Global Energy Policy Research | GEPR

GEPR???
????http://agorajp.com/???
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CO2????????????????????????

?? ?? · Tuesday, February 6th, 2024

baileystock/iStock

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

??????????Voters???1?????????????????3??

???1??????????????????????15???????????????????????1?????????1???????????????

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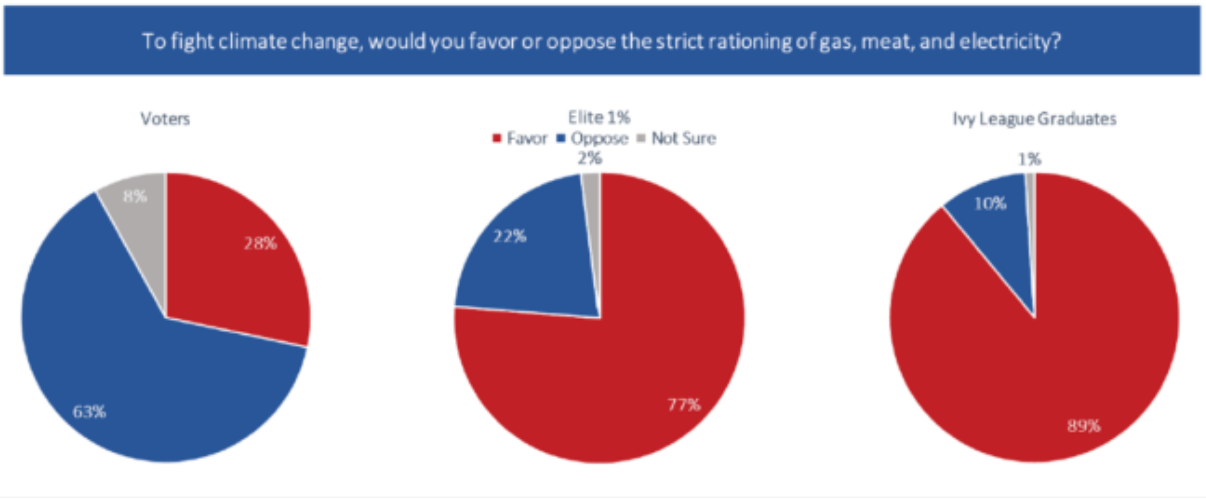
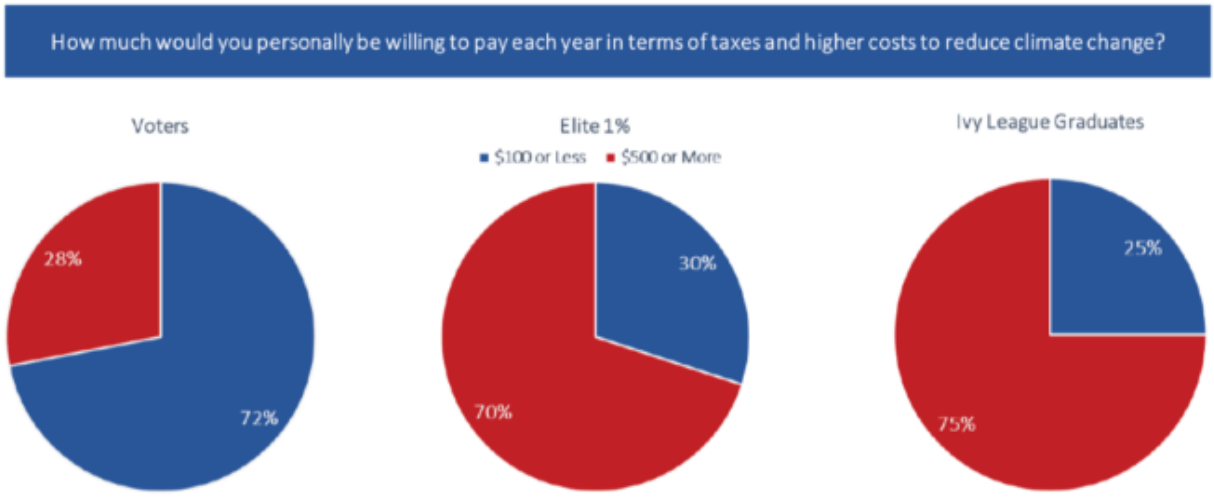
1.??????????????????????????????????

??????63%????????????????77????????????????89%????



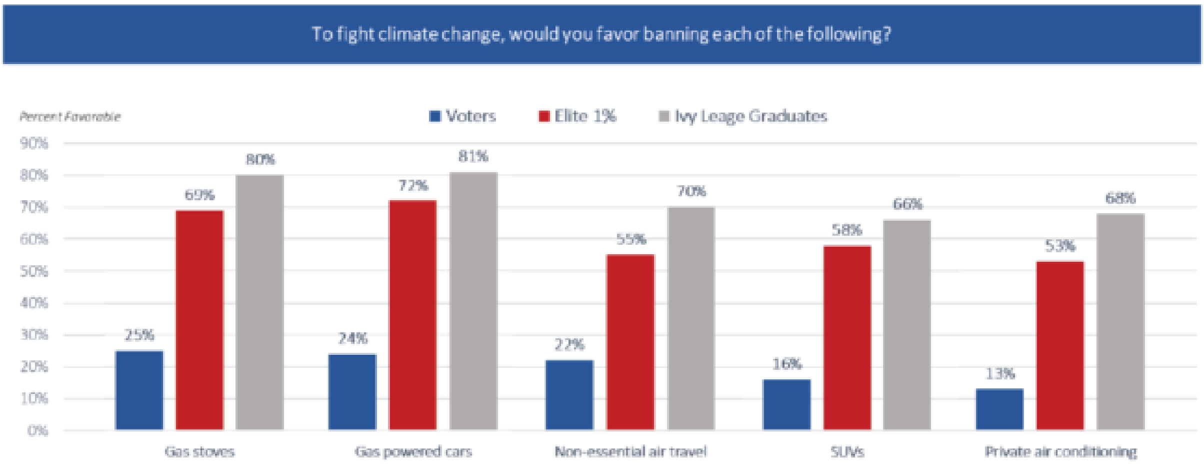
2??????????????????????

??????72??100??????????70??500?????



3??????????????????????

??????????????????????????SUV??????????????????????????????????13???25????????????????53???72??????????????????????????????66???81?????????????



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Posted in ???, ????? | No Comments »

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

?? ?? · Monday, February 5th, 2024

Sakorn Sukkasemsakorn/iStock

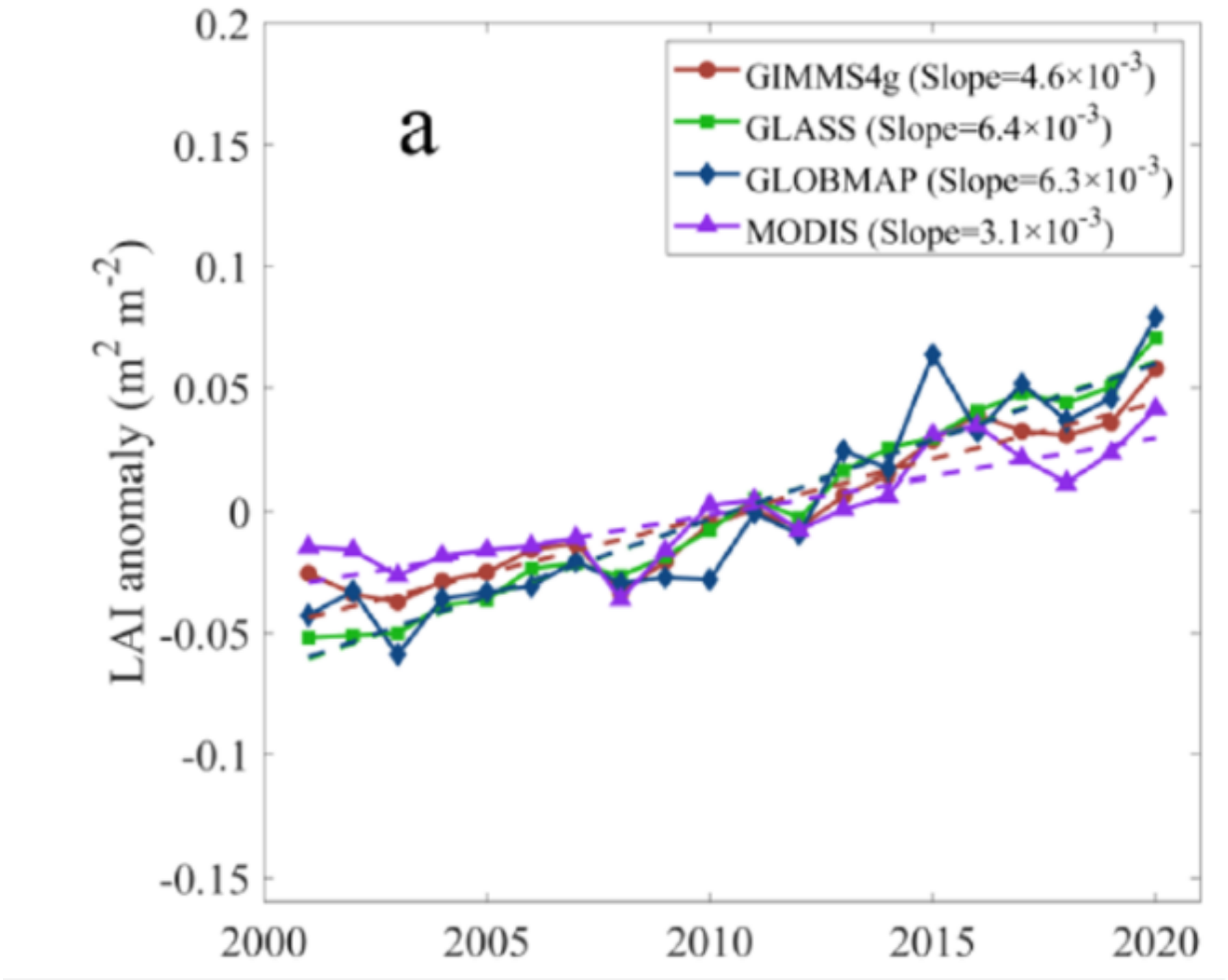
CO2??????????????????????????????global greening)???

???2000???2020?????????????Leaf Area Index, LAI??????

LAI??????1??3????1??????????1?????????????????????? ??1??????????????????????????????????????

????????LAI?20???0.1?????????????????1????????????????0.1??????????????????????????????

4????????????????????????????????????



?1?LAI???

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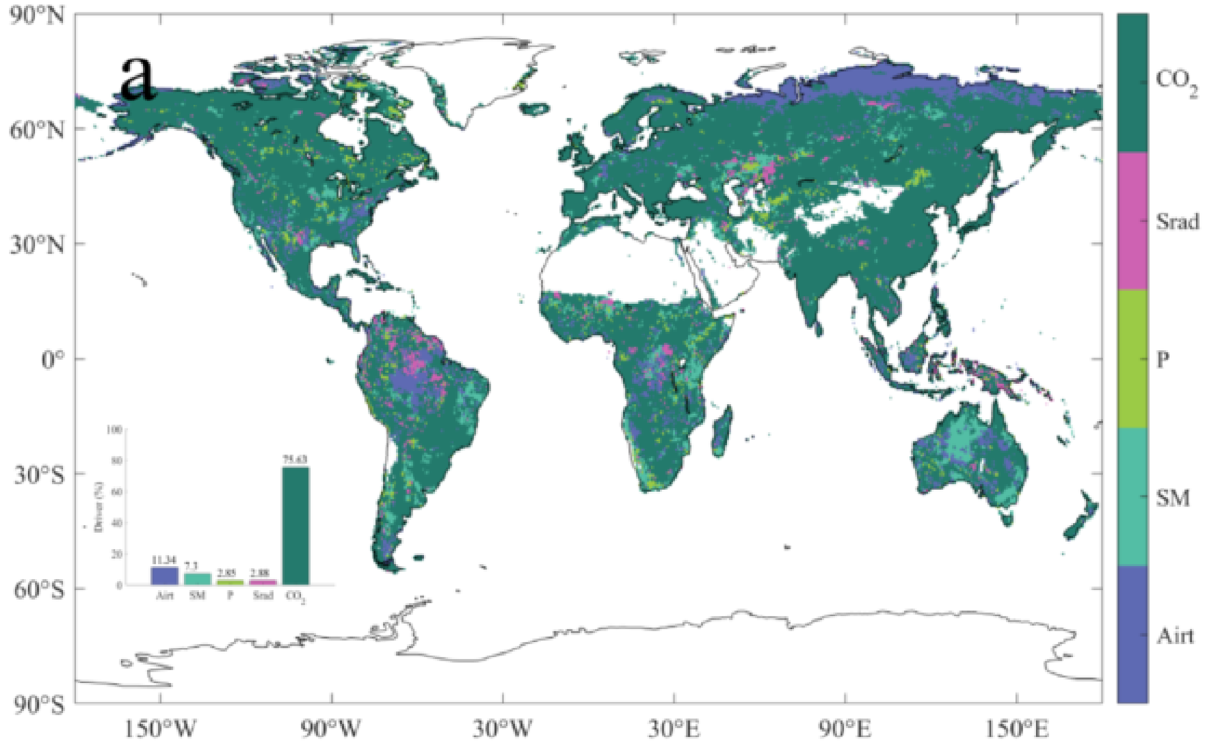
CO2?????Srad?????P????????Soil Moisture, SM?????Airt??5??????????????2??

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



??2?LAI???????????

??CO2?????
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CO2?????????????????CO2?????????????????????????????CO2??????Carbon Fertilization?????????

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Posted in ???, ????? | No Comments »

????ESG???

?? ?? · Sunday, February 4th, 2024

Adrian Los/iStock

????ESG??????????NISA?????

> ????ESG??
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ESG???????????????2020?????????

> ??????????????23??????????????????3???????ESG????????????????????????????????????
> ?????

> ??????????13????????????????????????3???????
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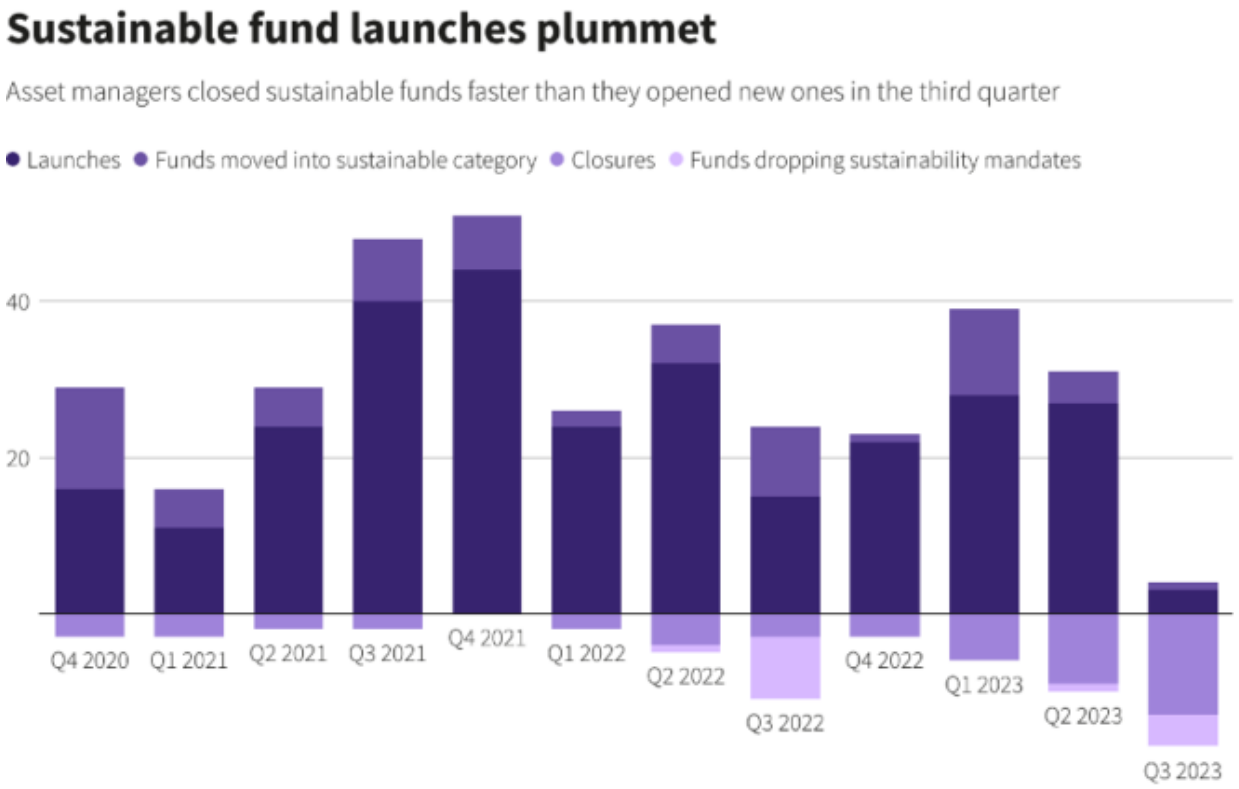
> ??4????????????????????????0.02?????????
> ??????0.85???????????



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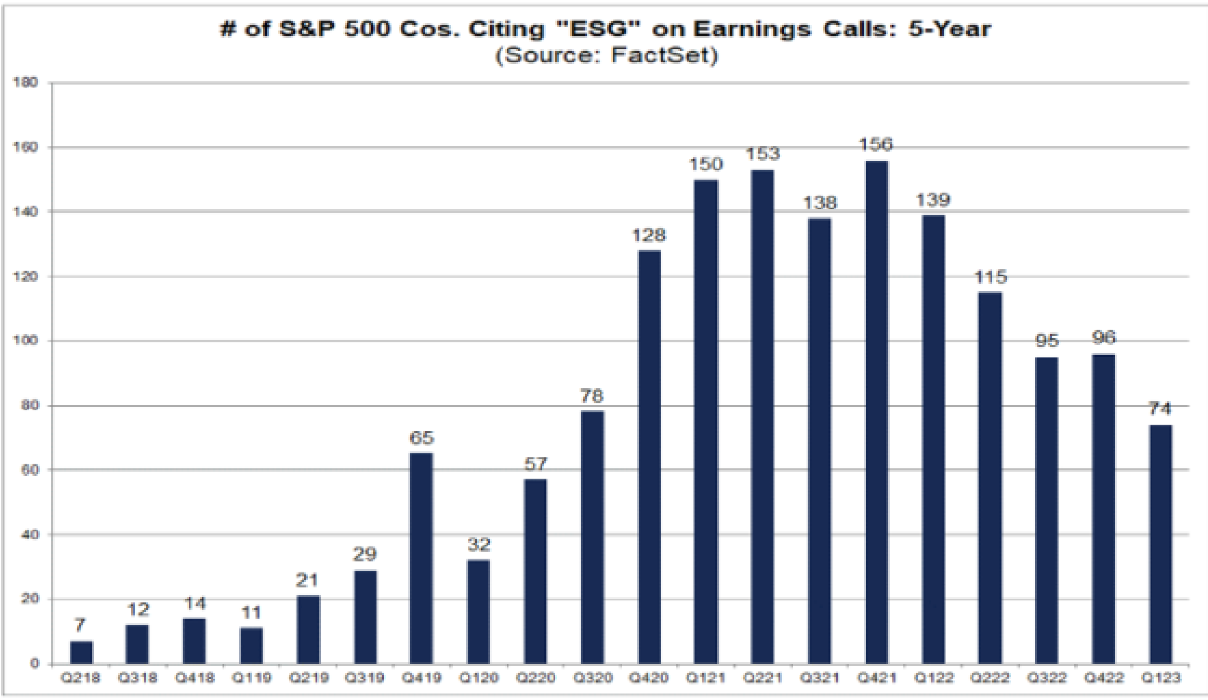
???????ESG??????S&P500?????2020???2????????

> ???????ESG???????????????74??????S&P500???????????????ESG????????????2020???2????57????????????2021??4????156????????????ESG??????S&P500?????5?????4??????????????????2022??4???????????2023??1???????????ESG?????S&P500???23%?????



???FACTSET
???????2018??2??????2023??1?????
Q218?18?Q2?Q123?23?Q1

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

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> ???ESG???DWS?????????? ???????????????????????????????????ESG???????????????????????????

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??????Google??????SDGs?????????????????????2022?6?8????????????????ESG?????????2023???
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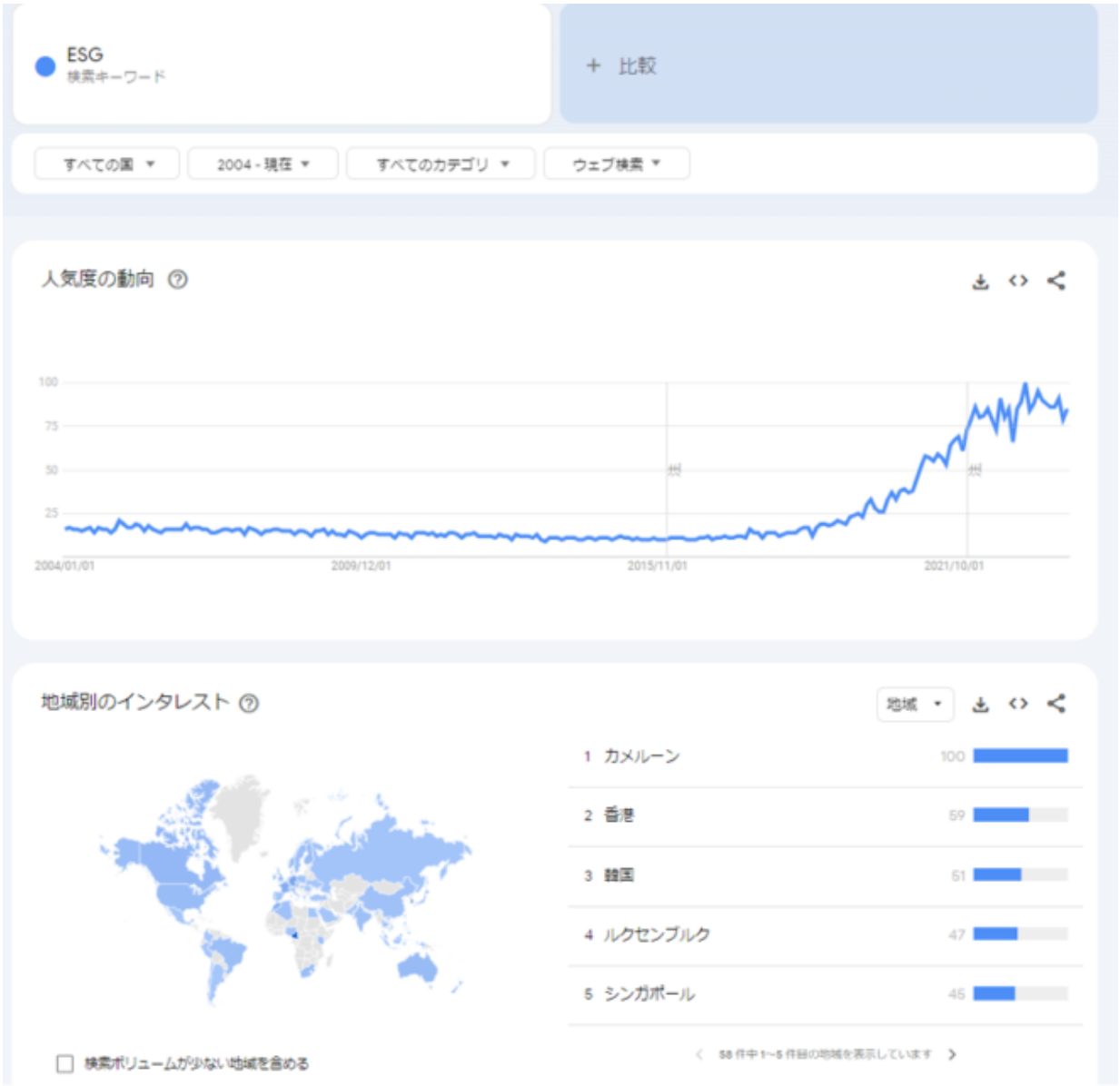

???Google????

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2023??ESG????????

> ESG??????????????????????????????????????ESG????????????????????????????ESG??ESG??????????????????????

> ESG????CO2??CO2??ESG?????????

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> ????ESG?E??????????CO2?????????E????????????????????????????????????
> ??E?S?G??????????????????
> E??????????S??????G????????????????????????????

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> ????????ESG??????????????ESG
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ESG??
ESG????????????????????????????ESG????????????????????????????????????

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

COP28????EU????????

?? ?? · Saturday, February 3rd, 2024

Evgeny Gromov/iStock

??12???????????COP28??

???COP28?????????????5??????????????????????????????GST????????????????????COP??

????????UAE??????????????????????????COP28?????“Ambition to Action (???????)”???

GST?????????

???1?????12?13???????GST?????????NGO?????????????COP????????????????????????CCUS???**??**???????

???COP???

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?????????????????????????????????????“?????transitional fuel?”???**??**????????COP????????????????????? ??

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???COP??????????? ??2???????????3???????????????????????? ?????????????????????

??COP????12?7???COP??????????1??????????????????? ?????????????????COP???UAE?????????????????

???COP????????????????????? ??

COP28??????????

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

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????COP??????????????????????????????????????EU???????????????????de-industrialization?????????????????

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?????????????10??11??????????????????5.4%?5.8%??????[?1?]??????????????????????????????????
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???0.3%??????????????
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??EU??????
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????????????EU-ETS???????????3??????2013????EU??????????????????????????1500???????????EU?????????1000?????????????EU?????????????1.5???????????????????????2500??????????????1500?????????1000????????????????????????????17????????????????

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?FIT???EU?????????????????????????????????
EU????????????????????????????

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??EU????????????????????????
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???COP28?????????????????
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?1?EurActiv, January 16, 2024

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

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?? ??? ?? · Thursday, February 1st, 2024

ollo/iStock

1?10??CA?
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??100????????GDL??????????????4??
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GDL??????????????555????????????25????????????????????3000????????????????????????????
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??12?7??8??GDL???

??3????????????????????GDL?1????????1?9??????10
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????8????????????????????????1???
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???340km???????????????
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???6??1????2500?3000???????????????????
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???6???10?????????????????????????EU?????????????????????????6???????????????????????????
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DGL?4??
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???GDL??52????????????6???????
“??”??16??????????

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??????1994?????????????100??
????????30??????????????????????

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???29??18?????????????????????????5???????????????????????????????????????3????????????

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Posted in ???, ?? | No Comments »

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?? ?? · Wednesday, January 31st, 2024

Nathanx1/iStock

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1?18???TV????????????????

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SNS???
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- ??????????????????????1?2??????600??????
- 2??????????**????????????1000??**????????????

- ????1000????????????????????????????????????

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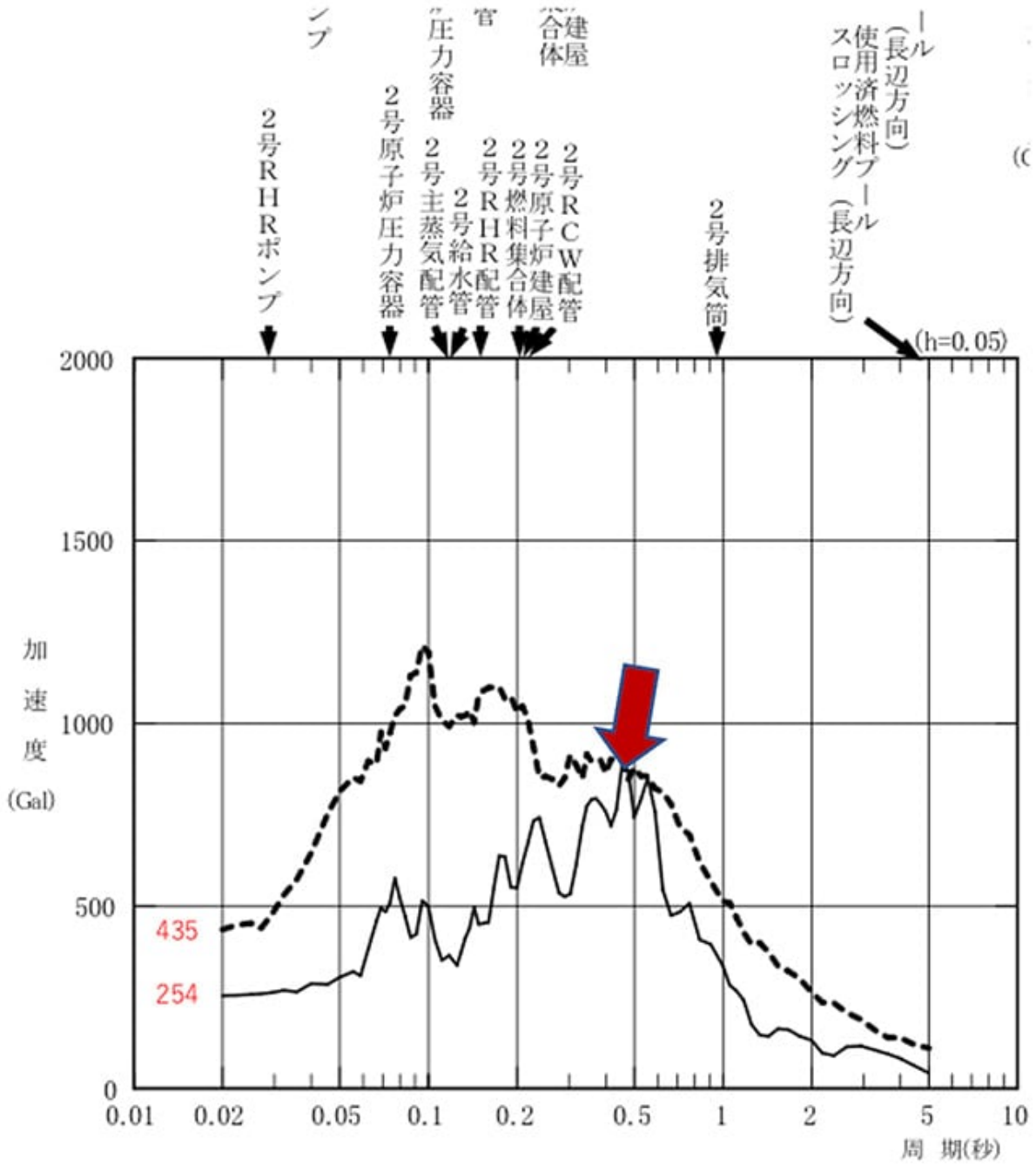
> ??1?2??????????????????
> ??????1?????????0.47?????918????????957????????????????????????????????

??????2????????????????????846????????871?????????????0.47??????????????????



?1?????2???????????
????????????, P. 46?

?1??????????600??0.47????????????????????? ?????????871????600???“**?**”?????????????????846???????????????????

?????????????????**?????????????????????**?????????

??F????????????G???????????????????G??????????? ?????????1G?980????????980???1G?????????????????????????

???????????2?? ??????

??????2?“?”??????1000??

????????2???????????1000????????????????1000???????????????????

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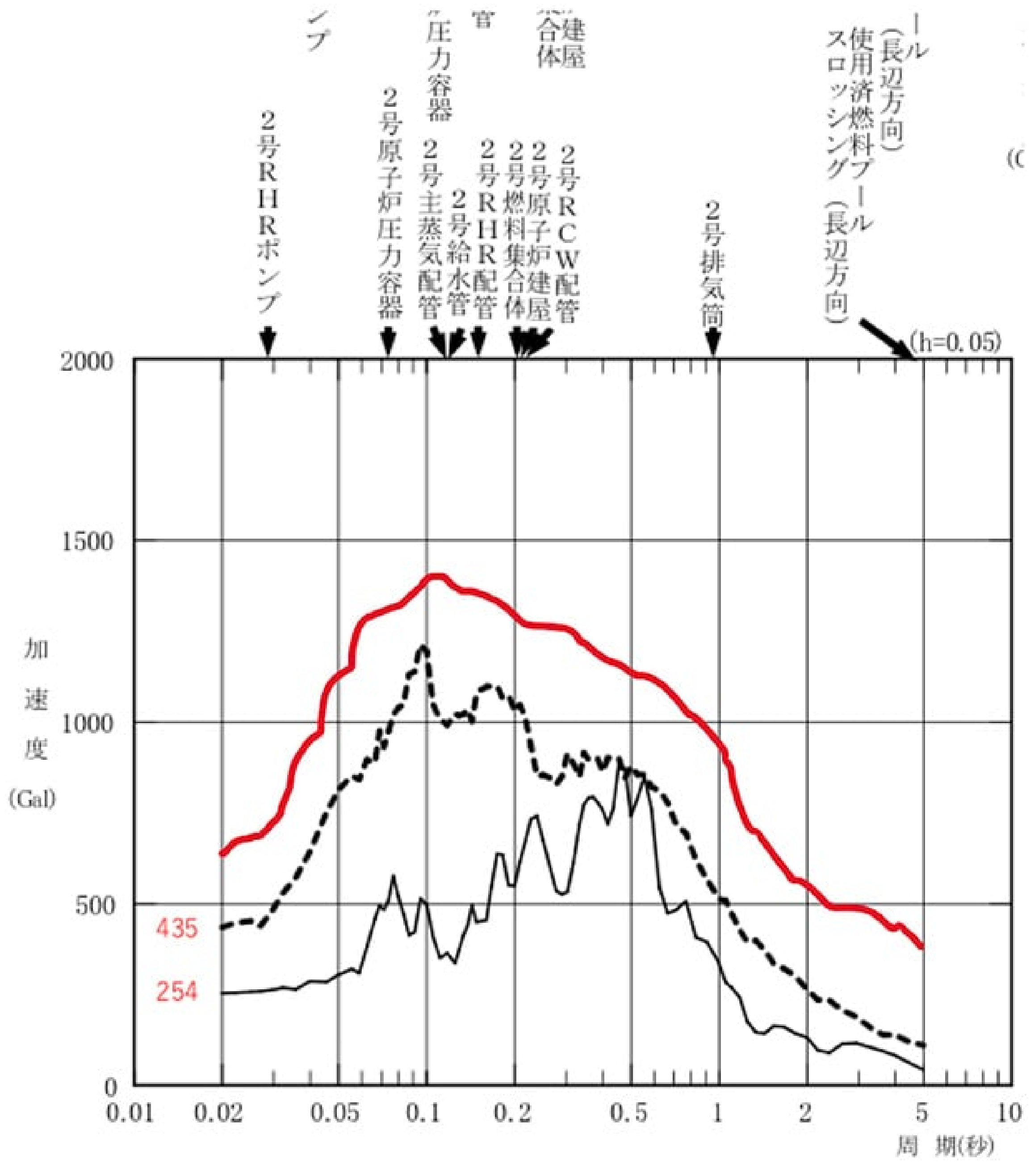

?2????????1000??????????????

?2?????????????1000?? ??????????1000????????????????????????????

???????????????????600????1000?? ???

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???2000????????????? ???????600???1000???????????????——?????????????????????????

???????????????2,112????????200??????????????3,406????????????????5,115????????????????? ???????

??????????????????????4,022???2008?6????????????????

?????3???????????????????????

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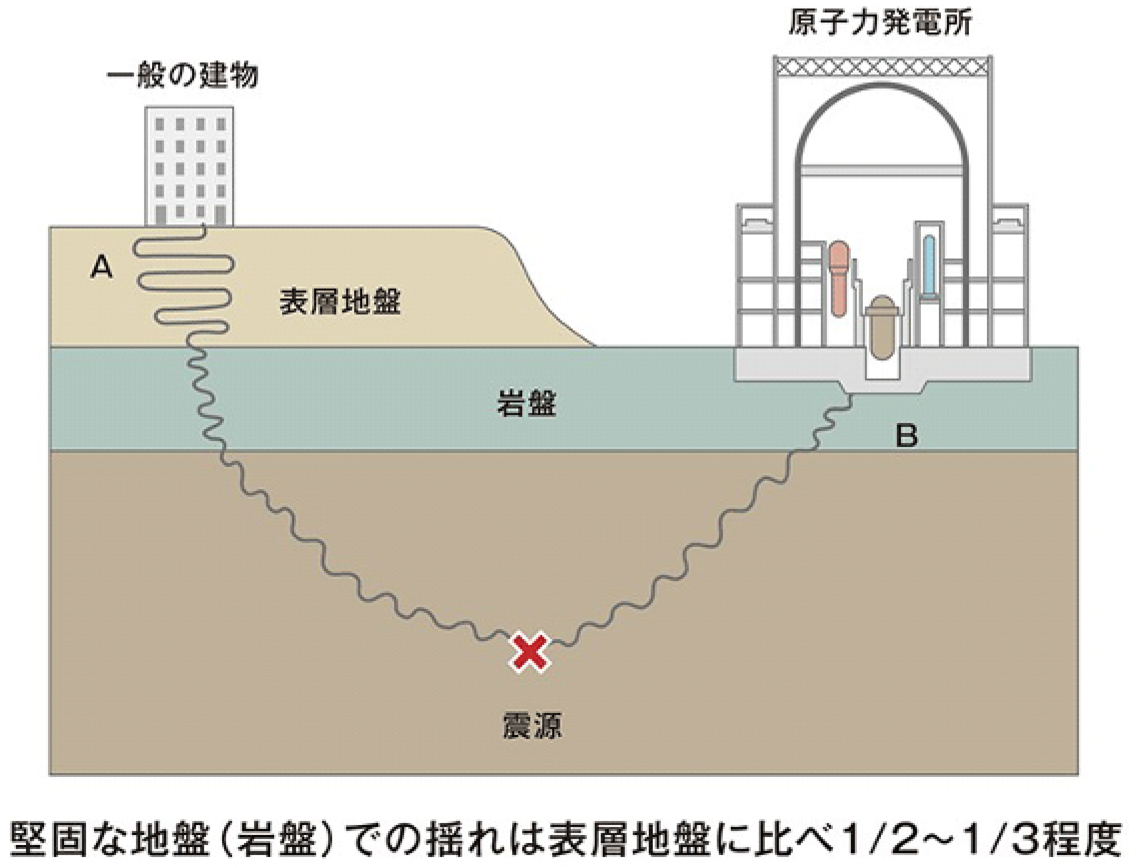

?3???????????????????????????
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Posted in ???, ????????? | No Comments »

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?? ? · Wednesday, January 24th, 2024

Cinefootage Visuals/iStock

2023?12???????????COP28?????????????????????????????????

COP28??2050????????????????????10??? ???transition away from fossil fuels???

???COP28??2??28???? ???

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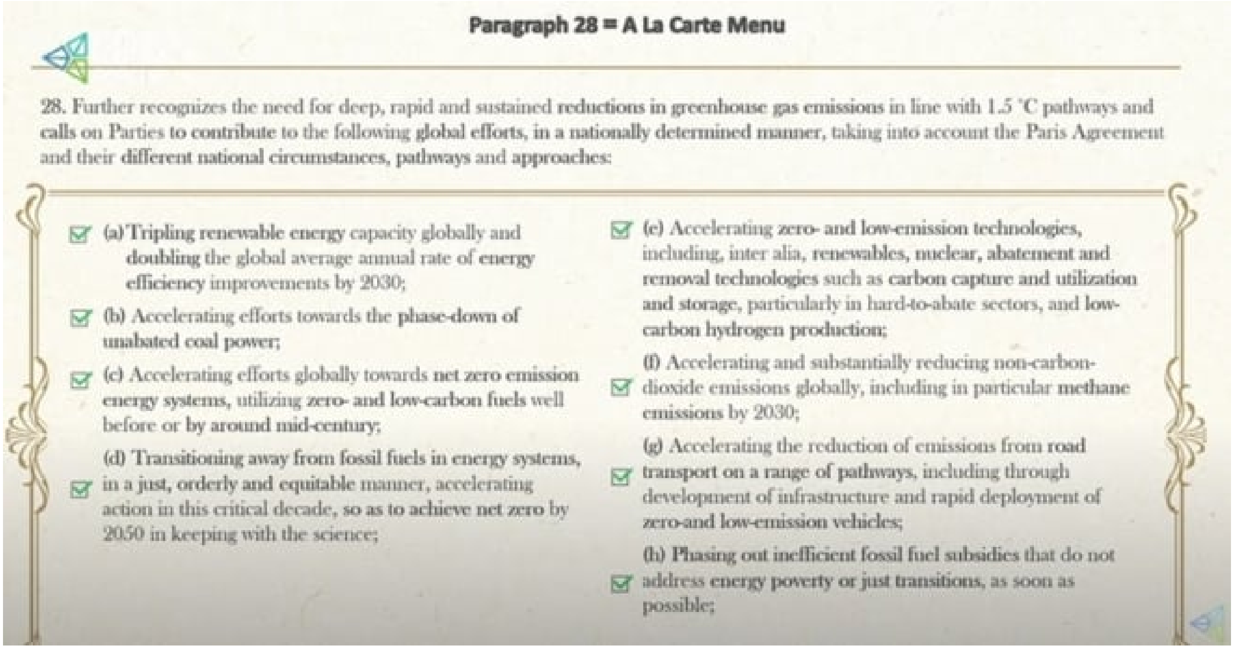

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28.?????1.5???(call on Parties)

a. 2030?????????????????????3????????????????????2?????
b. ?????????????????????????????????
c. ??
d. ????????2050????????????????????10???transition away from fossil fuels)
e. ??
f. 2030???????????????CO2????????????????????
g. ???
h. ?????????????????????????????????????

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???8????????????????????????CCUS???????????????????????????CO2????????????????????????CCUS??

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

??2030????????????

??????????COP?????????????????????????????????????COP28??2023?12?14????????????????

> ?????????????????????1928???
> ???10????????????????????
>
> ???UAE?
> ??????????????????????????????OPEC??2022???28?????????10.6?????????????????
> ???????????????????????????

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Posted in ???, ????? | No Comments »

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

?? ?? · Saturday, January 20th, 2024

Slavica/iStock

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2030年度目標及び2050年カーボンニュートラルに対する進捗

- 2020年度からの増加については、コロナ禍からの経済回復により、エネルギー消費量が増加したこと等が要因と考えられる。
- しかし、2019年度からは3.4%減少しており、2030年度目標の達成及び2050年カーボンニュートラル実現に向けた取組については一定の進捗が見られる。

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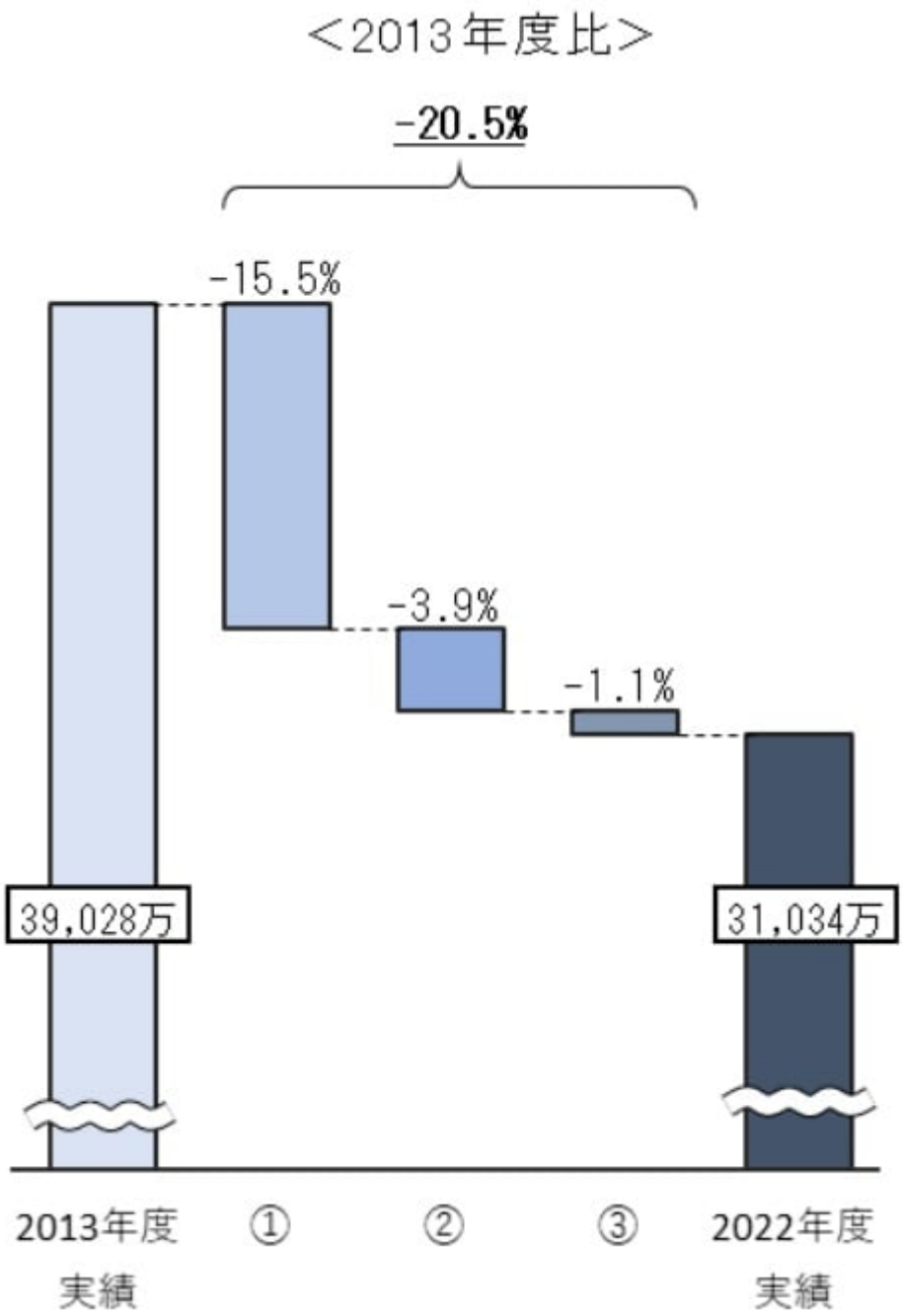

??????????????? CO2?????????????????????

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

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????????2013???2022????CO2??????????**76????????????**???????

??????????????????24%?????

???**???CO2????????????????????????**??????

??????????????????CO2??????????2030??2050??
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Posted in ???????????, ???, ????? | No Comments »

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

?? ?? · Wednesday, January 10th, 2024

EU????????????????????????2023????????????????????????????1.48????????????

????????1.5????????????????????????0.02????????????????????1.5????????????????????????????????
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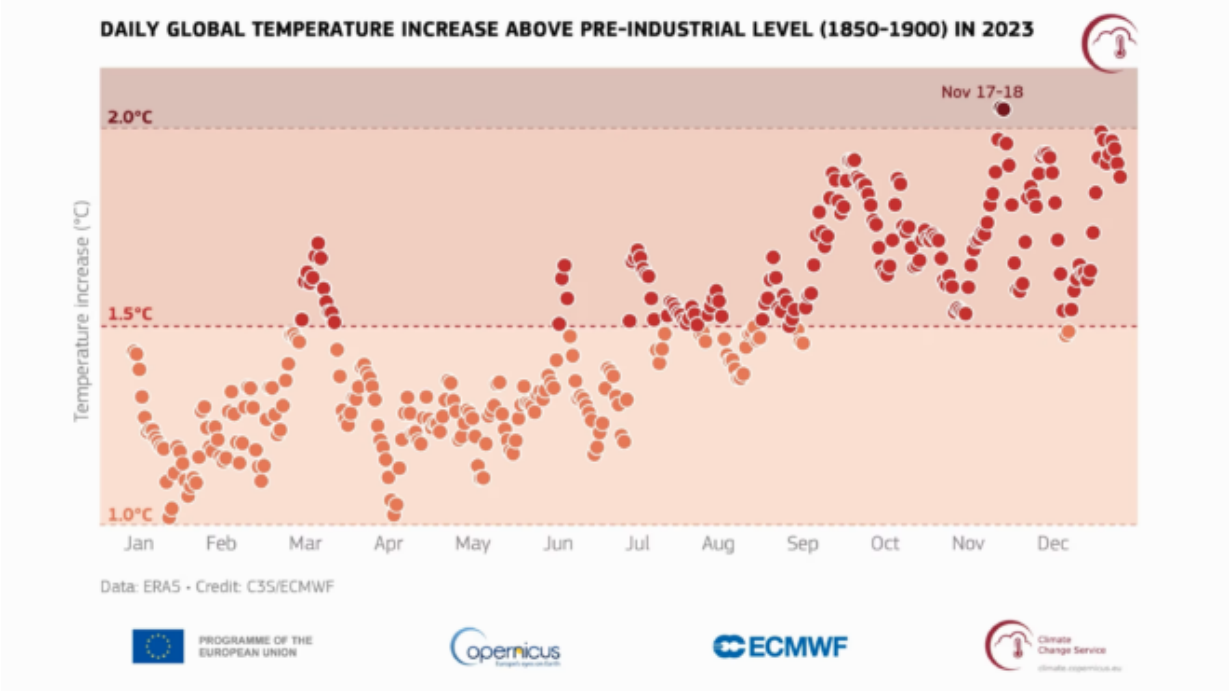

?????1.5??????(ABC News)

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

CO???????????????

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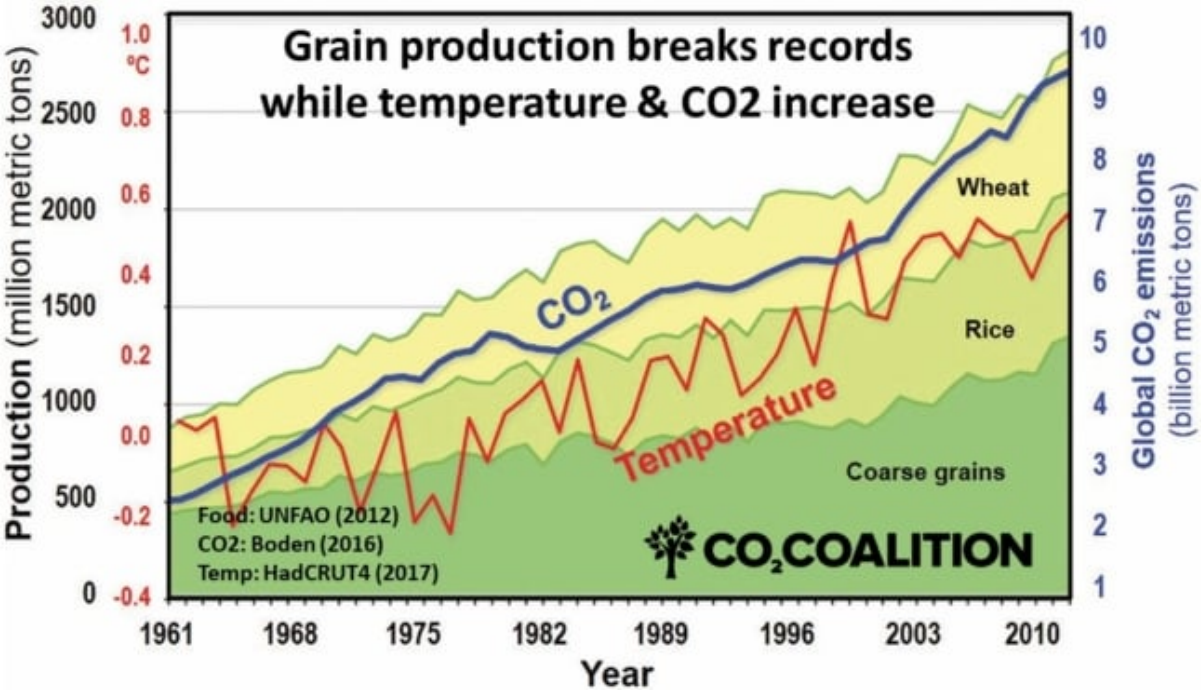
CO??



CO2???????(CO2 Coalition)

??10????????WMO???????????4.5mm????????IPCC????????7mm????????????????????????????

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???300?????????????????3400?????????????????????????

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Foresight??

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??5????????????????

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Posted in ???, ????? | No Comments »

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?? ??? ?? · Tuesday, January 9th, 2024

ZU_09/iStock

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??100?????????????????????????????????????
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???12?10????????????
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1????????????3????????80?100???????

??40???????????????????????????????????????
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??1????????????????????

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??????????????????????3?????????????????3???145??18???????????????41??????

???2???????????CDU????????????????????

???5000??1?4????????????????????????????4500??????????????????????????????“??”???6600??????????????

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??????“????”?????????
?????????????????????????390?????????54???30??????????????????????????5000???????????????????????????????????????

???27?????????????????????????????97???????????????????????????

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??????????????10??1??

???50??

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Posted in ???, ?? | No Comments »

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?? ?? · Sunday, December 31st, 2023

shotbydave/iStock

> ?????????????????????????

???1973?????????????????????????????????

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???CO2?????
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???OPEC????????????????????????????
?????????????????OPEC??????????????

?????G7???CO2???
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Posted in ???????????, ???, ????? | No Comments »

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?? ?? · Saturday, December 30th, 2023

CampPhoto/iStock

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?????????27??

21?4?????????????????????????????????2?8???????????????????????????????????????6?7??????????????????????????????


原子力規制委員会
NRA JAPAN
NRA JAPAN

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2???????????2????

??7?????????1??4?????????????5?6?7????????
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敷地面積： 約420万㎡（約127万坪）
（柏崎市）約310万㎡（約70%）
（刈羽村）約110万㎡（約30%）
構内従業員（2016年6月1日現在）
○合計：6、491人
（柏崎市・刈羽村55% その他県内21% 県外25%）
<内訳>・東京電力：1，171人
（柏崎市・刈羽村81% その他県内11% 県外8%）
・協力企業：5，320（※4，462人）
（柏崎市・刈羽村49% その他県内23% 県外29%）
※2016年6月1日の協力企業構内入構者数
協力企業社数：843社
放水口
3．2km
海洋生物環境研究所
1 2 3 4
キャスク保管庫
7 6 5
展望台
超高圧開閉所
モニタリングポスト
1．4km
事務本館
環境管理棟
第二企業センター
誘雷鉄塔
固体廃棄物貯蔵庫
柏崎市
第一企業センター
（株）BWR運転訓練センタ
サービスホール
原子炉保修訓練施設
50万V送電線
技能訓練センター
50万V送電線
刈羽村

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> A .
> 2020?9??????B???ID??????????????A???ID????????????????????????????????
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> B .
> 2021?3?16??
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> ?Wikipedia???

???A???????????????????????????????2015????27??8??
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Wikipedia??

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

COP28??????

?? ? · Tuesday, December 26th, 2023

Heiness/iStock

12???????????COP28???????????????????????????????????COP??????

???NDC??
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????1.5????2050??????????????????????IPCC?6??????????????2025????????2030???43????2035?
??6???1.5???
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???????[21?]??1.5?????????????2025????????2035????60??????????????????26?27????2025????????
?NDC?????1.5????????????????????????47??

?????????????1.5???????????????????????IPCC?????????2025????????2035??60???????????????
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??NDC??2025????????20
35??60???????????????????????????????????????2025????????2035??60????????????????????????
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COP28???????????????????????????????????1.5??
????????????????????????CO2???????????????????????????????????????

????????????????28?????1.5??
???8???????????????????????????????2050???
??????????????10???transition away from fossil fuels)???????????

?????2030??????????????3????????????2????????????CCS????????????????????????????????????
???29??

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COP28??????????????????8???OPEC?????????????
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12????????????????????UAE???
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1.5??????

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2021?????????????????1.5????????????????????????2030????2010???45??????????????????2021??2022??2023??3???????????????????????

???????1.5??1.5?????????????
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?1?https://unfccc.int/sites/default/files/resource/cma2023_L17E.pdf

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

?????????SINO?Science in name only?

?? ?? · Saturday, December 23rd, 2023

metamorworks/iStock

1. COP28???

11?30????2???UAE??????????COP28???90,000???????????????????????????

11?21??????She Changes Climate???????????COP28??????????????????????????????????1.5°C???

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???????????????????B.Sc????????????????????PhD????????????????????MBA??

???28??

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

COP28?????????????NHK??????????? ?"??????"??????????? ?????? ??NHK???????????????????1.5?????????????????

????????2050??????????5???Doomsday?????????????????????

2. ??????????????5????

??5???????????????????????????IPCC????????????????????????????????????

??20 09??Climategate???

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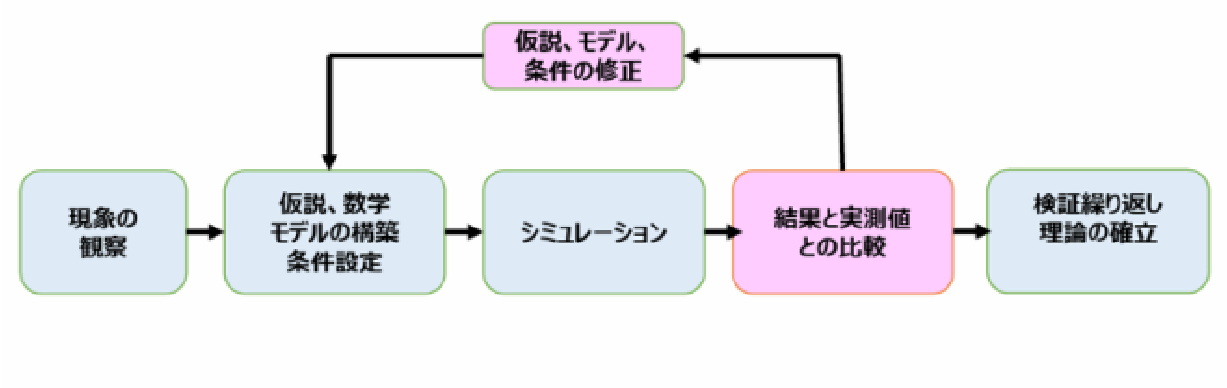

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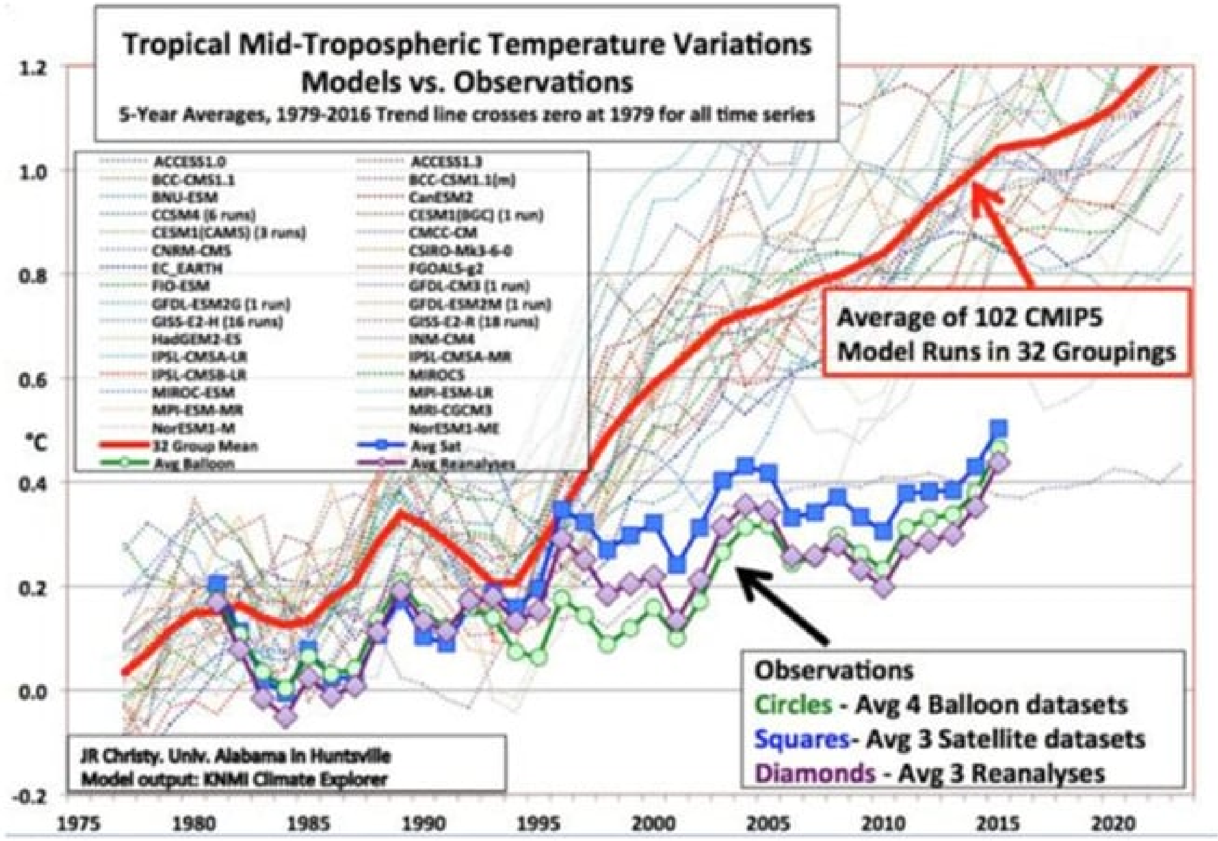
??1990???????0.3?? ????????1.2??????4???????????????2050????????????5???????????????



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1995?????????????2015?????0.5?0.6??1995????Tipping Point?????????????????????????????????

3. Science in name only

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4. ???

EU?????Science in name only???

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

???????????????COP???????????

?? ?? · Friday, December 22nd, 2023

??????????COP28????????????COP???

?????????**?????**(phase out)??**?????**(phase down)???????????????????**??**(transition away)?????????????????????????????????

COP?????????????

COP???(UNFCCC)?????????????1994??????????
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??????1.5???????????????????????2016?????????????????

????COP???????1.5???????????????????EU???2021??COP
26???

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AE?????????????????11???????

????1.5?????????????????EU??CO????????????????????
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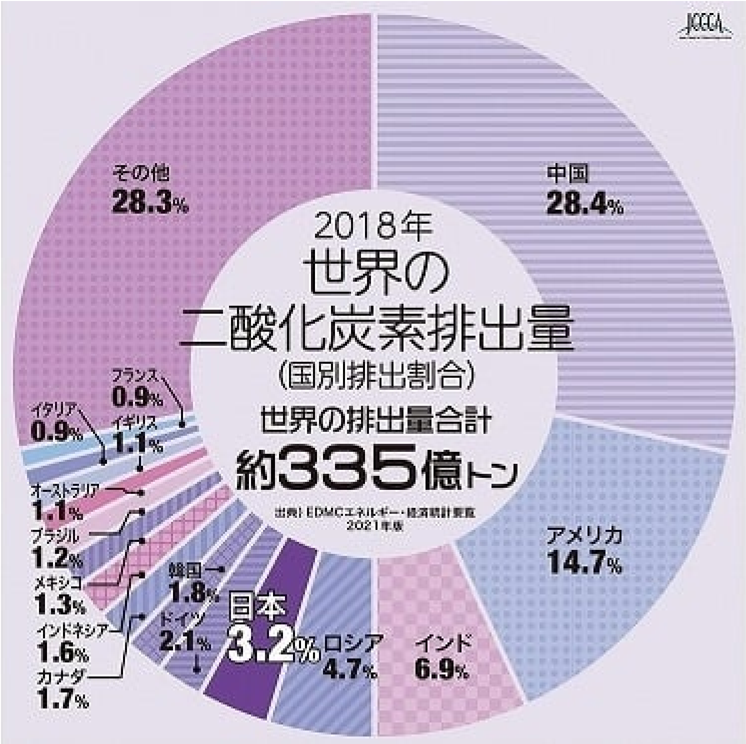

?????????????????(JCCCA)

????????????????????100???**??????**??????????????

???????COP??????????????????????COP???????????????????????????**?????????????**????????NDC????????????????

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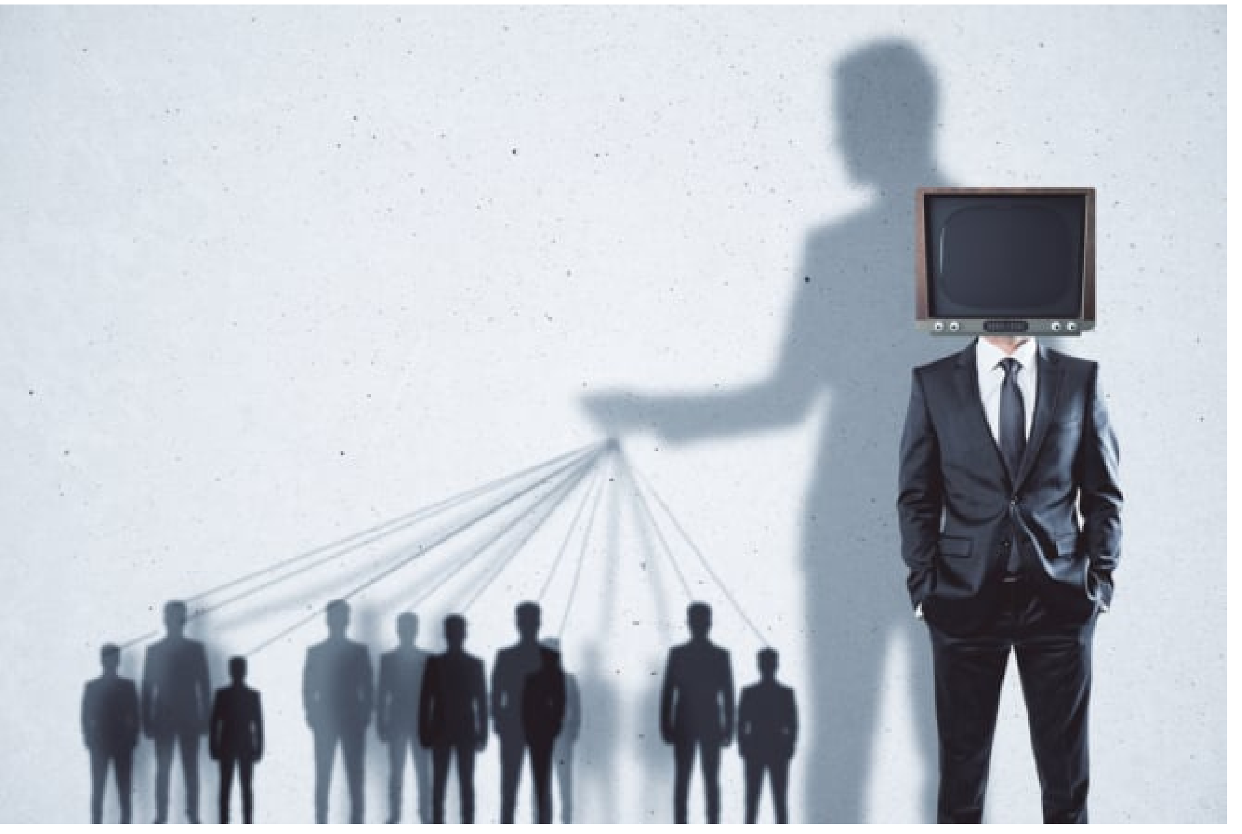
???7.6????????100???CO??????????????????????????????????

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

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

?? ?? · Friday, December 22nd, 2023



peshkov/iStock

???COP28?????????????????????DeepL?????????????

Climate Alarmists Shame COP28 into Overtime Deal to Abandon Fossil Fuels

???????????????DeepL??????

> The COP28 climate conference in Dubai seemed to be heading for an anticlimax on Tuesday, as the last scheduled day of negotiations passed without reaching the top goal of the climate movement: a worldwide agreement to phase out fossil fuels.
>
> The conferees went into "overtime," however, and were able to hammer out a "historic" deal to "**transition away**" from fossil fuels in a "just, orderly, and equitable manner" to "achieve net zero by 2050."
>
> There was still some grumbling about a much weaker agreement than the climate faithful wanted. The coming months will surely be filled with debate about what "**transition away**" means, compared to the originally desired language of "phase out," and just how many exceptions will be granted under the rubric of "just, orderly, and equitable."???????

> ?????????????COP28???

> ???????????? “??? “????”2050????????????? “????”????????????”???????
> “**??**“????? “???”??????????????
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> ??**??**?
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> ???

????12?19??????????????????

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

> NHK????????COP28??????????????????
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> ????????????????????????????COP28????????????????????????????????
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> ???????????????COP28??
>
> ???NHK????????????COP28??????????????????????

DeepL?NHK???????transition away???????????????

???Google?????????????????????????????????

> ?????????COP28??
> ??????????????????????????
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> ????????????????????2050????????????????????????????????**??**????????????
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- ??????????????????COP28?12?13???????
- ???????????10?????COP28???12?13???????
- 10?????????????COP28???????12?13?????????
- ??????????????COP28?????????12?13???????
- ????COP28??????????????12?17???????
- COP28????????????????1???????12?13??????????
- COP28??????????????????12?13???????
- COP28????????????????????????????12?14??BBC?????????

COP28????12?18???

（７）公正な移行

COP27 で決定された「公正な移行に関する作業計画（JTWP）」について、雇用、エネルギー、社会経済等の要素を含むこと、作業を 2026 年まで継続し、その時点で効果や効率性について評価を行い、継続を検討すること等が決定された。

???????????28???????COP28?????
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Posted in ???????????, ???, ????? | No Comments »

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

?? ??? ?? · Thursday, December 21st, 2023

Ignatiev/iStock

EV????????…?????????

12?17????7?????????????EV?????????????????????????5??????

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?3.5??

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EU???
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??16??17??no farmer, no food, no future??

???17????????????????????????????????17???

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5????????????????????????3????????????????????????5???
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Posted in ???, ?? | No Comments »

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

?? ?? · Tuesday, December 19th, 2023

yudhistirama/iStock

NHK????????COP28??????????????????????

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

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

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

???NHK??????????????**COP28?????????????????????**?????

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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

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- 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???

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??2030????????1??????????????2030???????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?????????????????

?????COP???????????????

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

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

deepblue4you/iStock

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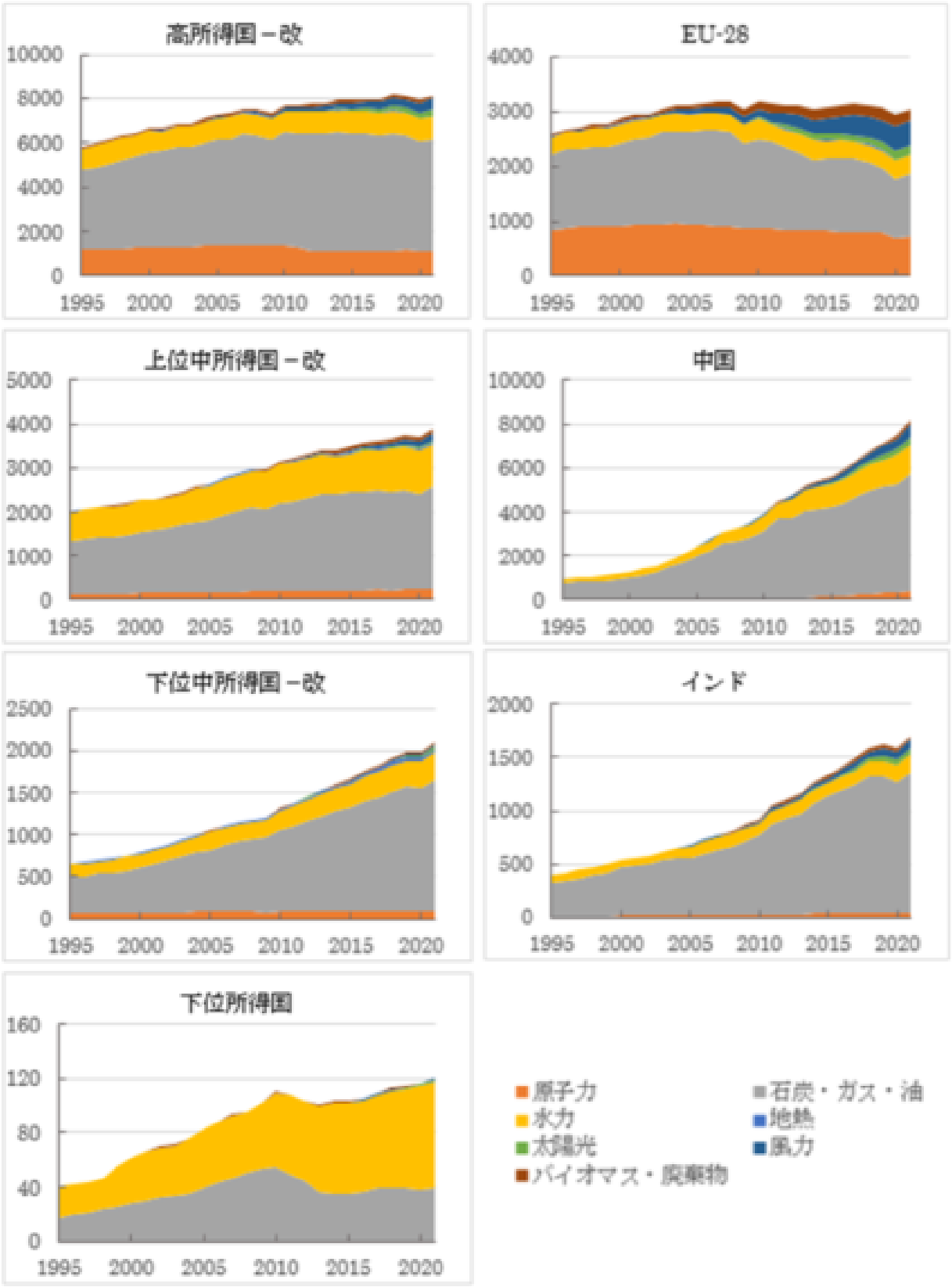
? 2 3 ? -
??EU-28????10??

図-23　所得分類別世界の発電電力量の推移

出所：米国 eia, International データで作成

グラフ縦軸：年間発電電力量　TWh

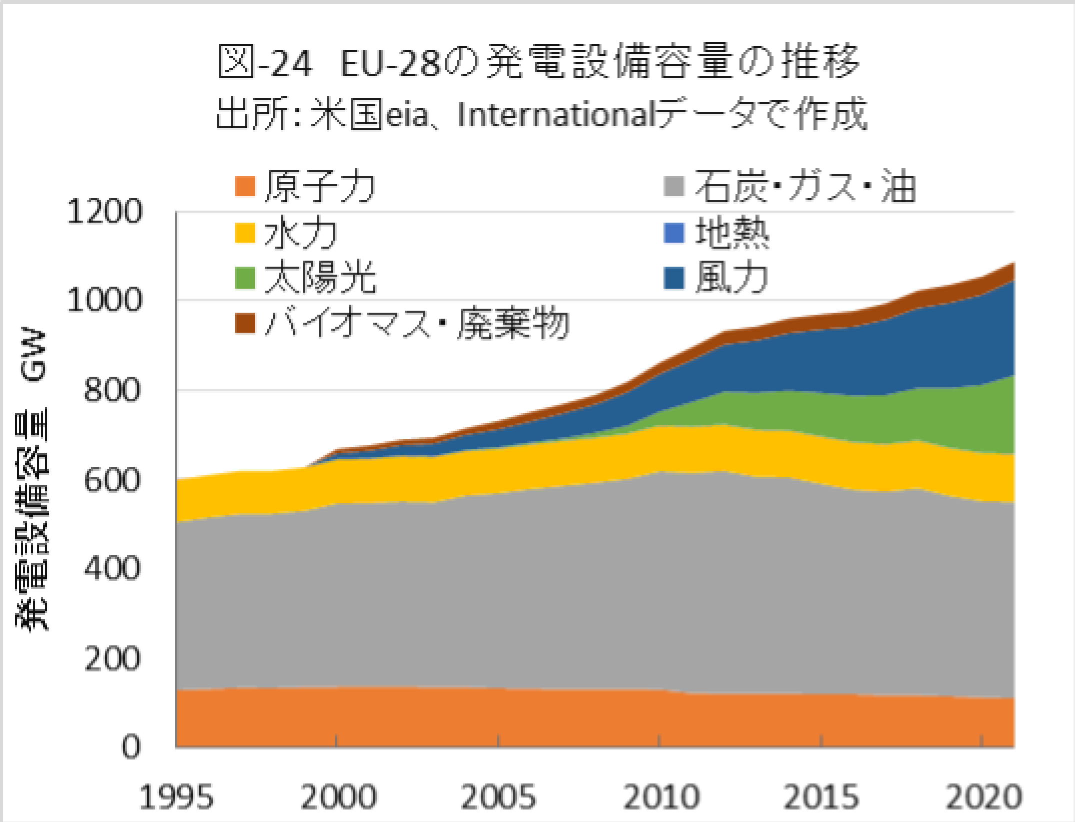


GHG??

GHG??????????????????????????EV???VRE??????????????????

EU??VRE???

??24??EU-28??????????????????????????????????????2000??????VRE????????2010??????????????????????23???????????????2010?????????????????



VRE???????????????GHG??????????????????????VRE?????????????????????????CO2??????????????

VRE???

????????50%?????????????????????10%??

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

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

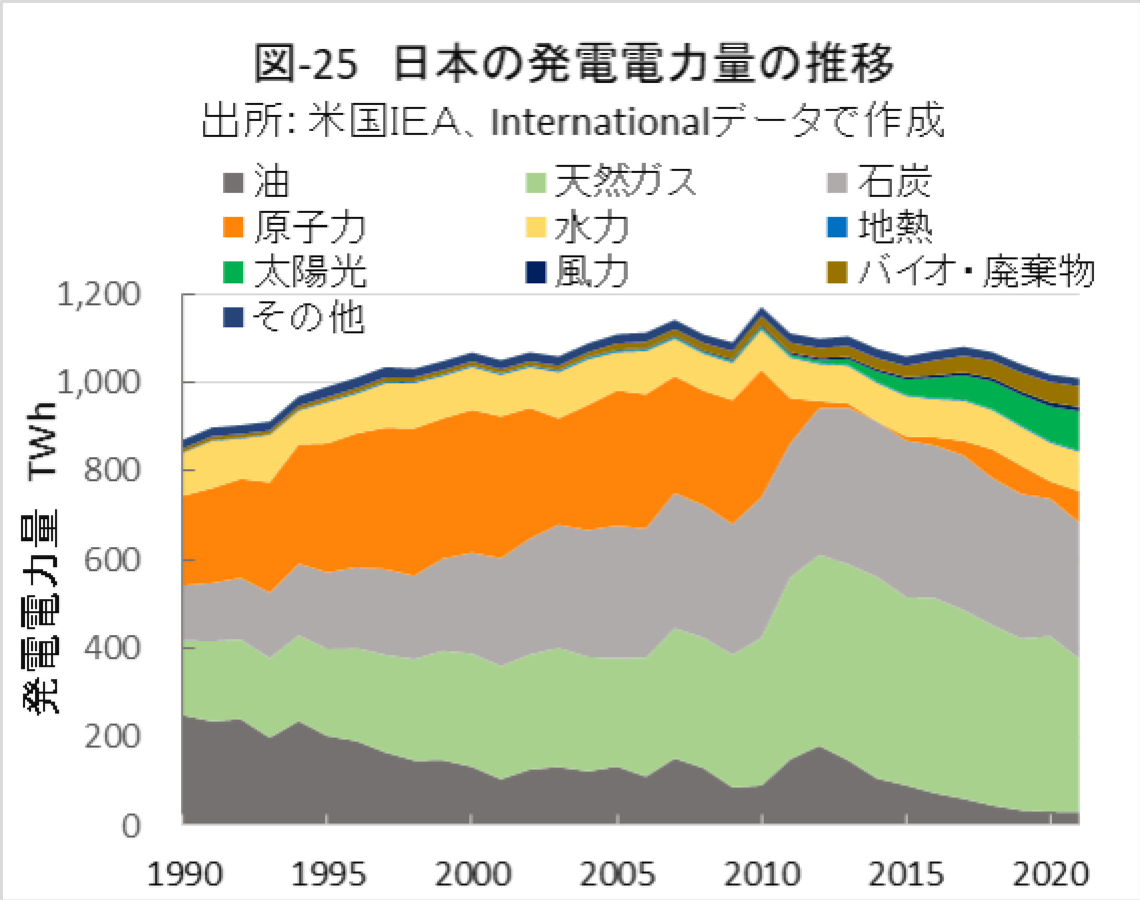

図-25 日本の発電電力量の推移
出所: 米国IEA、Internationalデータで作成

2011?3??????????????????25%??????????????????????????????????????LNG???????????????????
??????????

??5??G8???????????????????????1000??2012?7??????
?FIT???????????5???2017???????????????????5%??????????????????????????FIT??????????????
????FIT????????????????????????FIT??

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

???VRE???GHG????????VRE???????????????
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??VRE???
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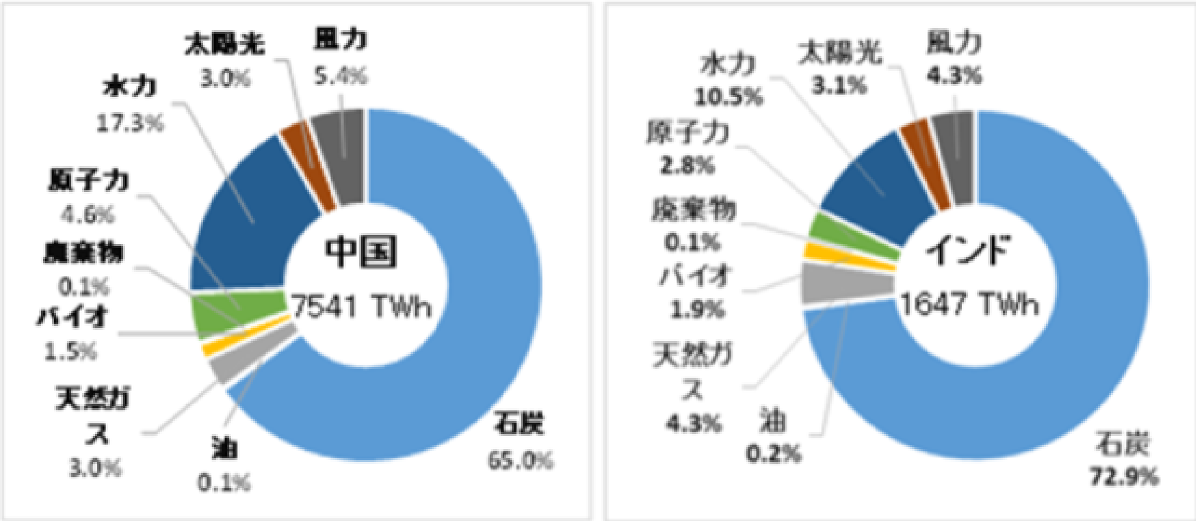
??GHG??????VRE??????????????????
VRE??VRE????????????????????
????VRE??????????????????????????????

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

?26??????????????????????????2/3???

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

????????GHG???VRE?????????????????27????????
??????????TES???????????????27%????????

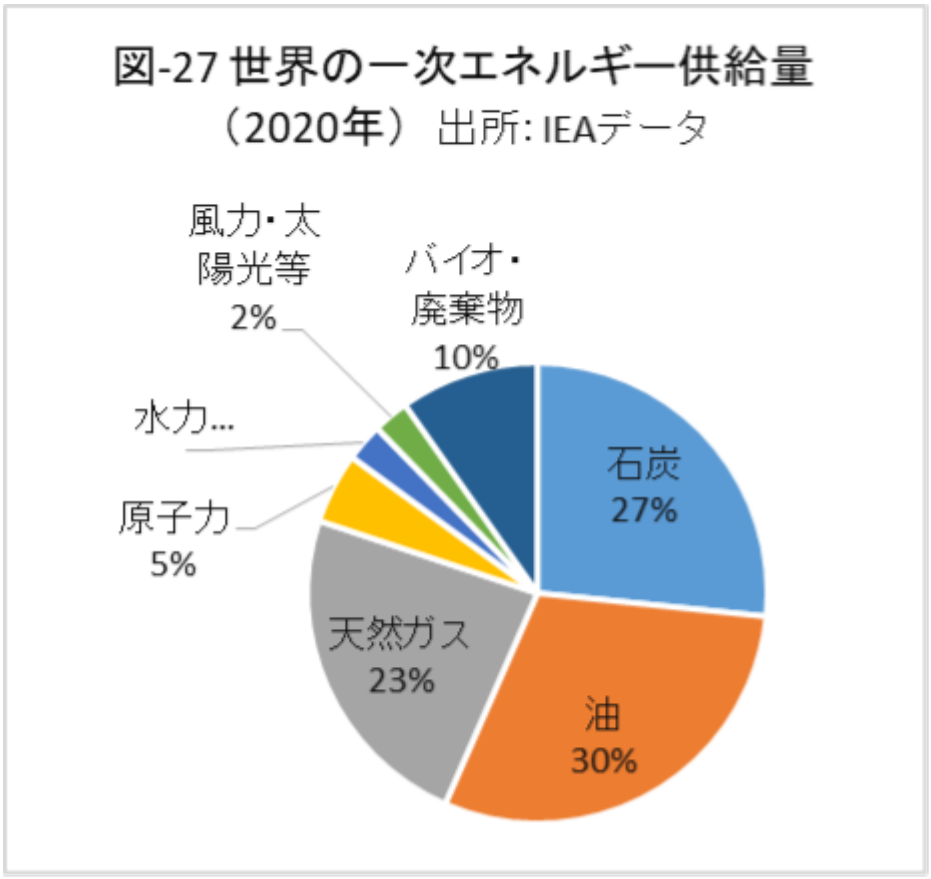


図-27 世界の一次エネルギー供給量
（2020年） 出所: IEAデータ
風力・太陽光等 2%
バイオ・廃棄物 10%
水力...
原子力 5%
石炭 27%
天然ガス 23%
油 30%

?28?????7?????????????????????????????29??7????????????CO2?????????

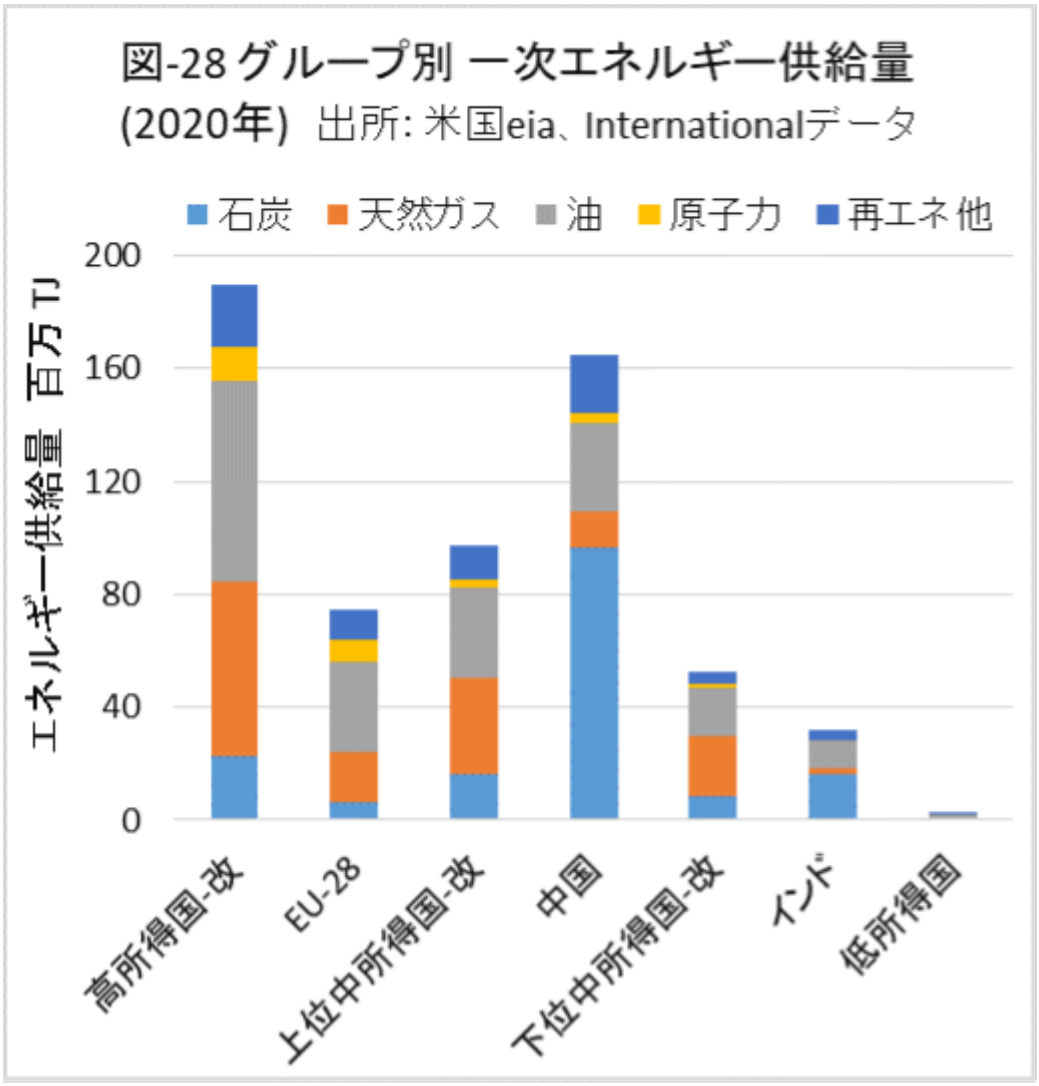
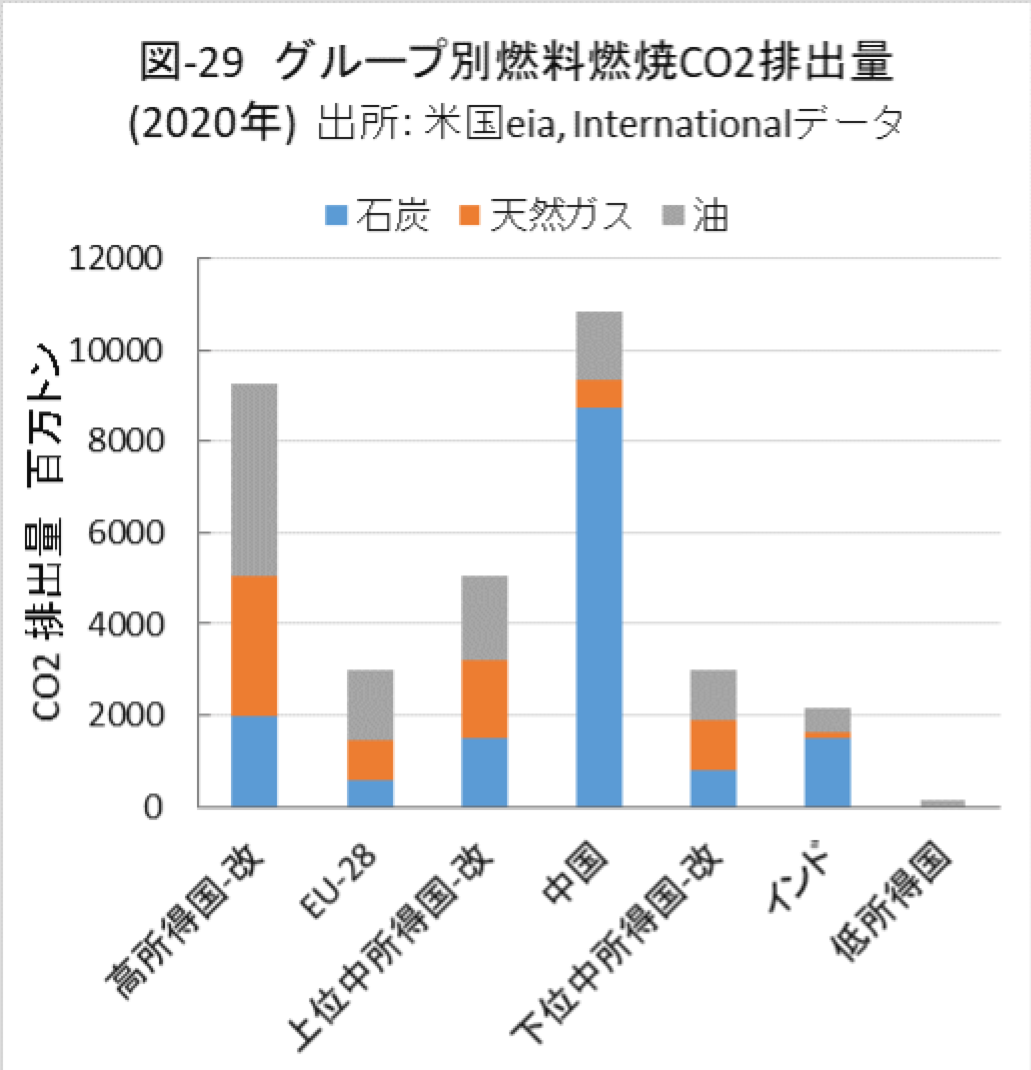


図-28 グループ別 一次エネルギー供給量
(2020年) 出所: 米国eia、Internationalデータ
石炭
天然ガス
油
原子力
再エネ他
エネルギー供給量 百万 TJ
200
160
120
80
40
0
高所得国-改
EU-28
上位中所得国-改
中国
下位中所得国-改
インド
低所得国



?28????????????????????????????????2020??????????????????52%?????????????16%?????????29 ???????????CO2??????????????????????????

????????????????????????????????CO2???????0.56??????

????????????????LCA???????????????????????????LNG?????????????????????????????????????? ???????????????????????0.6?0.65??????????????????????????????????35?40%?CO2?????????????

??????????18%?????????????????6????IEA?2020??????57???1???????????GHG?????????????? ????????????????????????1???GHG?? ????????????????

???70%????????????????????????????????? ?? ????

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?????????30%?? 1970???

??2???????1?????????????

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

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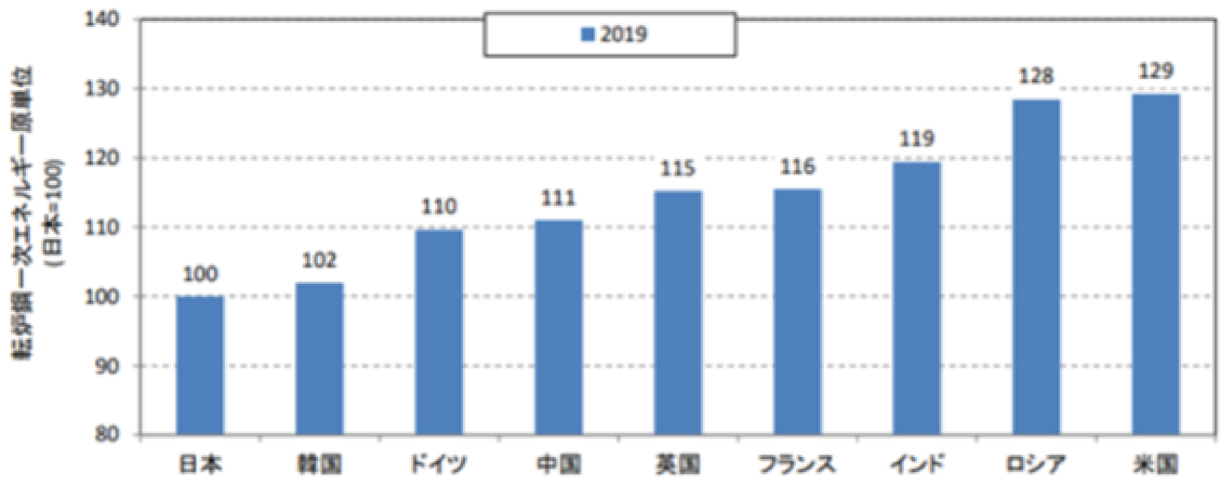
??30???????????????????????????????????-???

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??

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

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

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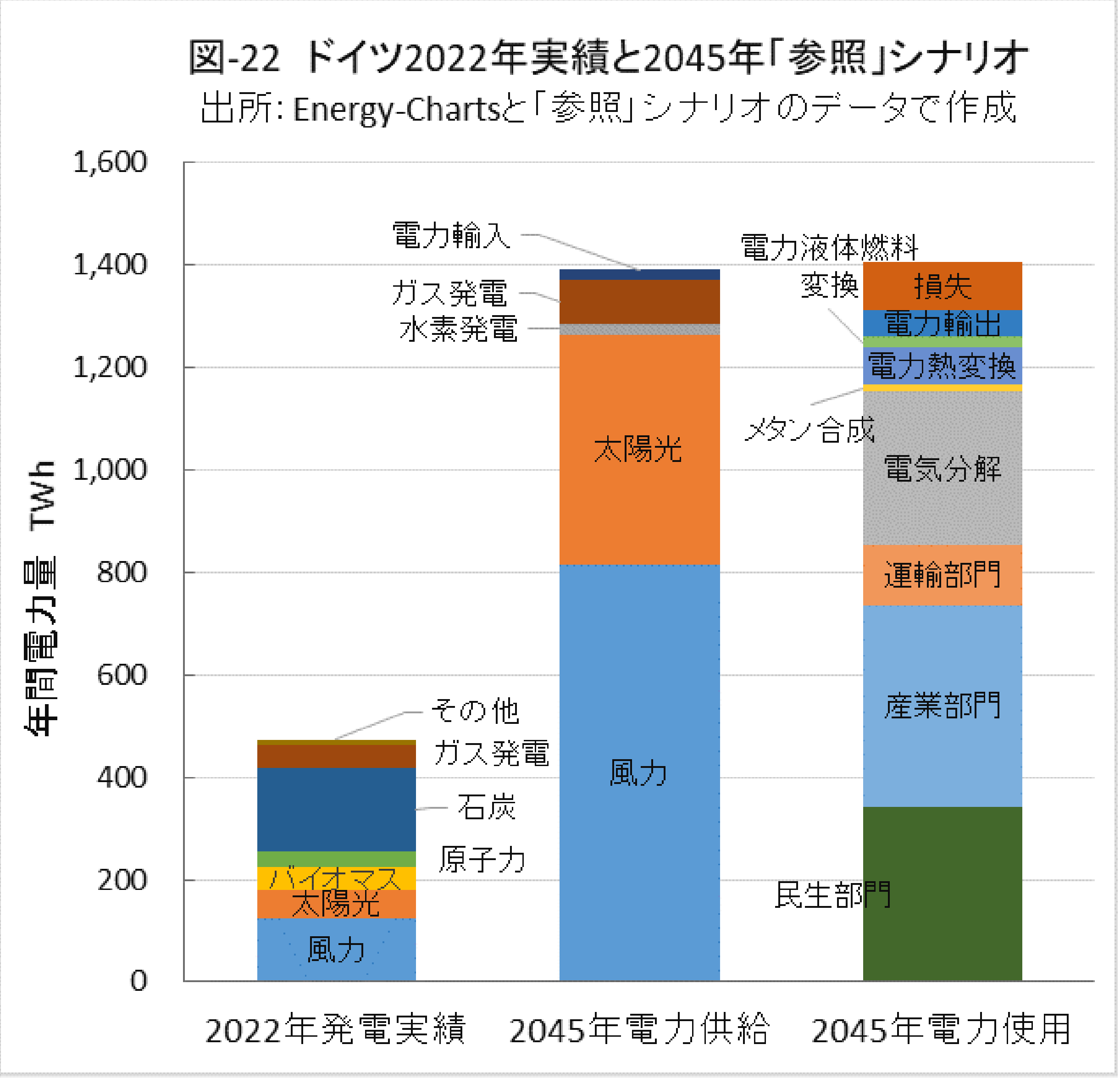
VRE???

????????????????????????ISE???

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

?22????2022????????????????????????2045????????????????????2045??????????????2022?????3?
??????????58%???????32%???????90%????????2022???????37%????????????????????????????
?????6%????????????????????4%???



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	ピーク発電量が大き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シフト
	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H2製造		高応答性の電力利用、H2貯留可
	H2ベースのメタン合成		発電・加熱用燃料
	H2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	
	ヒーポン熱電併給複合地域暖房	熱電併給で暖房	ヒートポンプで暖房と蓄熱
	電気発熱体	常時使用だが、CO2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:フラウンホーファー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 ????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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1.5???????????2?10?

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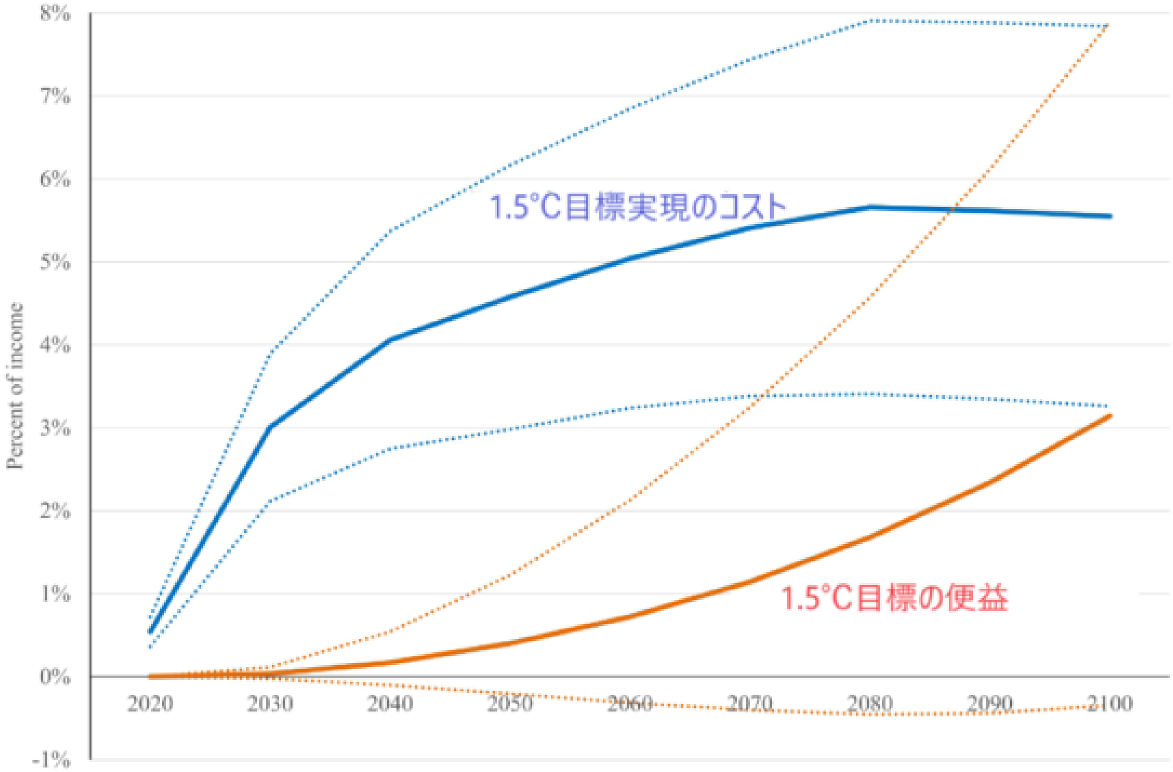
????????1????2050????1.5??????????????GDP????4.5???????????????????0.5?????2100?????5.5????????????3.1?????



?1?1.5?????????(Tol)

?????IPCC???????SSP5-8.5??2100???????????????????????????????????

???????**1.5????????????????????**??????????????????????????????

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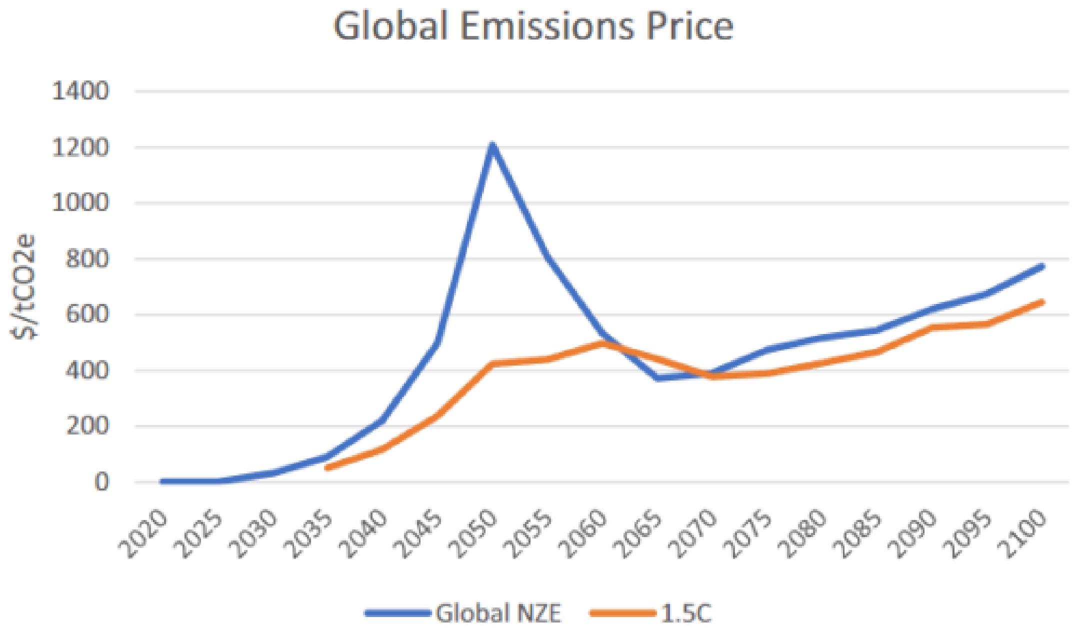
??????1200??????????

Jennifer Morris et al.????????????????????2050???????CO????????????????????????1200???????????????????



?2?????????CO???????

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??COP28??????????????????????????????????1.
5?????2050??????????????????????????**?????????**???????????????

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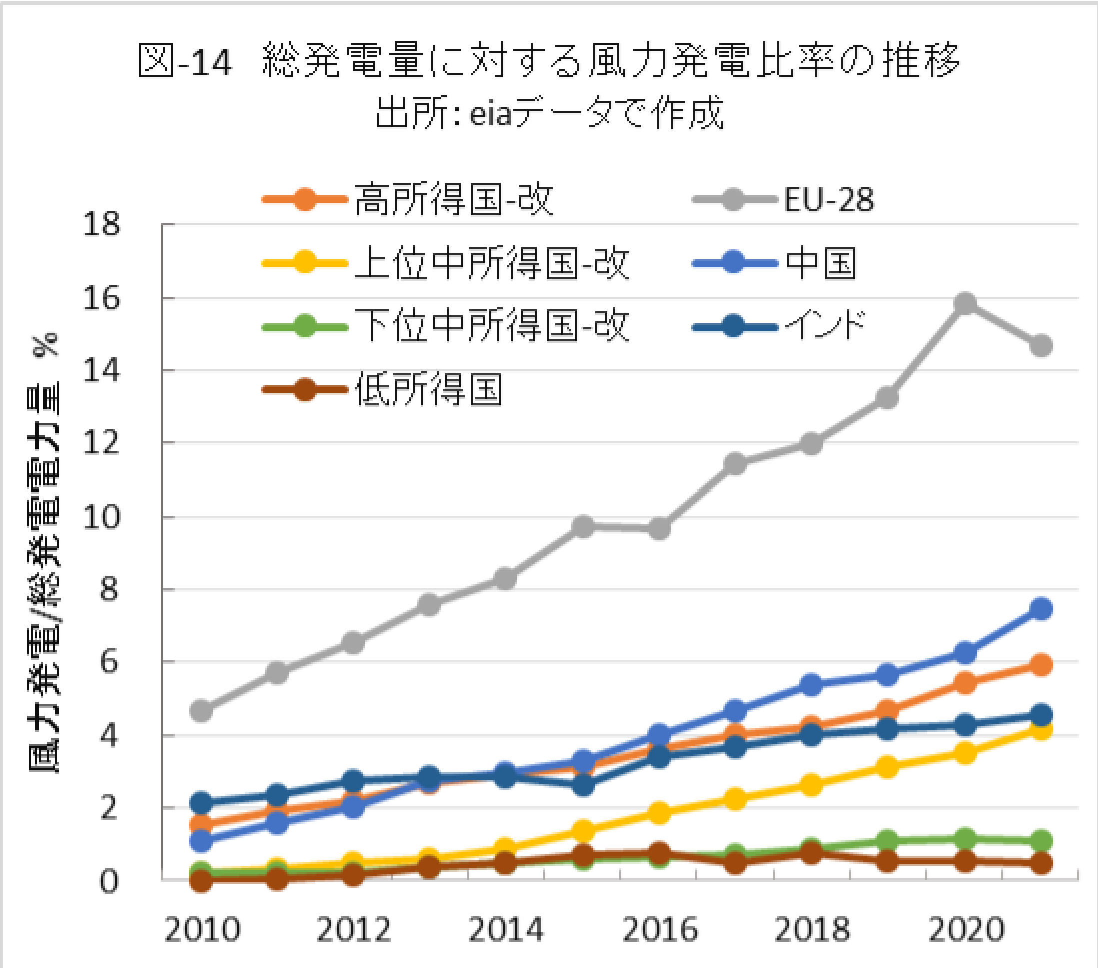
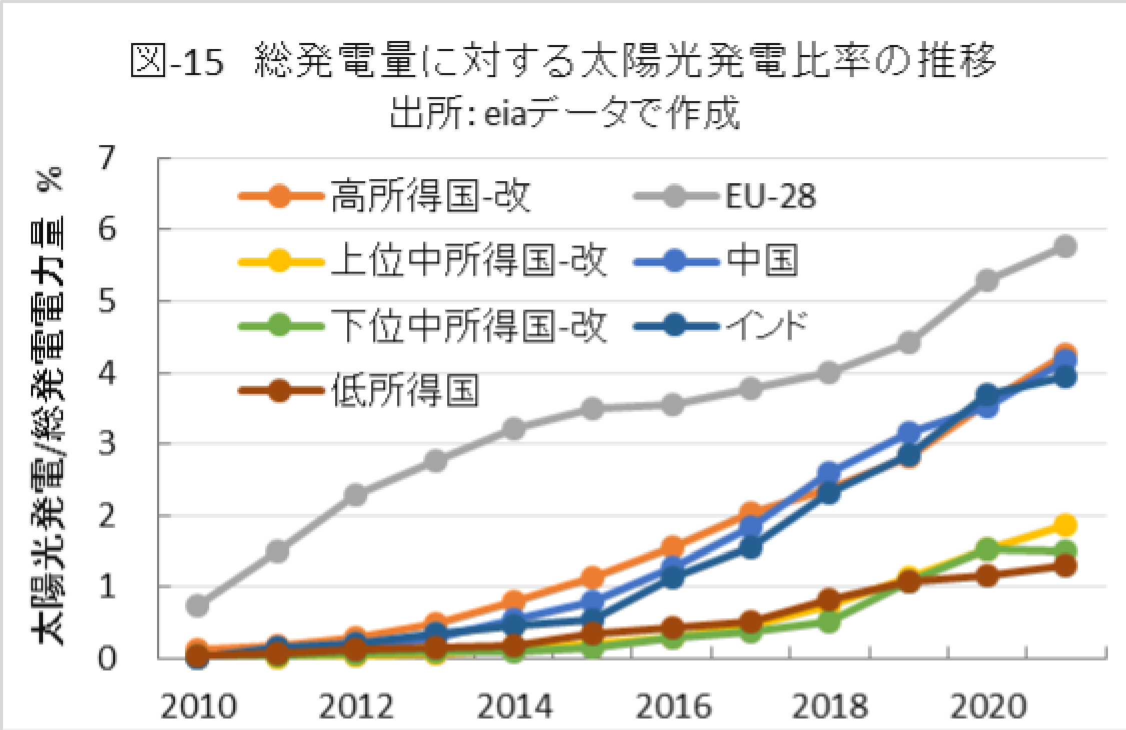
?????????????GHG??

2020??????????????????????6%???????3%??????????5???

?14??15?7???

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





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

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

???????????VRE???????%??EU-28??????????VRE??????????????????????????????????????VRE??????????VRE?????????????????

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

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

?Energy-Charts?

?Energy-Charts???ISE???

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

???Energy-

Charts????????????2022??27??7?4??10??
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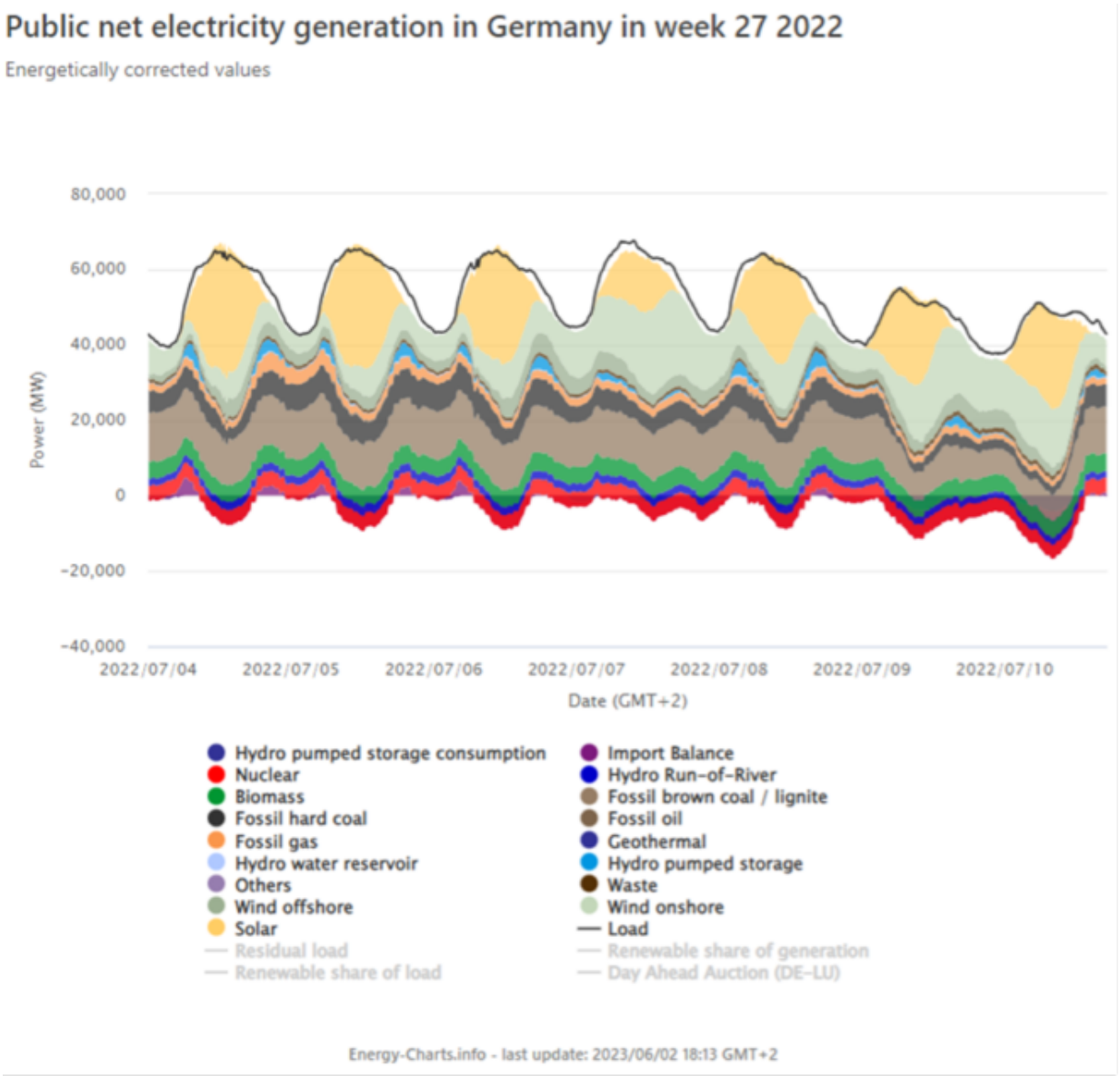

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?2?2022????????????????????????????????1?kWh?1000TWh??
????????????25%????????12%????????

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??1????100%??

?????????6?65%??????????????????????????????????25%???????????????????10%?????????60%??????????????????????????????????0.3?2.6????????????????????

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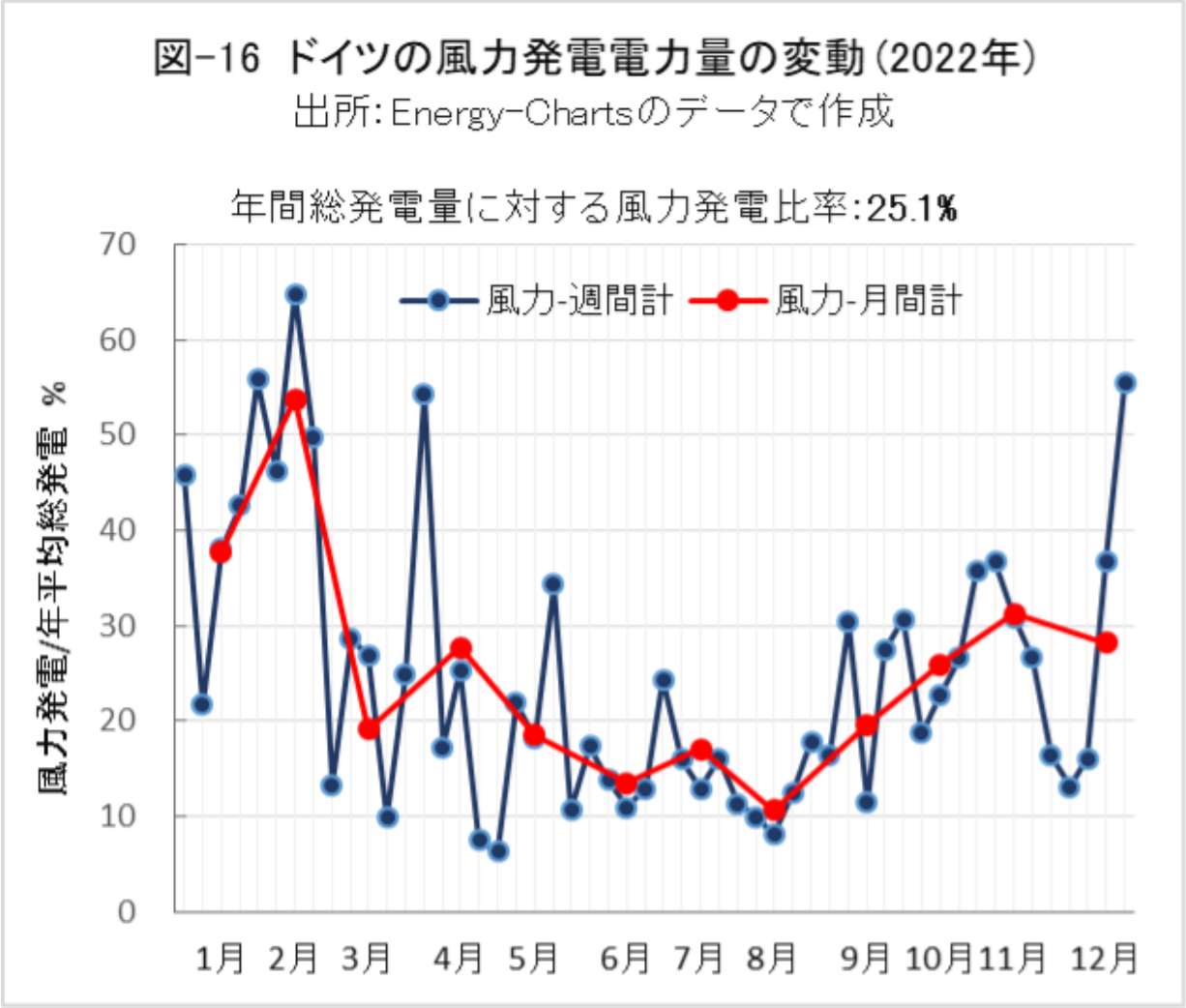


?17??12%??????????????1?23%????????????????????????
????????????????????0.1?2.0?????????????

??0.14??????????1.7?????????????

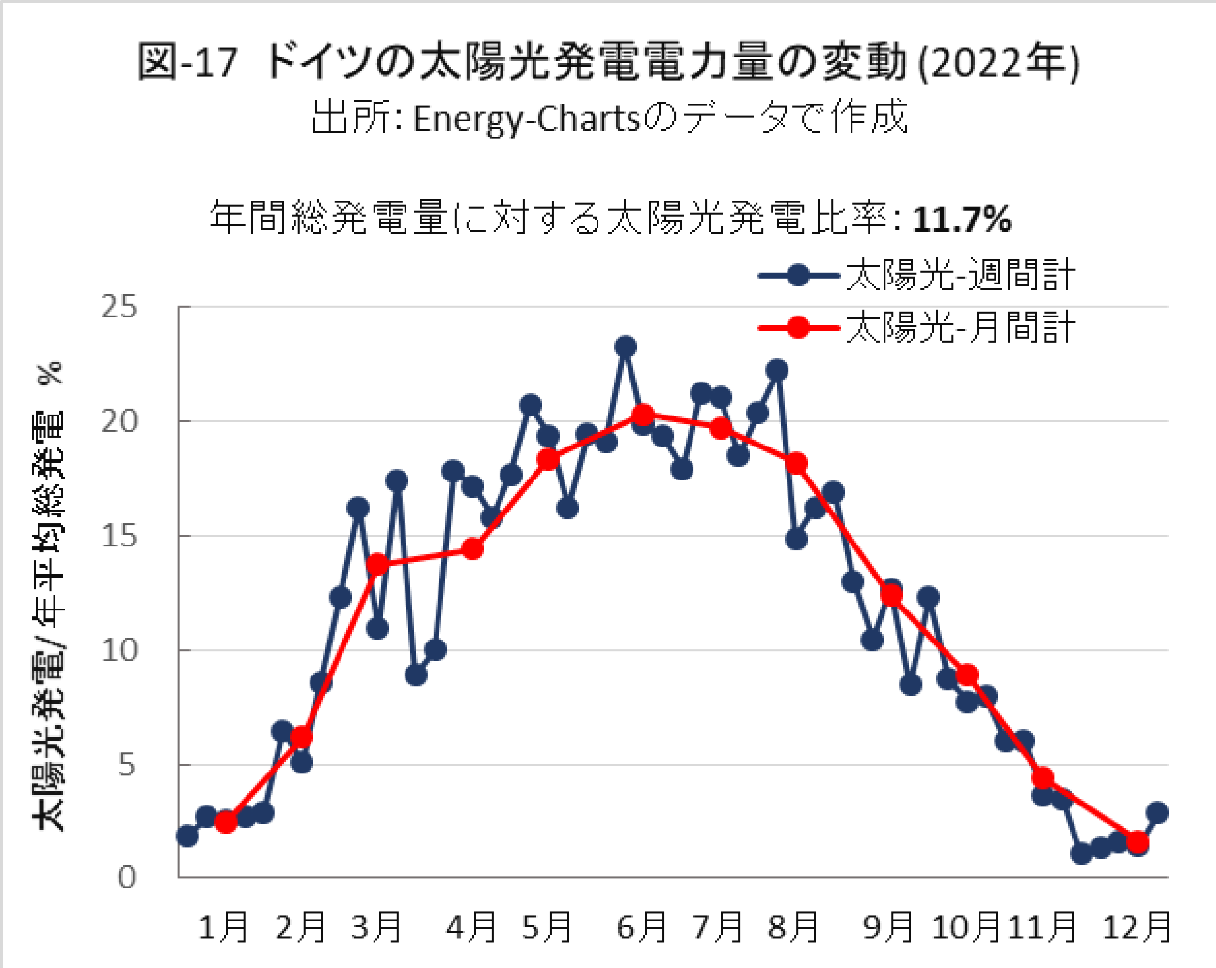
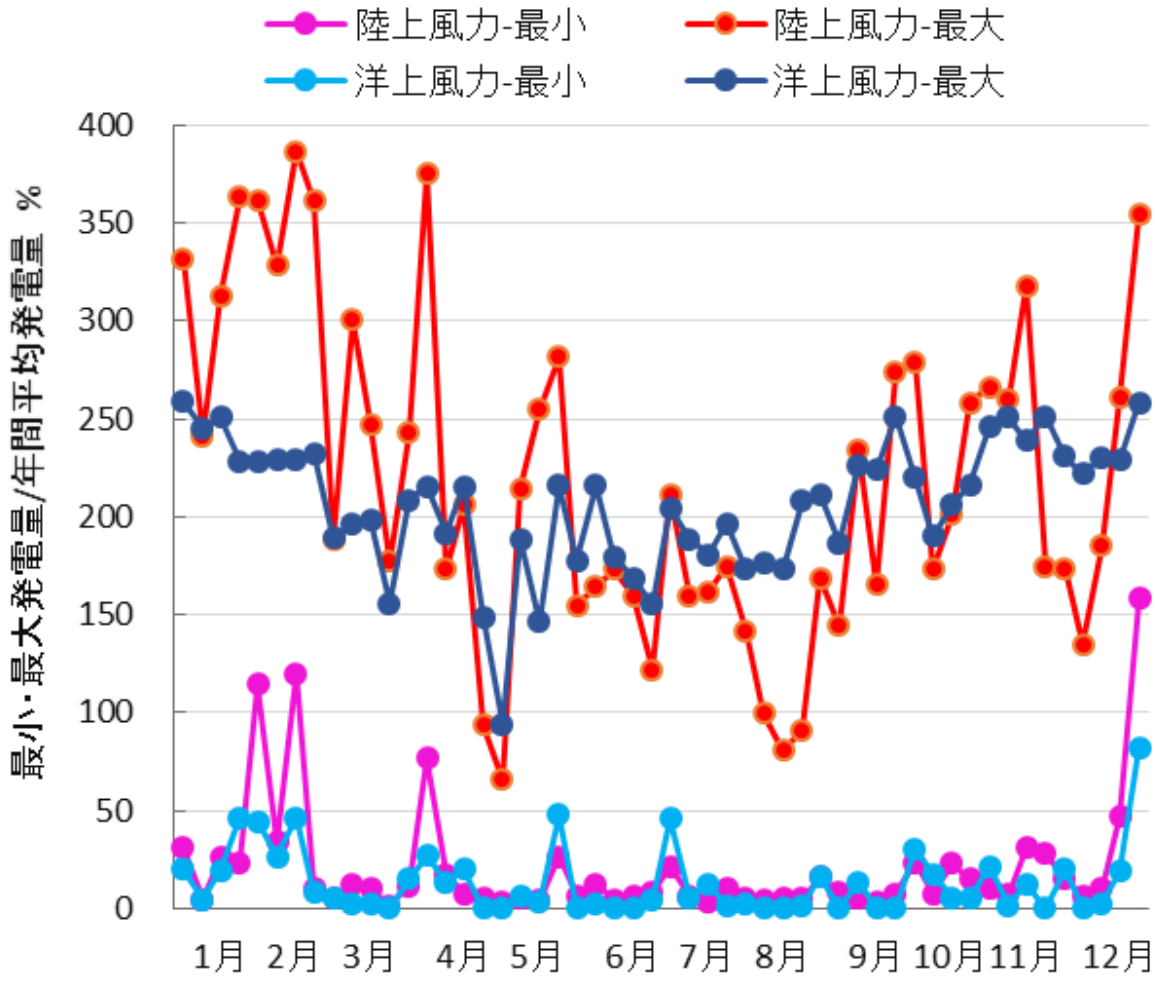


図-17 ドイツの太陽光発電電力量の変動 (2022年)
出所: Energy-Chartsのデータで作成
年間総発電量に対する太陽光発電比率: 11.7%
太陽光-週間計
太陽光-月間計
太陽光発電/年平均総発電 %
25
20
15
10
5
0
1月 2月 3月 4月 5月 6月 7月 8月 9月 10月 11月 12月

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

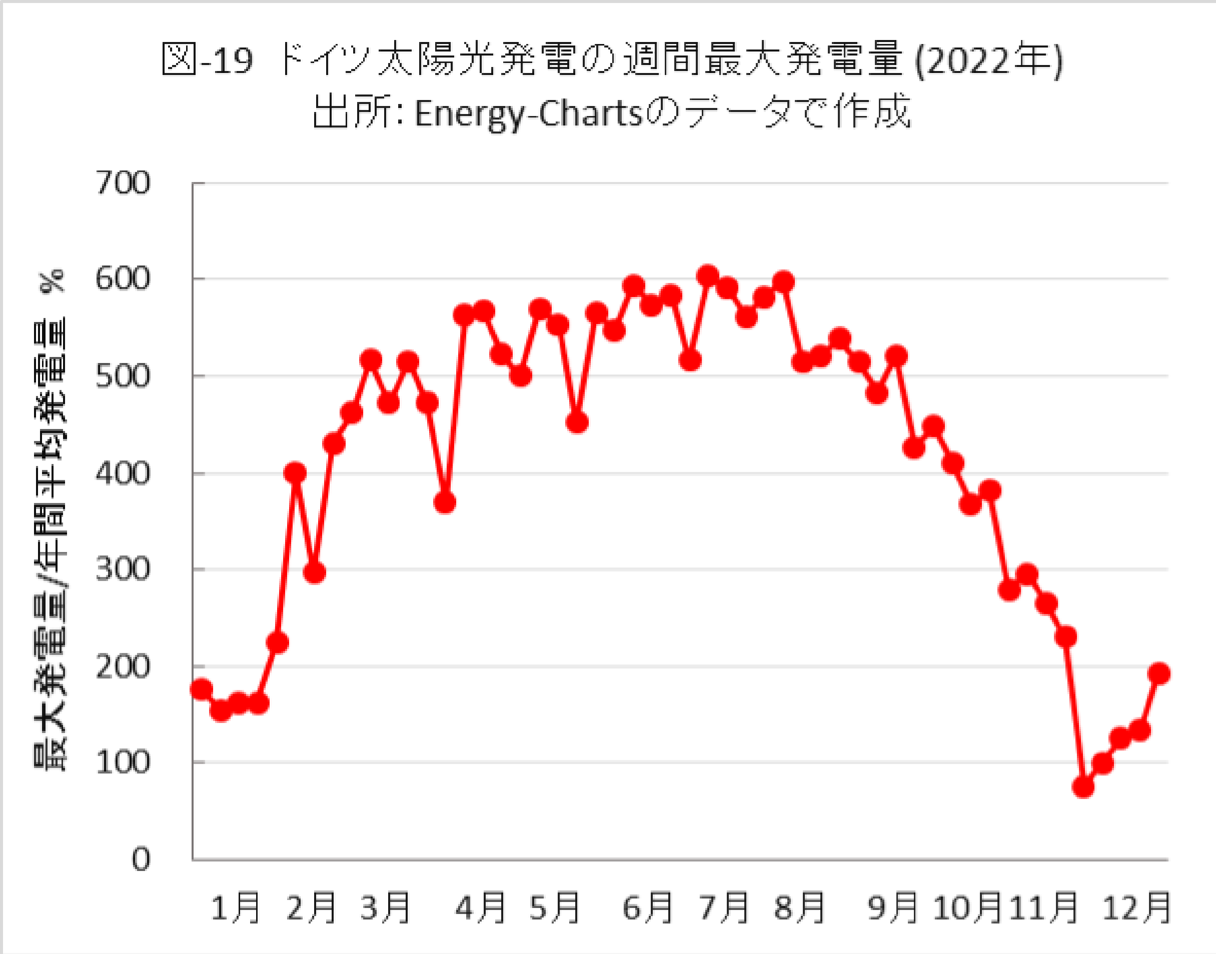


図-19 ドイツ太陽光発電の週間最大発電量 (2022年)
出所: Energy-Chartsのデータで作成
最大発電量/年間平均発電量 %
700
600
500
400
300
200
100
0
1月
2月
3月
4月
5月
6月
7月
8月
9月
10月
11月
12月

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???20??21??2022???Q&A????????

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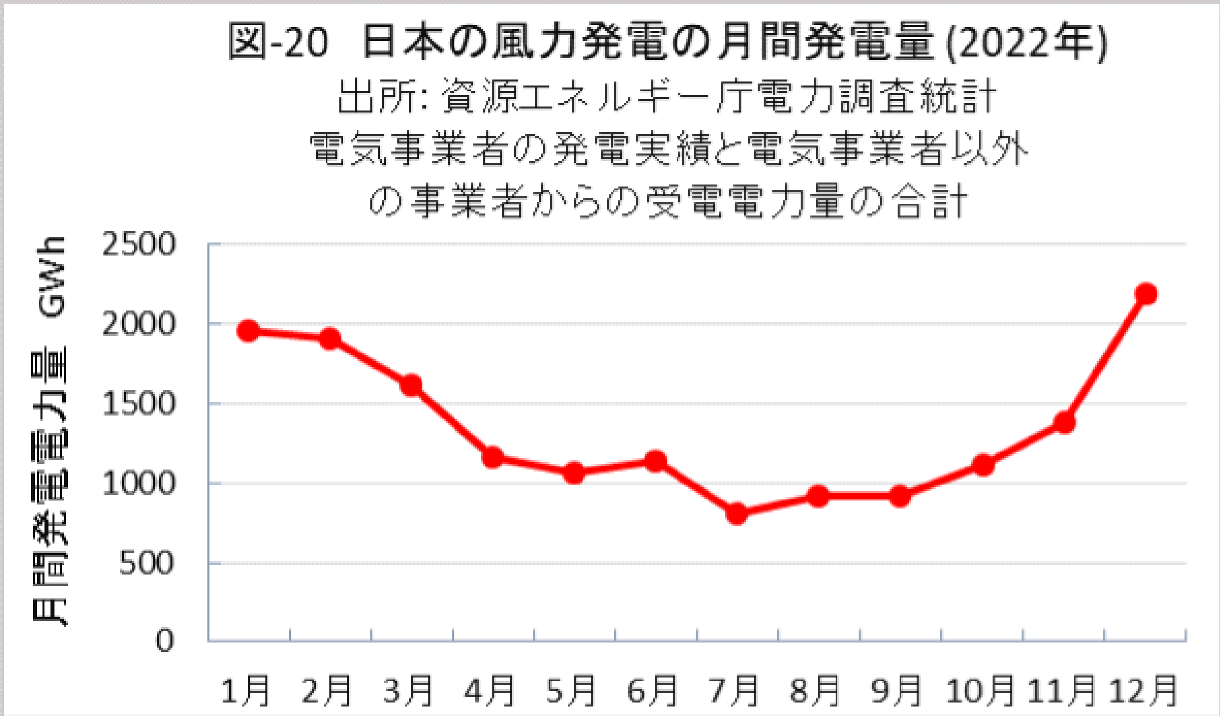
図-20 日本の風力発電の月間発電量 (2022年)
出所: 資源エネルギー庁電力調査統計
電気事業者の発電実績と電気事業者以外
の事業者からの受電電力量の合計
月間発電電力量 GWh
2500
2000
1500
1000
500
0
1月 2月 3月 4月 5月 6月 7月 8月 9月 10月 11月 12月

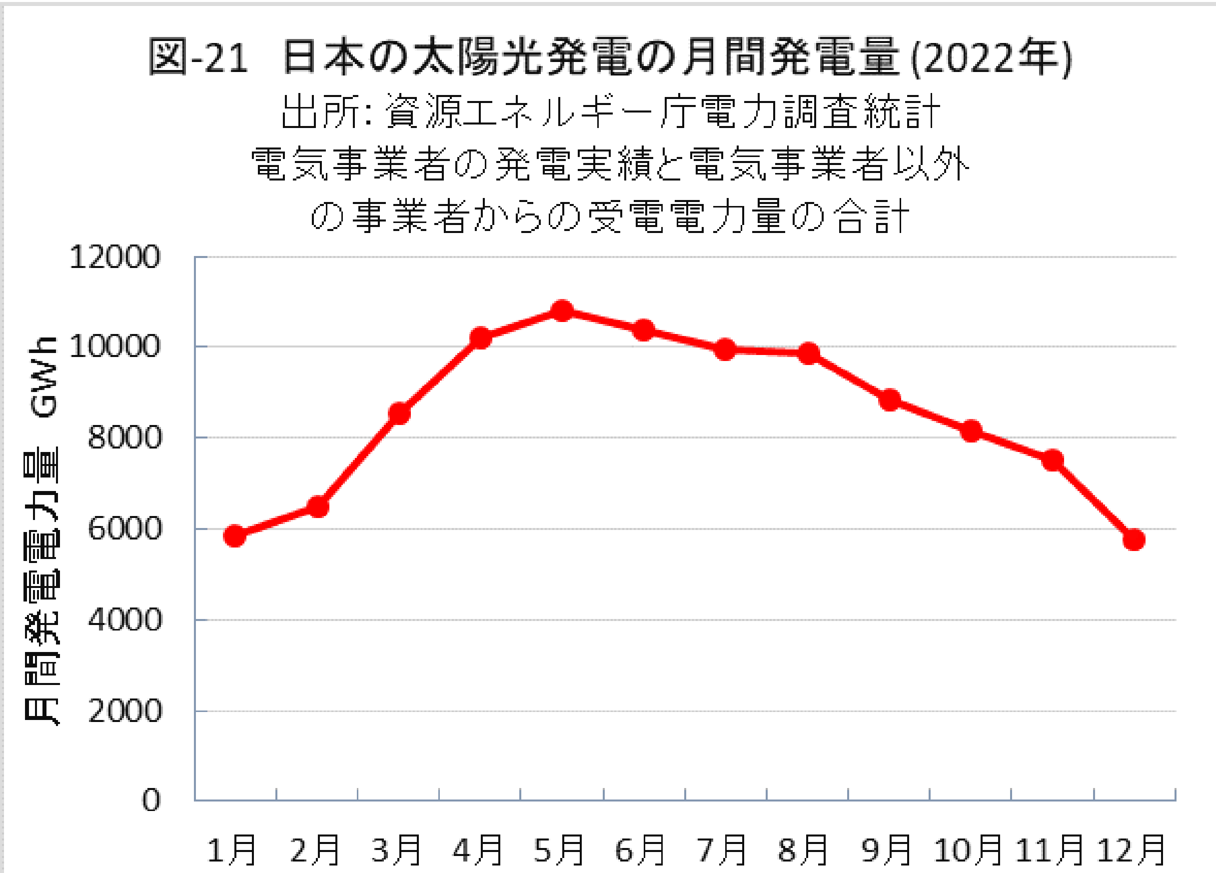
図-21 日本の太陽光発電の月間発電量 (2022年)
出所: 資源エネルギー庁電力調査統計
電気事業者の発電実績と電気事業者以外
の事業者からの受電電力量の合計
月間発電電力量 GWh
12000
10000
8000
6000
4000
2000
0
1月 2月 3月 4月 5月 6月 7月 8月 9月 10月 11月 12月

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

EV?????1?750????????????

?? ?? · Friday, December 8th, 2023

Andrii Yalanskyi/iStock

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2021???????EV?10???????????????????????50000??????48698?????????????1??150???????750????

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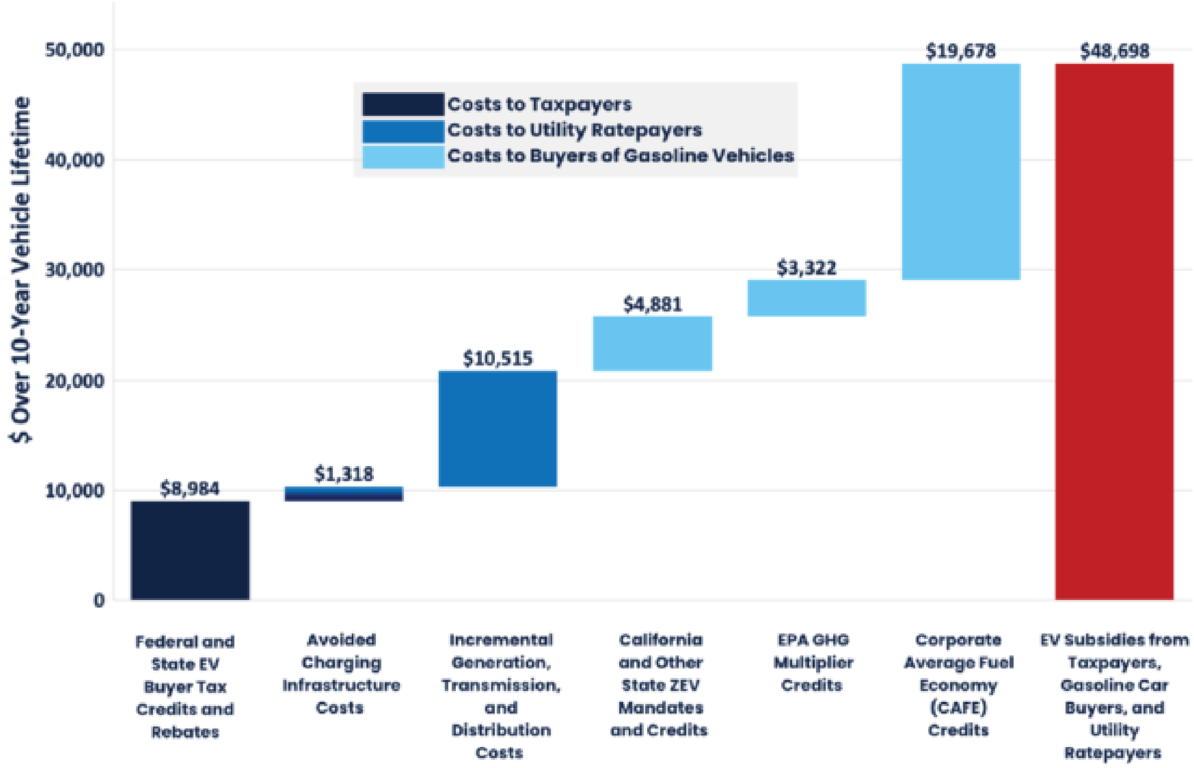
- ????????????????????????????????10515????1318????????????
- ???4881+3322+19678= 27881???????

Figure 1(a)

Subsidies and Regulatory Credits Accrued by a MY2021 Electric Vehicle Over 10 Years



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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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> ?????????????1???????3.4???27?????????????????????????
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> ?????26?????24????????????????170.2??3.2?
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> GX???CO2?????????????????????
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> 2020?6????????????CO2??2020?6?17?????????????????????????????????CO2???? ??CO2??3??1?????????2??1??????????? ??? ??????????????2030??????????????????1990?????????????????????????????????????? ????????????

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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????????????????????[?1?]?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)

????CO_2????????????????????fake science????????????R. Newell????????IPCC???????????R. Cess?????CO_2??????????????S. Schneider?J. Hansen? M. Schlesinger?T. Wigley?????????????????????????????

R. Cess?????????????????????????????CO_2?300ppm??600ppm???????????????????3??2????????1.5?????????????????????????????

??????1???????CO_2??2005???CO_2???????2??????????????????????2006?????????????????????????????

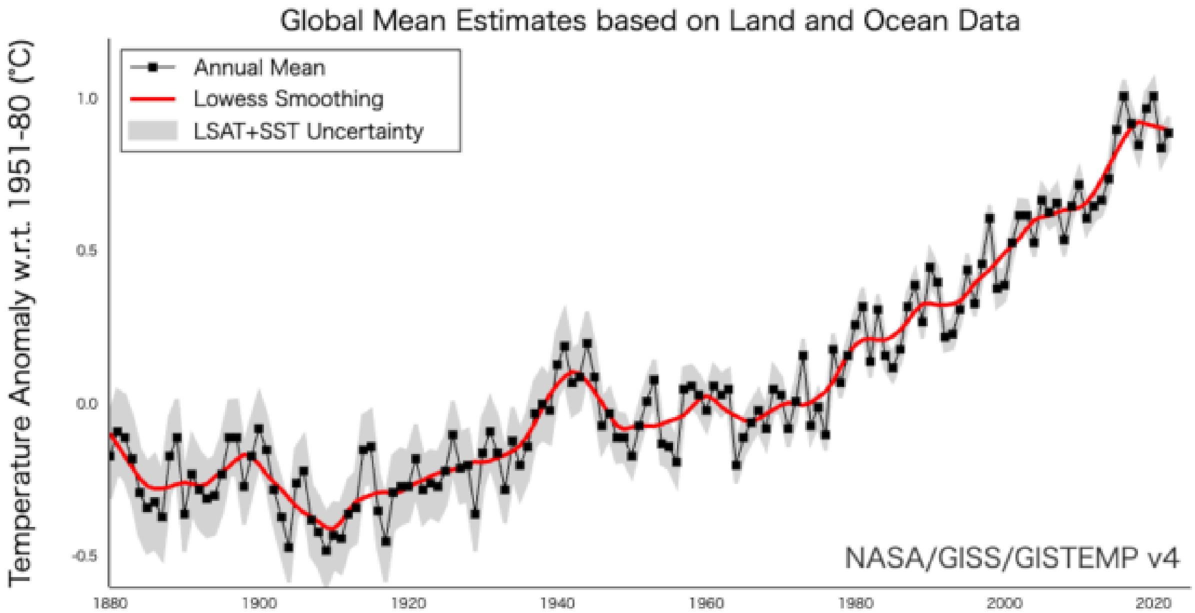
????????????????????????????????Green New Deal???Clean Power Plan??????2015??????????????????????EV?????????????????????????2050?Net Zero??????????????????????2020?10????????2050?Carbon Neutral?????????

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

CO_2?????????????????????NASA GISS??????IPCC?WMO?NOAA???????????????NASA GISS?Director?1981-2013?????J. Hansen??????G. Schmidt????????????????????????

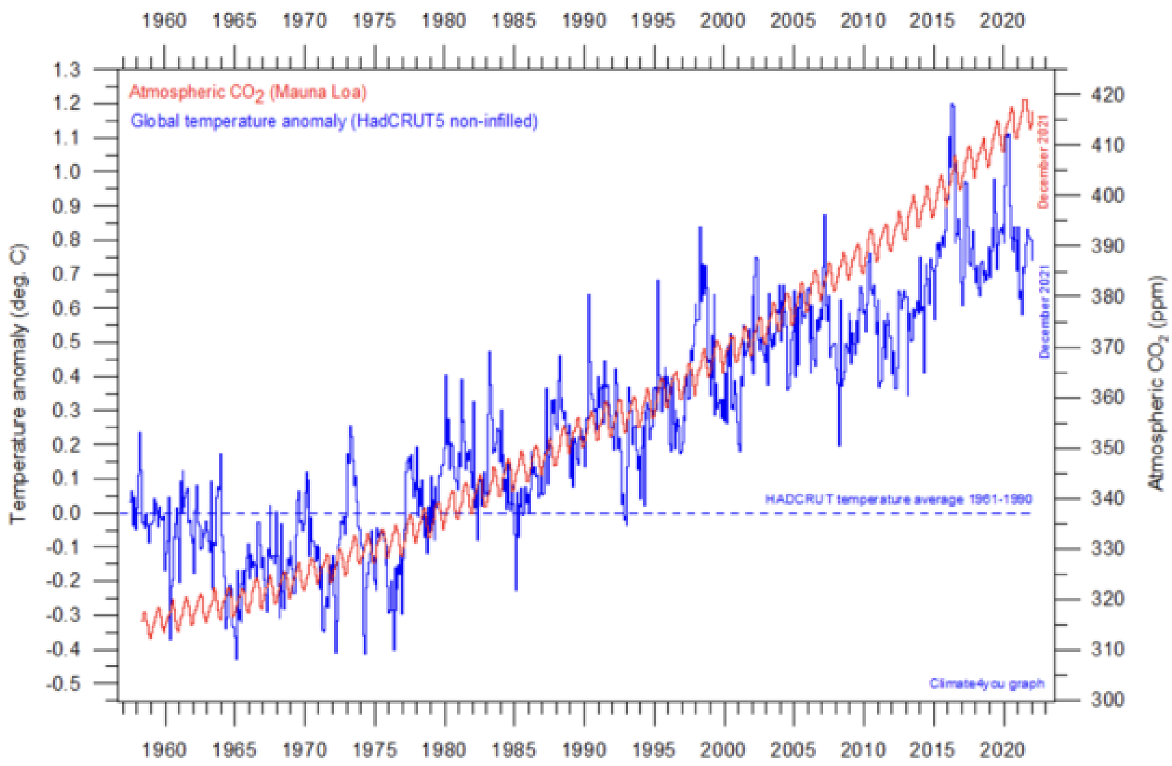
J. Hansen?1988??????????????????????????????????99?CO_2??

https://realclimatescience.com/overwhelming-evidence-of-collusion/

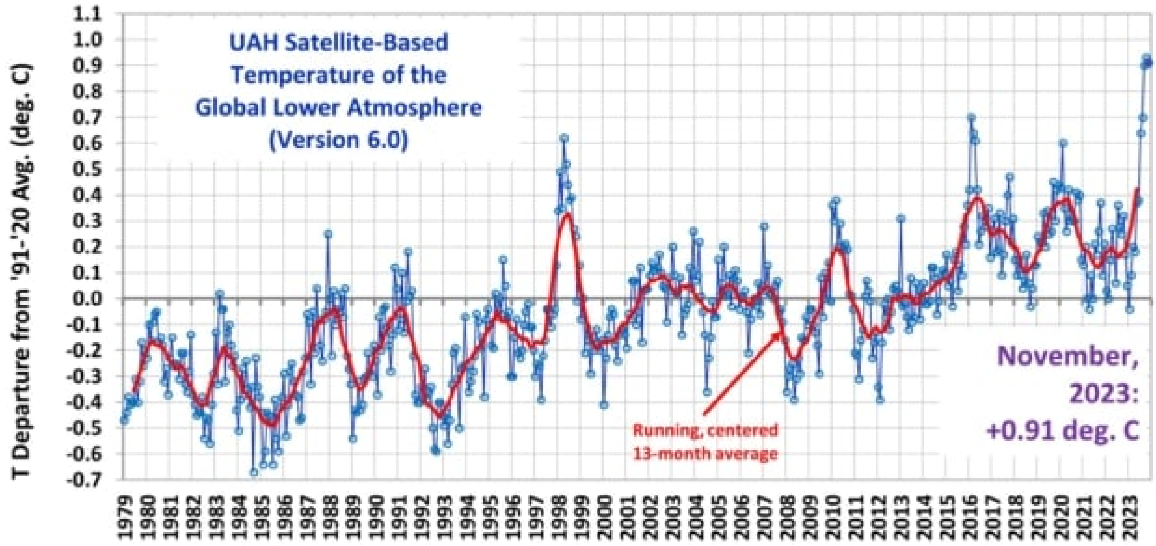


Data.GISS: GISS Surface Temperature Analysis (GISTEMP v4) (nasa.gov)

? ? ? 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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2??????????????????????????????????????
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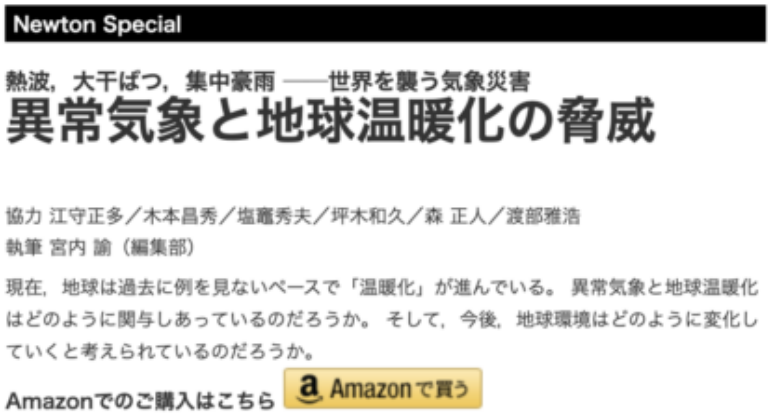
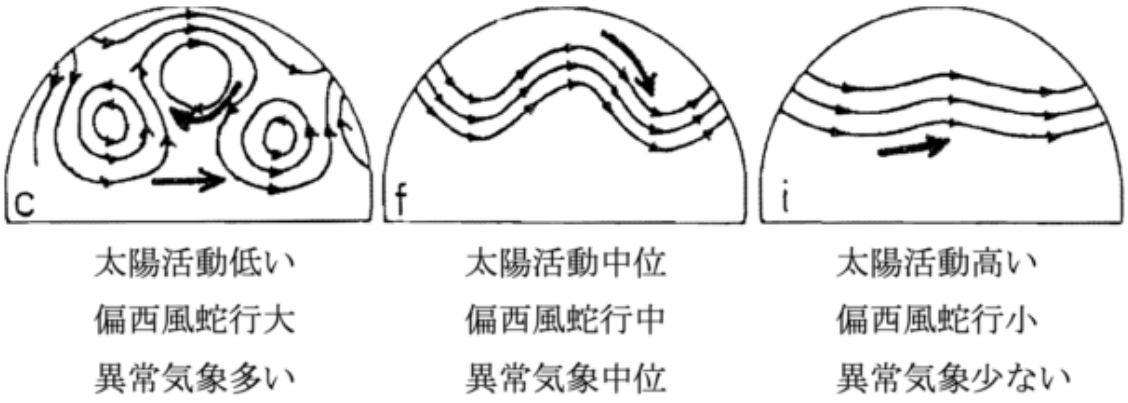


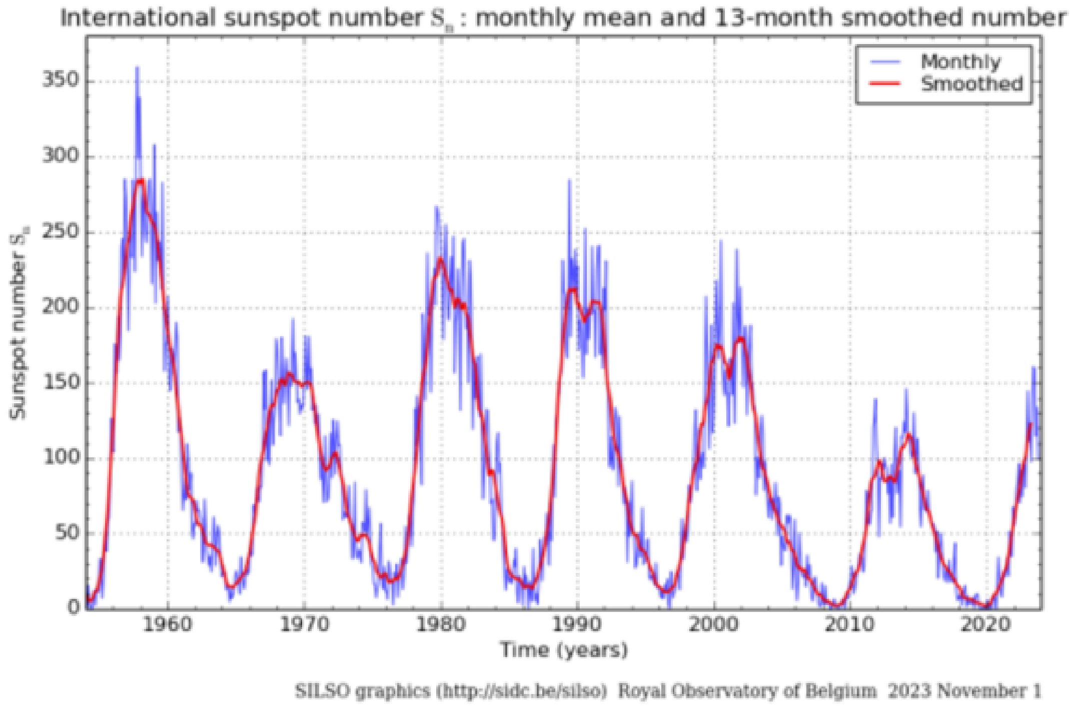
Newton ????????

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



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

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



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

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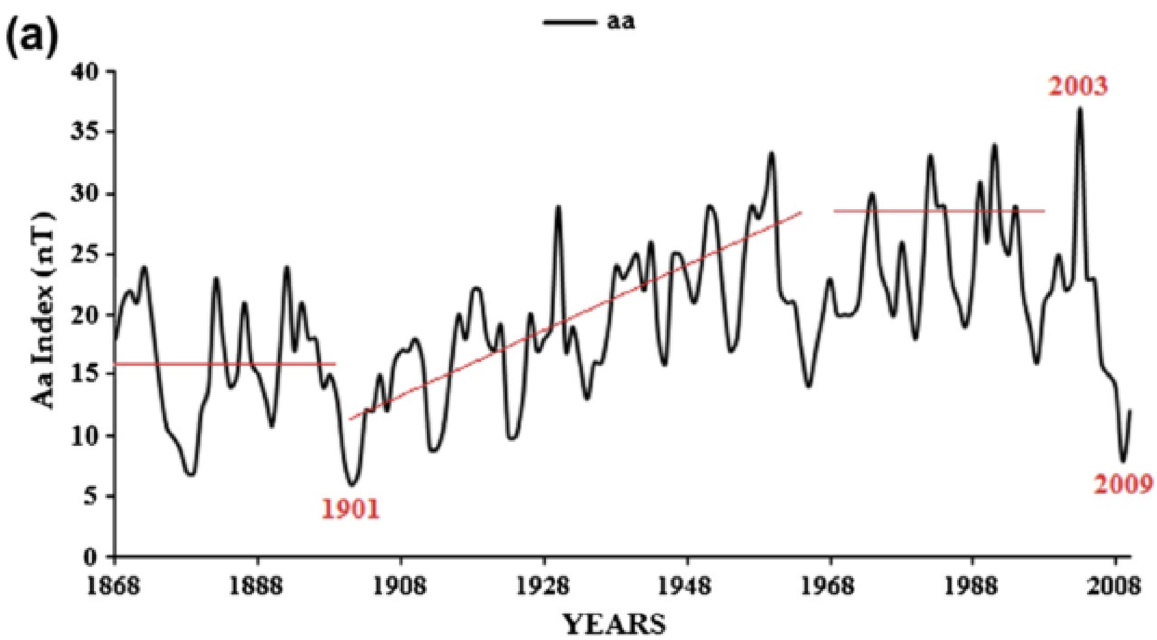
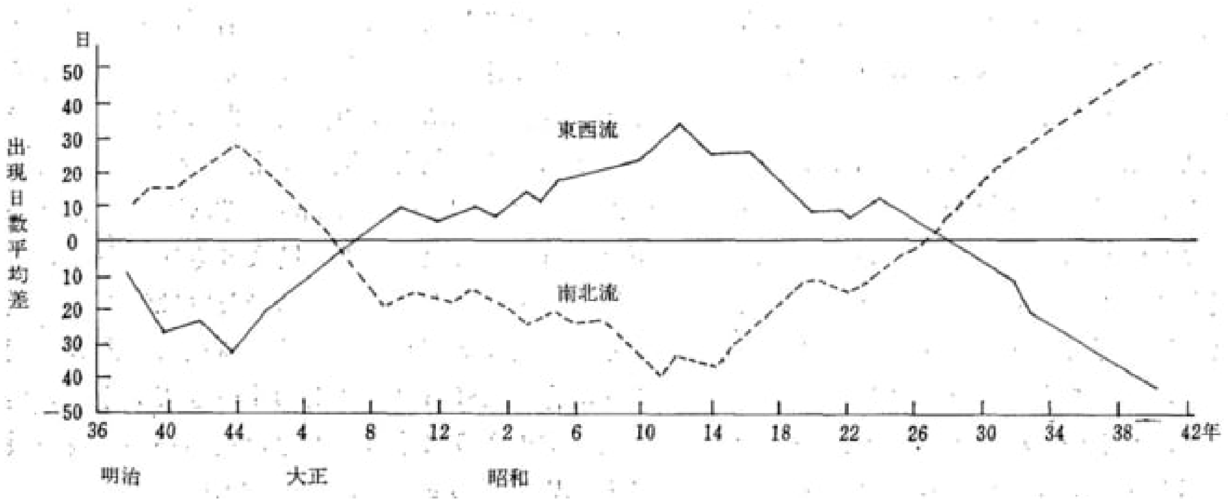


??????Zebro, J-L et al., Journal of Adavanced Research (2013),4, 265-274

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

?????????????????????1951??????????1910?2000???????????????1960?1980??1975??????????????????Bucha??????????

??1918????????1952????cycle20?????????????????????



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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???????????????????????????7?????9?????

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

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2006??	?????18???????????
2010??	????????
2010??	??????????????????????????????
2012??	??????????????
2013??	?????
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2014??	????????????????????????
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2016?	?????
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2017??	????????????????
2018??	??????????????????
2019??	???????????
2019???2020?2?	????????????????????
2021??	???????????????
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2022?1?	?????????50.7???
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2023?? ???????????????????????????

4. ??

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

CO_2?????1979????????

????IPCC???????????CO2???

??EV????EV???????550?????????????1??CO2???????????????????????????????

COP28???????CO2???

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?1?

1985??????????DOE????Lawrence Livermore???????
DOE Report: PROJECTING THE CLIMATIC EFECTS 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

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

?????????

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

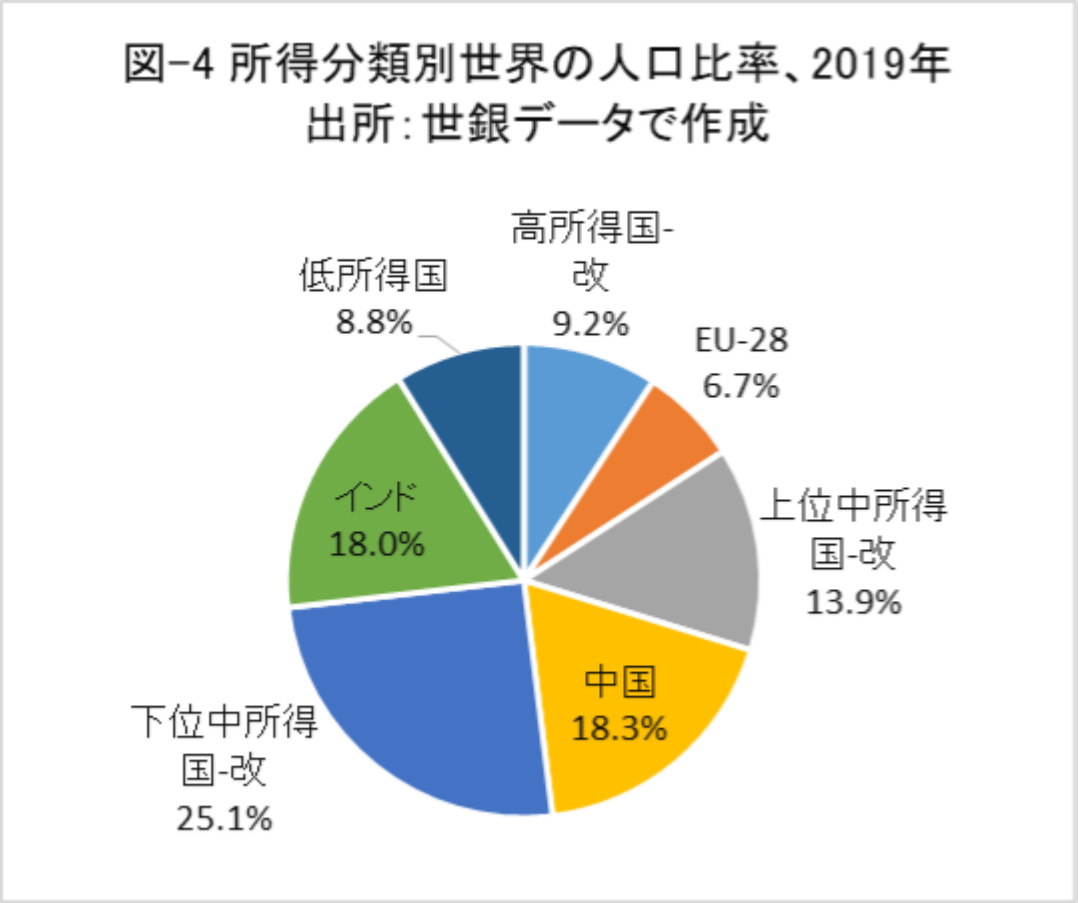
表-1　世界銀行データベースの所得分類
(2021-2022年)

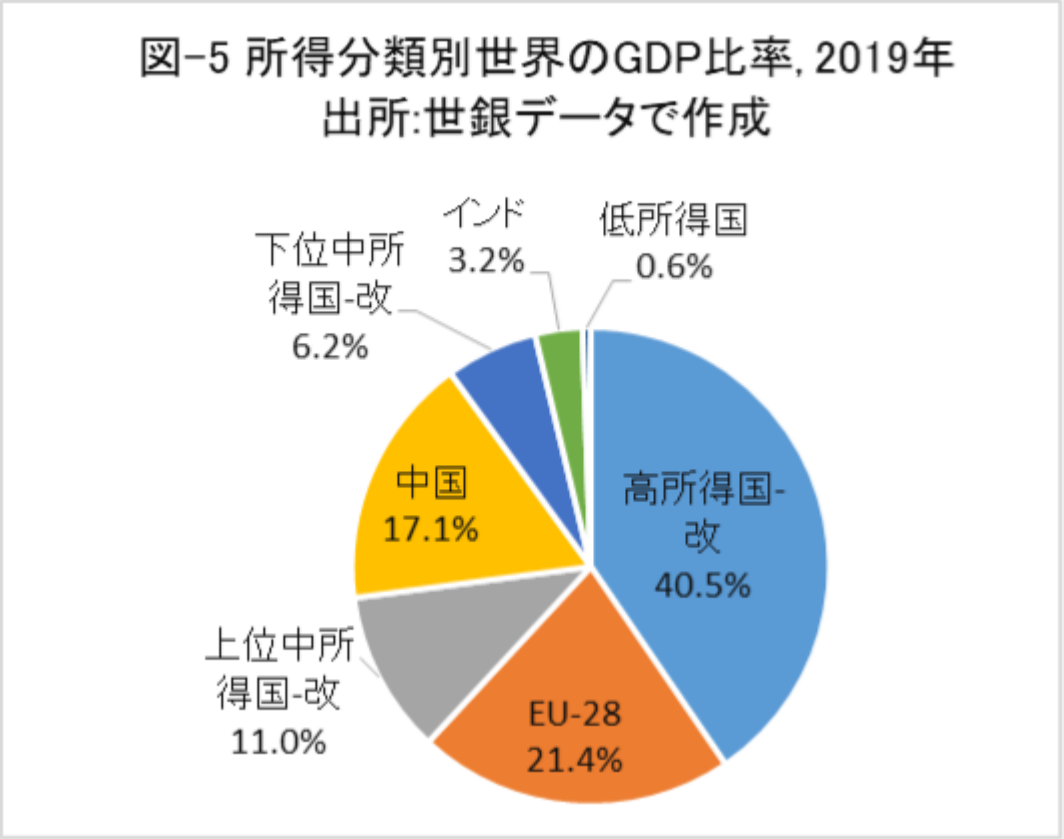
所得グループ	所得範囲 (1人当り名目GNI、US$)
高所得国	＞12,695
上位中所得国	4,096-12,695
下位中所得国	1,046-4,095
低所得国	＜1,046

??????EU-28??

EU-28??

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





?????GHG???

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

?????????????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????????????GHG??????????GDP???????????????

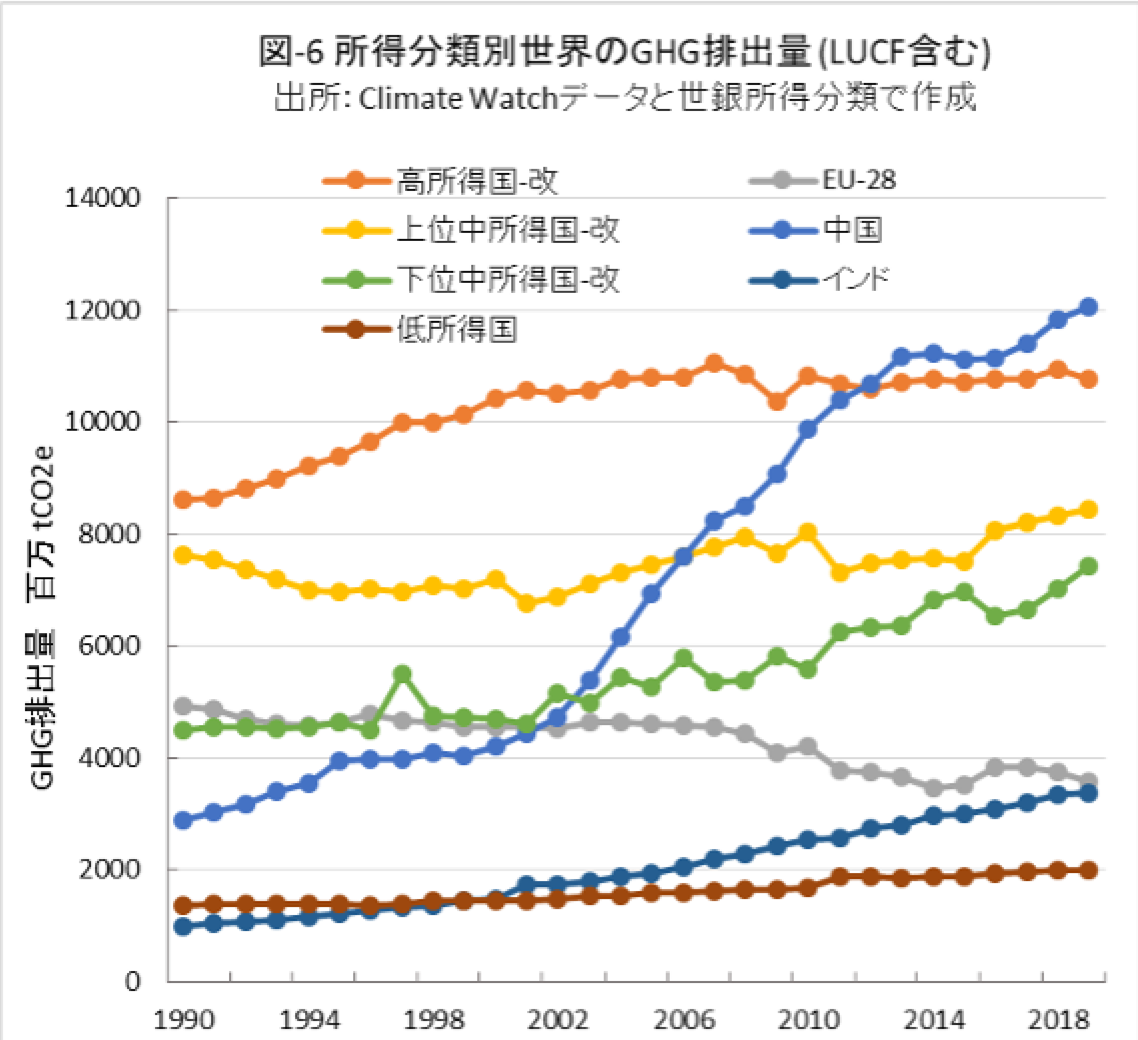
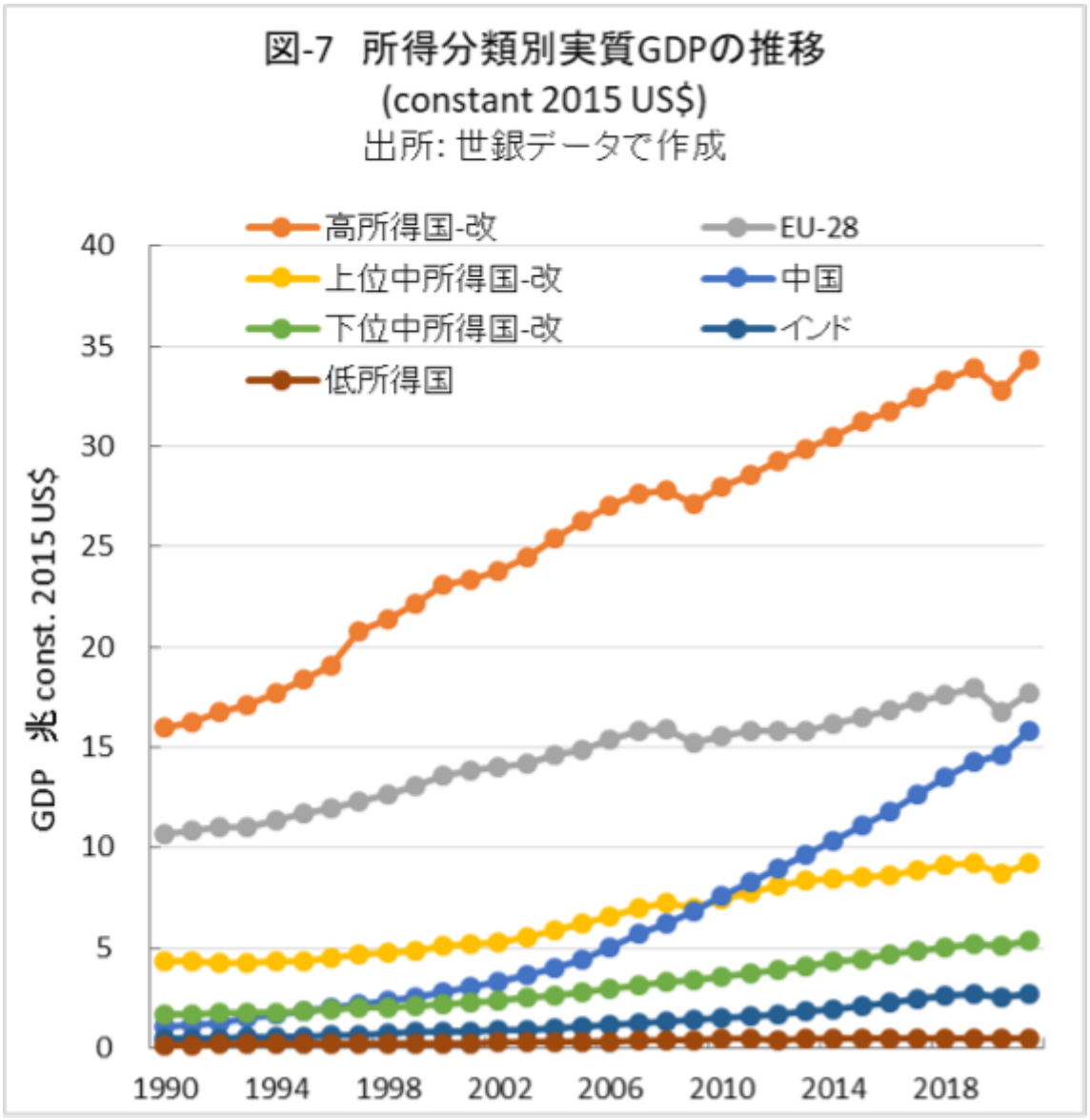
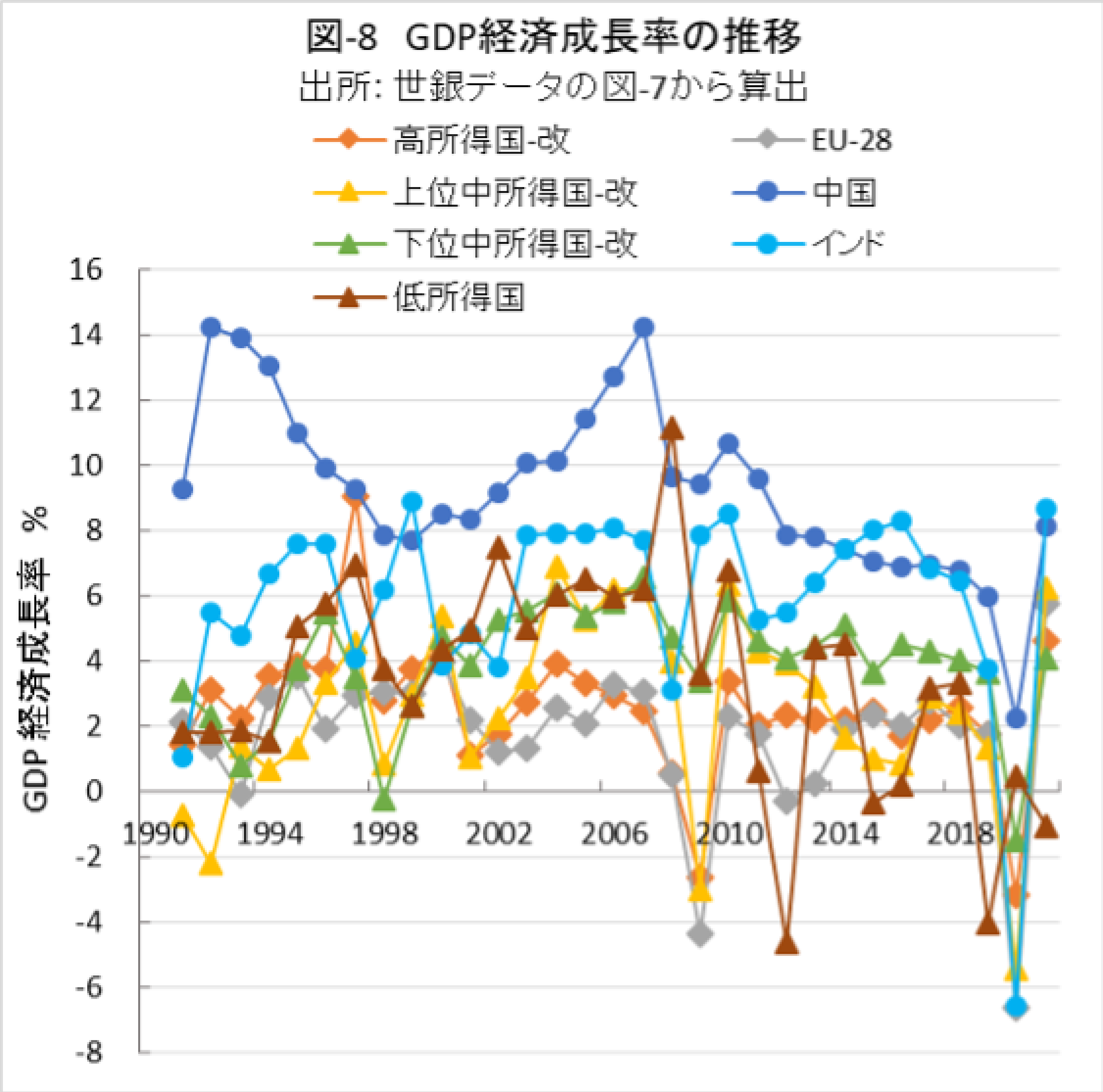


図-6 所得分類別世界のGHG排出量(LUCF含む)

?7????????GDP?????8??GDP????????GDP??
?





???????????????????????????????? -
??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???????????????
????????????????-??????????????

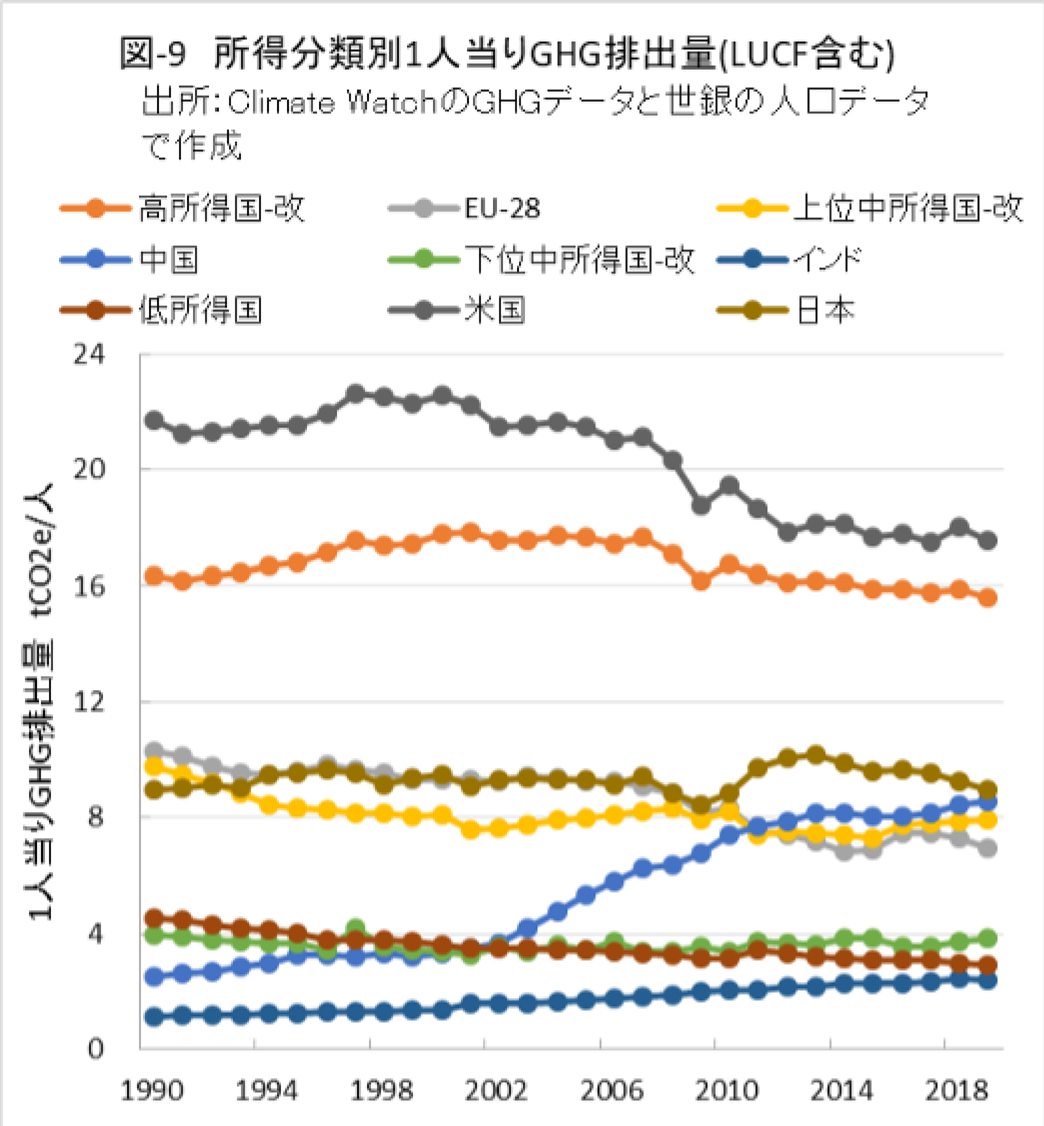
????2%?????????????GHG????GHG??????????EU-28????????GHG???????????????????????????
???4?5%??????????????????????????????GHG??????GHG??????????????????????????????GHG??
?????????????????

1???GDP?GHG

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

?????????1?????GHG????????????????1???????GHG????????????????????????????????????2???????
???GHG??????????????????????????????

?9?7??????1???GHG??????????????????????????????????10??1???GDP??????????



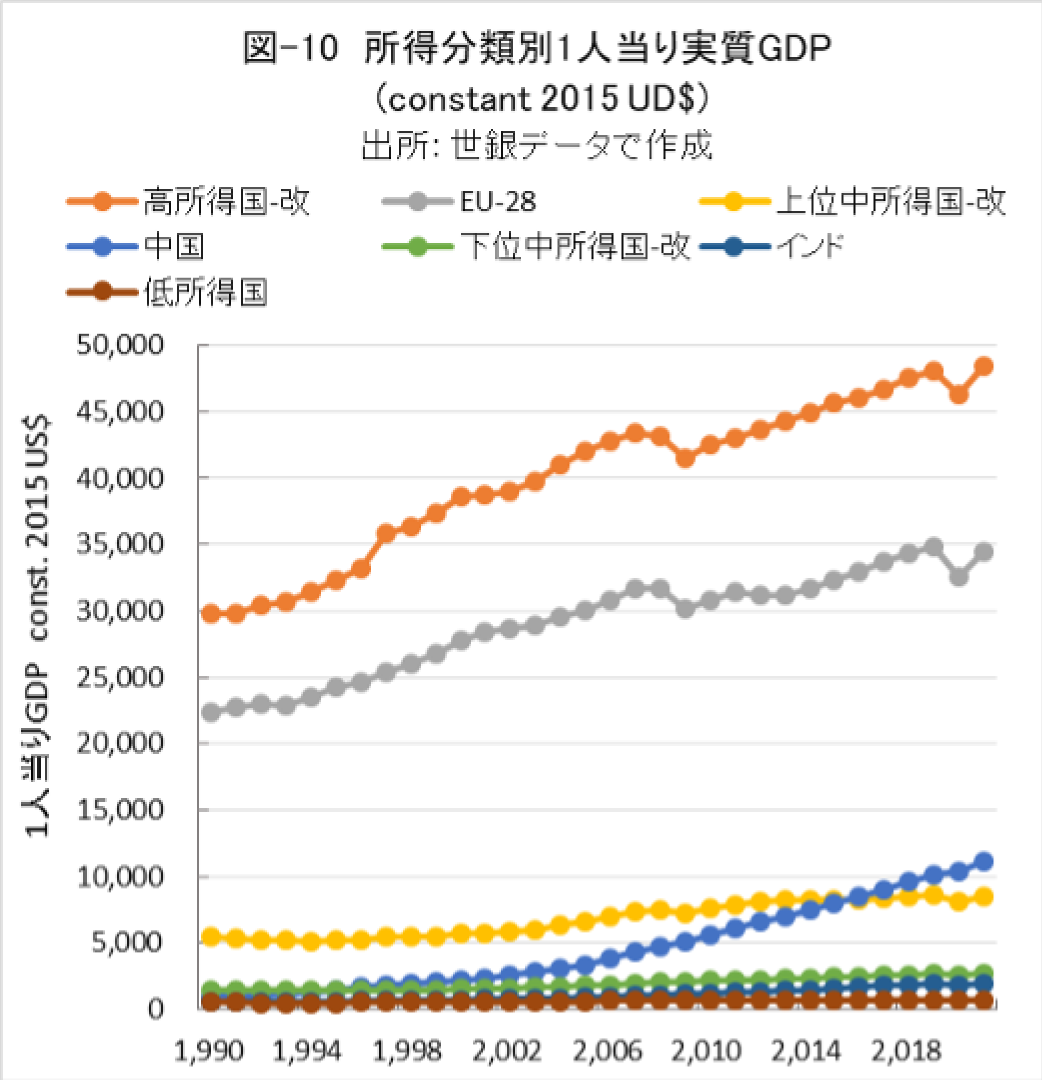


図-10 所得分類別1人当り実質GDP
(constant 2015 UD$)
出所: 世銀データで作成
高所得国-改
EU-28
上位中所得国-改
中国
下位中所得国-改
インド
低所得国
1人当りGDP const. 2015 US$
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1,990
1,994
1,998
2,002
2,006
2,010
2,014
2,018

1???GDP??1???GDP??? ????????11???????

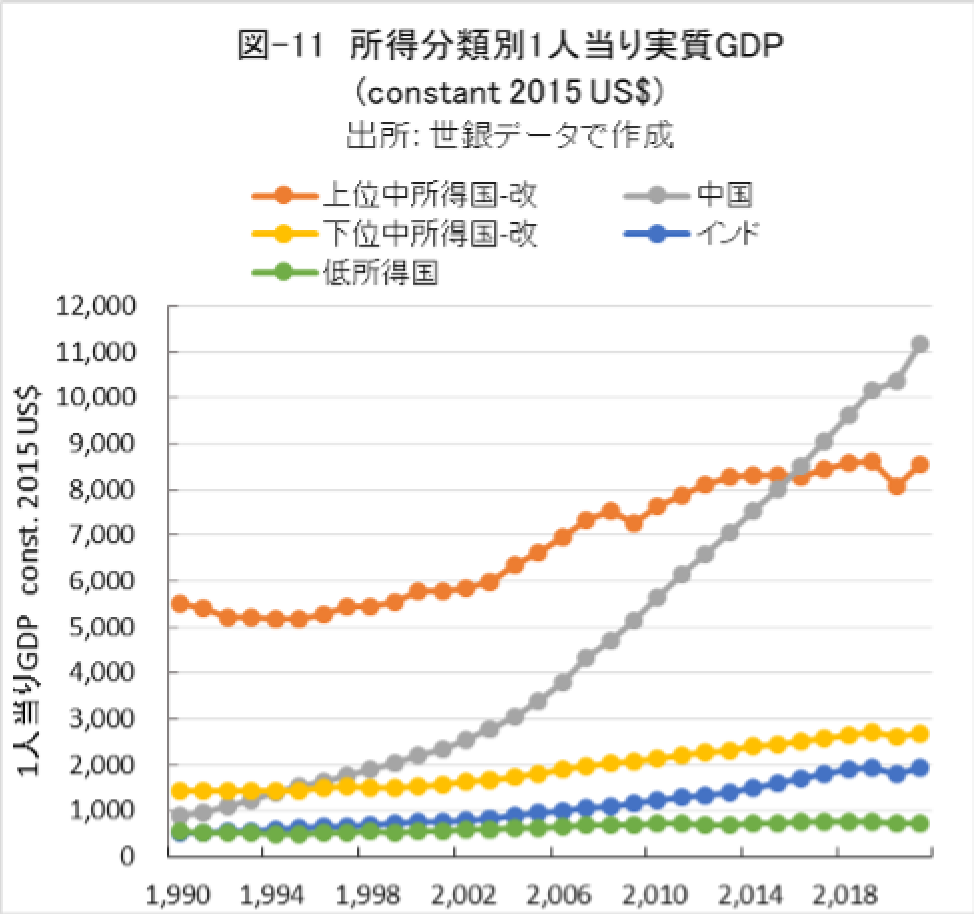


図-11 所得分類別1人当り実質GDP (constant 2015 US$)
出所: 世銀データで作成

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

GHG???????

????2020?????????????????????????????????????1????????3?????????1000????6????????????????
???

???????????GHG?????????-???????????????????GHG??????????????????????

?????2023????????????????????????10?1???GDP????????????????????1990???????????????????
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??GHG?
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?9??????????2000???GHG???
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????1990????GHG???????????????????????????????????????FIT???????????????????????GHG??
???????????????GHG????????????????

???GHG???

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

?12??1???GDP?????1???GHG??????????????????????9??10?1995?????????????????????????????????
?GDP???????????GHG??????????????????????EU-28?GHG??????????????????????GHG????????
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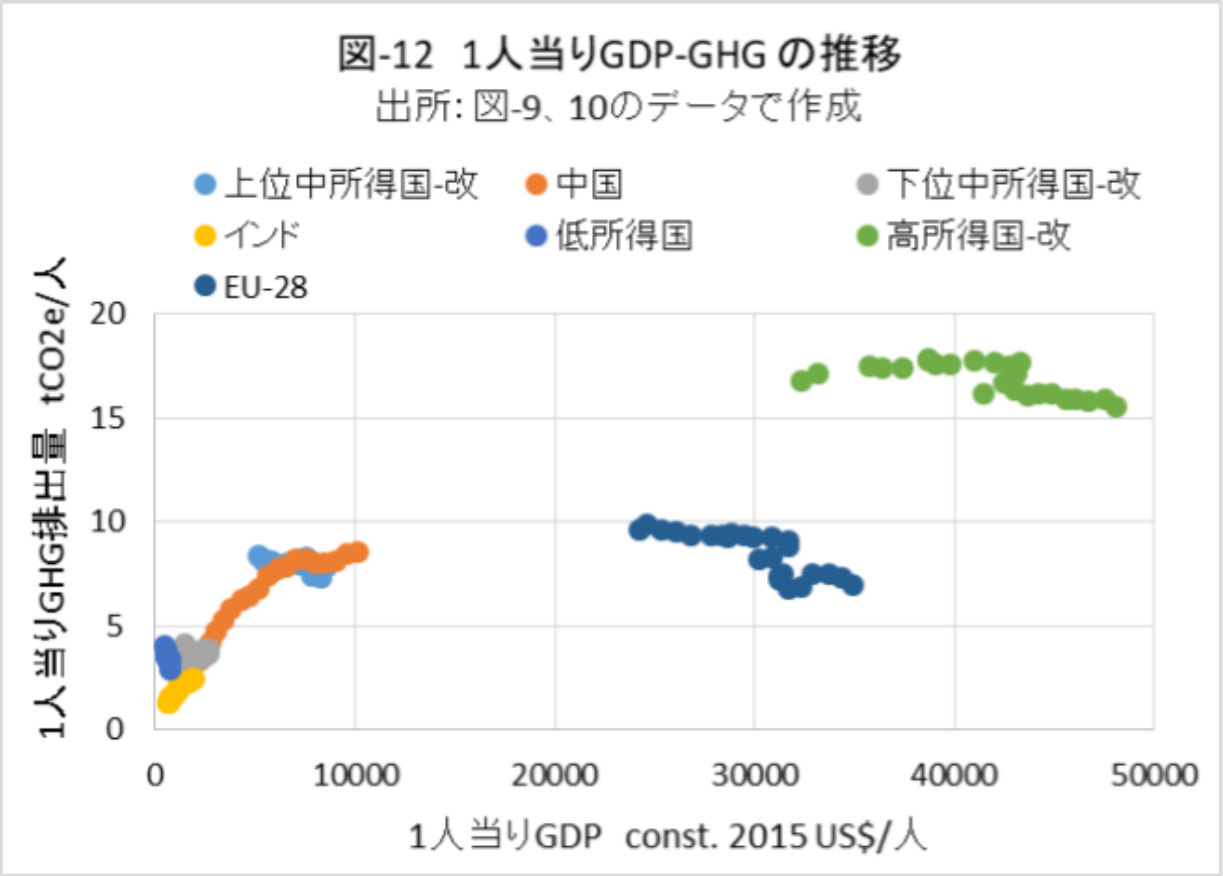
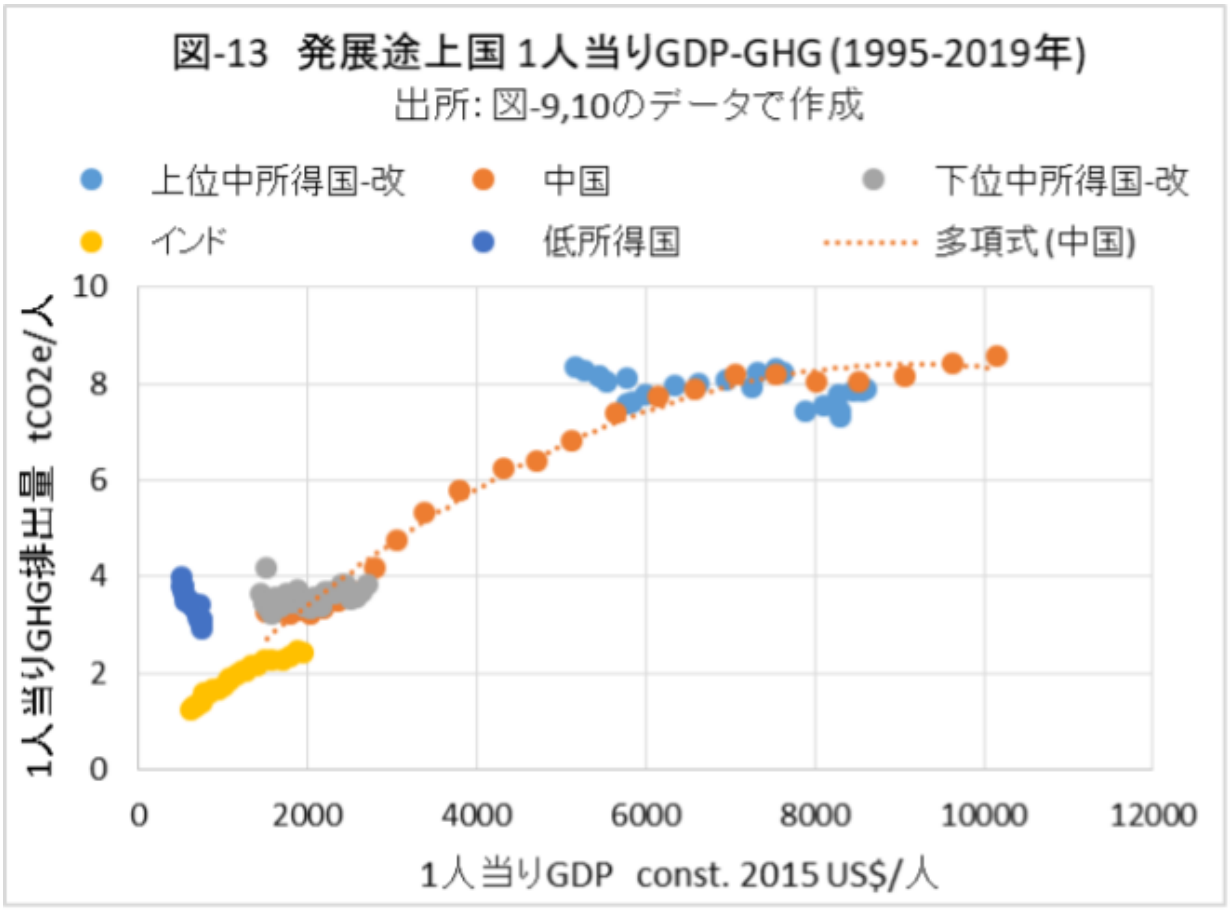


?13??GHG????
????????????



???????GHG???

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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. ??????

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

????

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

???

???

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

???????????2032?????????EV????????????????????????3800???????????????????????Request to Reconsider Proposed Regulations on Battery Electric Vehicles??????????????

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

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

???

?????????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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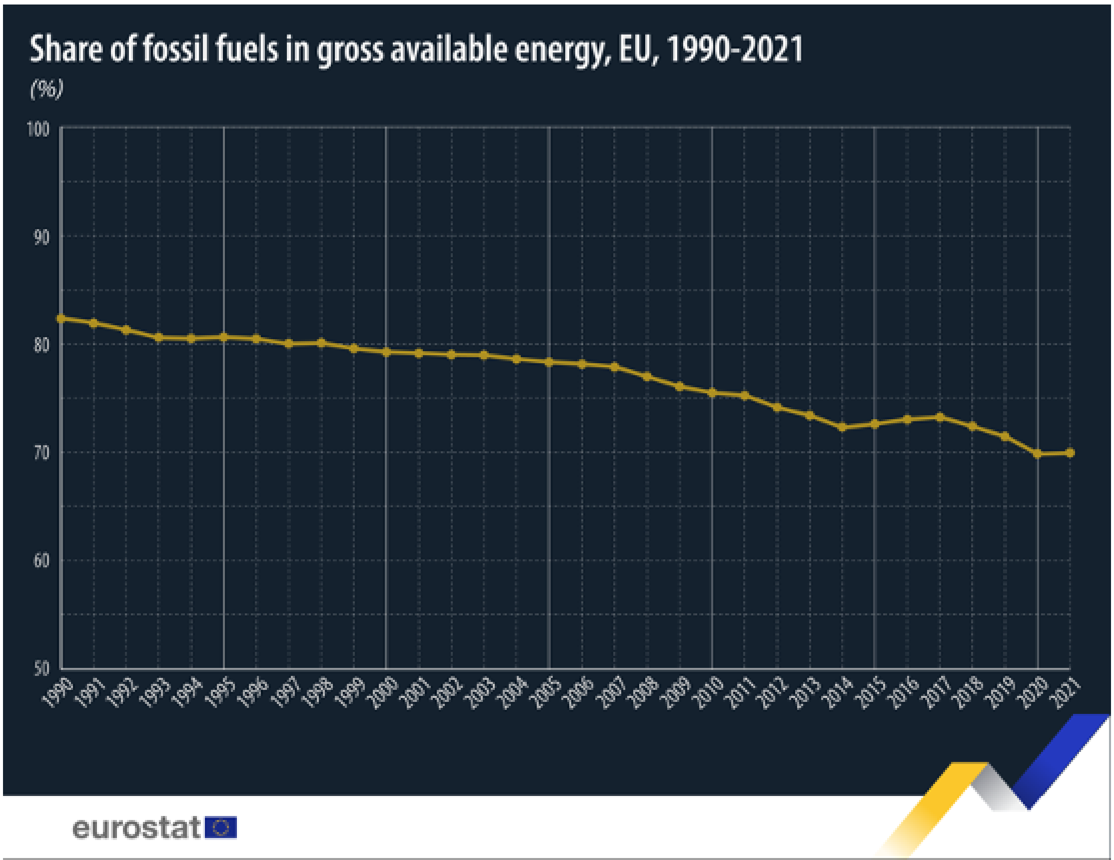
?? ???20?????????????????????????????????

?? ????

EU??

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



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

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

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

???????????????????????????????????????2006????CO2??????????65?????115????????????10??? ??????????100?????????????????????????????????????CO2??????????????25?????????

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

3. ???

??? ??

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

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GEPR??? · Monday, December 4th, 2023

deepblue4you/iStock

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

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

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

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

??5???

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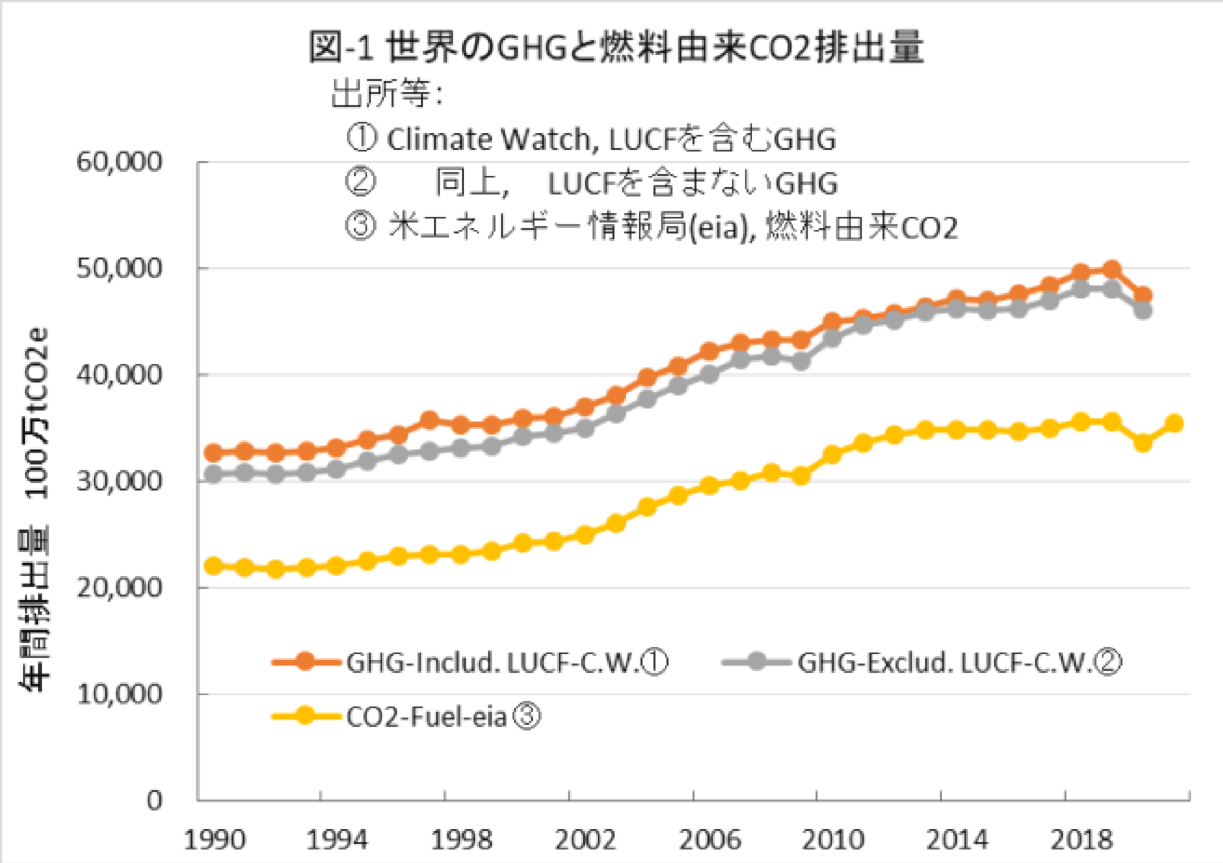
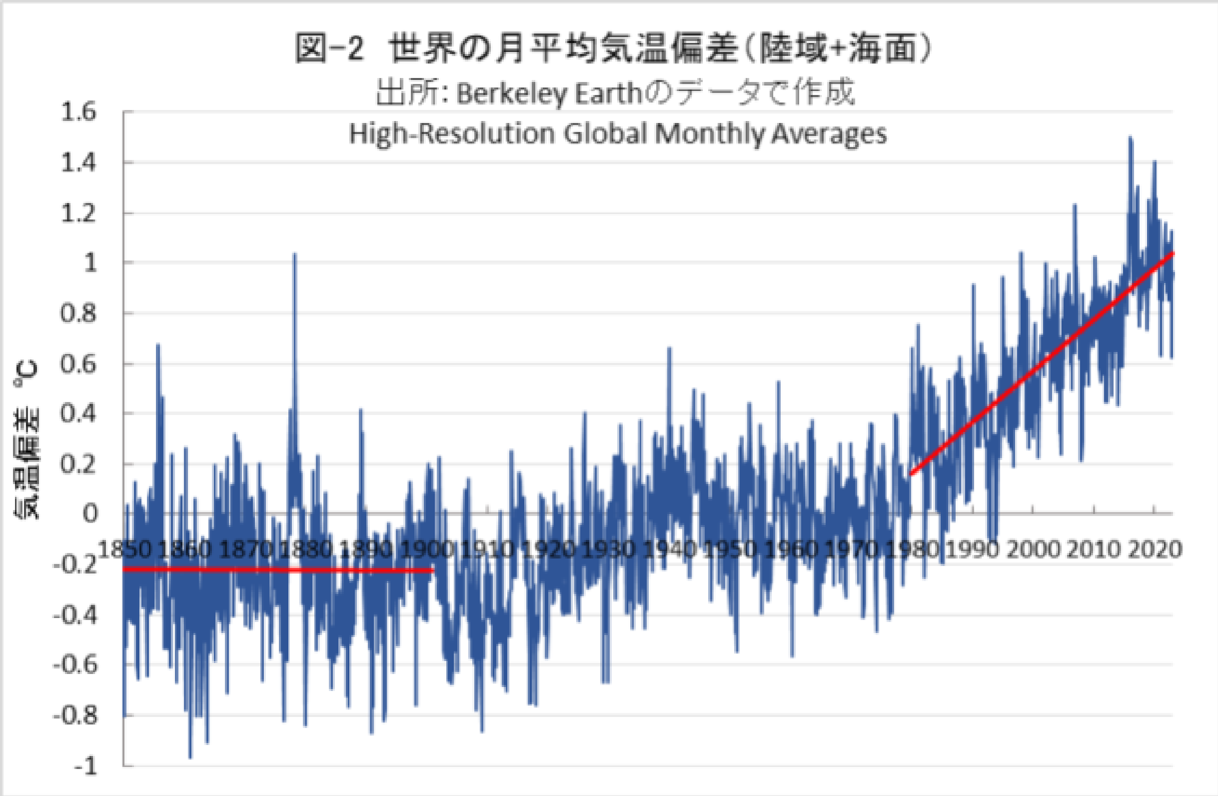
?1?????GHG?CO2??????????????GHG?Climate Watch??????LUCF?????????????????????????????????CO2??????????????eia??????????



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

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

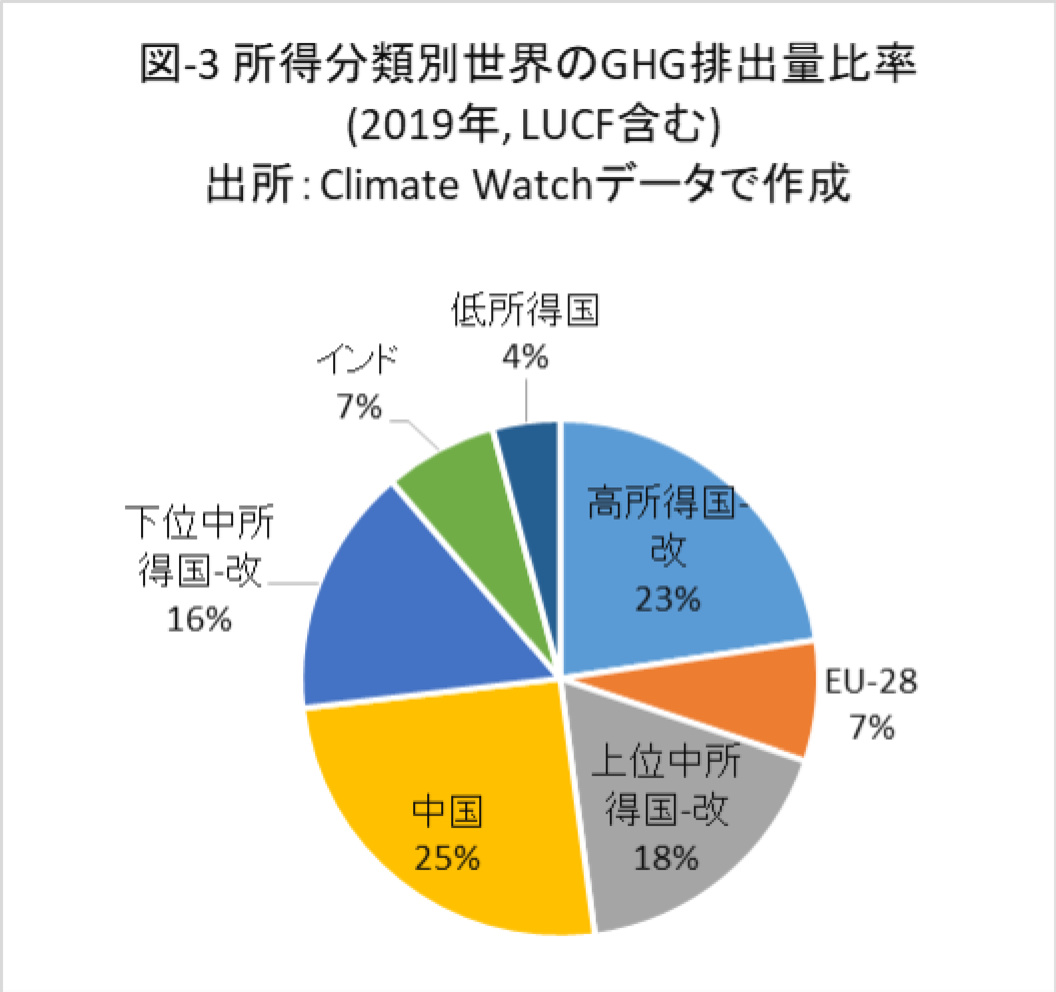
?2?????Berkeley Earth??????????????????????????????????1850?1900??1980?2022??????????????????????????



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

???????????????????????????????????GHG?????????????????????????2050?????????????????GH G????????????????????2060??????2070???????????????

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



?????????????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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9??

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

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

> ??????????SMR????????????

???SMR ???????

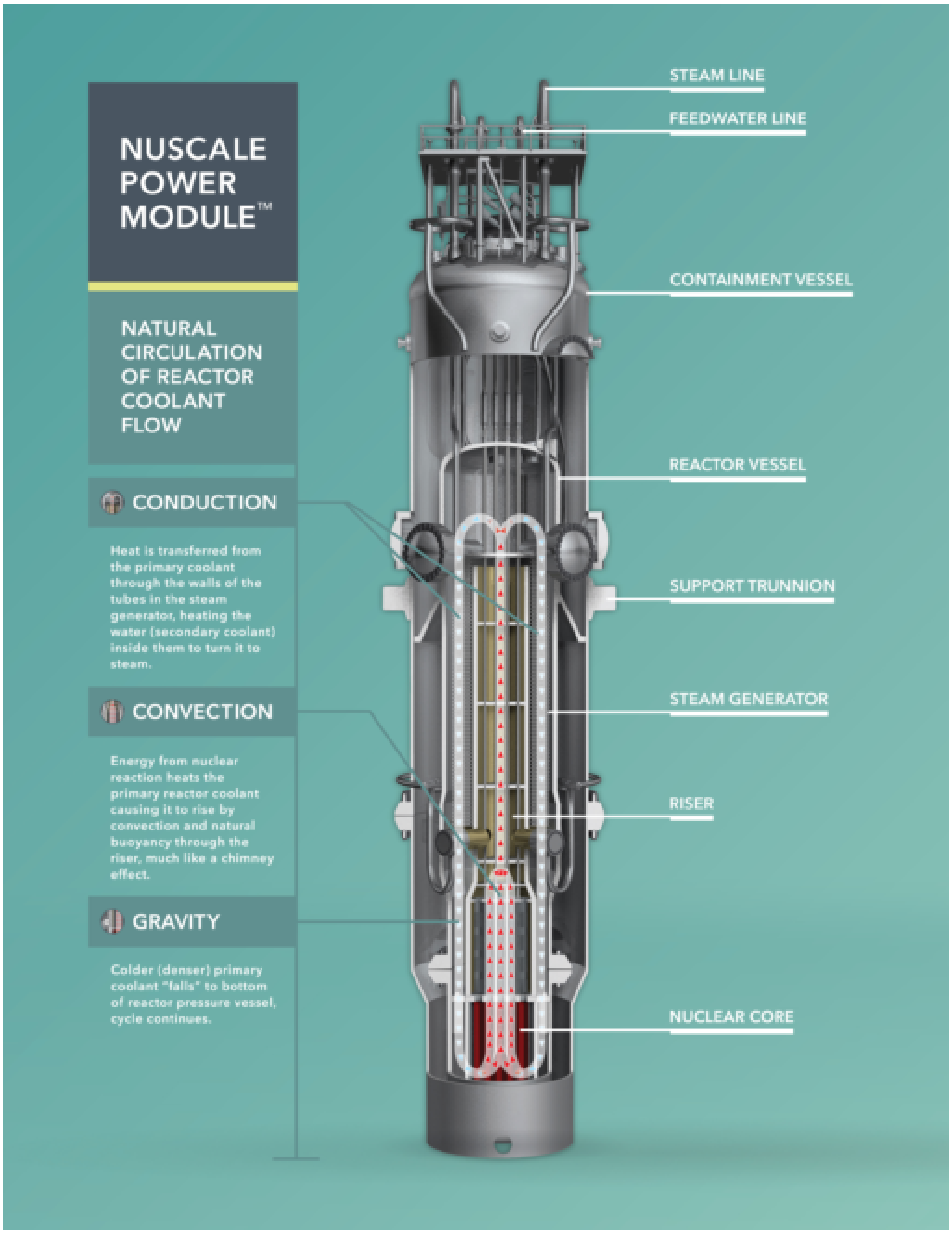
?????????SMR?????????????????SMR???

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

> ?????????SMR????????????????????????????3???????????????????????????????????
> ???SMR?????????SMR?????????

?????????SMR??????????????????3??????????????

??3??????????????????????????



SMR????

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

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

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SMR??10???????

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

??????????????NuScale??SMR????1????????5?kW??????????????????7.7?kW?1.5??NuScale??SMR???????????????????????

???SMR??????

NuScale?SMR??

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

4S?????????????????????472?/2020??????????????????????????????2004??

?????????????????????????????????????PBMR???????????????1993??2010???????????????????????????

???

NuScale??SMR??????????IHI?????????2023?9????????????????????????????

???SMR???

NuScale??SMR???

> ??????????????????????????????
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> ????????????????

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

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