

Global Energy Policy Research | GEPR

GEPR
http://agorajp.com/
??

????????

?? ? · Wednesday, March 1st, 2023



Vertigo3d/iStock

2026
PJM

PJM
D.C.

- PJM 6500 13 2030
- PJM PJM
- PJM 3000

????????????40??????2030????????????????????PJM??????????
1??????

- ???EPA??????????5????????
????????????????????ESG????????????????????????????????????
??8.9??
- ?????????????????????9????????????????????????????????????
??5????????????????
030????????????????????21????????????????????????????
????EV????????????????????
- PJM??24??365
??
????????
- ??12????????PJM????????????????????????????????????
????????????????????
- PJM??
????????????????

??

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

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

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

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

Posted in ??????????, ??, ?? | [No Comments »](#)

???????

?? ?? - Tuesday, February 28th, 2023

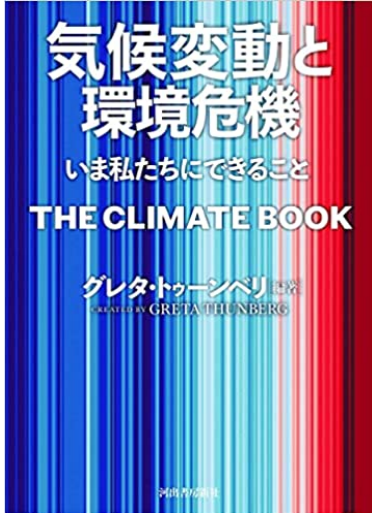
????? climate change????????????????? global
warming??
????????????????????

????????????? climate

justice??
??

? ??????????????The Climate Book?

2022?10???The Climate
Book??
??



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

climatology?????????????????104??18
????????????????????

??

??
??? is-ought problem????????????????????????????

??
??

? ????

??

??
??

?
justice??
harm principle????????????????????????????????

??

? ???

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

??
moralism?? appeal to
anger??

????????

?? ethics????????????????????????
morality??
??The Climate Book????????????????????

??
??

??
??

??100%???????????????????? appeal to
authority???????????????????????????????????? ad hominem???????????????????????????????? appeal to
emotion????????????????????????????????????

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

????????

??
??
??

??
??

??5????????6
????7??RINZEN????????????????????????????????
??

??MLB??
??

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

??



MrHstuff/iStock

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

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

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

????????E-MAIL????????

??



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

?????? ??

??????

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

??

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

??????????

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

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

??

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

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

??
??

??
??

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

??
??

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

??

??

?

????????????????_?? ?????????????????????



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

CO2

Monday, February 27th, 2023



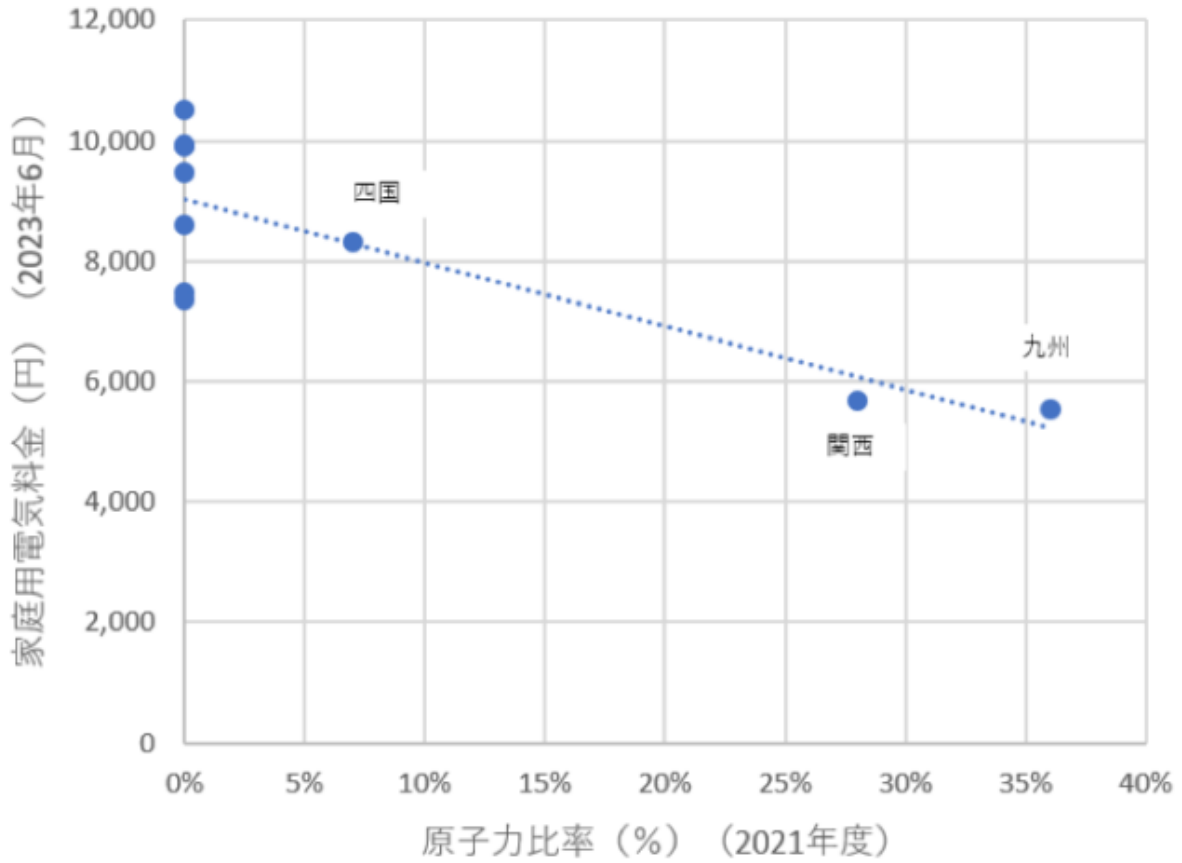
Kwangmoozaa

2023 2024

CO2

	2021	2023	CO2
	0%	9,899	0.537 kg-CO2/kWh
	0%	9,462	0.488 kg-CO2/kWh
	0%	9,917	0.457 kg-CO2/kWh
	0%	7,488	0.388 kg-CO2/kWh
	0%	7,369	0.489 kg-CO2/kWh
	28%	5,677	0.311 kg-CO2/kWh
	0%	8,608	0.545 kg-CO2/kWh
	7%	8,300	0.533 kg-CO2/kWh
	36%	5,526	0.392 kg-CO2/kWh
	0%	10,500	0.707 kg-CO2/kWh

10 CO2



2022年10月10日

CO2削減率を高めることにより、2022年10月10日現在、LNGの価格が急騰していることにより、電力料金が大幅に上昇している。

2022年10月10日現在

2022年10月10日現在、電力料金が大幅に上昇していることにより、電力会社は電力料金を引き上げている。

LNGの価格が急騰していることにより、電力料金が大幅に上昇している。

2022年10月10日現在

2022年10月10日現在、電力料金が大幅に上昇していることにより、電力会社は電力料金を引き上げている。

2022年10月10日現在、電力料金が大幅に上昇していることにより、電力会社は電力料金を引き上げている。

?

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

?SDGs???????

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

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

?? ? · Saturday, February 25th, 2023

??

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

??
??



allanswart/iStock

??
??

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

??
??

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

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

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

??
??
??

??40??60??
??

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

??
??

Posted in [??, ???? | No Comments »](#)

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

?? ?? · Thursday, February 23rd, 2023

????????????????27????????????????2023????????????State of the Union
Address??
????????????????????



????????????
??????SNS??

??????29??

??2????????????????????????????
????????????????????CEO????????????????????????????????????4????????????????????????
???

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

??

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

??

Have you noticed Big Oil just reported its profits? ?Record profits.?Last year, they made \$200 billion in the midst of a global energy crisis.?I think it’s outrageous.

Why? They invested too little of that profit to increase domestic production, and when I talked to a couple of them, they say, “We’re afraid you’re going to shut down all the oil wells and all the oil refineries anyway, so why should we invest in them?”

I said, “We’re going to need oil for at least another decade.” And that’s going to exceed — and beyond that — we’re going to need it. Production. If they had in fact

invested in the production to keep gas prices down — instead, they used the record profits to buy back their own stock, rewarding their CEOs and shareholders. Corporations ought to do the right thing. That’s why I propose we quadruple the tax on corporate stock buybacks and encourage long-term investments.

??2??
??
??10
??
??
??
????????????????4??

??
??

??
????????????????????????????????????10??

??2030????05??50?52????????????????????
????????????????????

??
??

??
??

????????????10??7????????2030????????????????????????????
??

??
??

??
??

Posted in [??, ??, ?????](#) | [No Comments »](#)

????????????????????
?? ?? · Wednesday, February 22nd, 2023



y-studio/iStock

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

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

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

????????????????21????????????????????4??????????????



- ???
- ?????????????????????????????????ITER
??
- ?????????????????????2????????????????2025????????????????????????????????
?????

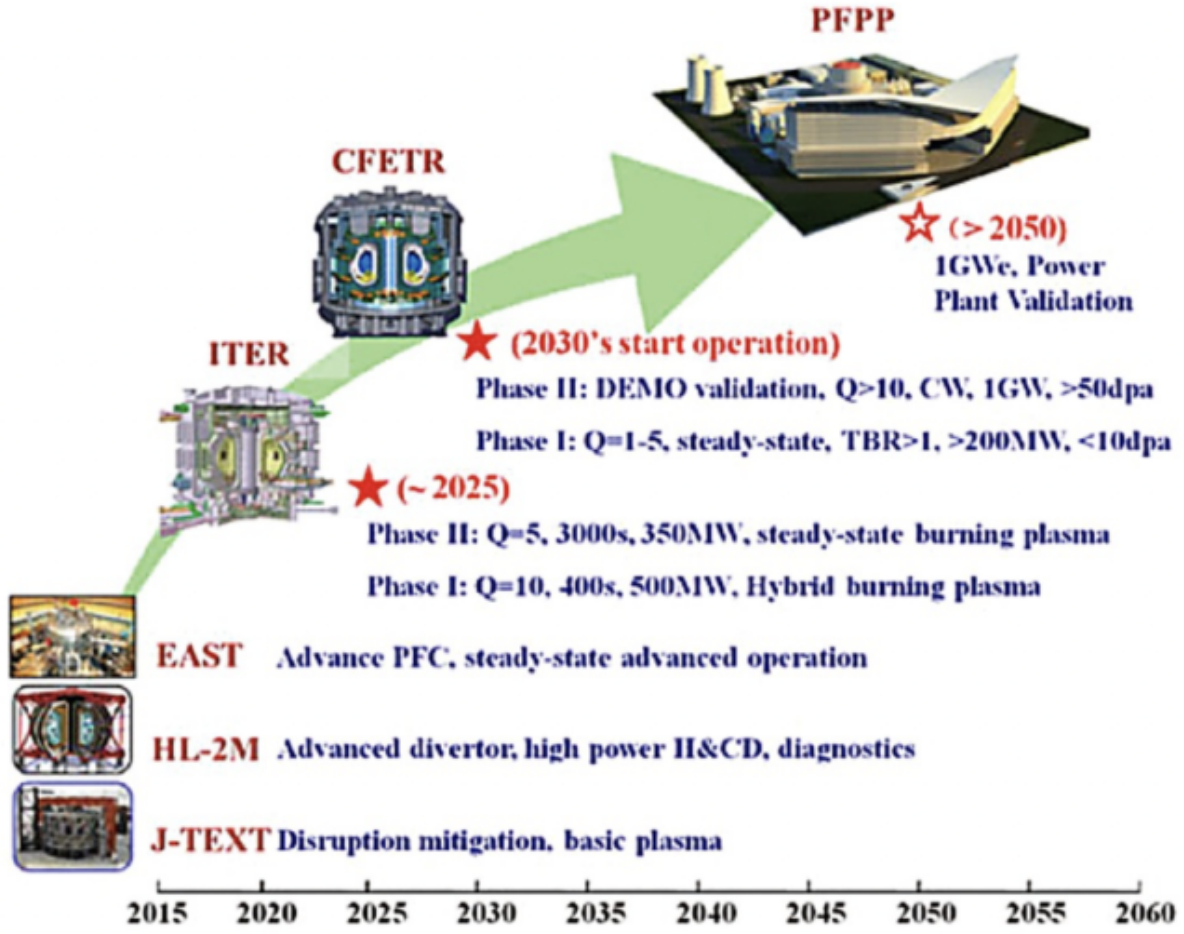
??ITER????????????????ITER??
????????????????2025??ITER????????????????????????????

????????????ITER????2025????????????????????????????????????

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

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

????????ITER ?????????? CFETR ??????????2030 ?????????????????????



????????????????????????????????p44???

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

ITER??ITER??????

???ITER??

??

ITER??9.1%????????????????????????????????

??G7????????????????????????????????

?MIT??

??ITER??

?????10??150?????????GX??

2025??2023??

?

????????????????_?? ?????????????????????



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

??

????????????IEEI? · Monday, February 20th, 2023

2022 British Energy Security Strategy 50GW

2030 50GW 32GW

??????

2021 Air Defence and Offshore Wind Precision Approach Radar; PSR

??????

??????

2020 10 2021 3 6 1 2021 10 2023 7 2 3

UK

Column

SDGs NGO

??????

2050 2030 10GW 2040 30 45GW

??????

2023 1 27

??????

??????

??????

DASA 2016

ESG

??

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

???????????????????? 2023?2?16??

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

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

?? ? · Saturday, February 11th, 2023



SIphotography/iStock

??
??
GX??

??
??

??
MC??4?

??

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

??
??
NHK????????????????????????

??
??
CO2??

??
??
CCS?
??
????????????????????????????????

<https://agora-web.jp/archives/230107011846.html>

??

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

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

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

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

??
??

??
??
200?350?????2500?????
??
10?15??
????????

??
??
900?1000?????2500?650????????????????????????????????
??
25????????

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

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

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

??
??
CO2?????11.5?/Nm3????????????????????????????????4.3?/Nm3????
??

??

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

????????????????????????????????162?/Nm3????????2.3?/Nm3????????????????????????????79?/kW??
????????46?/kW????????29?/kW????????????????????????????97.3?/kWh?10?20.9?/kWh??
????????23.5?/kWh?20?12.9?/kWh??

????????????????????????????23.5?/kWh????????????????????????

??10?/kWh????????????????2030????????????????1
3.6?/kWh????????????4.3?/kWh????????????10?/kWh????????????????????

????????????????????????????????CO2????????????????????????21????????CO2?1????????????????
??5000??????

??GX????????????????????????2040????????????????3000????????CO2????6000????????????2
019????CO2????10.7????6????????????2000????????????????????????7????????????????

????????????3000????????????????????456????2015????91????????????????????????????
????????2000????????????????????

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

??
??

??
??

??
??

????????????????????????GX????????????????????????????150? ?????????????????
??

Posted in ??????????, ??? | [No Comments](#) »

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

?? ?? ? - Friday, February 10th, 2023

??

??

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

????????????????10??
??CDU????????????????????????????????????

????????????????22?6??CDU????????????????
????????????????????????????

??
??

??22?7????????????????
??

??
????????????????????????10????????????????????RWE????????????????????????????

1??
??

??????1?1??500
0??????????3?5000??????????3700??
????????

??
??
??

??60????????????????????????????????
??3????????????????100??????????3
00??????

??????“?”?2??
??
??????????????????

https://www.t-online.de/tv/klima-und-nachhaltigkeit/id_100114224/war-greta-thunbergs-festnahme-inszeniert-.html

?????16??“?”??
“?”????????????????RWE????????????????????????????????

??
??????????????????4?15??????????2030????????????????????????

??

Posted in ???, ?? | No Comments »

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

?? ?? · Tuesday, February 7th, 2023



LeMusique/iStock

??

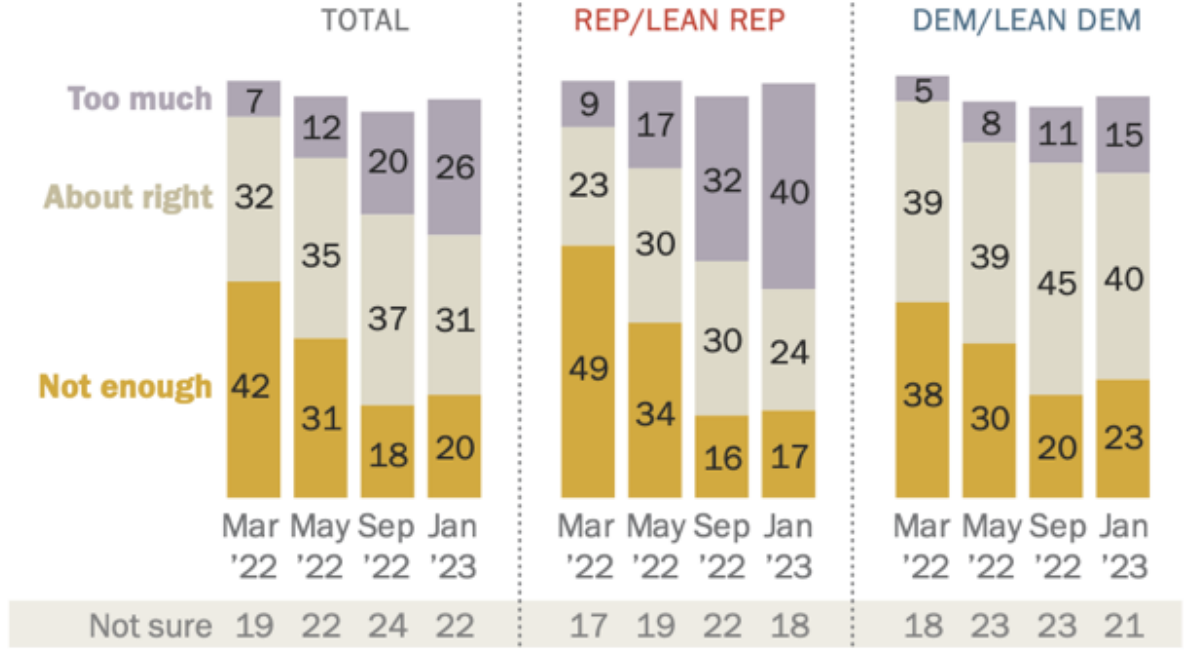
????????????????????2????????????

??

????????????????????1?23????????????????40????????????????Too
much????????????????????15%??????

Share of Republicans who say the U.S. gives too much aid to Ukraine has steadily increased since March

% who say, when it comes to Russia's invasion of Ukraine, the U.S. is providing ___ support to Ukraine



Note: No answer responses not shown.
Source: Survey of U.S. adults conducted Jan. 18-24, 2023.

PEW RESEARCH CENTER

??

????????????????????????????????????1????????????????????(Avoiding a Long War)?????

??

- ???
- ?????????????????????NATO????????????????????????????????????
- ???NATO????????????????????????????????????
- ???

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



Posted in ???, ?? | No Comments »

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

?? ?? · Saturday, February 4th, 2023



peeterv/iStock

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

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

電力会社	原子力比率	23年6月料金
北海道	0%	9899
東北	0%	9462
東京	0%	9917
北陸	0%	7488
中部	0%	7369
関西	28%	5677
中国	0%	8608
四国	7%	8300
九州	36%	5526
沖縄	0%	10500

?1
 ???????21?????
 ???2023?6???

???2?????????
 ???2021????????????????2.7??????????????
 ?3?????6?????????873?????????1?????????????????????????5????????????????????????????????
 ???



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

??

?? ? · Saturday, February 4th, 2023



100 95 2100 4 GDP 3.64% EU 2050 GDP 10

2100 4 GDP 3.64% EU 2050 GDP 10

o regret

CO2 5

5. ????

3

2050

??????

CO2

????????????????????36????BEVs?1000????????????????CO2????4.9%????????????????
??

??
??

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

Posted in ???, ????? | No Comments »

????100%????????????????

?? ?? · Thursday, February 2nd, 2023



BrianAJackson/iStock

????100%????????????????????????????????3????????????????????????????????
????????????????2??????????

?100%????????????????????

100%????????????????????

????????????????????²¹⁾????????????10????????50????????????????????????????????
??

????????????????CO2????????????????????????????100%????????????????????????????

3????????????????????100%??
????????????????????????

?????J-

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

????????????????????100%????CO2??
????????????????????????

????CSR??
??

????????????????????²²⁾??
??

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

脱炭素施策	順守事項
サプライヤーへの脱炭素要請	【優越的地位の濫用】独禁法、下請法、行動指針、調達基準
中国製太陽光パネルの利用	【人権侵害、強制労働】行動指針、人権宣言、SDGs
「再エネ 100%」表示	【優良誤認】景表法、環境表示ガイドライン、行動指針

1????????????????

?

1????CSR????????????????????????ESG????????????

2??

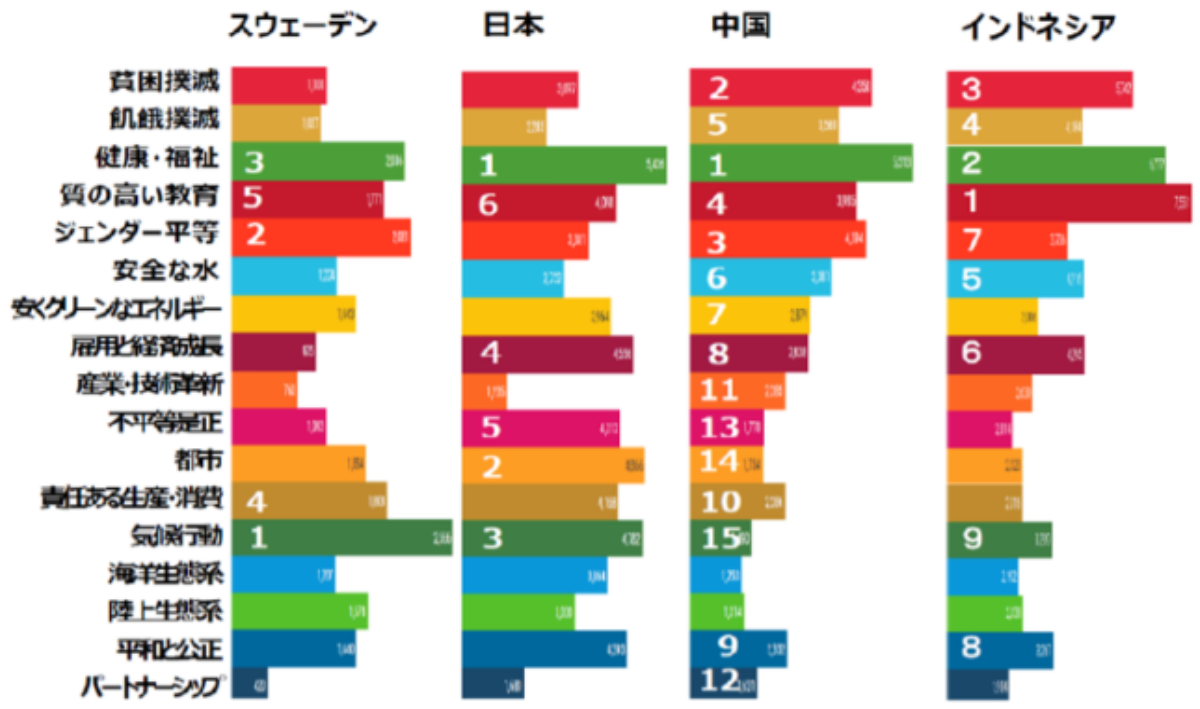
?????

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

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

?

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



???United Nations My World 2030 ??????

????????????????GDP????????SDG13????????????????????????????????GDP????????????????????????
??

??
??

????????????3??E????????????Energy Security????????Environmental
Protection????????Economic
Efficiency??
????????????????????????????

??

2022?3????????????????????Vervox????????????54????????????????????????????42????????
????????????????????????????????2021?6????????12????

??

????2022?6????????????????????????????2????????????????????????????????????
??
????????????????

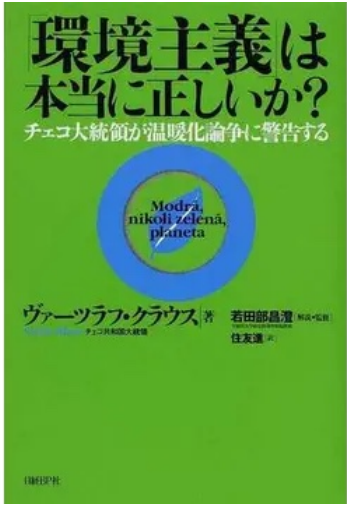
??

Posted in ???, ????? | No Comments »

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

??

??2003????2013????????????????????2????????????????????
????????????????2007??BP?2010????????



????????????????????????????????????1989??92?
????????2003??

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

????????????????????2007?3??
????????



?????

????????????????????????????????????21??
 ???
 ???
 ???
 ?

??
 ???
 ???
 ???

?????

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

?????

??



??
?????????



??
??



??
??



??
??



??150??
??
??



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



??
?



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



??

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

??²¹⁾????????????
??

????????????2007??



??
??
??
??

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

?????16????????????????2015?12????????????????????????2008?12????????????????????????
????????????????????????????????????

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

?????2050??
??

??
?????

??????????

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

?

?1??

?2?????????????????0.1????????????????????????????????2006????????????????????????????????
????????????????????

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

??

12?21????????????????????????????????????76.7??

????????????1????????????????????????60.3????2????????????42.6%????3????????????????????241.8%??????
??1????????46.2%??2????????????????????30.6%??3????????????19.4%???

??
??
?????

??
??

??
??
??

??
?? ?? ?
??

1?19????????????????????????2????????7??

????? Long

Covid??
????????????????????????

??
Long
Covid??
Syndrom????????????

?2????????????????19??

Long Covid: Protestaktion vor dem Bundestag

??
6000????????????????

??
1????????????????
??

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

??
??

?

????SDGs????????????????????

Posted in ???, ????? | No Comments »

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

?? ? · Saturday, January 21st, 2023



Kolonko/iStock

??

??

3.1.??????BEVs??????

????BEVs(?????)CO2??BEVs????????????????????CO2?????
??????????????

????????????????????????????CO2????CO2??BEVs?ICEVs????????????????????
????????????CO2??ICEVs????????????????????????????

????????????LCA?life cycle analysis????LCA??
??

??
?????honest assessment??

??BEVs????CO2????CO2????CO2????LCA????

????????CO2????61?106kg-
CO2/kWh????1kWh????61?106kg?CO2????

????????70????????125kg-
CO2/kWh????60kWh????BEVs????7.5t?CO2????125kg/kWh×60kWh?
7500kg)?

? ??????S?BEV????100kWh????12.5t CO2???

????CO2????BEVs?CO2????ICEVs????

????????HTP?human toxicity
potential????BEVs????HTP?ICEVs????3
5????BEVs????

????????Ecological
Rucksack????1????500????500????
????500????7500????35????

????500????40kWh?300kg????150t????
????40kWh????

????100????

3.2.?????

????22????BEVs????200????2030
????80?180????160?/?1?2800?2?8800????

??BEVs????29????ICEV????1?4????
????2030????BEVs?ICEVs????
????BEVs????

LCA????BEV????ICEVs?30????
????BEVs????BEVs????ICEVs????BEVs
????

????3600??LDVs????2021????BEVs?36????1%????2030????1
000????LDVs?28????10?100????

????1????7kW????100????7GW?700? kW????2????

? ?????2014????

????22?5????EV????BEVs????

????16????25????9????35

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

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

??ICEV??

??EV??



????????????????AFEELA?
AFEELA??????????

??
????????????????????????????EV????????????????????500????????????????????????????????

3.3.????2030????BEVs????????????CO2??????????

????????????????????LDVs????????????????70????????????????12????????????BEVs?LCA?????C
O2????????????????????ICEVs????????????????25????????????????????IEA????????????

????????????????2030????BEVs?1000????????LDVs?28????????????????????????????????4.9%????
?LDVs??????70????28??BEVs?BEVs?CO2????25??0.7×0.28×0.25?0.049??

21????36????BEVs?30????1000????????????????????????????ICEVs?70????????????????????
??

?????CO2?4.9%?????BEVs?36????1000????????????????????????????BEVs????????????????
????????????????LDVs?????????ICEVs?????????????????????????????

????????????????????HEVs????????????????????????????BEVs????????????????????
????????????????BEVs????????????????????????

????????HEVs????????BEVs??

???????

??????

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

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

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

Posted in ???, ????? | No Comments »

??

?? ?? · Saturday, January 21st, 2023



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

Wikipedia

???????

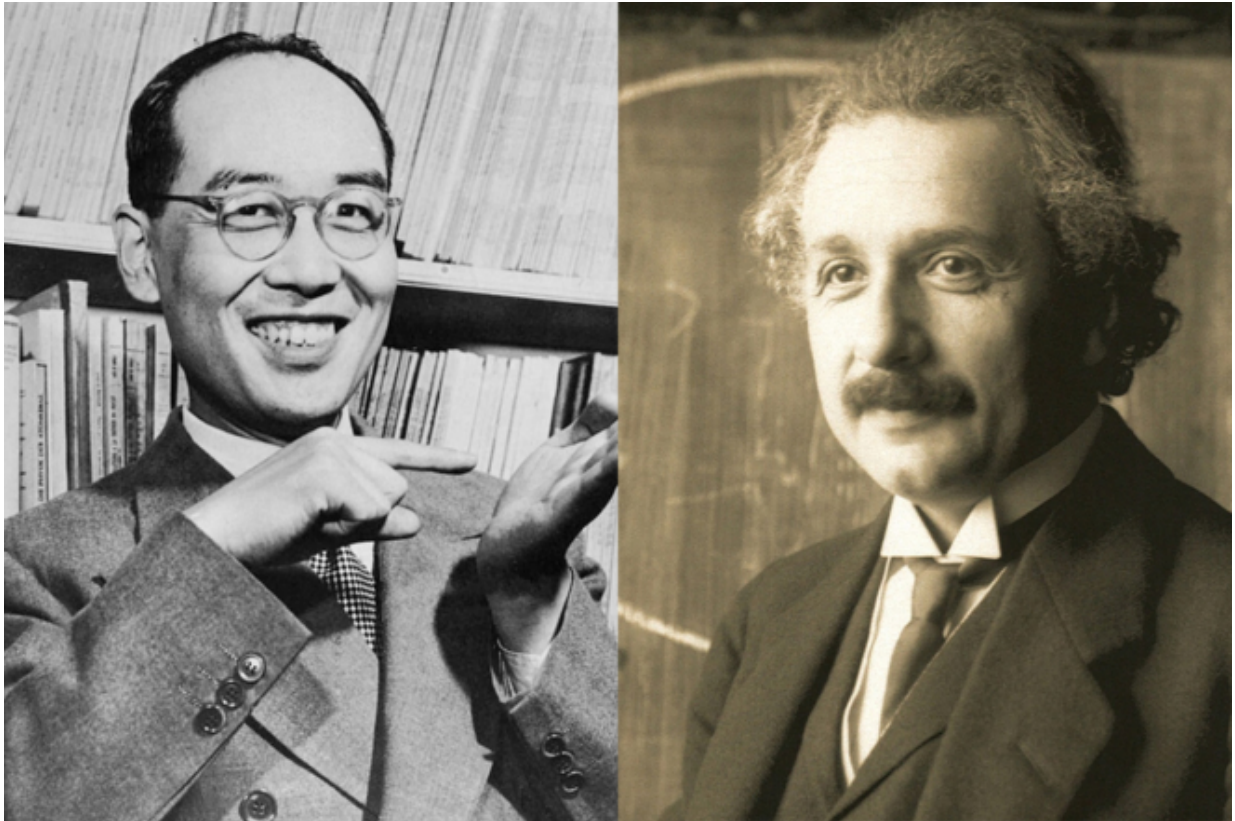
??

??

??

2011????????????????????????TV??WEB????????????????????????????????
??

????????



????????????????
???Wikipedeia

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



????????????????????????????????????1923????????????????????
??
????????????????

??
??——????????
??

????????????????????????????????????——??GX??????IT????
??
????

??
????????????????????250????????????????????????????????????
3000????????????????10????????????????????????????????
????????????????????????

1920??????
???Wikipedia

<https://www.yomiuri.co.jp/kyoiku/kyoiku/news/20230112-OYT1T50041/>

??

1970??

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

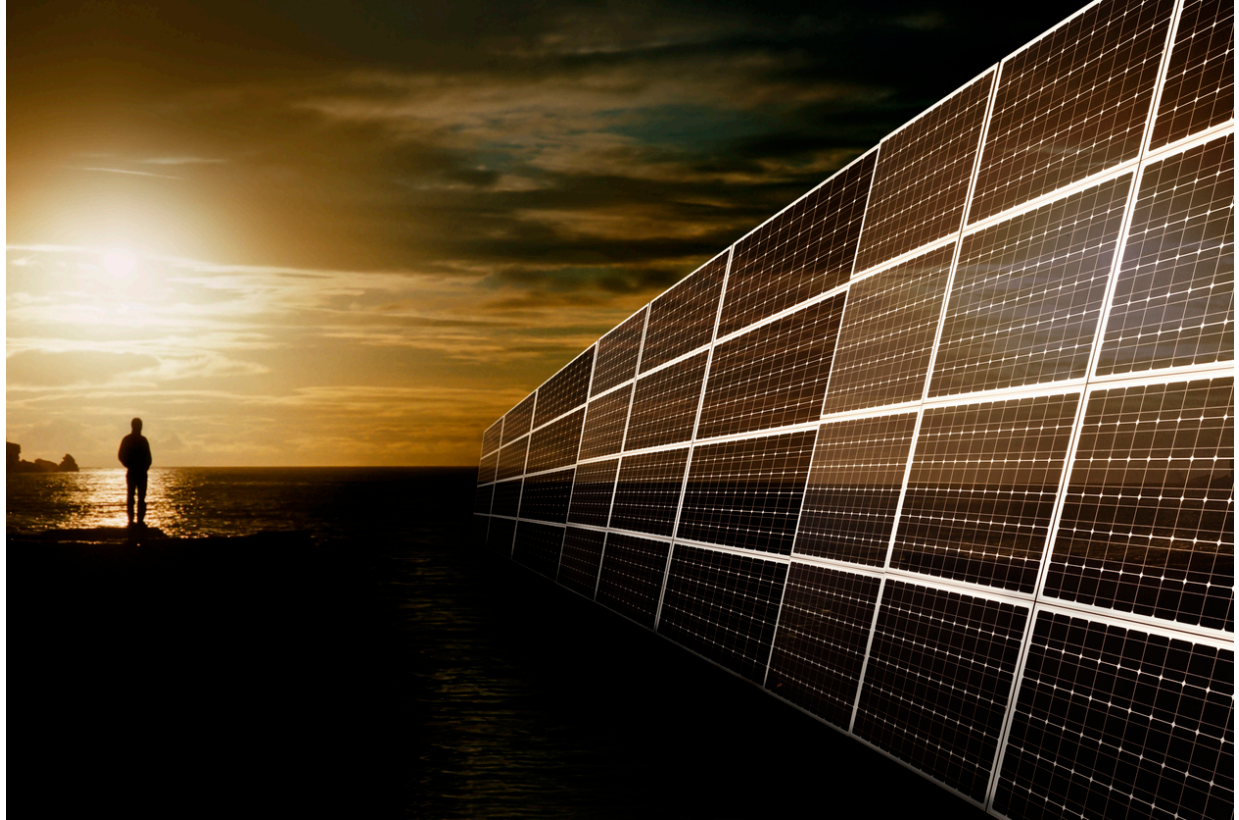
????????

??

Posted in ???, ????? | No Comments »

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

?? ?? · Tuesday, January 10th, 2023



HadelProductions/iStock

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

????????????????????????¹⁾????????????????????????

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

??

2021?6?G7????????10?G7??2022?6?G7????????????????????
????9?EU????????????????2022?8?G7????????????????????????????????????

??
??

????????????2022?2?G7????????12?G7??
????????

??
??
??

??
??

??SDGs??
??

??CSR????????
?2022????????50????????????????????????????1????

調査項目	公表数
① 行動指針、行動憲章など	50社 (100%)
② 人権 (強制労働をしない、など)	50社 (100%)
③ 公正な取引 (優越的地位の濫用をしない、不利益を与えない、など)	43社 (86%)

?1????????
? ?????????????????????????????????????

??
??50????????????????????43?86%????
????????????????????²⁾

??
????????????????7????????????????????????

??2023?1?7
??

????????2022?G7????????????????????2022?G7????????????????2022?G7???

????????????????????2021?G7????????????????????????????????????

??



??

??
??

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

????????????6????????????????????????????????
??

????12????????????????????????????????????
??

??

?1?????CSR?????????????????????????ESG?????????

?2????????50????????????????????????????????
????????????????????????????????1????10?30?????50????????

?

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

?SDGs???????

Posted in ???, ????? | No Comments »

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

?? ?? · Monday, January 9th, 2023



NicoElNino/iStock

??

??2????????

2050????2030?CO2????????????????????????2022?2????????????????????40??????????????????????????????
????????CO2??

????2000????????????????????²¹??
??????????????????

??
??

2023?1??
????????????????????

??????

- ???CO2??????????????
- ??????????????1?2?3??????????????????
- CO2????????????????
- ?2030??????????????????
- 2050??????????????????

??????????

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

- ?????????
- ?????????
- ???????
- ?????
- ?????????J????????????
- ????
- ?????????
- EV??????

??

??????1??

??ESG??ESG

??2050????2030?CO2????????????????????

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

????????????????????1%??80%????????????

??

??J????????????????????EV????????????

??

??

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

?I????CSR????????????????????ESG????????

?

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

?SDGs??????

Posted in ???, ????? | No Comments »

2022??

?? ?? · Monday, January 9th, 2023



??

H M Shahidul Islam/iStock

??1????????????????

2022??

Sky New??

BBC??

???"experts say..."??

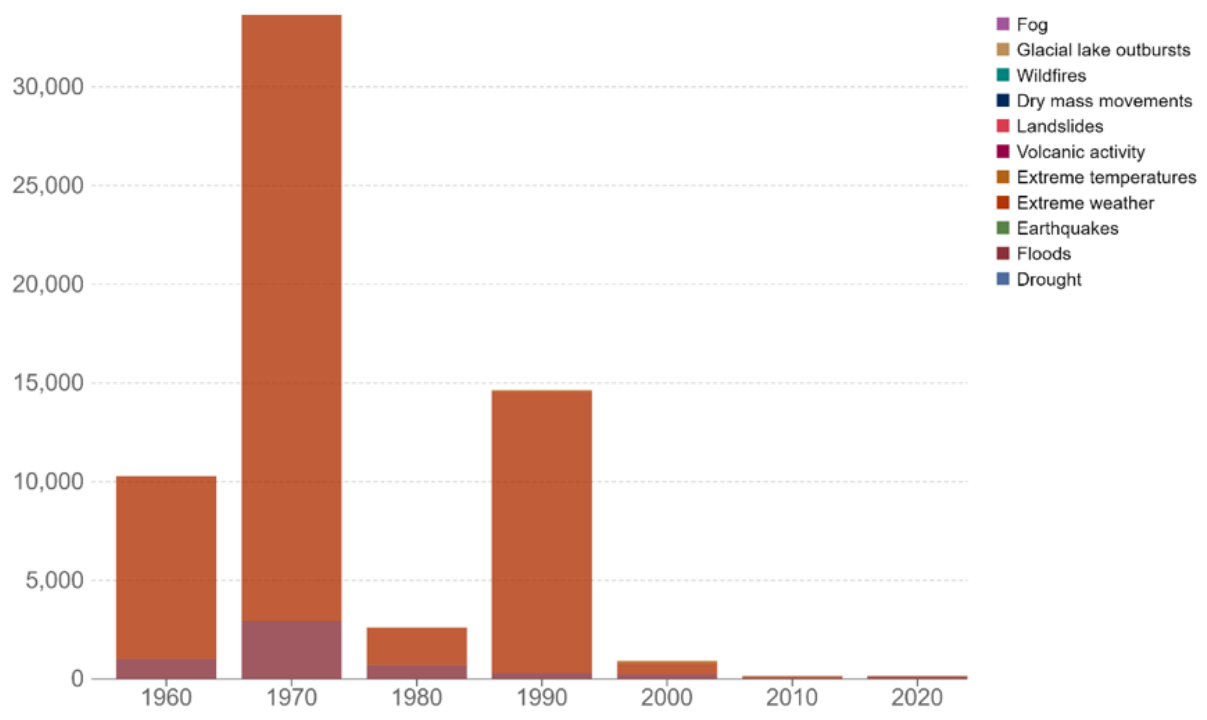
????????????????

??80????????????75????1

0????????????????????18????????1988????????75????????

??

Decadal average: Number of deaths from natural disasters, Bangladesh



Source: EM-DAT, CRED / Université catholique de Louvain, Brussels (Belgium)

OurWorldInData.org/natural-disasters • CC BY

1970 20 50

2000

?

??_? ?





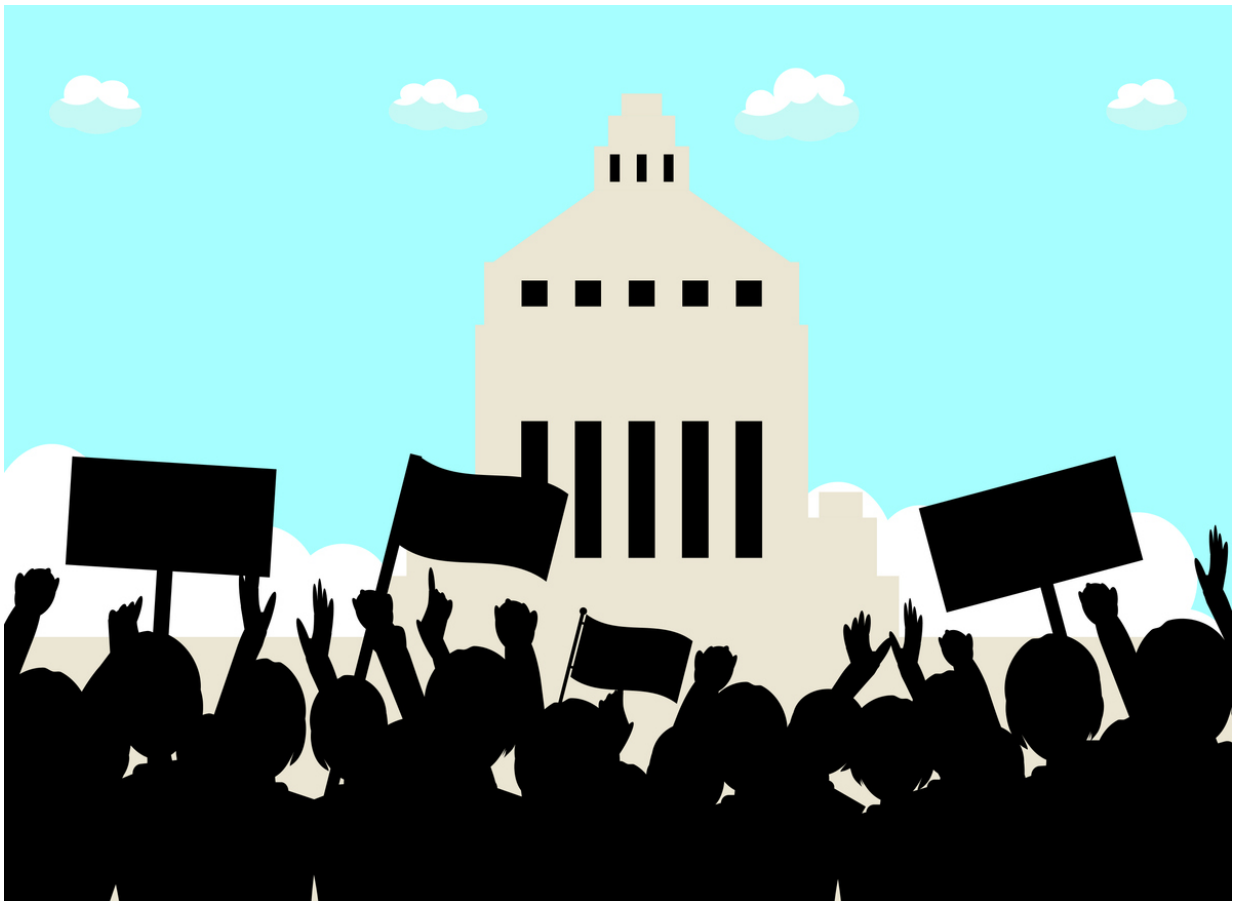
Posted in ???, ????? | No Comments »

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

?? ?? · Sunday, January 8th, 2023

?GDP?2????????????????????????3??
????????1????????????????????????????????

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



kid-a/iStock

GX????????

????????????GX????GX????????1?22????????

GX????HP

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

?GX????(?)????(?)??
?GX????(?)????

????????1?27????

??????

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

????????

??????

????????

?????GX????2022????3????

????????

????????

????????

????????

そのため、化石エネルギーへの過度な依存からの脱却を目指し、需要サイドにおける徹底した省エネルギー、製造業の燃料転換などを進めるとともに、供給サイドにおいては、足元の危機を乗り切るためにも再生可能エネルギー、原子力などエネルギー安全保障に寄与し、脱炭素効果の高い電源を最大限活用する。

????????

安定的で安価なエネルギー供給は、国民生活、社会・経済活動の根幹であり、我が国の最優先課題である。今後 GX を推進していく上でも、エネルギー安定供給の確保は大前提であると同時に、GX を推進することそのものが、エネルギー安定供給の確保につながる。

????????

??

????????????????????CO2????????????????????RITE????2030??46%????????????????30??
GDP????????????????RITE??p8?

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

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

??(?)????????

???GX???????

?10??150????GX????????20??GX????????????????

「GX 経済移行債」(仮称)

国として長期・複数年度にわたり投資促進策を講ずるために、カーボンプライ
シング導入の結果として得られる将来の財源を裏付けとした 20 兆円規模の「GX
経済移行債」(仮称)を、来年度以降 10 年間、毎年度、国会の議決を経た金額の
範囲内で発行していく。

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

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

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

??

????GX????20??
??
????????

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

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

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

??

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

??

????????????????????????????PDCA??

したがって、支援分野の優先順位付け、支援対象事業の選定等においては、技術や市場の見通し、事業の効果などの要素を検討するとともに、定期的に支援事業の進捗評価・分析を行い、支援継続の要否などを確認するためのチェック機能を設ける。支援対象については、こうした機能を通じて柔軟に見直しを行う。

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

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

- ?GX????????GX??
- ?????????????????????????????????
- ?????????????????GX????????????????

??

世界規模で異常気象が発生し、大規模な自然災害が増加するなど、気候変動問題への対応は今や人類共通の課題となっている。カーボンニュートラル目標を表明する国・地

??

?

????????????????_?? ?????????????????????





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

2022????????????100????98??????

?? ?? · Saturday, January 7th, 2023



Devrimb/iStock

??

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

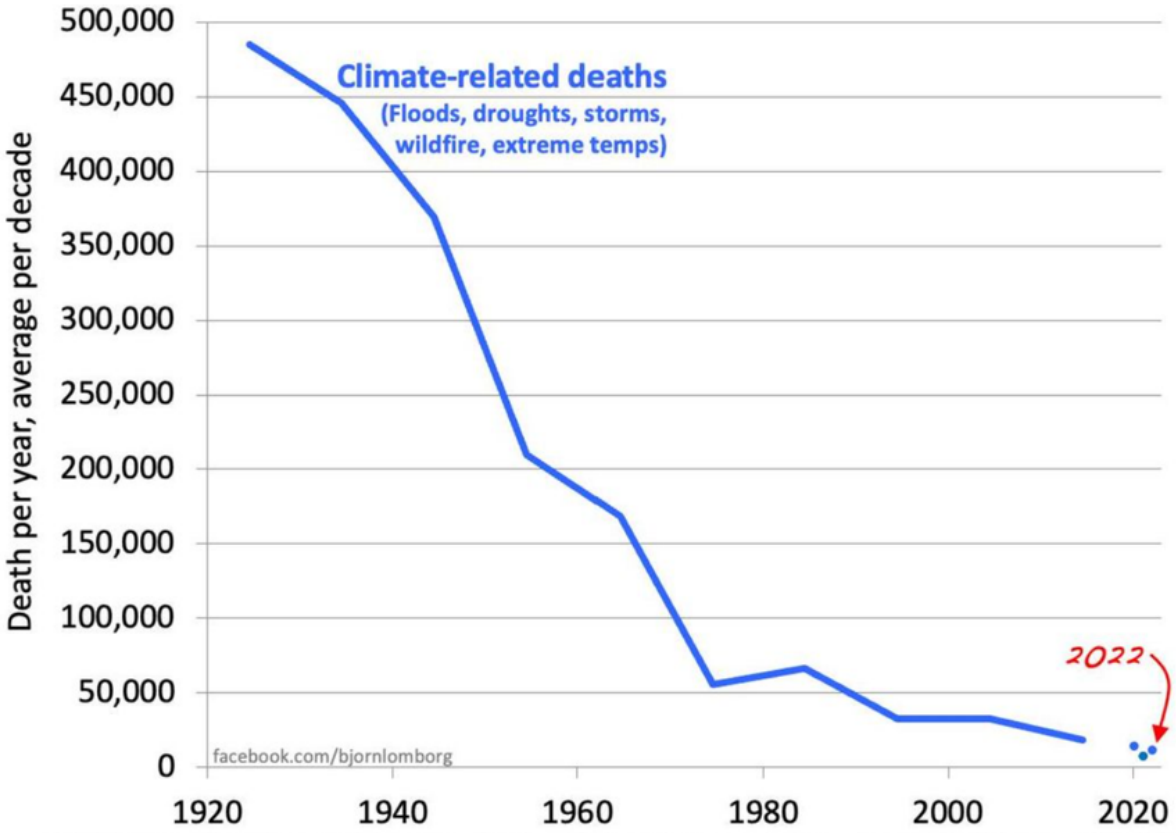
????????????????????????????????

??

????????????????????1920????29????????????2010????2019????????????????????????????3????????????

Climate-related Deaths: 1920-2022

Deaths have declined precipitously because richer and more resilient societies reduce disaster deaths and swamp any potential climate signal



facebook.com/bjornlomborg
 OFDA/CRED International Disaster Database, <https://public.emdat.be>, deaths averaged over decades 1920-29, 1930-1939, ... 2010-2019 placed at decadal midpoints (1924.5, 1934.5 etc), with annual data for 2020, 2021, and 2022, accessed January 1, 2023. Likely database will be updated further, so the current 2022 estimate is probably low. 2022 at 14,920 dead, 2021: 7,705, 2022: 11,873. Update of Fig. 17 from <https://www.sciencedirect.com/science/article/pii/S0040162520304157>.

??

2022??2022??
 ??????100????98??????????????

??EM-DAT?????????

?????1920??

??

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

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

??

?

??????????????????_?? ?????????????????????



Posted in ???, ????? | No Comments »

??

?? ? · Saturday, January 7th, 2023



Natali_Mis/iStock

??

??

2.3.???

??

??????2040??
??????????

????Typhoon????????????21t??4t????????????????49MWh????????????????????
????????180Wh/kg????????????13??272

t??????49×10⁶Wh/180×10³Wh/t?272.2t????????????

??????TV??
70??=272/4??
????????????????????????

????????6.2m×2.5m??4667kg?300????????????S????????2100kg?100kWh????300?
????????????

????????2.2????????220kWh??1m²?1
50W????6.2m×2.5m????????????95????220kWh/(0.15kW/m² × 6.2m × 2.5m)?94.6
h????????95????????1????????????

??
??3.1. ??????

2.4.????????????????

??
????????????2200????????????????????????????????2600????????????????????????????????
??1?1?2????????????????????
??????????

??
??
?)????????????????????????????????

??3???????

2.5.????????????????????

????????????????????489.7EJ?60??=293.8EJ??CO2????????????????????9320GW?????
????40????????????23300GW????????????????28????????????????????
???

??
??????

????????????????????????????????????2021?11????????????COP26????????????
????????????????????

??
????????????????????????2022?3??8.6%??7?720????????????2022?????
????????????????

? ????2022????????1.2%????80????????????2????3????4??????

????????????2021??3.54EJ?2019??2.27EJ?56????????????8.47%????
????????24????????2.4%????????????

????????????????????????????????????2050????2070????????
????2050????????????

3??????????

????????????????????99.7%????ICE?internal combustion engine????95????

????????????????BEVs?battery electric vehicles????PHEVs?Plug-in hybrid electric vehicles????HEVs?hybrid electric vehicles????

? ????PHEV?HEV????????????



?????????
Wikipedia??

???:

???W
MO????????????????????IPCC??????????

??

??

?

????????????????_?? ?????????????????????



Posted in ???, ????? | No Comments »

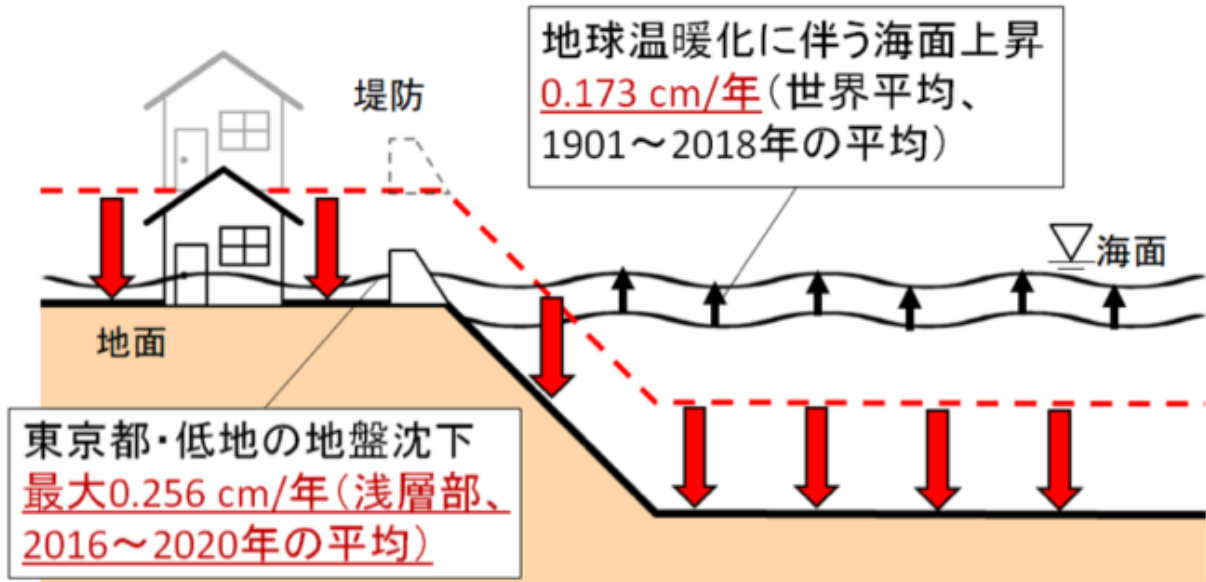
????????????????????????????????????

?? ?? · Tuesday, January 3rd, 2023

1906~2019年間の平均海面の上昇は、約0.173cm/年であった。

東京の低地では、浅層部の地盤沈下が最大0.256cm/年と報告されている。

地球温暖化に伴う海面上昇と地盤沈下の影響を比較すると、東京の低地は海面上昇よりも速く沈没している。



2

IPCCの報告によると、2022年以降は、海面上昇の速度がさらに速くなる可能性がある。

1901~2018年の平均海面の上昇は、約0.173cm/年であった。東京の低地では、浅層部の地盤沈下が最大0.256cm/年と報告されている。

海面上昇と地盤沈下の影響を比較すると、東京の低地は海面上昇よりも速く沈没している。

地球温暖化に伴う海面上昇の速度は、1990年代後半から加速している。

海面上昇の速度は、1990年代後半から加速している。

海面上昇の速度は、1990年代後半から加速している。

1891~1970年の間に、東京の低地では、平均して4.5mの地盤沈下が報告されている。

Posted in 海面上昇, 地盤沈下 | No Comments »

