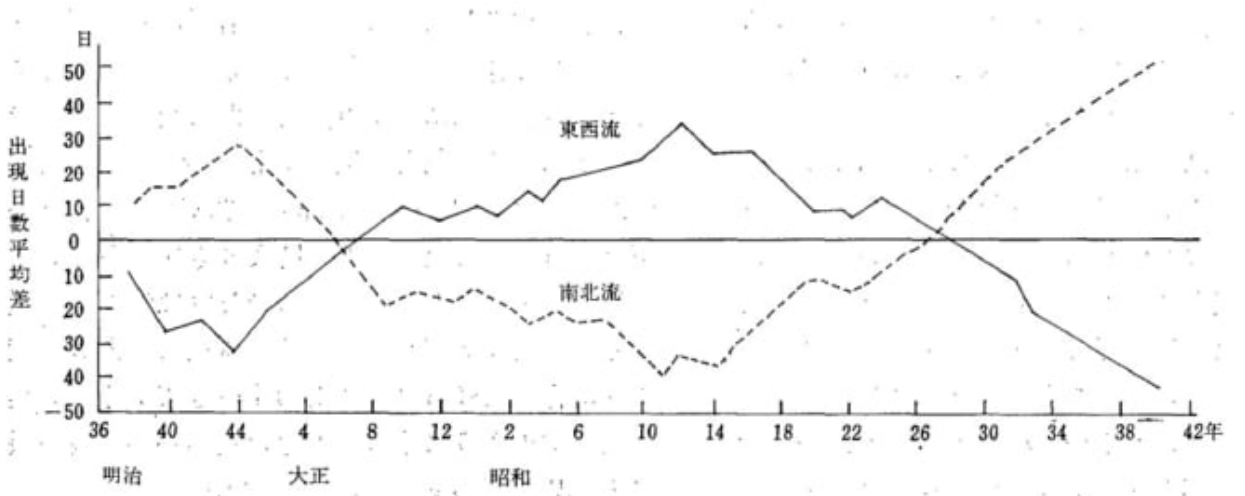


?????Zebro, J-L et al., Journal of Adavanced Research (2013),4, 265-274

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

??1951????????????????1910?2000????????????????????????????1960?1980????????????????????????
 ???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????

?????????????cycle20????????????38?????????????????????cycle24,25?????????????18?????????????
 ????

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

?????????????????2006??2005/12-2006/2?????????18????????????????????????????????????
 ?????????????????????????????????????2009????????????????????????

2006??	????18??????????
2010??	????????
2010??	????????????????????????????????
2012??	????????????????
2013??	?????
2014??	????????????
2014??	????????????????????????????
2015??	??????????
2016?	?????
2017??	????????????
2017??	????????????????
2018??	????????????????

2019??	??????????
2019???2020?2?	??????????????????
2021??	??????????????
2021??	??
2022?1?	?????????50.7??
2022??	????????????????????????????????????
2023??	???????????
2023??	????????????????????????????

4. ??

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

CO₂?????1979?????????

???IPCC????????CO2??
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??EV????EV??????50????????????1??CO2?
????????????????????????

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??
??

Posted in ???, ????? | No Comments »

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GEPR??? · Tuesday, December 5th, 2023



deepblue4you/iStock

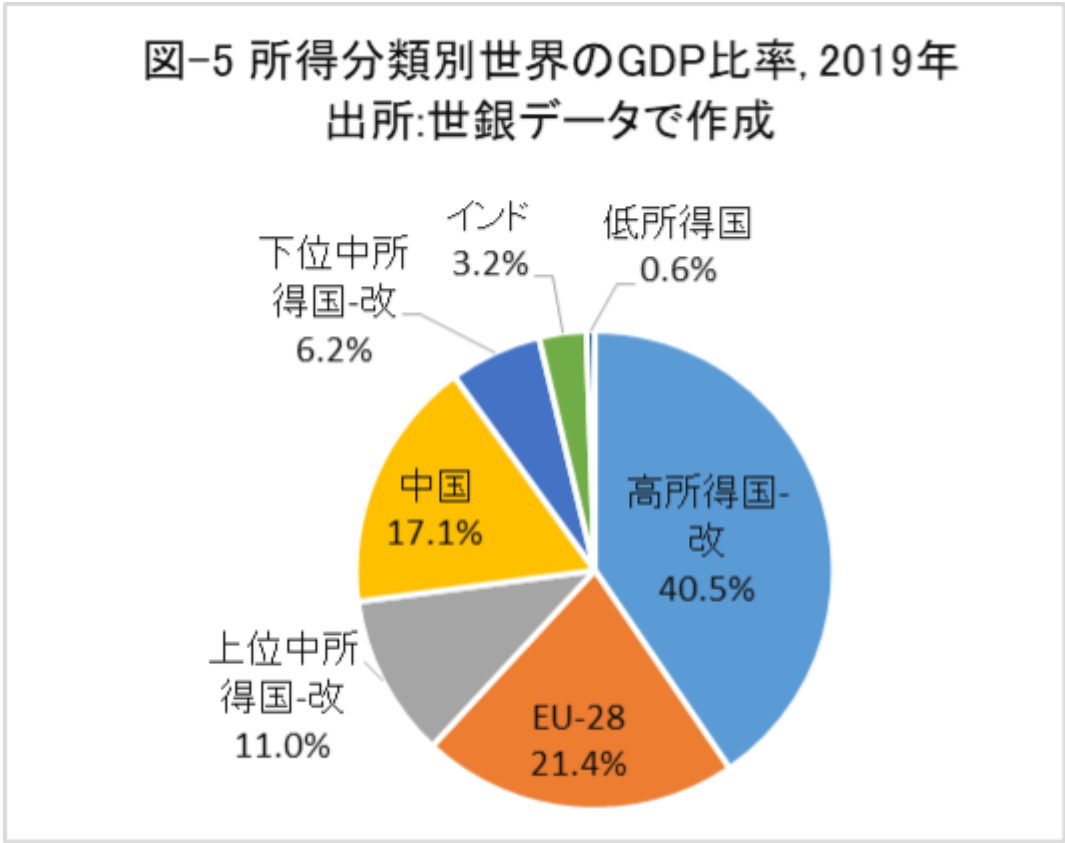
????????????????????????????????

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

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



????GHG???

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

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

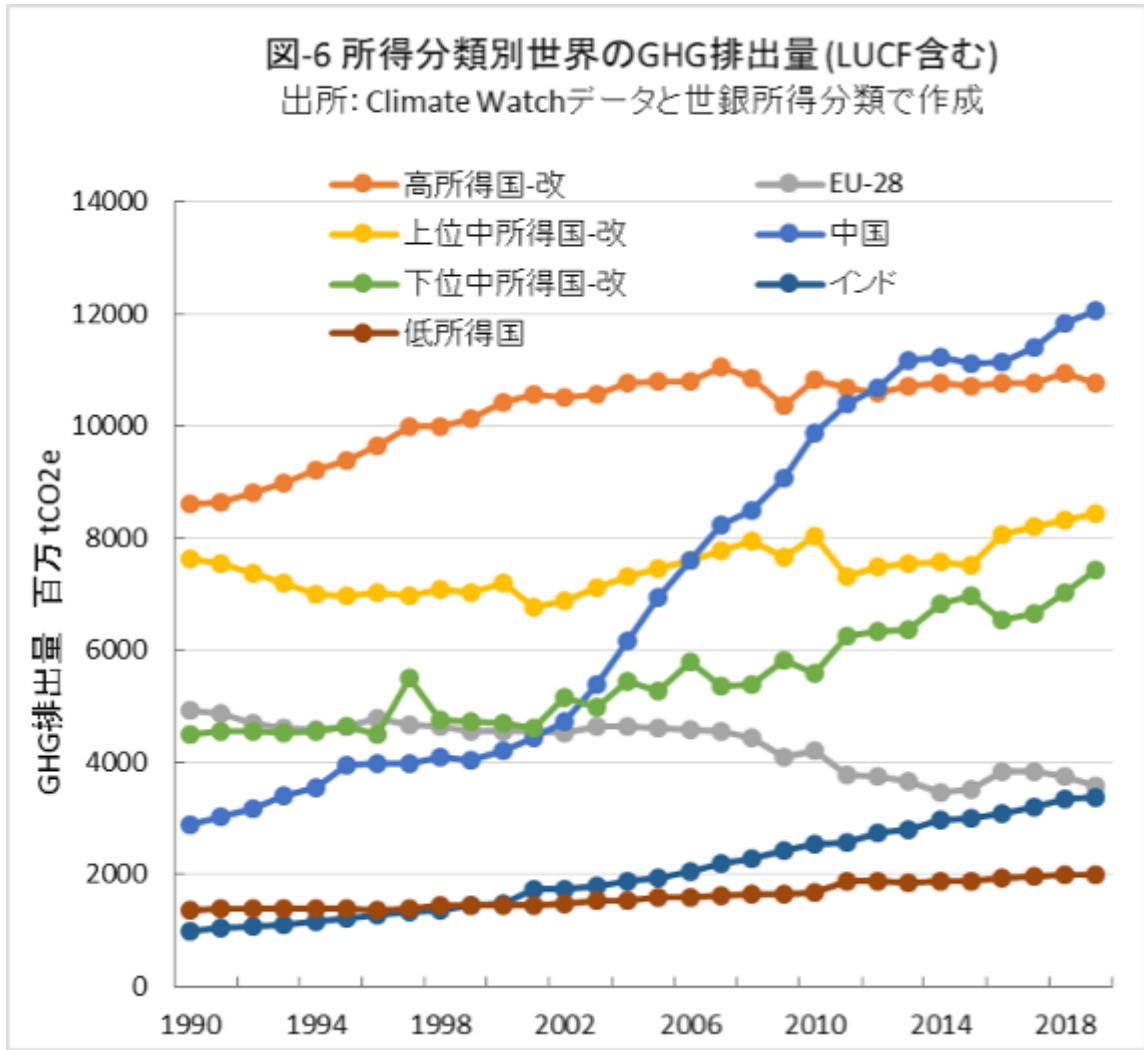
GHG??GHG????????????????????????

????GHG?????

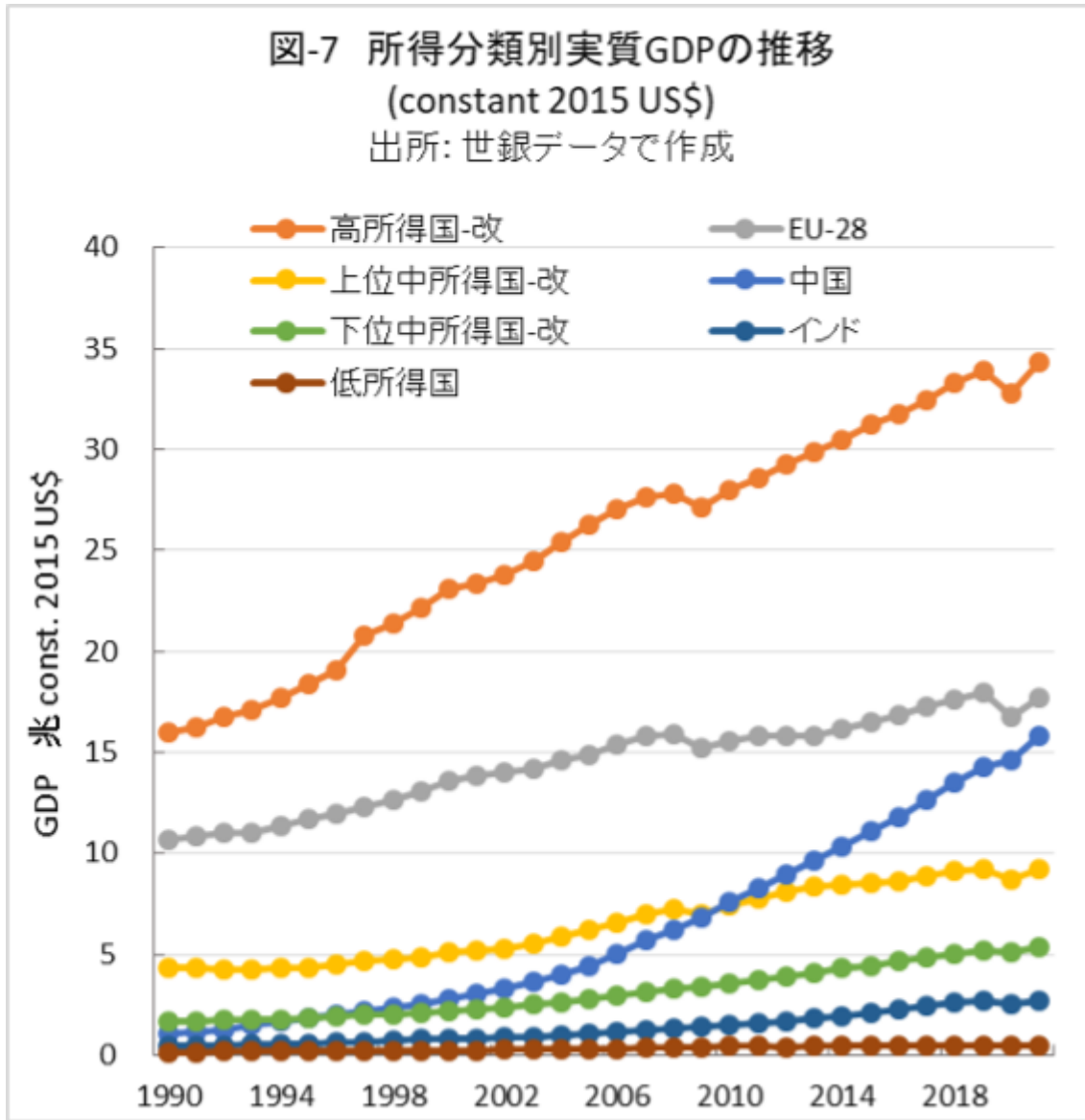
?6?????7?????GHG????????????????????????GHG?????Climate
Watch????????????????????????????????GHG??Climate
Watch????????????????????????????????1????????????????IPCC?6????????????????????????

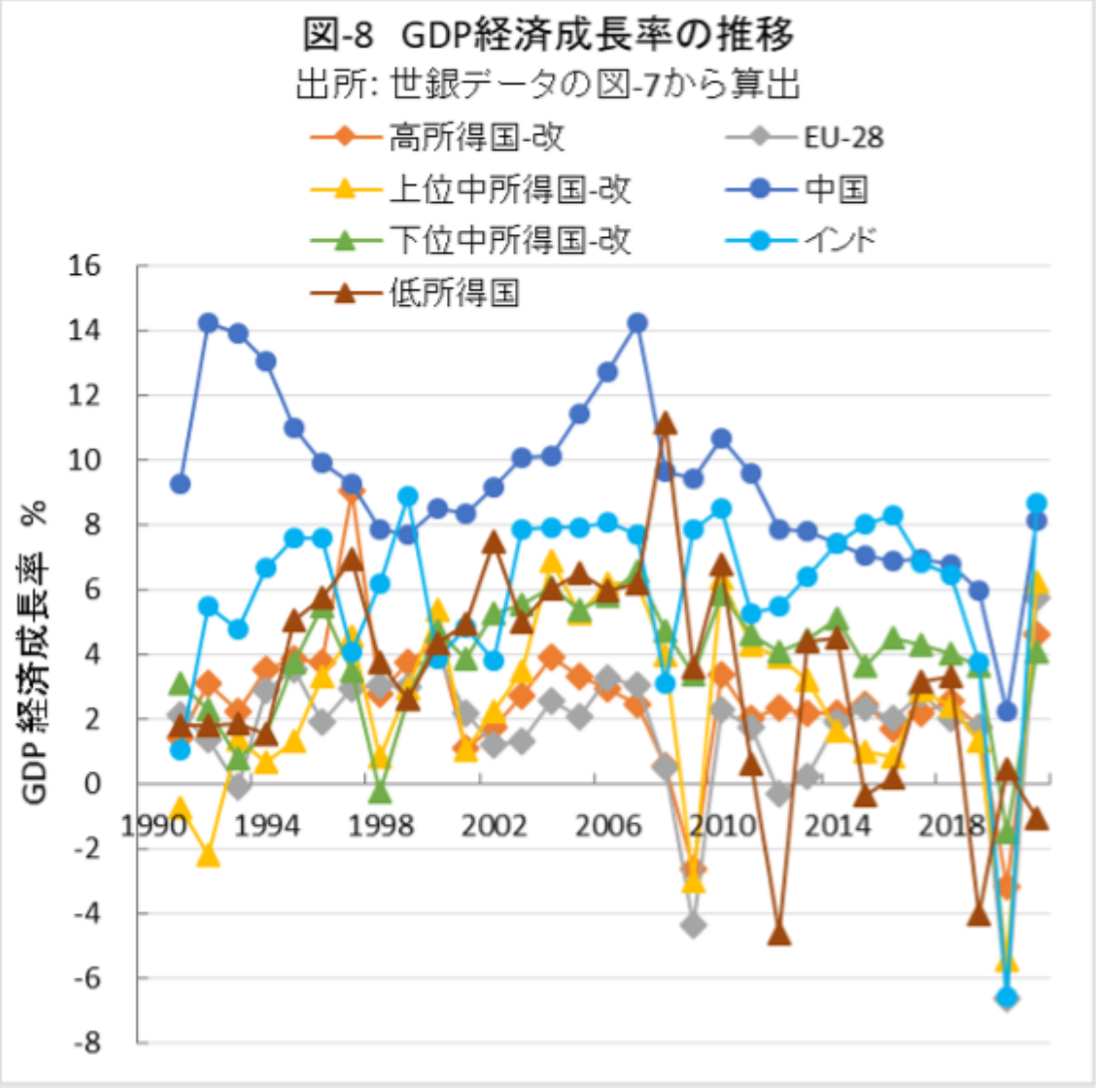
6?????WG3????????????????CO2????????????8%????????????????????CH4????F-
????30%?N2O??60%?????????????????
CO2?????70%????????????????????????????GHG????????????10%????????????????

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



????????GDP????8??GDP??????GDP??
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 ??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??????
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????????????1????GHG??10??1????GDP?????????????

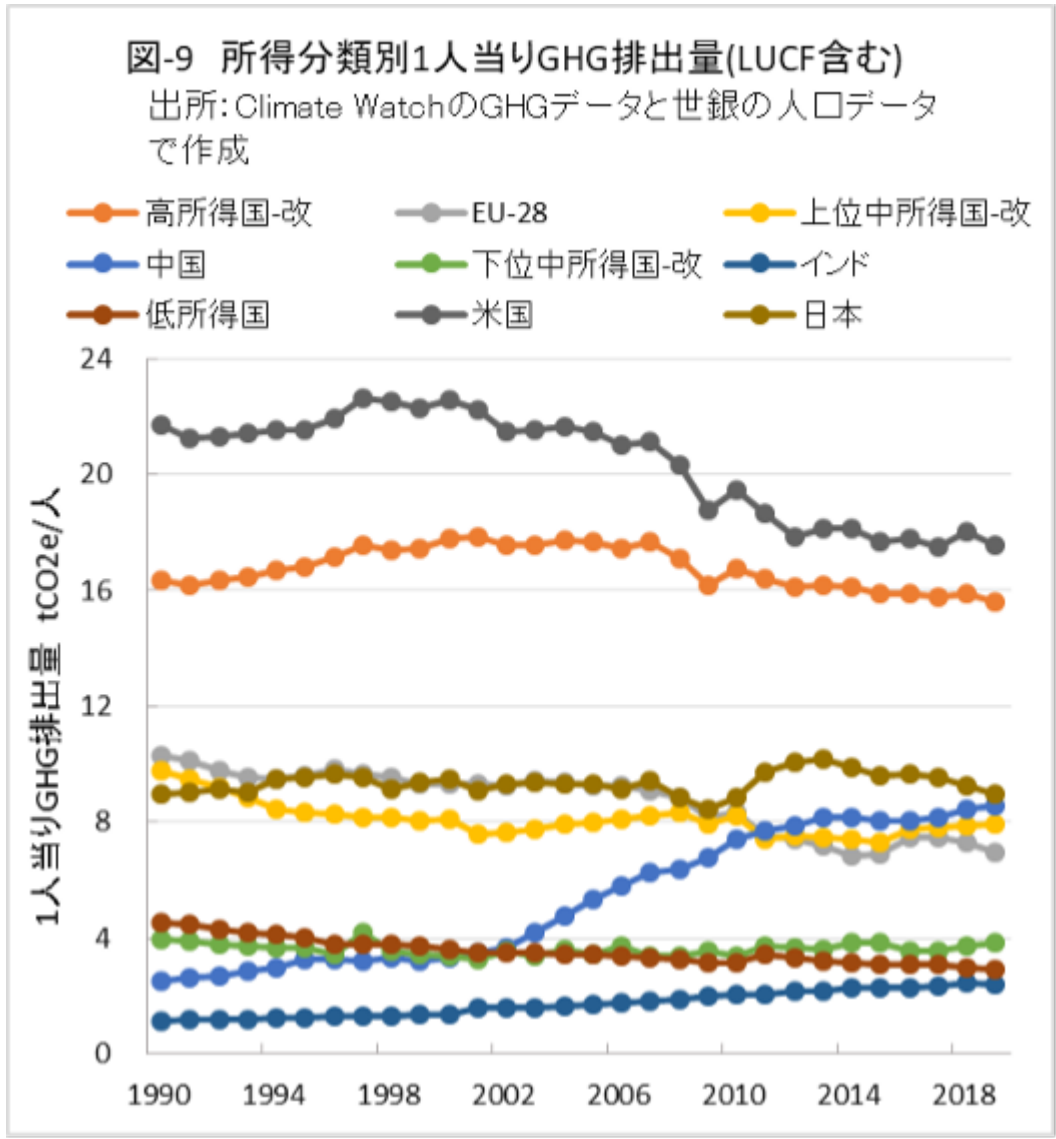
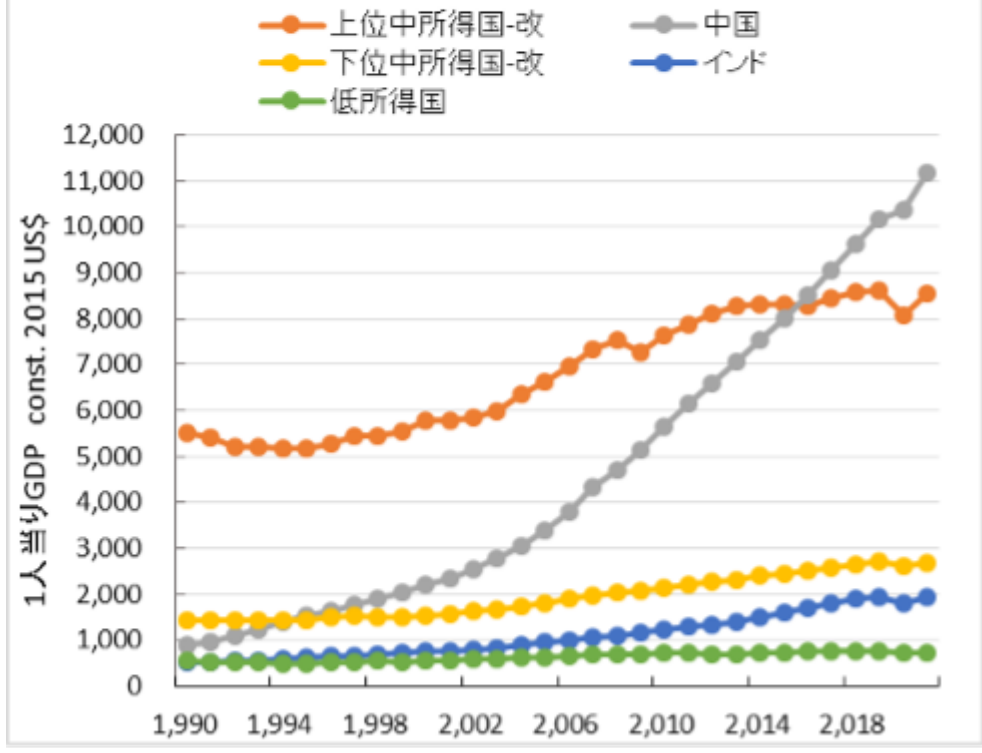


図-11 所得分類別1人当り実質GDP (constant 2015 US\$)
出所: 世銀データで作成



1???GHG??16t CO2e/??????????EU-28?????????-
??GHG???????

GHG??????????

????2020??1????????3??????????1000????6????????????????????
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????????????GHG??????????-????????????????????????GHG????????????????????????

????2023????????????????????????????????????10?1??GDP????????????????????????1990????????????????????
??

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

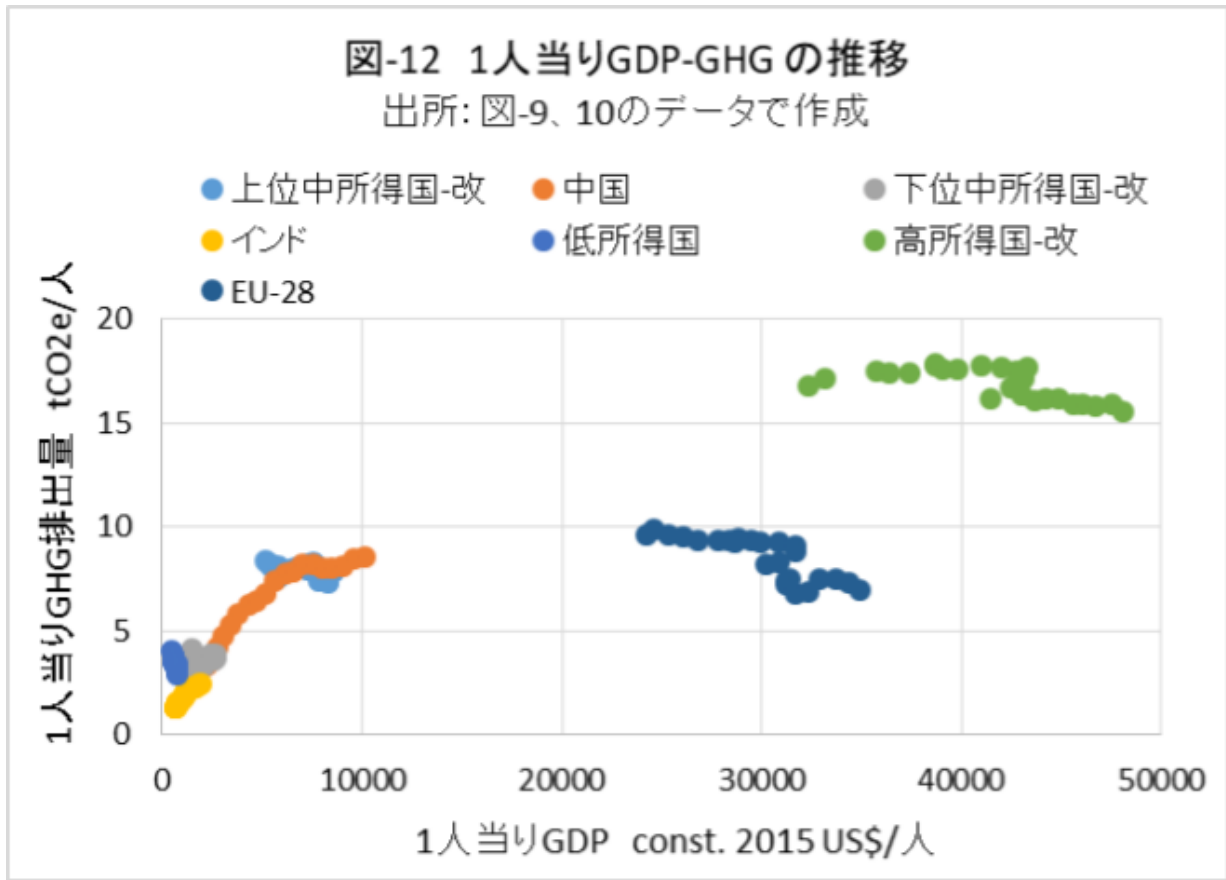
?9??????????2000??GHG??
??

????1990????GHG??FIT????????????????????????GHG?
????????????????????GHG????????????????????

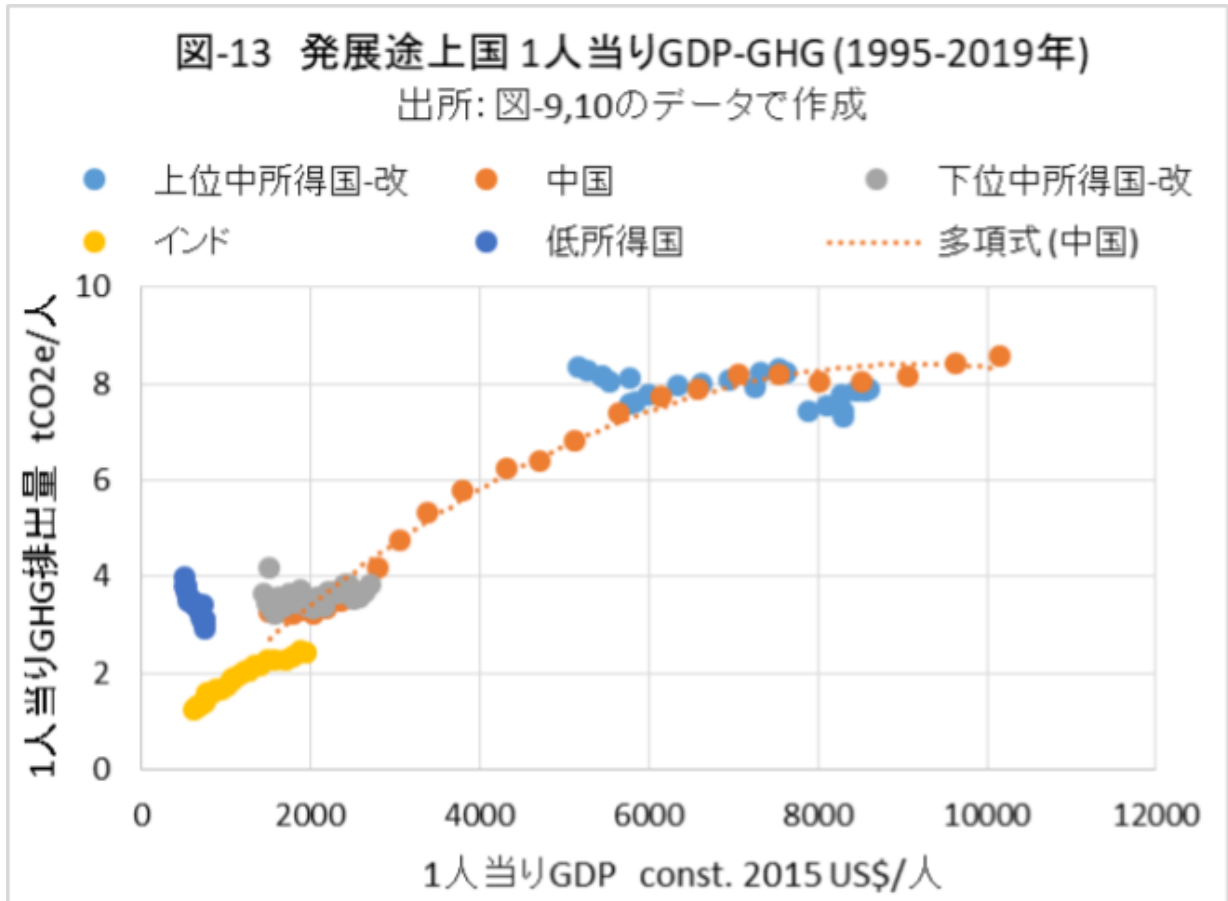
???GHG???

??1??GHG??GHG????????
????????????????????

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

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????????????????1970??kindle????????????????????
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Posted in ???????????, ??? | No Comments »

COP28??80?

?? ?? · Monday, December 4th, 2023



Heiness/iStock

1. COP28??

COP28?UAE???10?21??????????????????????

COP??CO2??

??27????COP??CO2?????27????????????????????????CO2

CO2??CO2??

2. ??????

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

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?????????????????30?3???COP28?118???

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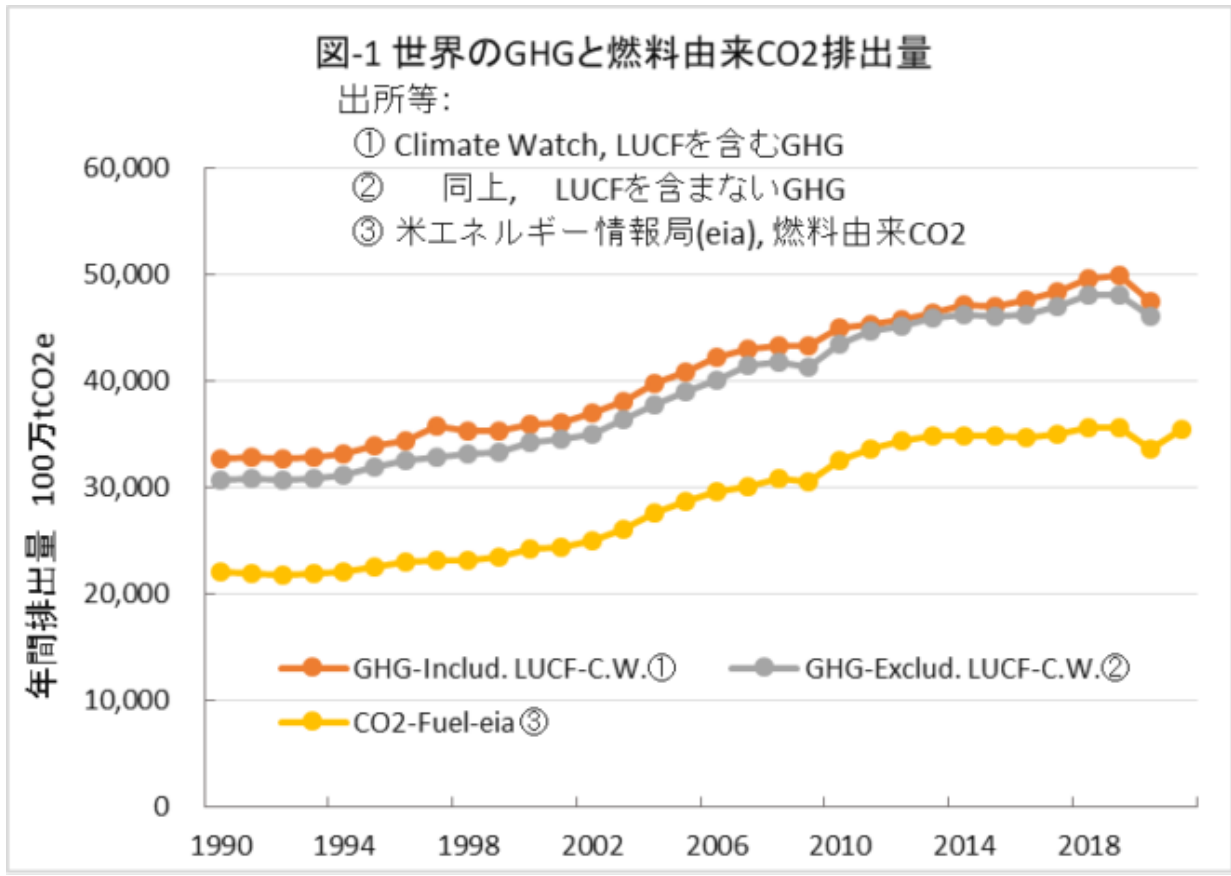
????????????GHG??

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??5???

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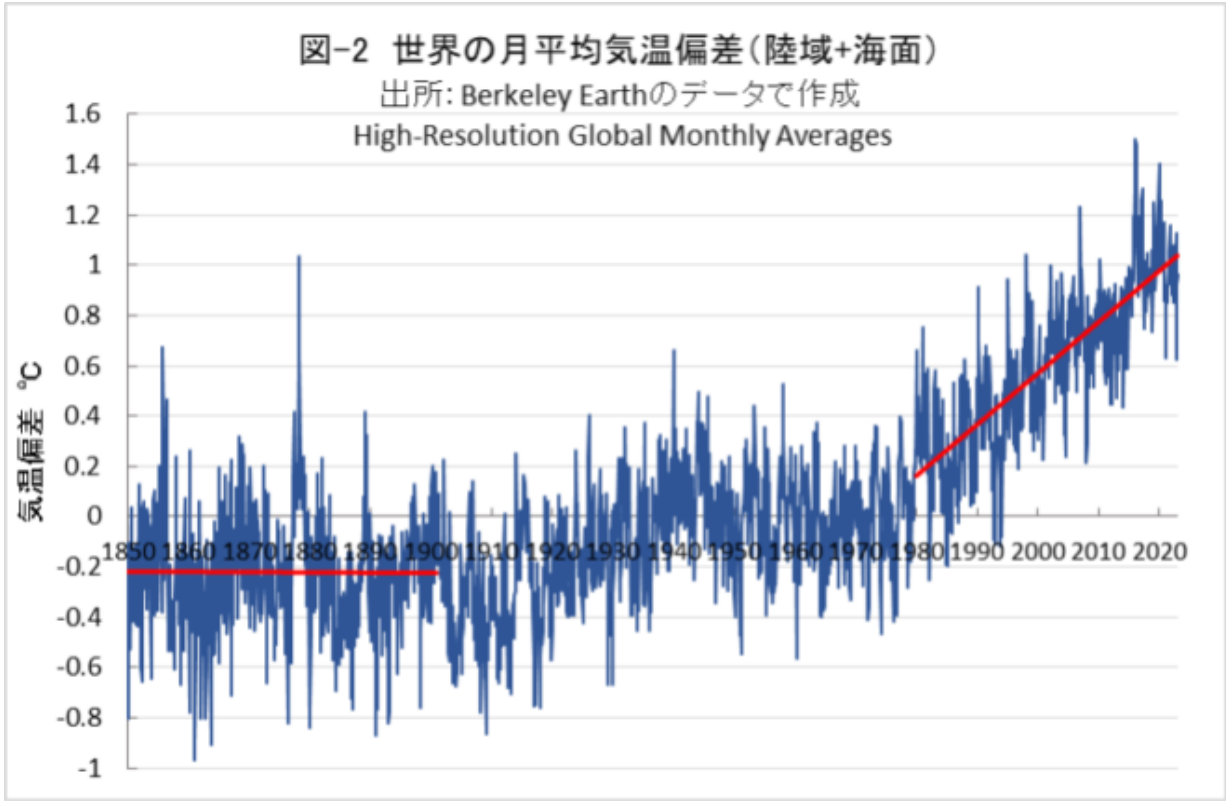
?1?????GHG?CO2?????????????????GHG?Climate Watch?????LUCF????????????????????????????????????CO2?????????????????eia????????????



2009????????COP15????????2????????2050????????????50%????????80%????????????????????????2015?COP21????????????2????????1.5????????????????????????

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

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

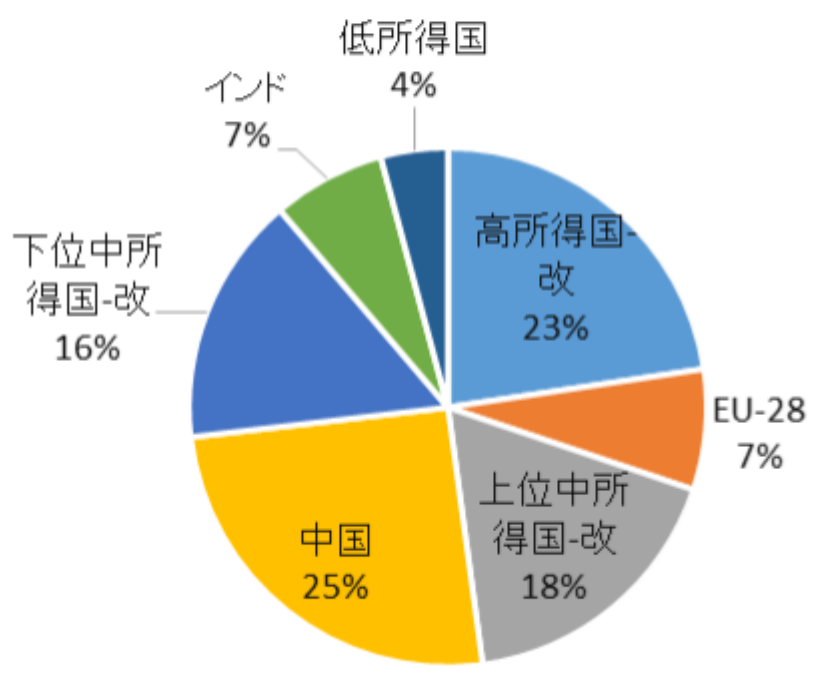


1850??????2022??????1.2????????????????????????????????2030????1.5????????????????????????1.5??
 ???

??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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????????????1970??kindle????????????????
 ?????????????????

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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??2010????????????????2011??
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9??

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

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

NuScale??SMR????????????????????????????????

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??80????????????????

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SMR??
??10???????

??10????????????????SMR????????????????
10??

????????????????NuScale??SMR????1????????25?kW????????????????7.7kW?1.5????????
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?????NuScale??SMR????????????????????????

???SMR???????

NuScale?SMR??
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SMR????????????????????????????40????????????1980????????????????PRISM????????
??4S????????????

4S????????????????????472?/2020????????????????????????????2004????????????
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????????????????????????????????PBMR????????????1993????????????
??2010????????????
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NuScale??SMR?????????IHI????????2023?9????????????????

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

NuScale??SMR????????????????????????????????

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????????????????????100?kW????????????????????????????????

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

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?? ?? ?? · Thursday, November 30th, 2023



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

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11?15????????????????2????????????????????????????????2021????????????????????
????????????????????????????????600????????????????

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??EV????????????????????
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????????????????????????24?27?2129????????????600????????????????????
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CDU??
??4
??3
??10
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??CDU
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??“????”
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Posted in ???, ?? | No Comments »

COP28??

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



Darwel/iStock

COP28?11?30????????????????UAE????????????????????????????????
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????????????????????????????????????1.5????????²¹????????????2030
????????????????????????????????????CO2????????????

????5?????????G7??????????????



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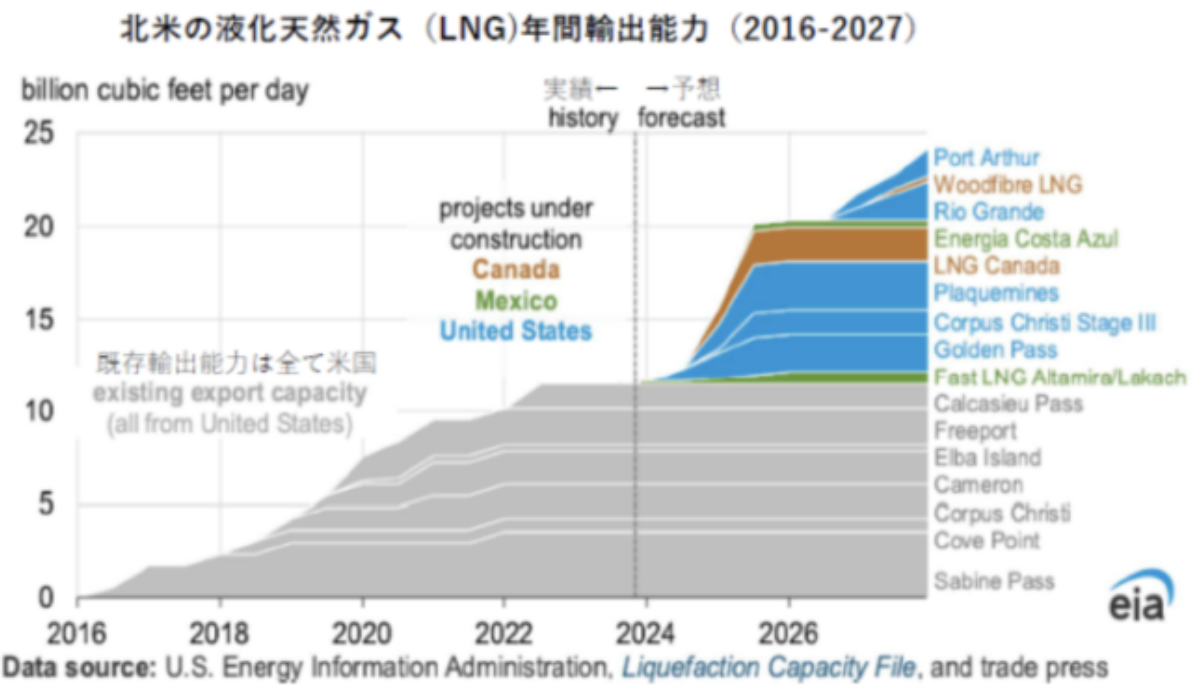
????????11??EIA????????????????????

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



????????????????????129?Bcf/????????????11?Bcf/????21?Bcf/????97?Bcf/????
????????????

????2010??2018????????
????????????????LNG????????????2027????????????????2030????????
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1274??14??COP28????????COP6????????????????????????????????17??CO
P????????????????????????????????

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

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

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

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

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

??5??G7????????????????????????G7????????????1.5?????2050????????????????????IPCC?6????????????
????2025?????????2030??43?????2035??65????????????GST????????????????????????????

?????????G7??2030?????????????2050????????????????????
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??9??G20????????????????????????1.5????????????????
?????????GHG????2025????????????????IPCC?6????????????????????????IPCC????????????????
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?????????2025??NDC?????????G7?????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 1.5 2050

?

GST IPCC 1.5 2025 2030 43 2034 60 IPCC 1.5

?

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

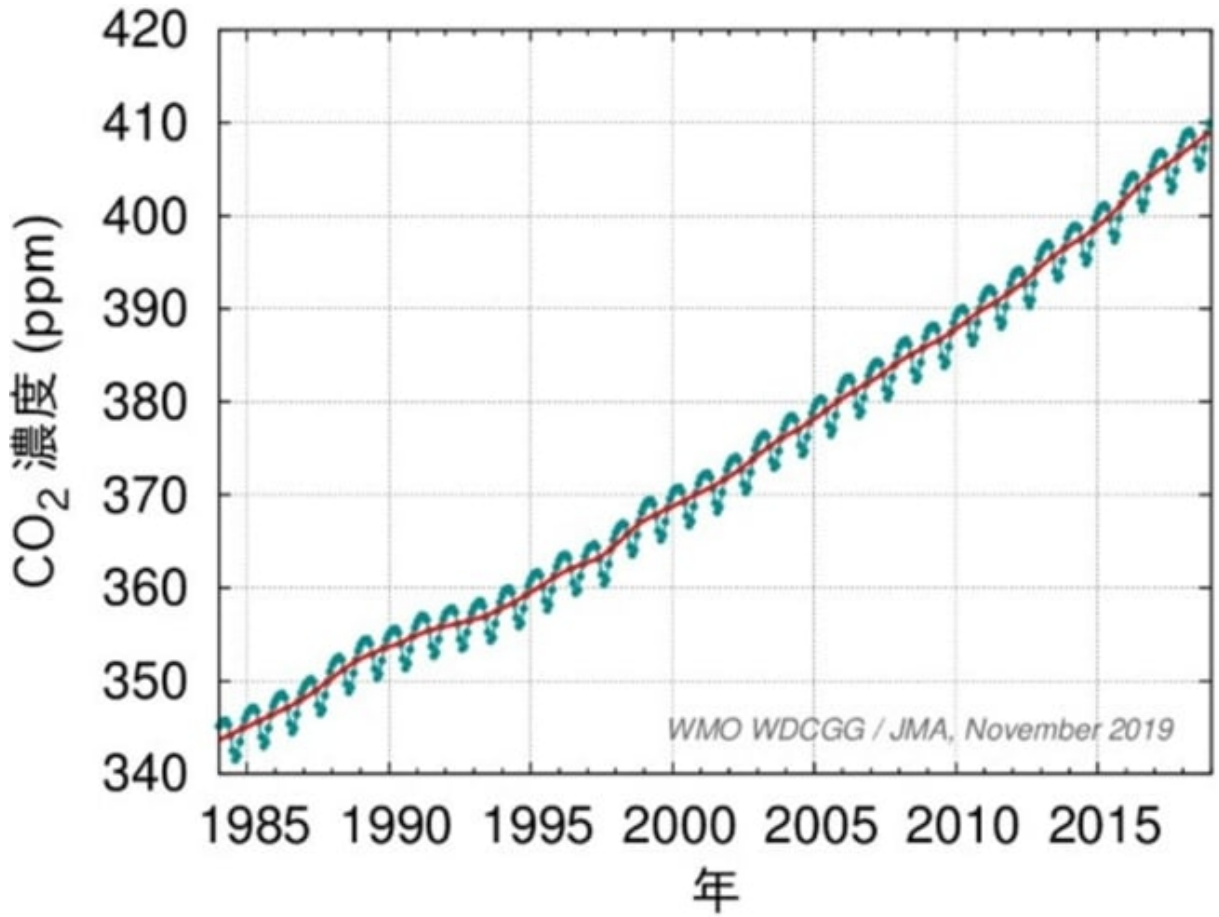


MR1805/iStock

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

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

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

?????1.5????????????????

???????280ppm????????

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

??1850????????????1????????????????????????????????????

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

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

??1850??280ppm??

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

??????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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???HP??

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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

??????????8????????????



??????????????23????????????????????????????????530????8????????????

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????????CEO?23??

??2022?9????????????
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????????????8,800????????????????????????8,800????????????3????????
??3????
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????3????????CO2??CO2????????
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????????3?CO2??

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

????????????????300????????????????

?? ?? · 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、冷却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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????HP??

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????????8????????????????????????????????????

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- ???
?????MOX??MOX????????????????????
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- ???MOX??MO
X??

300????????????????

????????????????50????????????????300????????????????390????????260????????????
???300??

??1000????????????????????
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1. ?????????????????????
2. ?????????????????
3. ?????????????????????
4. ?????????????????????????????????????
5. ?????????????????

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????????????????GX??

??300????????????????????
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Posted in ??????????, ??, ????????? | No Comments »

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

?? ? · Wednesday, November 1st, 2023



Kirillm/iStock

2022????????????????????????????????2023?10????????????????????????????
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1973????????????50????????????????????????????????

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?1??
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?2??1973??????
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?3????????????????????????1970????????????????????????????

?4?????????????????????????????????5 IEA?????????12????????????????????????
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 ???????

??CEO????????????EV????????????EV????????
 ??CO2??

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???CO2????????????EV?LCA????????????CO2????????10????????????CO2????????????
 ???CO2????????????EV????????
 ??EV????????EV????????????????????

??“????????”????????????????????...????“?”???

???2020?10?26? ??????2050??12????????????
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EU?EV????????????e-fuel???

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JAPAN MOBILITY SHOW 2023 Toyota Press Briefing

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

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More alarm bells sound on slowing demand for electric vehicles

3. ???????

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

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?? ?? · Monday, October 30th, 2023



Stock photo and footage/iStock

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????????SEC????????26??
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SEC??
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2019??	9???	9??

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??SEC????????????????????????????????
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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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3DFOX/iStock

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Posted in ???, ?? | No Comments »

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

?? ?? · Wednesday, October 25th, 2023

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

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?? ?? · Tuesday, October 24th, 2023



LifestyleVisuals/iStock



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3. ??????????

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



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Wikipedia??

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



ESG??



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



ESG??



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

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

?????????IEEI? · Thursday, October 19th, 2023

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????????8?24??10????????????????2022??
 ?????????3??3873????????871??????755????????????????????22.5?????19.5?????42.0????????
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 ?????????????102????????????????????90????????????????????22????????????????????????
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- ?3????????????????????

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

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?? ?? · Friday, October 13th, 2023



Liudmila Chernetska/iStock

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

????????????????????1970?1980??
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- 1976????????? ?????????????????????
- 1980????????????????????
- 1989????????????????? ??????????????????
- 1989????????? ?????????????????????

1989??1988?????????WMO?????????UNEP?????????????????
????IPCC????????????

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

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@WMO????????727??
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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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????2?????CO2????????????????????



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



CO2??
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4. ?????????

????CO2???430ppm????1000ppm????????????????????????????????2050????????????????????????????
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??CO2????????????????????????????????
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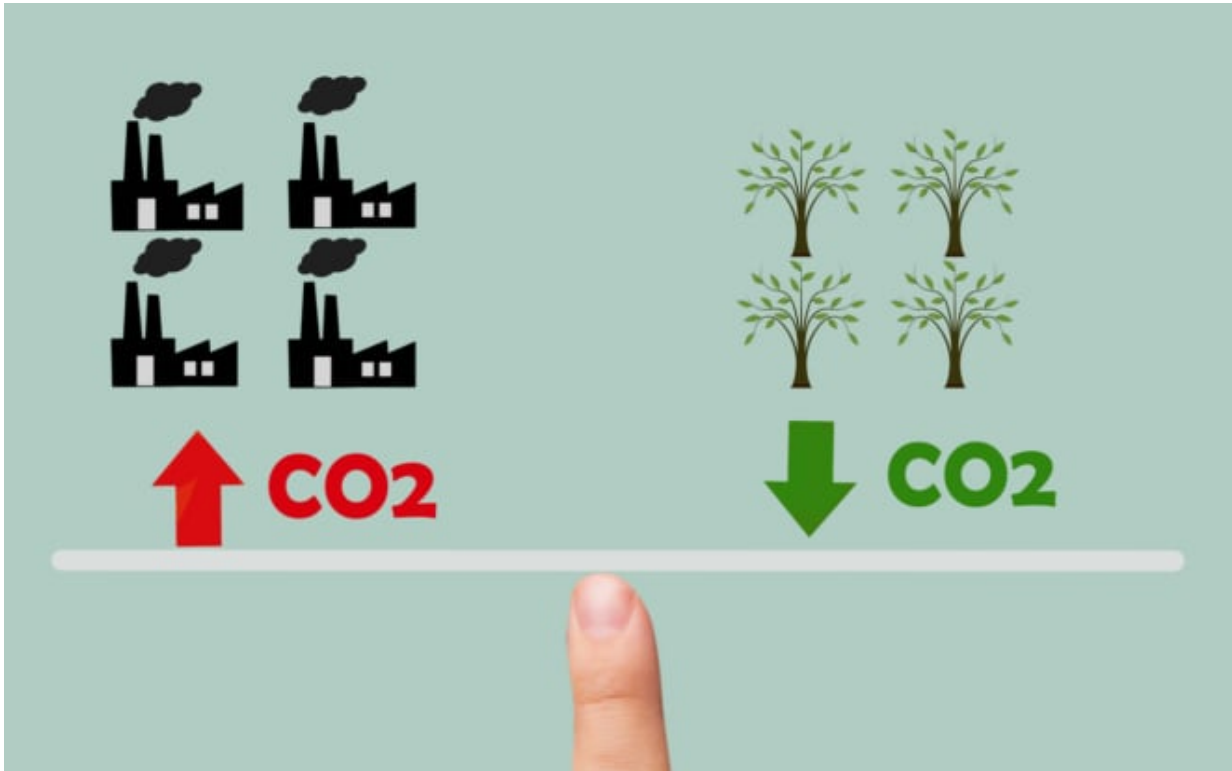
The main conclusion of this part of the study is that even an order of magnitude increase of CO2 in the atmosphere by human activities, which at the present rate of input is not expected within the next several thousand years, may not be sufficient to produce a runaway greenhouse effect on Earth. On 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????????????????????????????????
????????????????????????????????CO2???30???10????????????????????0.1°K????????????????

Posted in ???, ????? | No Comments »

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

?? ?? · Saturday, October 7th, 2023





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??EU????????????????????EU??

2026??2023????????????????????????????????2023?10?11?????
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?SDGs????????

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

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

?? ?? · Wednesday, October 4th, 2023



2023 ESG 2030 2040 2023 CO2 1 CO2 CO2

4 12,009

2022 GX 2023 10 2023 9 19 188

9

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- CO2
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- CO2
- 1



CO2
CO2

3
CO2

1,500
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CO2
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2022
11
27
COP27



CO2

REDD+



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2018
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WFP



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?????????REDD+?J-

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2023??

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?SDGs????????

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