



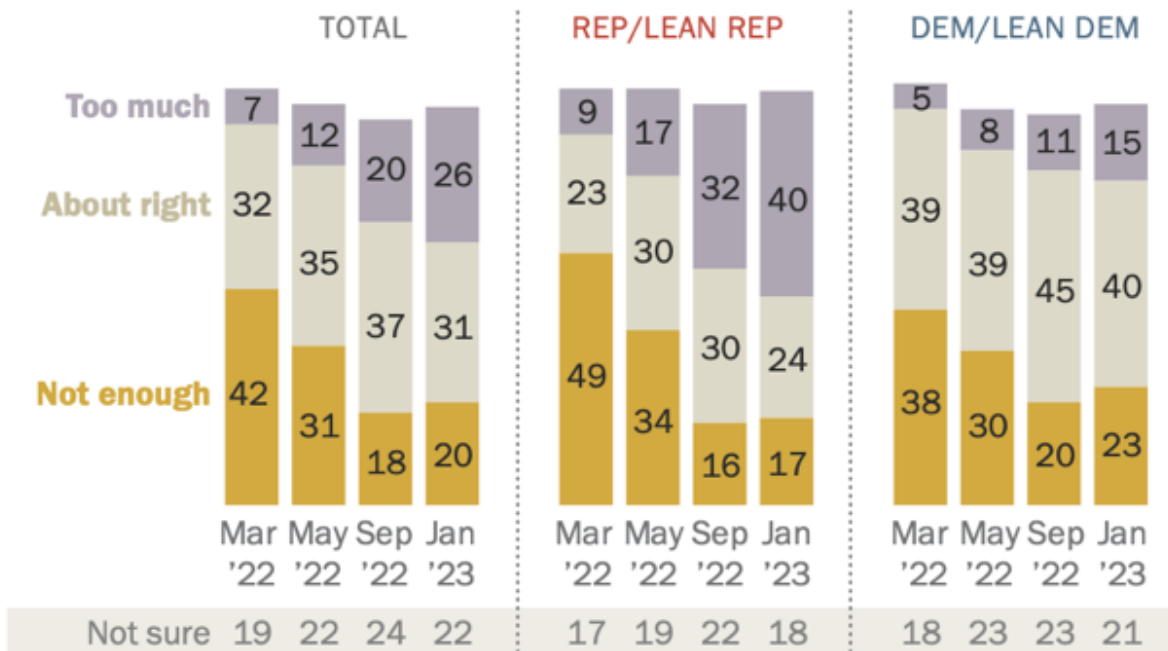




????????????????????????1?23????????????????????40????????????????????Too  
much????????????????????????????15%??????

### 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

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

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

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?? ?? · Saturday, February 4th, 2023



peeterv/iStock

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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

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??2023?6???

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

??2021????????????????2.7??????????????????

?3?????6?????????873?????????1?????????????????????????5????????????????????????????????????

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

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?? ? · 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. ????

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2050

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CO2

????????????????????36????BEVs?1000????????????????CO2????4.9%????????????????  
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Posted in ???, ????? | No Comments »

### ????100%????????????????

?? ?? · Thursday, February 2nd, 2023



BrianAJackson/iStock

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

**100%????????????????????**

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

3????????????????????100%??  
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????????????????????100%????CO2??  
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????CSR??  
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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

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

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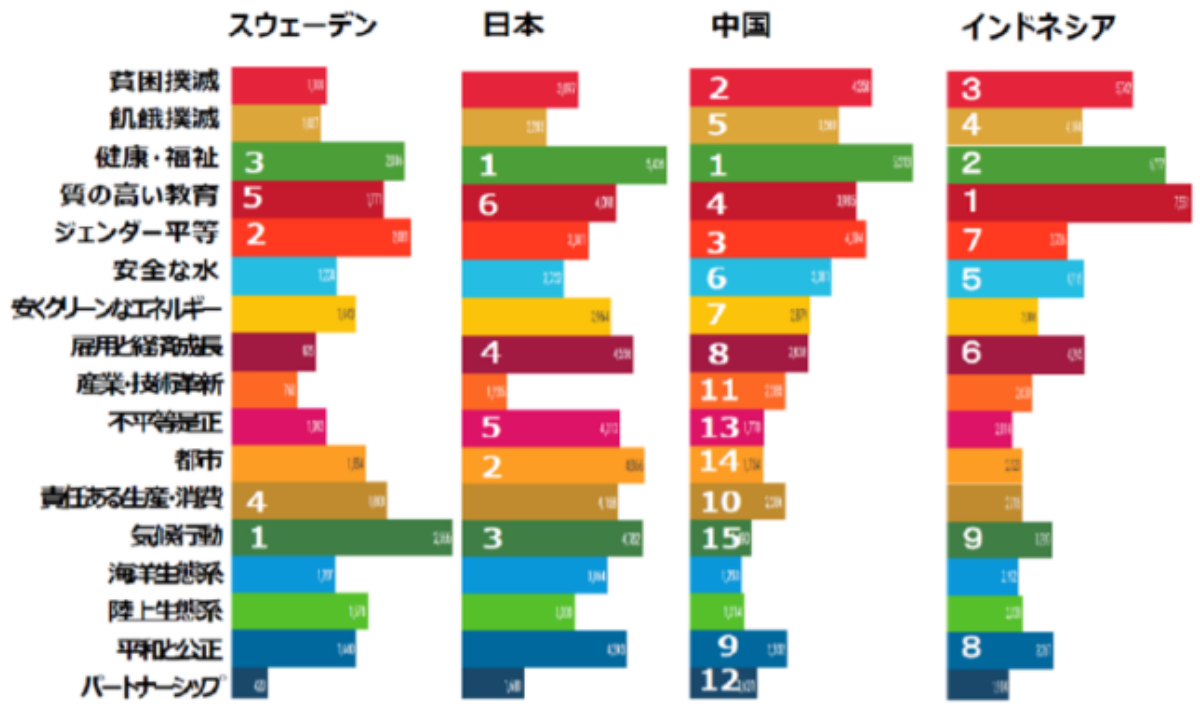












???United Nations My World 2030 ??????

????????????????GDP????????SDG13????????????????????????????????GDP????????????????????????  
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????????????3??E????????????Energy Security????????Environmental  
Protection????????Economic  
Efficiency??  
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2022?3????????????????Vervox????????54????????????????????????????42????????  
????????????????????????????2021?6????????12????

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????2022?6????????????????????????2????????????????????????????????????  
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Posted in ???, ????? | No Comments »

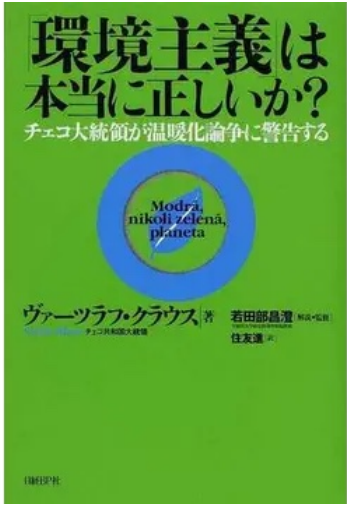




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??2003????2013????????????????????2????????????????????  
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??1989??92?  
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?2?????????????????0.1????????????????????????????2006????????????????????????????  
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Posted in ??????????, ??, ???? | No Comments »



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

????????????1????????????????????????60.3????2????????????42.6%????3????????????41.8%?????  
??1????????46.2%??2????????????????30.6%??3????????19.4%???

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

????? Long

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

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

**Long Covid: Protestaktion vor dem Bundestag**

??6000????????

??1????????  
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????SDGs????????????????

Posted in ???, ????? | No Comments »

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?? ? · Saturday, January 21st, 2023



Kolonko/iStock

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

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

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



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

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Posted in ???, ????? | No Comments »

# ????????????????????????????????????

?? ?? · Saturday, January 21st, 2023



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Wikipedia

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1920??????  
???Wikipedia

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

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1970??

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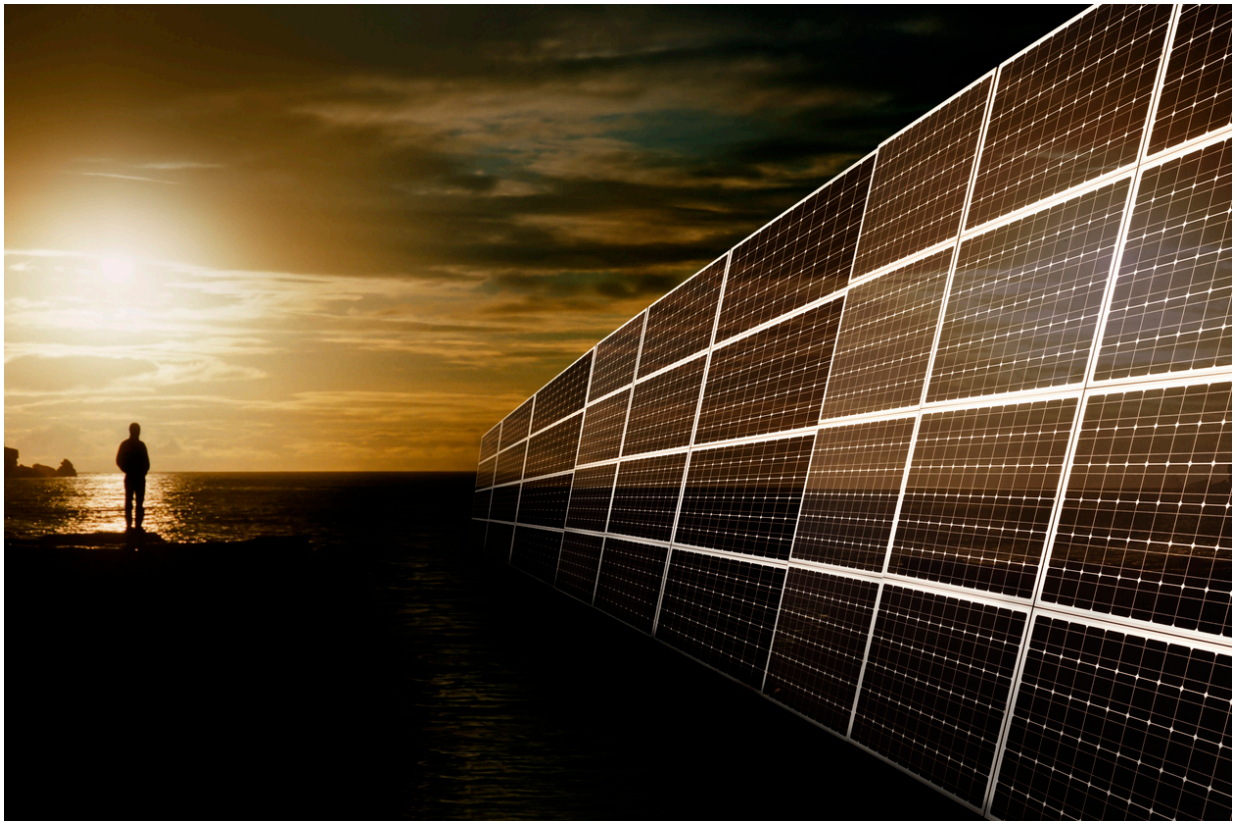
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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, January 10th, 2023



HadelProductions/iStock

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

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

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??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%)

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??2023?1?7

????????????2022?G7????????????????????????2022?G7????????????????????????2022?G7????  
????????????????????????2021?G7??  
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????12????????????????????????????????????  
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?1?????CSR?????????????????????ESG?????????

?2????????50????????????????????????????????  
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?SDGs???????

Posted in ???, ????? | No Comments »

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?? ?? · Monday, January 9th, 2023





NicoElNino/iStock

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??2????????

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

????2000????????????????????<sup>21)</sup>??  
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2023?1??  
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- ???CO2????????????
- ??????????????1?2?3????????????????
- CO2????????????
- ?2030????????????????
- 2050????????????????

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??ESG??ESG  
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??2050?????2030?CO2????????????????  
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????????????????????1%??80%????????  
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?J??EV????????????????????

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

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?SDGs??????

Posted in ???, ????? | No Comments »

# 2022????????????????????????????????

?? ?? · Monday, January 9th, 2023



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H M Shahidul Islam/iStock

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

2022????????????????????????????????

Sky New????????????????????????????????

BBC????????????????????????????????

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

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??80????????????75????1  
0????????????????????18????????1988????????75??????

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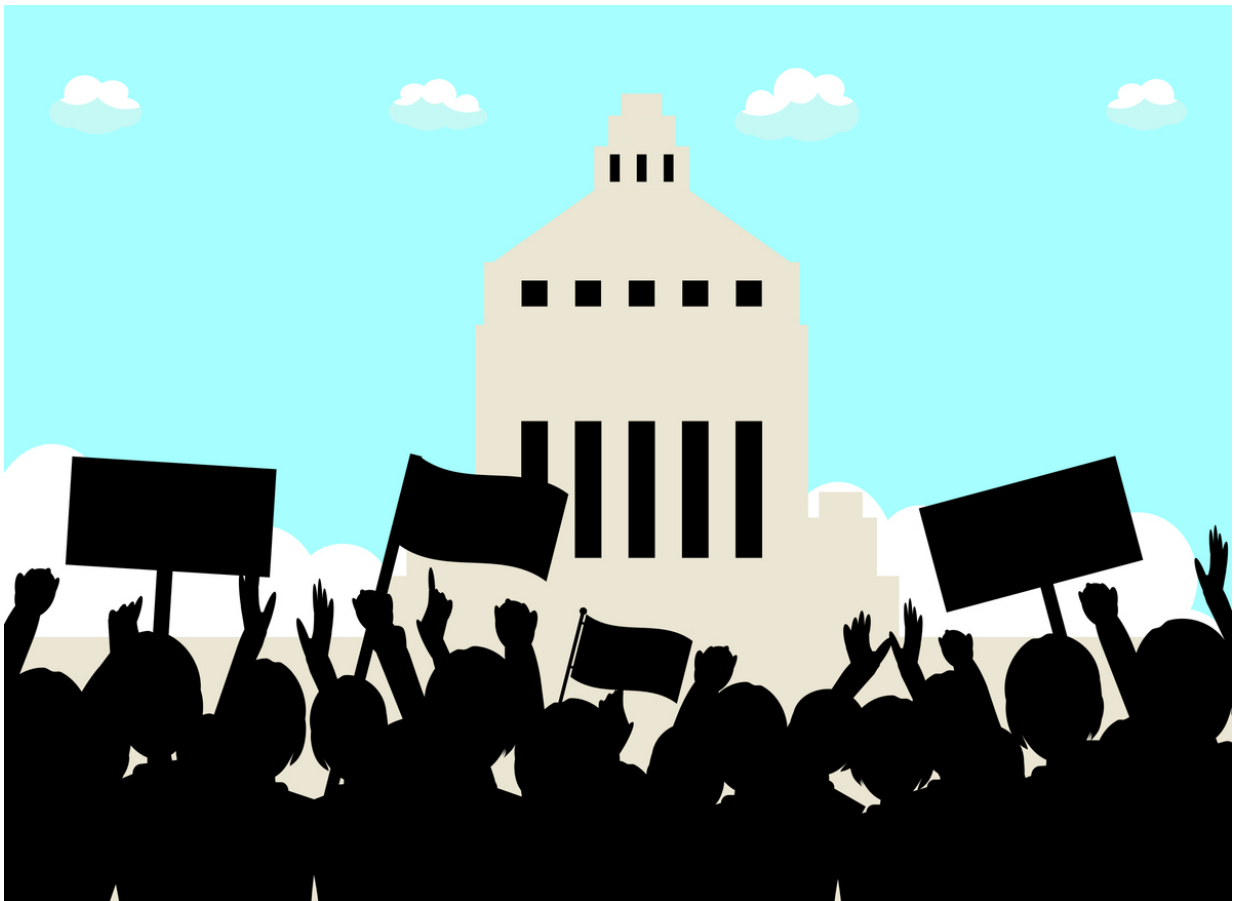
Posted in ???, ????? | No Comments »

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

?? ?? · Sunday, January 8th, 2023

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

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kid-a/iStock

**GX????????**

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

**GX????HP**

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

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

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

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

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

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

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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。

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

**GX????????????????**

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

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

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



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

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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。

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

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

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

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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

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

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

?? ?? · Saturday, January 7th, 2023



Devrimb/iStock

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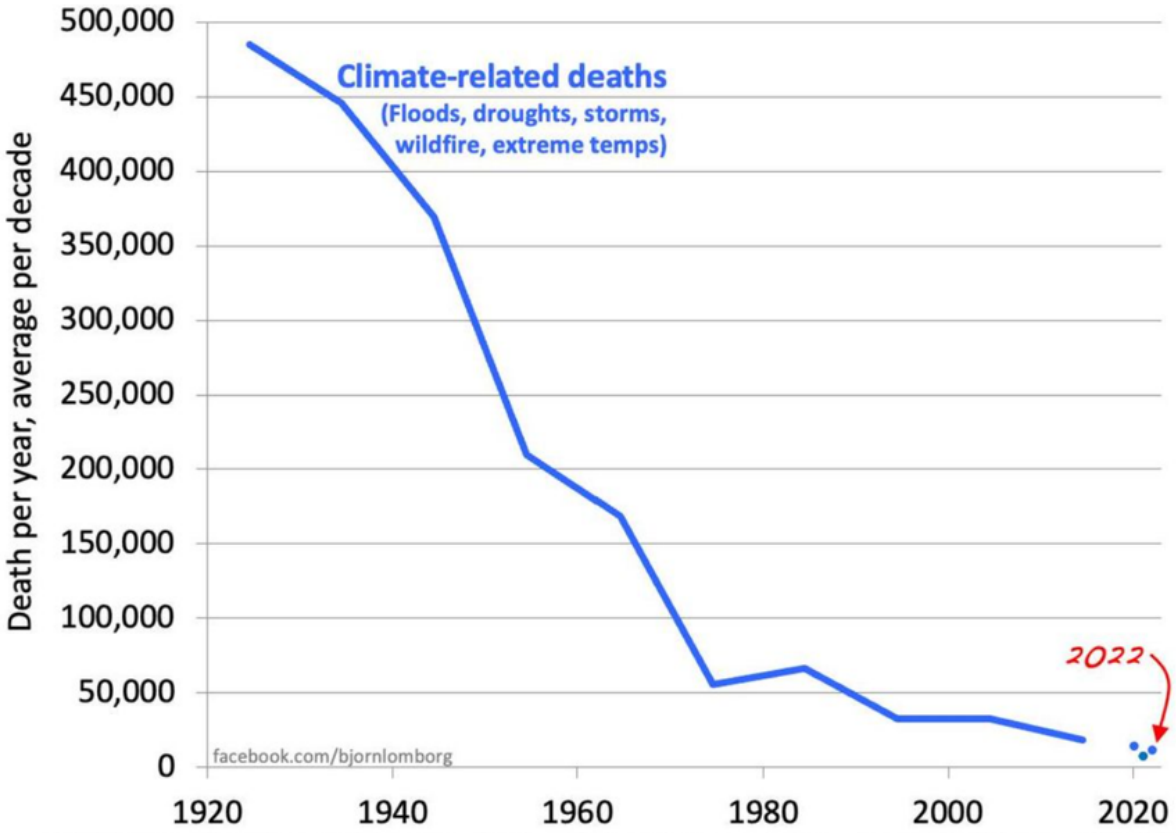
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????????????????????1920????29????????????2010????2019????????????????????????????3????????????

# 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>.

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2022??2022??  
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Posted in ???, ????? | No Comments »

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?? ? · Saturday, January 7th, 2023



Natali\_Mis/iStock

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**2.3.???**

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??????2040??

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???Typhoon????????????21t??4t????????????????????49MWh????????????????????????????

?????????180Wh/kg????????????????13??272

t????????49×10<sup>6</sup>Wh/180×10<sup>3</sup>Wh/t?272.2t????????????????

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70??=272/4??

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

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????????2.2????????220kWh??1m<sup>2</sup>?1

50W????6.2m×2.5m????????????????95????220kWh/(0.15kW/m<sup>2</sup> × 6.2m × 2.5m)?94.6

h????????95????????????1????????????????????????????





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????????????????BEVs??  
????FCV??1100????????????????????????????????

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????????????????????EV?PHEV??  
??700????????????FCV????????  
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??BEVs????????????????????????????????LDVs?light duty  
vehicles????????????????45??  
????????????????????????????????

??????A320??19????????????????????????????

?????13??LDVs??????2040?????17?19?????????????????????3600??LDVs?????2021????B  
EVs?36????1%????????????????LDVs????????????????100????????????LDVs????????  
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2021????????1250??(??)BEVs??????70??  
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Posted in ??, ???? | No Comments »

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?? ?? · Friday, January 6th, 2023





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Wikipedia??

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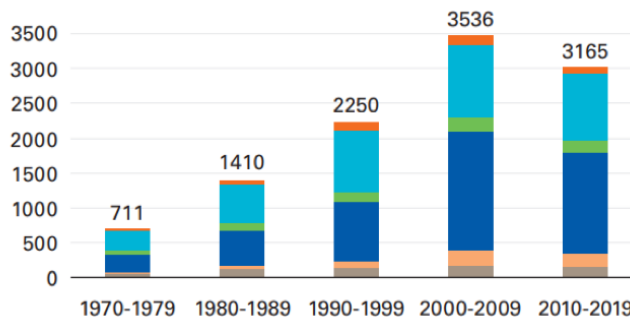
??W  
MO????????????????????IPCC??????????



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????????5075??  
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(a) Number of reported disasters  
 Total = 11 072 disasters



■ Drought   ■ Extreme temperature   ■ Flood   ■ Landslide   ■ Storm   ■ Wildfire

??(United Science)?? in

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Posted in ???, ????? | No Comments »

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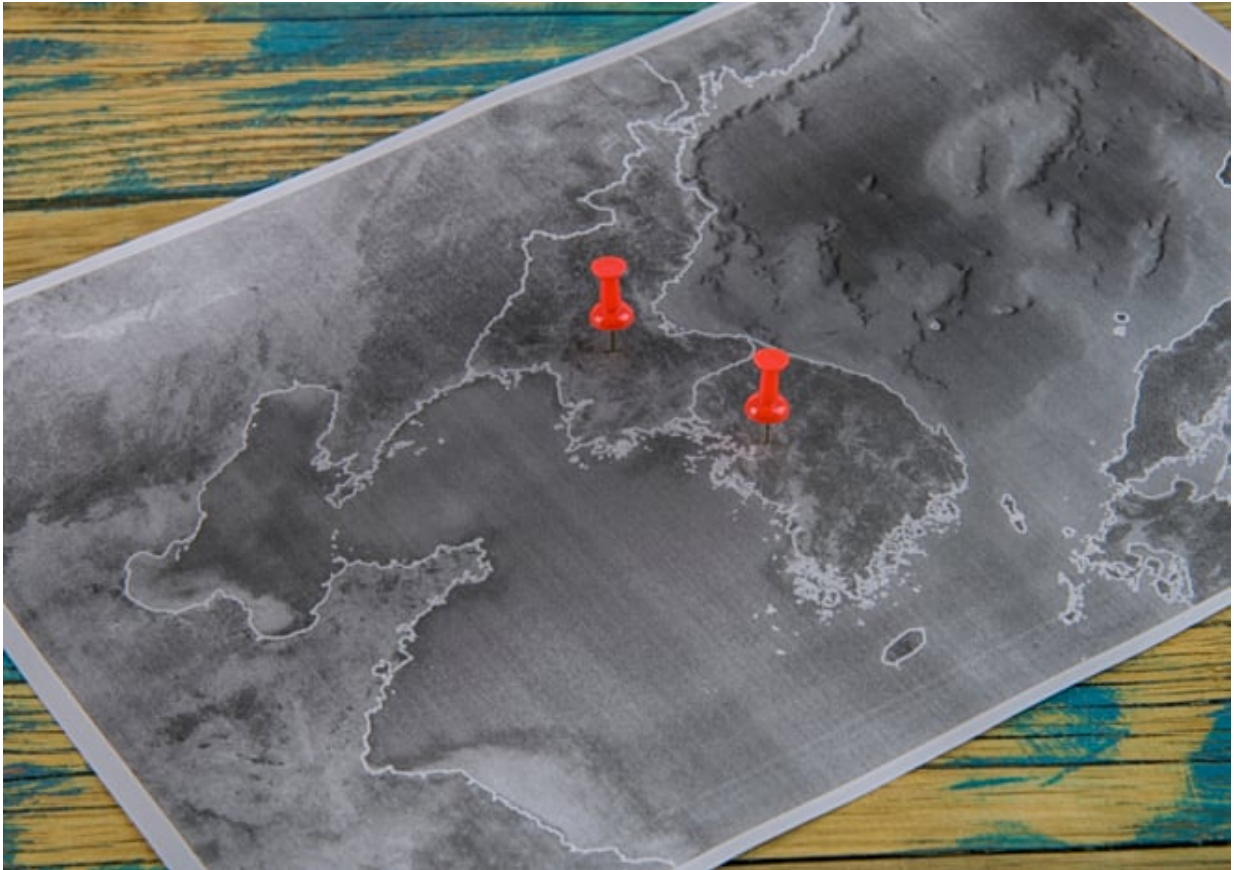
?? ?? · Tuesday, January 3rd, 2023





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?? ?? · Wednesday, December 28th, 2022



Perytskyy/iStock

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??NPT????????????????????  
???VOA Korea 2022?12?23??



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**????????????BTS??????????**

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dzika\_mrowka/iStock

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

### ????????????????????ESG??

?? ?? · Sunday, December 25th, 2022



gremlin/iStock

WEF??2050????????????????????????????

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????????????????????100????250??80????????



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

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?? ?? · Saturday, December 24th, 2022

EU????????????12?18?????EU??EU????????????????  
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????EU?CO<sub>2</sub>??????4?????EU-  
ETS????????????????2030????????????43??62??  
????????????????????????????????2026????????????????????????????

????26??2.5????????27?5.0??28?10??29?22.5??30?48.5????????????2034??100????????????????  
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Galeanu Mihai/iStock

??EU????????????CO<sub>2</sub>????????????  
??EU????????????????  
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??EU????????????????  
????????????????CBAM????????????????

CBAM??EU??CO<sub>2</sub>????EU??ETS????????????

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????????????????CO2??EU????????????????  
??WTO????????????????????  
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????????????2023?10????25????15??202  
6????????????????????????????????????EU????26??  
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????????????????CBAM????????????????????Eurofer????????????????????????????????????450????????????  
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????????????????????????CBAM????EU??EU????????????????  
????EU??2026????EU????????????????????????????

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????????????????WTO????????????????????????????????????

????????????????????????2025????????????????????????????????????WTO????????????????????????????????  
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?????EU??CBAM????????????  
??CBAM????????????

?EU??EU????????  
????????????????????????????????????CBAM????????????????EU????????????????????

????????????????????????????????????CBAM????????????2026??EU????  
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?? ? · Friday, December 23rd, 2022



Artur Nichiporenko/iStock

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**2.1. ??????????????????**

??????1??????489.7 EJ??60??CO2????????????????????????????????????

Table 1. Primary energy and electricity sources in exajoules, EJ (10<sup>18</sup> joules) and installed wind and solar capacity in GW for 2021 [7]. Electricity generation converted to EJ from TWh. 1 EJ= 277.8 TWh.

Country	World	China	U.S.A	India	UK
Oil, EJ	184.21	30.6	35.33	9.41	2.5
Natural Gas, EJ	145.35	13.63	29.76	2.24	2.77
Coal, EJ	160.1	86.7	10.57	20.09	0.21
<b>Total fossil fuel, EJ</b>	<b>489.66</b>	<b>130.93</b>	<b>75.66</b>	<b>31.74</b>	<b>5.48</b>
Actual delivered Wind, EJ	6.7	2.36	1.38	0.245	0.232
Actual delivered Solar, EJ	3.72	1.177	0.594	0.246	0.045
Nuclear, EJ	25.31	3.68	7.4	0.4	0.41
Hydro, EJ	40.26	12.25	2.43	1.51	0.06
Other, EJ	29.5	7.253	5.306	1.289	0.953
<b>Total Primary Energy, EJ</b>	<b>595.15</b>	<b>157.65</b>	<b>92.97</b>	<b>35.43</b>	<b>7.18</b>
<b>Electricity Generation</b>					
Installed wind capacity, GW	824.9	329	132.7	40.1	27.1
Installed Solar Capacity, GW	843.1	306.4	93.7	49.3	13.7
Total electricity generated, EJ	102.47	30.72	15.86	6.173	1.116

Other includes bioenergy, geothermal etc.

?1

??1 EJ=277.8 TWh ???1 kWh=860.6 kcal=3597kJ??

????????1kWh=2074kcal=8669kJ????????????????MJ????????kJ????????????????????????????????

??????????860.6 kcal?????1kWh?????????????1kWh?????????????2074kcal???1 kWh=860.6kcal?????????????????????2.4???2?????????17%? 34%??

???23??

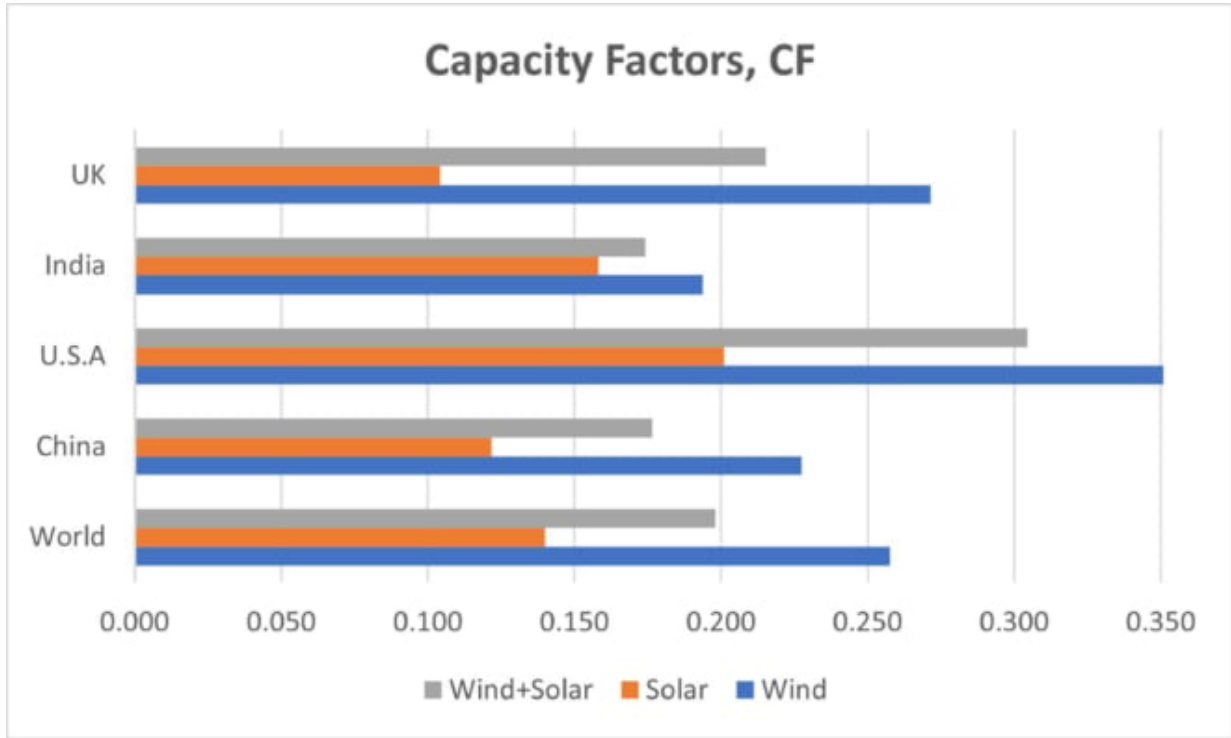
489.7EJ??60??=293.8EJ??CO2??60??CO2????  
????????????40??CO2????????????????????????????  
????????????????????????

293.8EJ????????????????????????????9320GW??1?????????  
????????????824.9

GW????843.1GW????1668GW??102.47EJ????????????????????1668GW/102.47EJ ×  
293.8EJ?4782GW??2????????????2????????????1/2????????  
????????????

9320GW??3GW??3110????????????GW?100?kW????????100?kW????3????????311  
0????????????????2021????????????????436????????396GW????????????????

Capacity  
Factors????????????25????????????40????????????9320/0.4?23300  
GW????????????????824.9 GW??28????



24

60??

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

4000?6000??/kW????4000??/kW????279GW????????????1????????  
????????????????????????????

640MWh????2????????????????????????8GW?5????????????????????  
??  
?



2.2. ?????????????????????

????????????????23300GW????????????????????????????????????

- 2500×10<sup>6</sup> tons?
- 12000×10<sup>6</sup> tons?
- 70×10<sup>6</sup> tons?? 2021????????0.21??
- 1.63×10<sup>6</sup> tons?
- 2.20×10<sup>6</sup> tons?

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

????????????????23300GW????????????????60% ?????????????????????  
????????????CO2??CO2????????  
????????????????????

2025??  
????????????????

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????????

2.3. ?????????????????????????????????

????????????????CO2????????????????CO2?????e-  
fuel????????????44????????????44????????  
????????????

Jet/Kerosene????????10.0379EJ????14EJ????44?e-  
fuel????14/0.44?31.8?32EJ????1000GW????0.4????2500  
GW????

	Million barrels of oil equivalent, MBOE	Energy, exajoules, EJ	Volumetric lower calorific value, MJ/litre	Fuel Volume, billion litres
Gasoline	26.26	0.1607	32.5	4.94
Diesel/Gasoil	28.12	0.1721	36	4.78
Jet/Kerosene	6.2	0.0379	35	1.08
Residual Fuel Oil	6.2	0.0379	38	1.00
Other	32.75	0.2004		
Total	99.53	0.6091		

????????????????1??????1668GW?102.47EJ????????????32EJ????1668/102.47×32?520.9  
GW????????????2????????????????????????????

????????????????e-fuel????????????????????????

????????????e-fuel????????????????????CO2????????????????????????????e-  
fuel????????????????????????????

????????????????e-  
fuel????????????????????????????????????

????????????e-  
fuel????????????????????????????????e-  
fuel????????????????????????????

????????????????1?3??CO2????192????0.12ha????????  
??36?40??????1  
ha????CO2??8.8????0.12ha??3??1ha??25????3????  
??????2??????1??6.2 MBOE????2263 MBOE????CO2????9.90??990×10<sup>6</sup>  
tons????????

0.12 ha × 990×10<sup>6</sup> t/? ÷ 3 t/? 39.6×10<sup>6</sup> ha

????????(489.66 EJ)????**2.8%**??????????(35.7×10<sup>6</sup>  
ha)????3????

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

????????????11????

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### ????????CO2????

?? ?? · Wednesday, December 21st, 2022

????????CO2????10????CO2????CO2????10????  
????2030??CO2????

????????CO2????7.1????

????????HTT????HTT????

????5kW?PV????4kWh????

	導入コスト	自家消費	年間メリット	試算諸元	回収年
PVシステム	150万円(5kW) 家庭用のPVシステム導入費30万円/kW、出力5kWと仮定。 <sup>[1]</sup>	30% 現在の住宅用太陽光発電の平均的な自家消費率実績 <sup>[2]</sup>	FIT期間中 12万円/年  FIT以降 6万円/年	資源エネルギー庁「地域活用要件について」(R1)に準じて試算 出力5kW×8,760h/年×設備利用率14% <sup>[3]</sup> =発電6,132kWh/年 ①自家消費分のメリット 6,132kWh×30%×系統単価24.76円/kWh <sup>[4]</sup> =45,548円/年 ②売電分のメリット(FIT期間中:~10年) 6,132kWh×70%×FIT単価(R1)21円/kWh=90,140円/年 ③売電分のメリット(FIT終了後、電力会社と個別に契約) 6,132kWh×70%×想定買取価格8円/kWh <sup>[5]</sup> =34,339円/年 ④運転維持費(定期点検・パワコン交換1回) ▲3,490円/年・kW <sup>[6]</sup> ×5kW=▲17,450円/年	15年
+蓄電池	75万円(4kWh) システム導入費18.7万円/kWh <sup>[7]</sup>	+20% <sup>[8]</sup>	3万円/年	①追加の自家消費分のメリット(充放電効率90%と仮定 <sup>[9]</sup> ) 発電電力量6,132kWh/年×充放電効率90%×自家消費20%×系統単価24.76円/kWh=27,329円/年 ②ピークカット+調整力運用のマルチユースを行った場合のメリット想定:2,400円/年(600円/年・kWと仮定 <sup>[10]</sup> ) ※夜間へのピークシフト運用は併用が難しいとして考慮せず	25年

???????????

??????????CO2?????1kWh????177kg-CO2????????Kawamoto????3??

??5kW????????CO2?????

177×5=885kg

????????????CO2????????????????????2.19kgCO2/Wp????5kW????????

2.19×5=10.95tCO2

????

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

0.885/10.95=8.08%

????

CO2????????8.08%????????

????????CO2????????7.1????????

7.1×(1+8.08%)=7.7

????????????????????CO2????????7.7??????

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

??CO2????????

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



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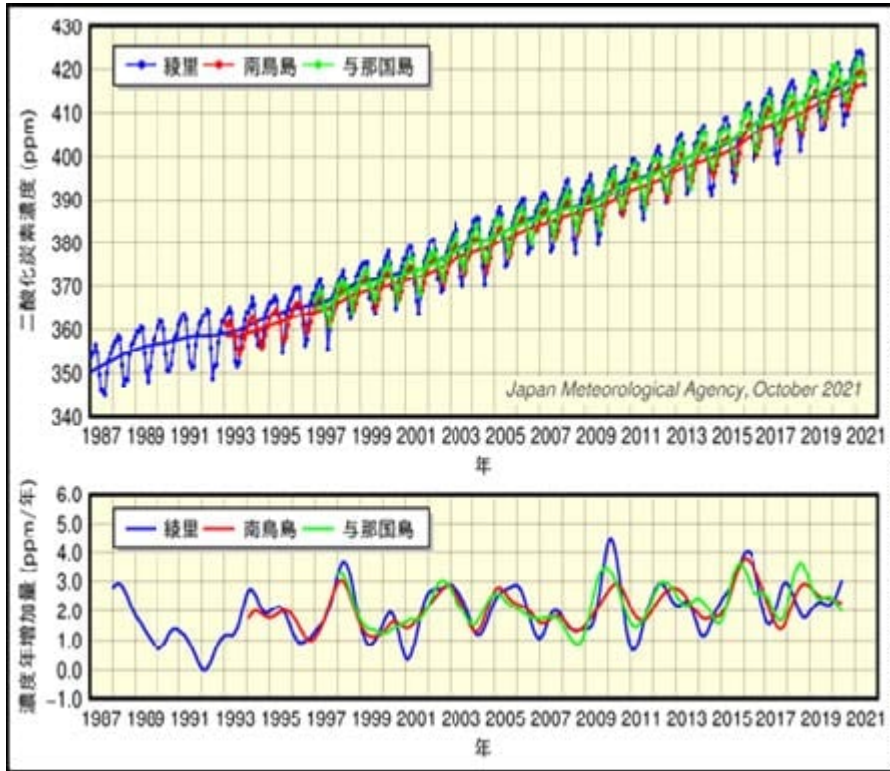
??????????????\_?? ?????????????????????



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

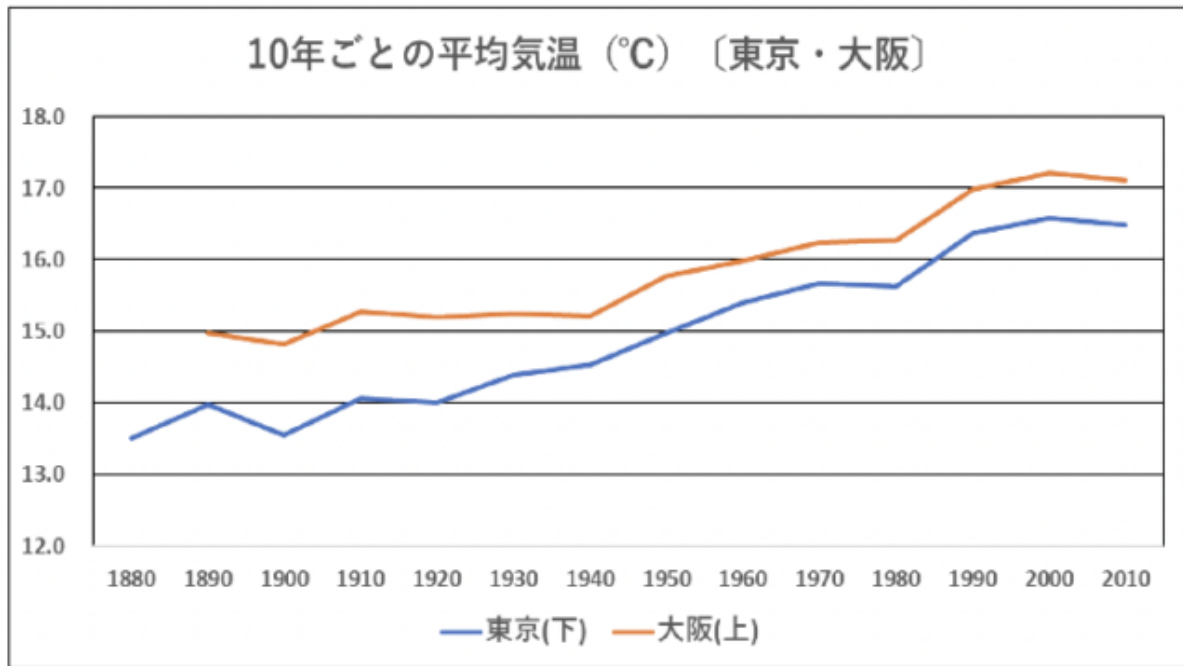


2000????CO<sub>2</sub>????????????????????????????????



????JMA?HP??????3????????????????????????????????CO<sub>2</sub>??1987??  
 ???1958??????????????????63??1958?2021??99ppm?316?415ppm??????????????????????1.57ppm/?  
 ?????????????????30??CO<sub>2</sub>????????????????????????????????

????????????????????????????????HP????????????>????????????>????????????????????????????????????10????  
 00?09????????????????????????????????????



????1940??2000????????????1980??1990????????????????????????????2000????????????????????????????????  
 ?????5????????????????????????????????

????????CO<sub>2</sub>??  
????????

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

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

**?????????Spiral** **of**  
**Silence?**??  
????????????????

????????????1980??OPEC????????????  
??

2000????????IPCC????????????????????????????????COP????????????????  
????????????????????????????????????

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

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?? ? · Monday, December 19th, 2022

????????COP????????NGO????????????????????COP????????????????

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

COP25??  
????????????????????1????????????????????NGO????????????????????  
GO????????????????????????

????????????????????????????????????2????????????????????????  
????????????????????NGO????????????????????

COP27?????11?9??  
????????????????????????NHK????????????????







電気ご使用量のお知らせ		いつもご利用いただきありがとうございます		電気料金領収証	
エネ庁 タロウ 様		ご契約番号 000-000000-0		エネ庁 タロウ 様	
●●年×月分		ご契約種別 AAA		ご契約番号 000-000000-0	
ご使用量 000 kWh		ご請求予定額 0,000円		ご契約種別 AAA	
前月指針数 000	基本料金 000円	請求金額 0,000円		●●年×月分	
前月指針数 000	第1料金 000円	基本料金 000円		5/15迄経過 000円	
差引 000	第2料金 000円	第1料金 000円		5/15迄経過 000円	
	第3料金 000円	第2料金 000円		5/15迄経過 000円	
	燃料費調整額 0円	第3料金 000円		5/15迄経過 000円	
	再エネ賦課金 0円	燃料費調整額 0円		5/15迄経過 000円	
		再エネ賦課金 0円		5/15迄経過 000円	

再エネ賦課金

電気料金 + 再エネ賦課金 = 月々の電力会社へのお支払い

〈再エネ賦課金の算定方法〉  
 (2022年5月検針分の電気料金から適用される単価)

**再エネ賦課金** = ご自身が使用した電気の量 (kWh) × **3.45円/kWh**

※ただし、大量の電力を消費する事業所で、国が定める要件に該当する方は、再生可能エネルギー賦課金の額が減免されます。

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

??2021????????????????6000?kW????500?kW????????????????????????????2?6000?kW??25??2021??10.2????????

????????

????????????FIT????????????????????????????CO2????????????????????COP26????????CO2??

????????CO2????1990????????????????????????????11?6000????2019??11?1000????????????????4????????

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suken/iStock

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

????????????????4????????????2016=2019:201-202??

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

??203?

????????????<sup>21)</sup>?

??112??  
????????????????????????

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

??26??

????????????????????????????????????65??  
????????????????1988?6??

**COP27????????????????????**

????????2021??COP26????????????????????????????????????2050??2060?????  
????????????????????????2070??

2022 COP27 1865=1970:31

IPCC COP 105

2022 12 2023 3 31 GDP 3 GX 150 10

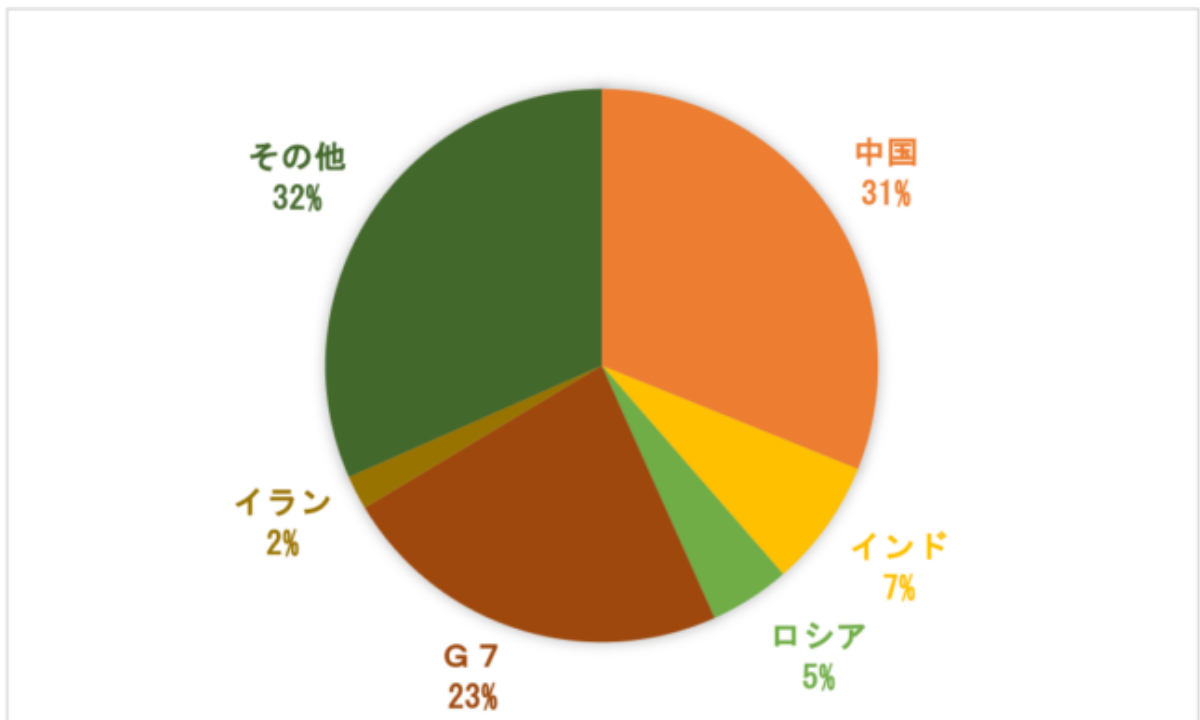
1950=1995:130 2022 110

18 19

2022 12 1751 100

16 2)

1 2021 1



2021 BP

Global Note

G7

13.9... 23.1... 1.9... 1.6... 1.0... 0.9... 0.8... 23.2... 43.3...

G7... 3.1... 3.0... 2.8... 3)

universal (particular)

1... 2... 3... 4... 5... 6... 7... 8... 9... 10... 11... 12... 13... 14... 15... 16... 17... 18... 19... 20... 21... 22... 23... 24... 25... 26... 27... 28... 29... 30... 31... 32... 33... 34... 35... 36... 37... 38... 39... 40... 41... 42... 43... 44... 45... 46... 47... 48... 49... 50... 51... 52... 53... 54... 55... 56... 57... 58... 59... 60... 61... 62... 63... 64... 65... 66... 67... 68... 69... 70... 71... 72... 73... 74... 75... 76... 77... 78... 79... 80... 81... 82... 83... 84... 85... 86... 87... 88... 89... 90... 91... 92... 93... 94... 95... 96... 97... 98... 99... 100...

universal (particular)

1... 2... 3... 4... 5... 6... 7... 8... 9... 10... 11... 12... 13... 14... 15... 16... 17... 18... 19... 20... 21... 22... 23... 24... 25... 26... 27... 28... 29... 30... 31... 32... 33... 34... 35... 36... 37... 38... 39... 40... 41... 42... 43... 44... 45... 46... 47... 48... 49... 50... 51... 52... 53... 54... 55... 56... 57... 58... 59... 60... 61... 62... 63... 64... 65... 66... 67... 68... 69... 70... 71... 72... 73... 74... 75... 76... 77... 78... 79... 80... 81... 82... 83... 84... 85... 86... 87... 88... 89... 90... 91... 92... 93... 94... 95... 96... 97... 98... 99... 100...

COP27... GN... GS...

IPCC COP

3... 4... 5... 6... 7... 8... 9... 10... 11... 12... 13... 14... 15... 16... 17... 18... 19... 20... 21... 22... 23... 24... 25... 26... 27... 28... 29... 30... 31... 32... 33... 34... 35... 36... 37... 38... 39... 40... 41... 42... 43... 44... 45... 46... 47... 48... 49... 50... 51... 52... 53... 54... 55... 56... 57... 58... 59... 60... 61... 62... 63... 64... 65... 66... 67... 68... 69... 70... 71... 72... 73... 74... 75... 76... 77... 78... 79... 80... 81... 82... 83... 84... 85... 86... 87... 88... 89... 90... 91... 92... 93... 94... 95... 96... 97... 98... 99... 100...

1... 2... 3... 4... 5... 6... 7... 8... 9... 10... 11... 12... 13... 14... 15... 16... 17... 18... 19... 20... 21... 22... 23... 24... 25... 26... 27... 28... 29... 30... 31... 32... 33... 34... 35... 36... 37... 38... 39... 40... 41... 42... 43... 44... 45... 46... 47... 48... 49... 50... 51... 52... 53... 54... 55... 56... 57... 58... 59... 60... 61... 62... 63... 64... 65... 66... 67... 68... 69... 70... 71... 72... 73... 74... 75... 76... 77... 78... 79... 80... 81... 82... 83... 84... 85... 86... 87... 88... 89... 90... 91... 92... 93... 94... 95... 96... 97... 98... 99... 100...

IPCC COP... 100... 2022...

4...

100

5... 1... 31... 3... 32...

6... 100... 2022...

7... 100... 2022...

100 2050

8... 28... 2050... 1...

??

**????????????G7????**

?9????????????????????????????1?23.2????????G7????????43.3????????????????????????????????  
????????????

?10????????30????????4????560????????????????????????2022????????25????????????????????  
????????????<sup>4)</sup>????????????????

?11????50??10????????????????????????????1????  
????????????????????G7????????????????????????

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

?12????1.5????????????????.....????????????????????G7????????23????????20????????77  
????????????10????????????????????

?13??3??  
????????????

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

?14??GN?GS?????  
?????GS??

?????15??<sup>5)</sup>?

????????????????????GS????????????????????

????16??

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?

?1????????????3.11????????????????????????????????2012)????????????????

?2????????6?100?????1????????

?3?2010????????????????????25????????????????2010?12?1???50????????????????  
?2012:91-93??

?4????????????????2022????

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

?????

• Bernard,C.,1865,Introduction à l'étude de la médecine expérimentale .(?1970,????????????).

- ???,2012,????????????????.
- ???,2022,????????????????????????????????????11?24??.
- ???,2022,????????????????????????12?8??.
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- ???,2022,?COP27????????14????????????????????????11?23??.
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- ???,2022,????????????14????????.

Posted in ???, ????? | No Comments »