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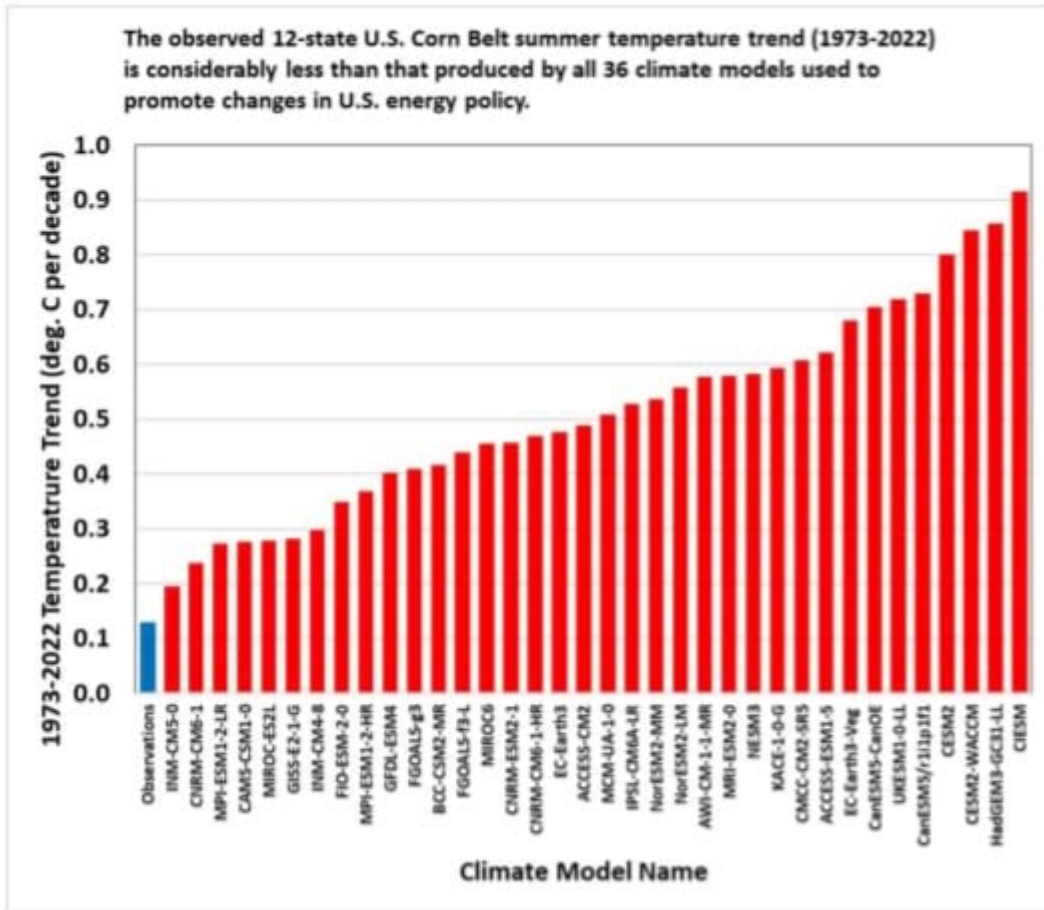




feellife/iStock

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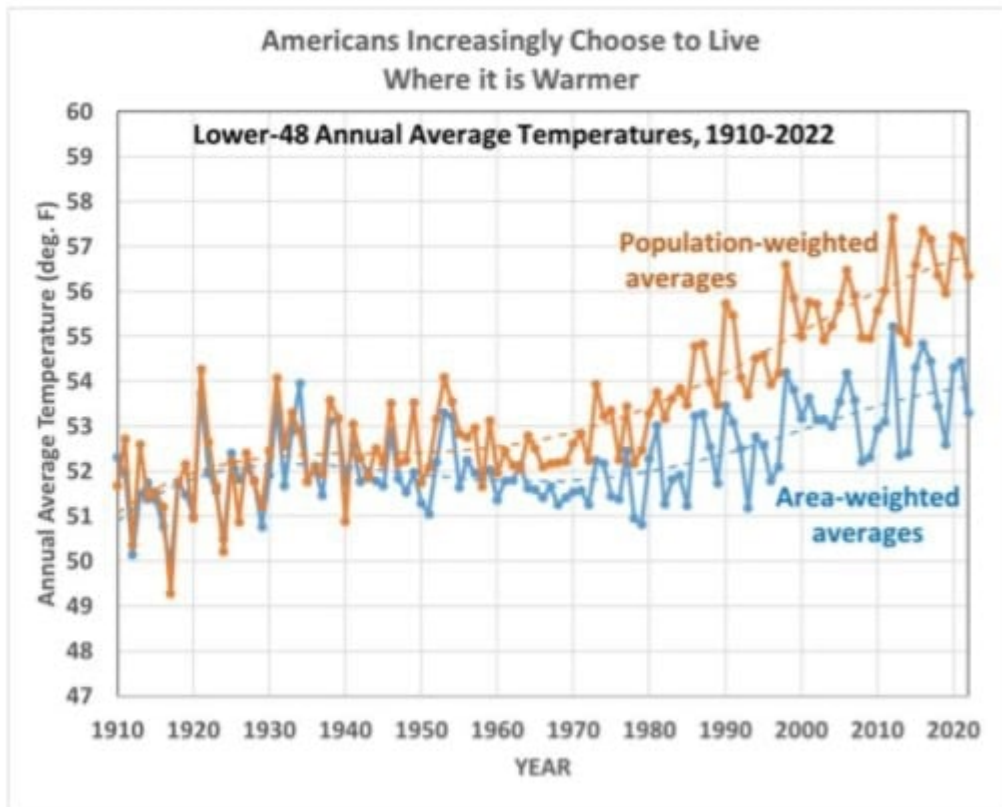
?? ?? · Sunday, June 4th, 2023



Darwel/iStock

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?? ? · Monday, May 29th, 2023

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spoooh/iStock

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

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?? ?? · Sunday, May 28th, 2023



sasun bughdaryan/iStock

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### **GX????????????????**

?? ?? · Saturday, May 27th, 2023



PhonlamaiPhoto/iStock

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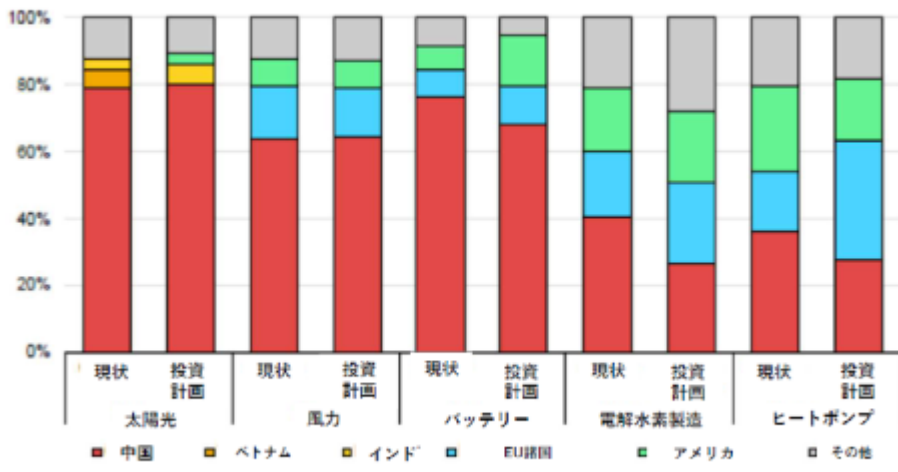
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図3. グリーン技術製造の地域集約度—現状と将来



出典：The State of Clean Energy Technology Manufacturing, IEA, May 2023

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?3?“Securing Clean Energy Technology Supply Chains”, IEA, July 2022 / “The State of Clean Technology  
Manufacturing”, IEA, May 2023

?4?Reuters, 2011?1?17?

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

## G7??CO2??

?? ?? · Wednesday, May 24th, 2023

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???Twitter by True Science PEng, DFP, ADFS, MA, MBA



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?? ??? · Monday, May 22nd, 2023



Wikipedia??

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

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?? ?? · Saturday, May 20th, 2023

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Allkindza/iStock

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**FACT SHEET: Biden-Harris Administration Proposes New Standards to Protect Public Health that Will Save Consumers Money, and Increase Energy Security**

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- ????CO<sub>2</sub>????2????100????CO<sub>2</sub>????????????????????????????????
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- CO<sub>2</sub>????????????????????????????????????5000ppm????????????????????1000ppm????????????????
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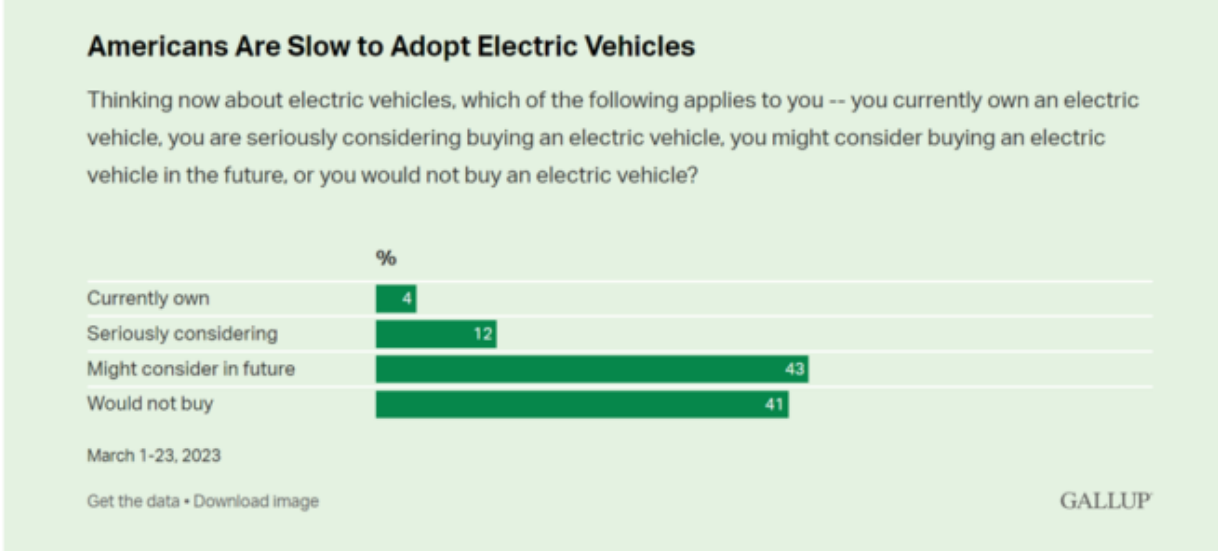
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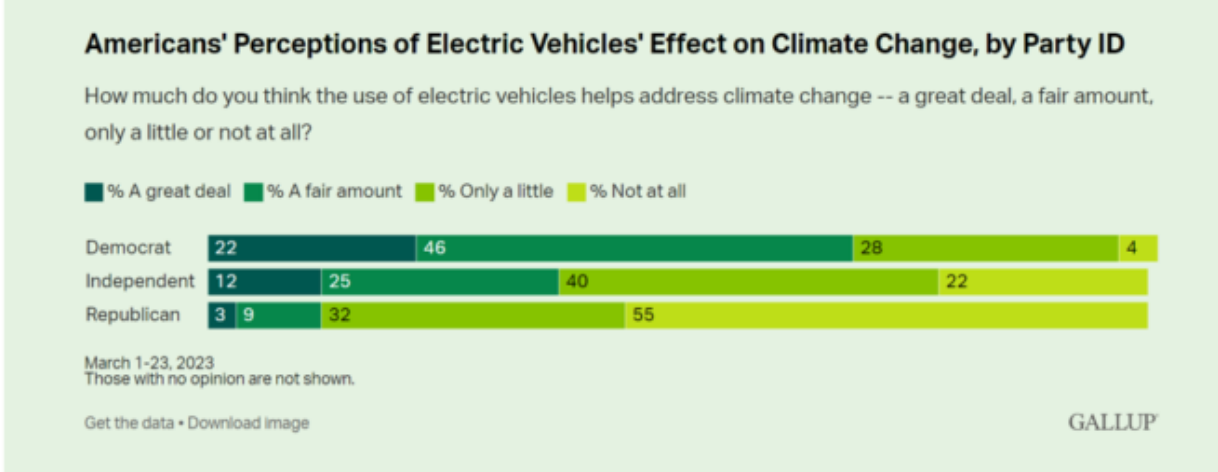
### Most Americans Are Not Completely Sold on Electric Vehicles

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- EV????????4????????????12????????????EV????????
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# IPCC?????63????????????????????????????????

?? ?? · Tuesday, May 16th, 2023



remotefx/iStock

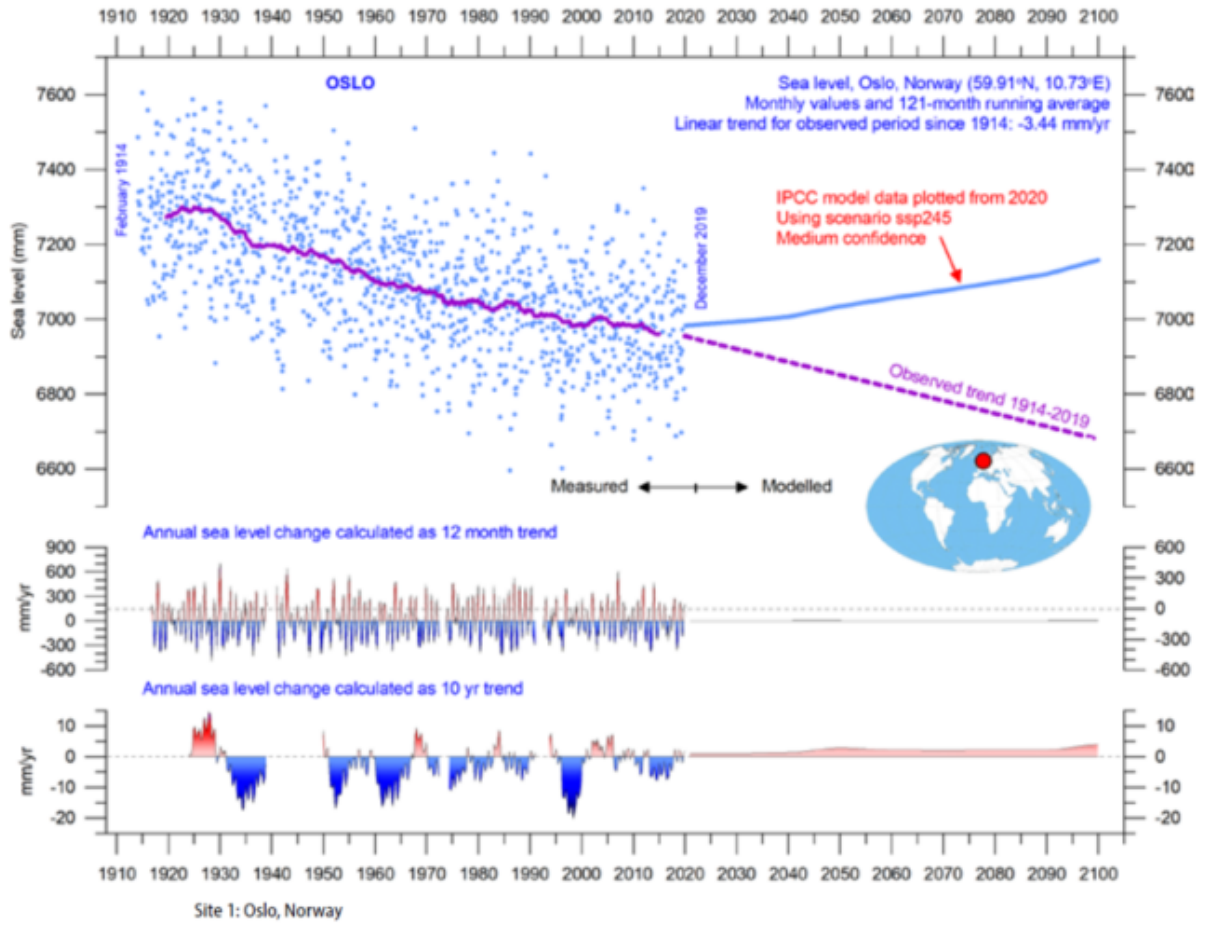
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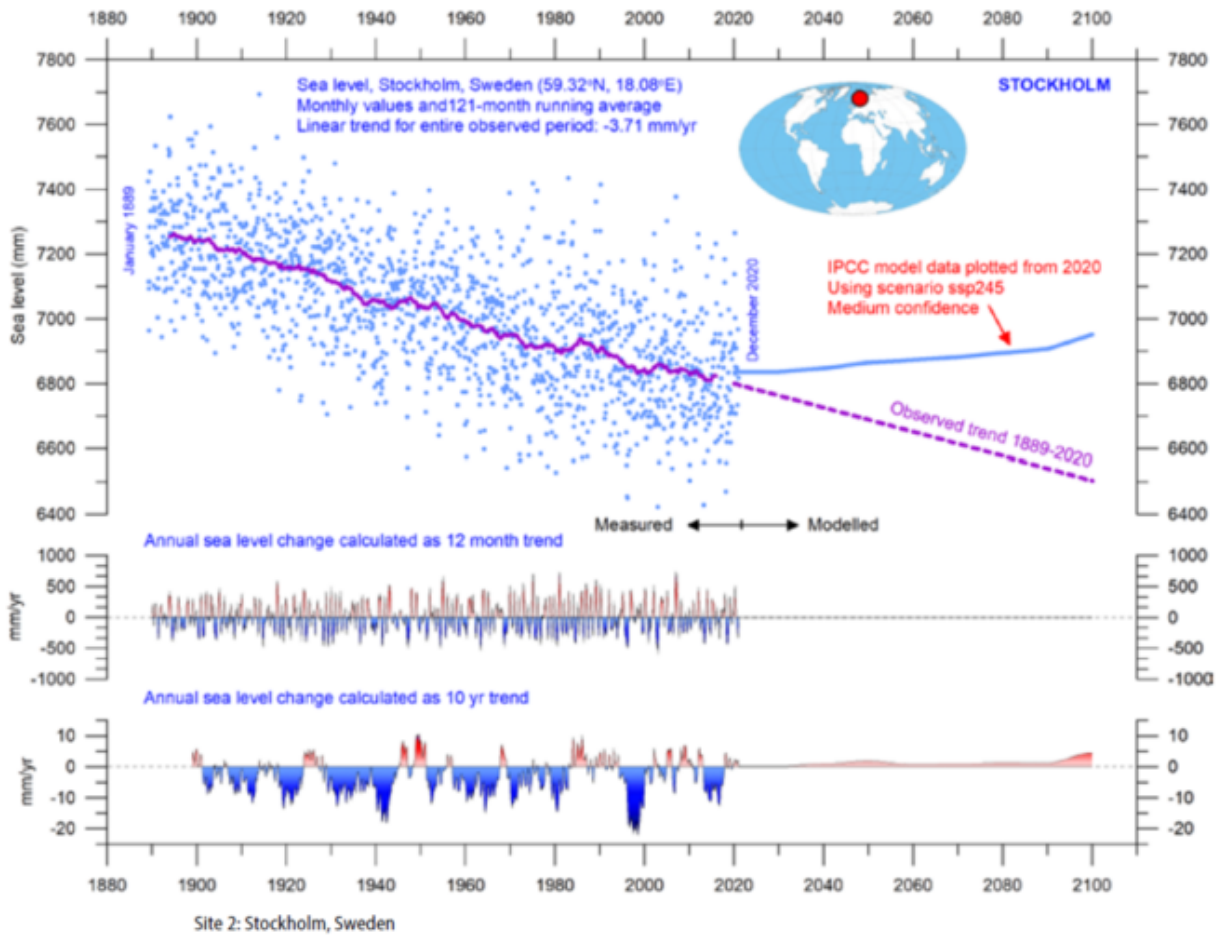
IPCC??

## IPCC AR6 Sea Level Projection Tool

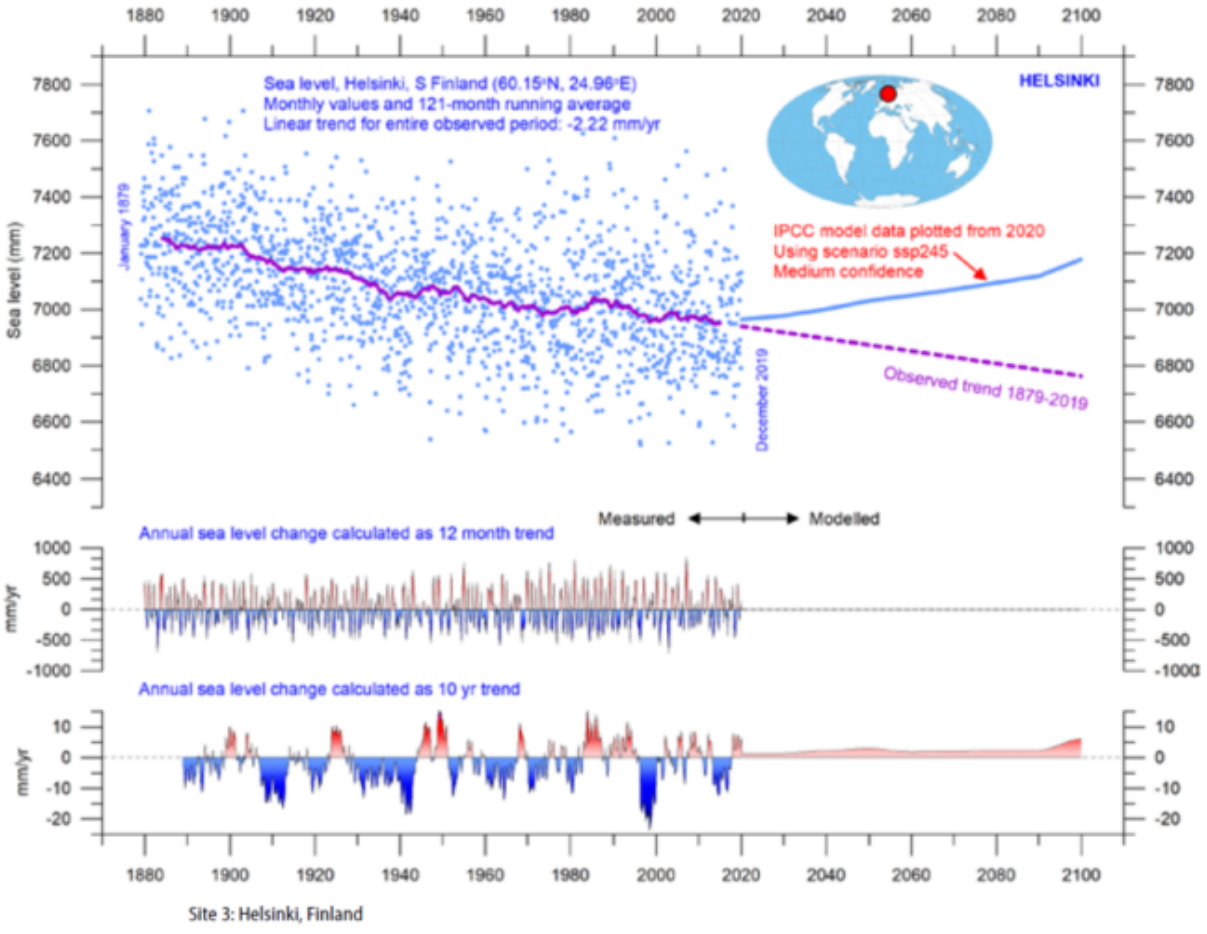




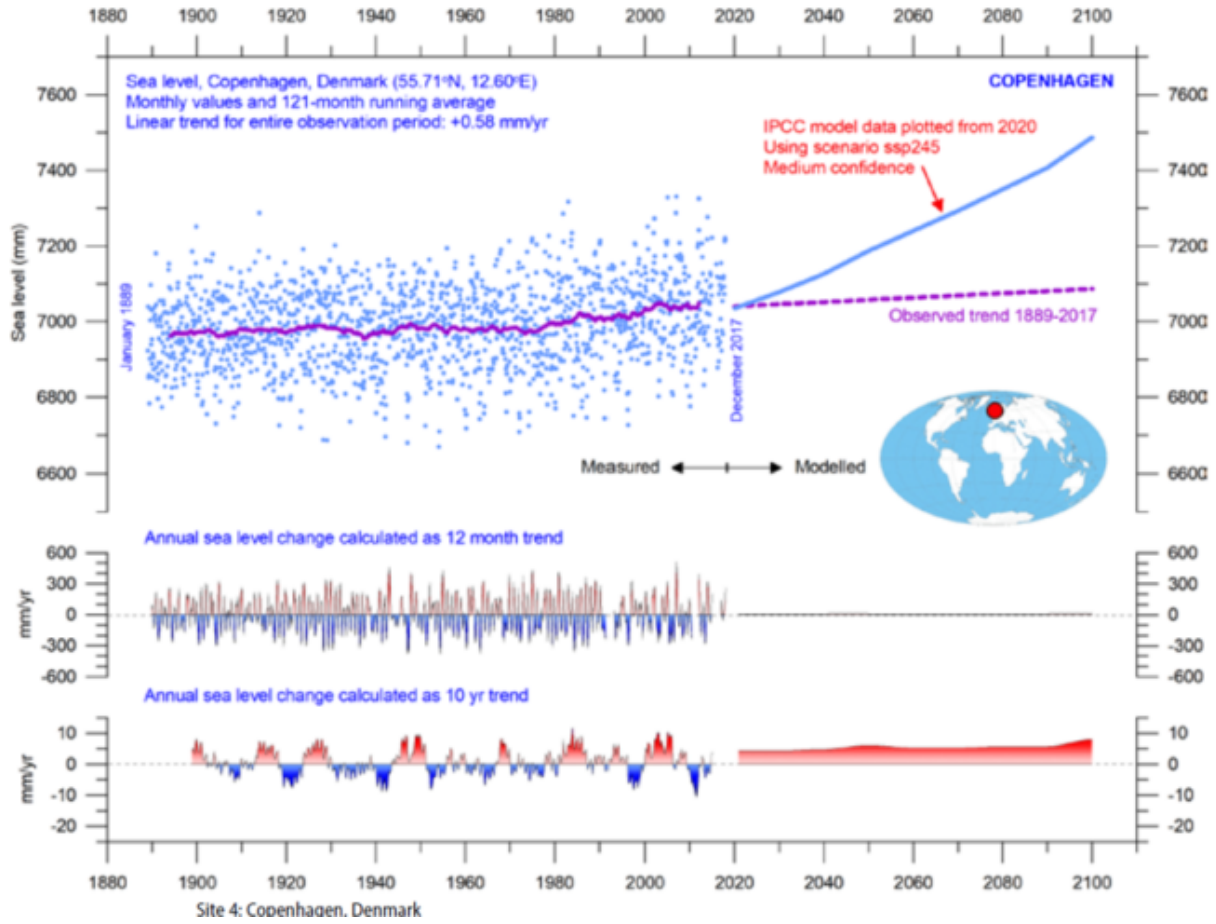
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**IPCC??????62??????????????????**

?? ?? · Monday, May 15th, 2023

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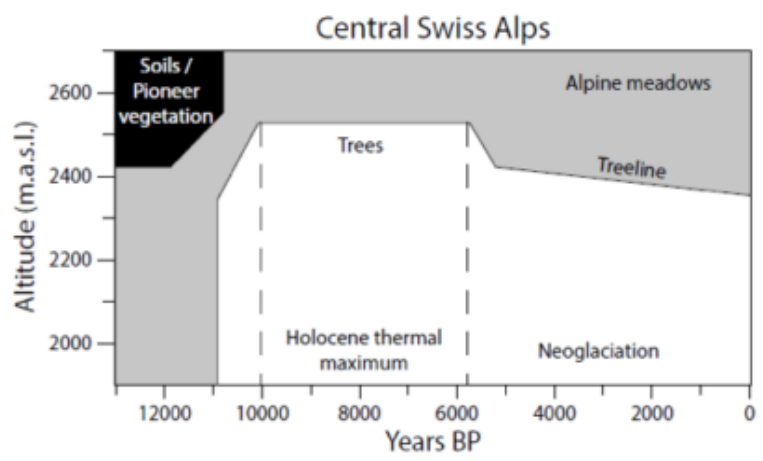
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- ??????????8400???4000?????????400m???
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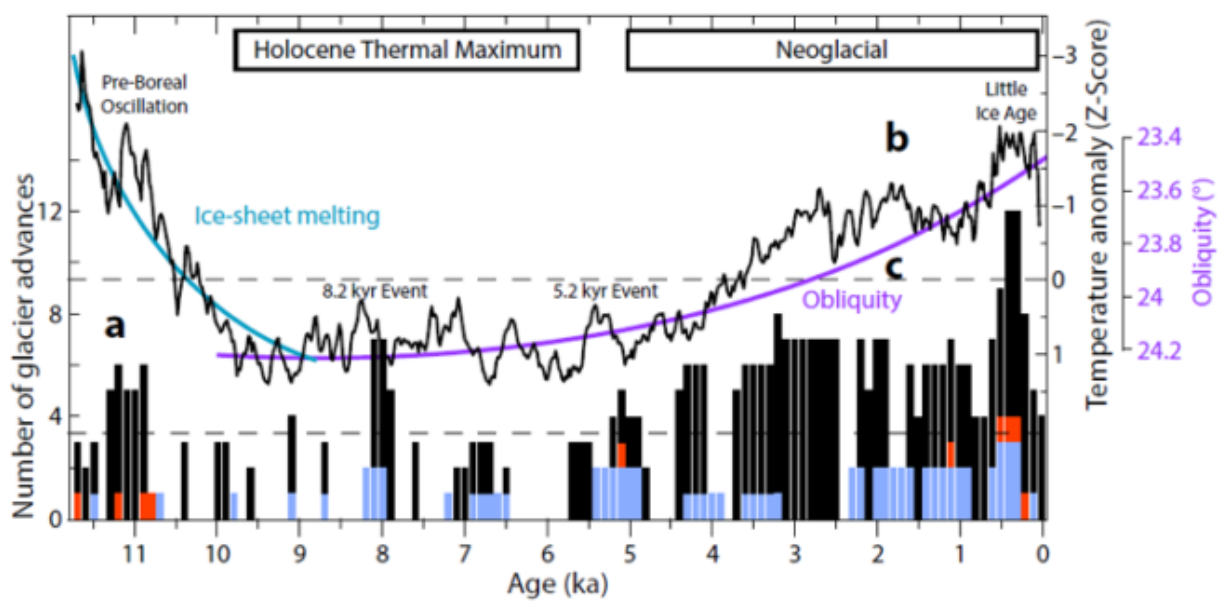
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**Figure 4:** Fluctuations of the treeline in the Swiss Central Alps during the Holocene. The limits of the vegetational zones are placed between the sites according to the presence of the respective vegetation type as inferred by macrofossil analysis. Altitude in meters above sea-level. After Tinner & Theurillat 2003. Current treeline in the Swiss Central Alps is 150-200 m below Holocene Thermal Maximum treeline limit.

??Obliquity??  
 ???1850??Ice  
 Age??



**Figure 3:** Glacial advances versus temperature (inverted) during the Holocene. a) Number of regions displaying glacier advances at each Holocene century. Black, NH 17 regions; orange, low latitudes single region; ice blue, SH 4 regions. Bottom dashed line, Holocene glacial position average. b) Inverted temperature reconstruction from the same 73 proxies used by Marcott et al. 2013. The reconstruction ends in 1910 and does not include modern warming. Temperature anomaly changes are expressed as Z-score (distance to the mean). Some well-known cooling periods or events are indicated by their accepted names. The period affected by the melting of the extra-Arctic ice sheets is indicated in aquamarine. c) Inverted changes in obliquity. Vinós, 2022, page 55.<sup>13</sup>

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**IPCC?????61?????????????**

?? ?? · Sunday, May 14th, 2023

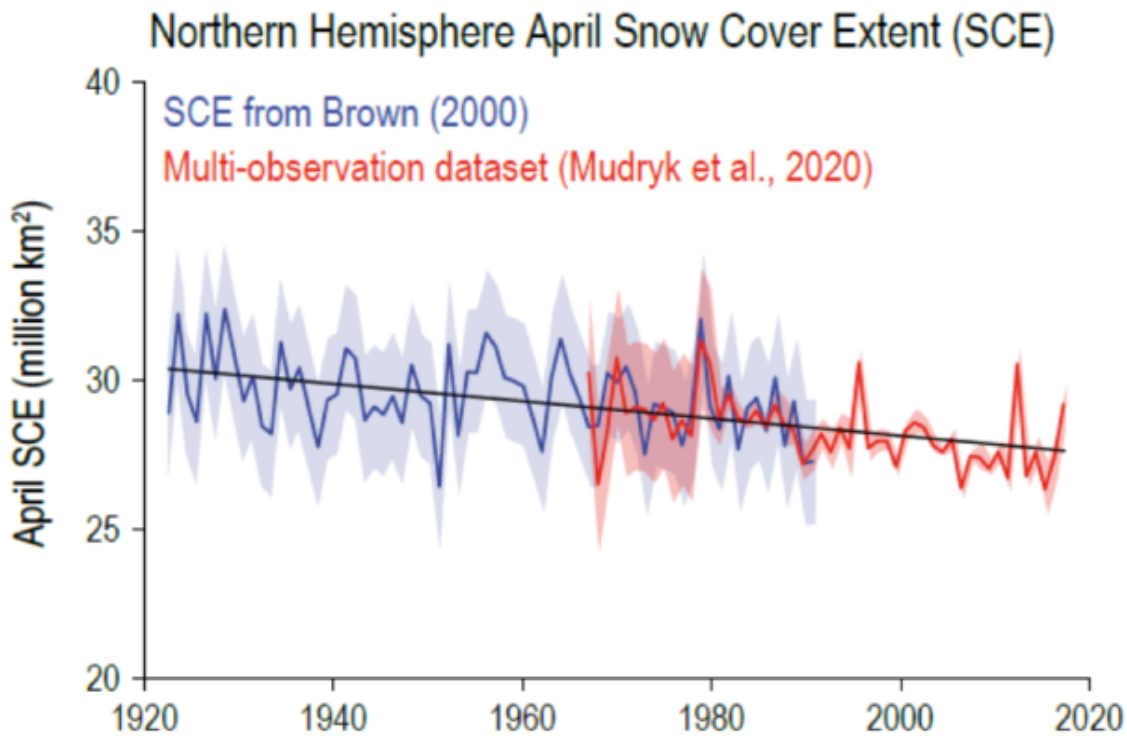


borchee/iStock

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IPCC??????4??????Snow Cover Extent, SCE??



**Figure 2:** April snow cover extent (SCE) for the Northern Hemisphere. From: AR6, chapter 2.

??IPCC?????4??



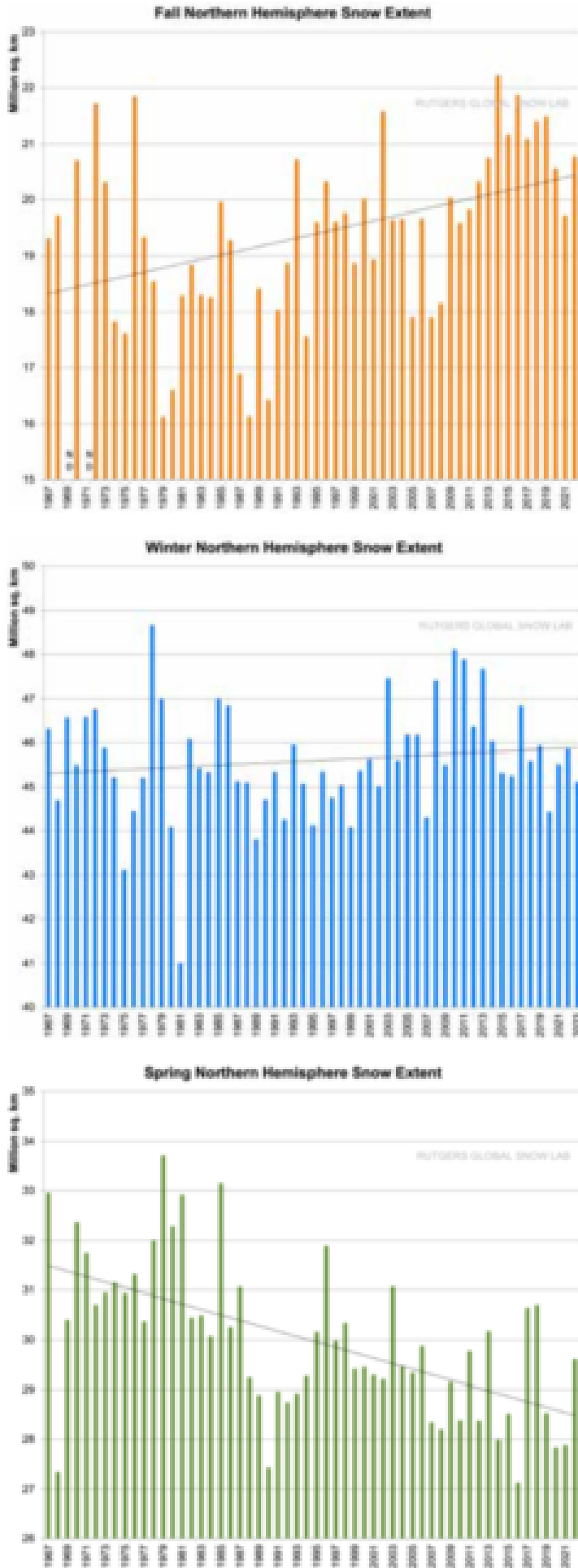


Figure 4: Snow cover extent (SCE) for the Northern Hemisphere for autumn, winter and spring. From: Rutgers Global Snow Lab (2023)

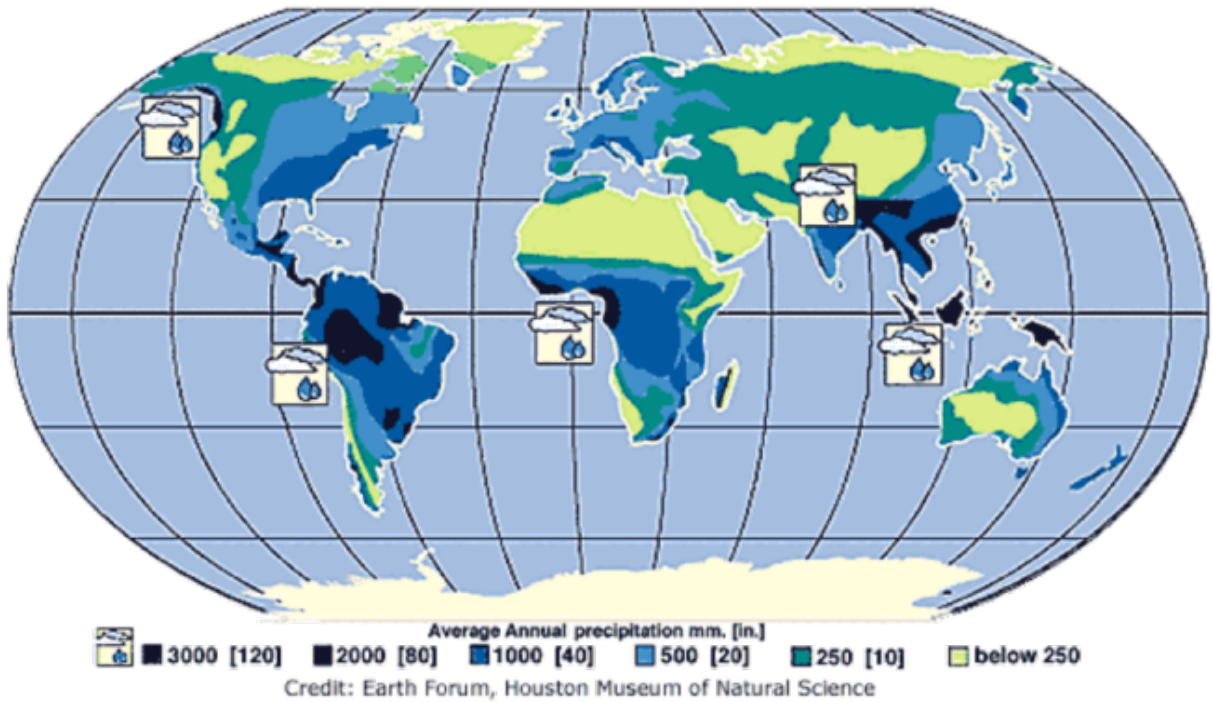
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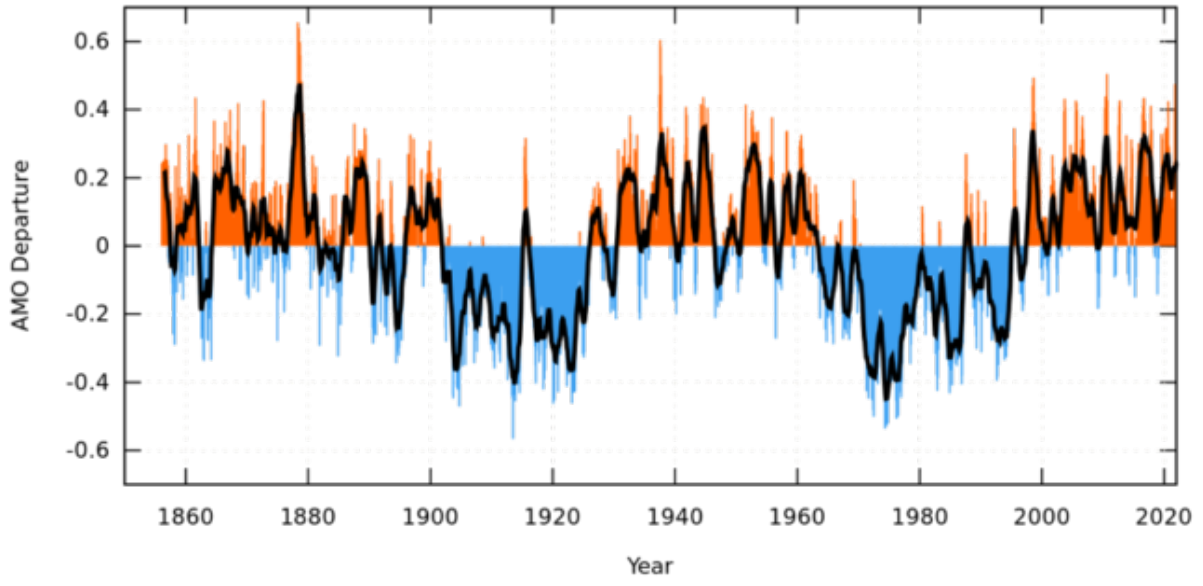
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Monthly values for the AMO index, 1856 - 2022



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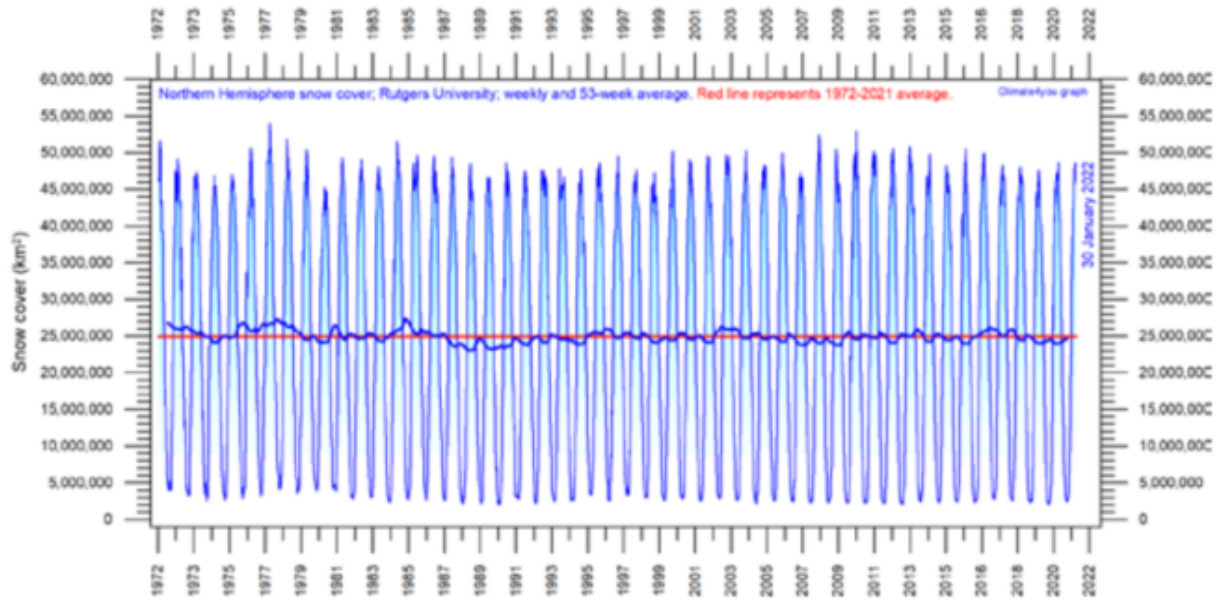


Figure 7: Northern hemisphere weekly snow cover since January 1972 according to the Rutgers University Global Snow Lab (<http://climate.rutgers.edu/snowcover>), the thin blue line is the weekly data, and the thick blue line is the running 53 week average (approximately 1 year). The horizontal red line is the 1972-2021 average. Last week shown: week 1 in 2022. Last figure update: 11 January 2022. Source: Ole Humlum, climate4you.com

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?? ??? ?? · Thursday, May 11th, 2023





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Posted in ???, ?? | No Comments »

**RFK Jr.?2024????????????????????**  
?? ?? · Wednesday, May 10th, 2023





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Kanur Ismail/iStock

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年	日本	米国
1997年	▲6% (橋本政権)	▲7% (クリントン政権)
2015年	▲26% (安倍政権)	▲26% (オバマ政権)
2021年	▲46% (菅政権)	▲50~52% (バイデン政権)

CO2

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2021 2021 46% 2024

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SDGs

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

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

?? ?? · Sunday, April 30th, 2023



a-image/iStock

## EU?EV?????

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 fuel????H<sub>2</sub>????CO<sub>2</sub>????  
 CO<sub>2</sub>????e-  
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EU????????  
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 ??EV????

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??2030????????????????EV????????????????

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1. 400????????????EV??10????????????20????????????10?15??  
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2. ?EV????????????????????????????37????????????????????????10?20????????????50?150????????????600????  
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3. EV????????????????????????????????30????????????????????????2????????????????????EV????????????  
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??WEF????????????????CO<sub>2</sub>??WEF?Sustainable  
Development Impact Meetings????????????????????????

UN Secretary for Global Comms says we “own the science” on “climate change,”  
and we think that “the world should know it.”

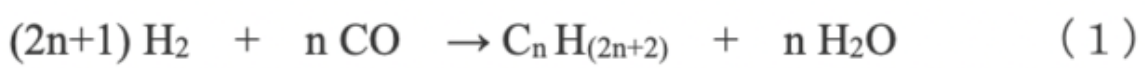
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????????????CO<sub>2</sub>??CO??220?270?????????????C





2021

2050

Posted in | No Comments »

### G7

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4?15?16 G7



G7?

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



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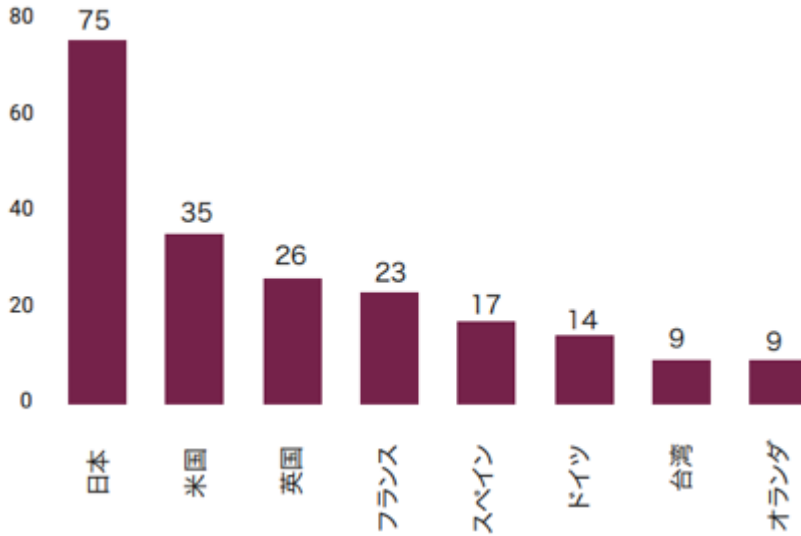
**CDP?????**

????????????CDP????????CDP????NGO????????CO2????????????1?2?3????????????????CO2??  
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# 気候変動 Aリスト 2022

Aリスト国・地域別企業数(上位8か国)



1) CDP A 2022  
 CDP 2022 6?

2022 6 8 SDGs Google SDGs CDP 1

CDP 4  
 CDP  
 CDP

CDP CO2 CO2 Tier1  
 CDP 100%

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CO2  
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(a)会社名	(b)調達金額 (円)	(c)各社の売上高 (円)	(d)各社の CO2 排出量 (トン)	(e)=(d) × (b) ÷ (c) (トン)
A社				
B社				
C社				
:				

1 Tier1 CO2

a b Tier1

c d CO2

a d e d × b ÷ c CO2 Tier1

2021 6 2022 3 5

CO2

CDP CDP

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1

Tier1 100 1 99

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1 ?

1kg 1m CO2 CO2

2 ?

A CO2 1 CO2 100 500 1000

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?SDGs????????

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

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?? ?? · Sunday, April 16th, 2023



deepblue4you/iStock

2023?4?15????????????????????????????????????

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Wikipedia??

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4?15??

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



# Hydrogen

Friday, April 14th, 2023



Leestat/iStock

2017 6 15 15

2021 75

CO2

Hydrogen is a clean energy carrier that can be produced from renewable energy sources. It can be used in a variety of applications, including power generation, industrial processes, and transportation. Hydrogen is a key component of a sustainable energy system.

CO2 H2O CO2

IT

60 60 2 36 64 40

CO2

km

2017 5 1 138

1 CCUS CO2

1 CCUS

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2 EV

CCUS

??CO2??CO2??  
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Posted in ??????????, ??? | [No Comments »](#)

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?? ?? ? · Wednesday, April 12th, 2023



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Wikipedia??

15??12??3??

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4??15??2045??

CO2??CO2??

220??2022??5??3??

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

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?? ?? · Sunday, April 9th, 2023



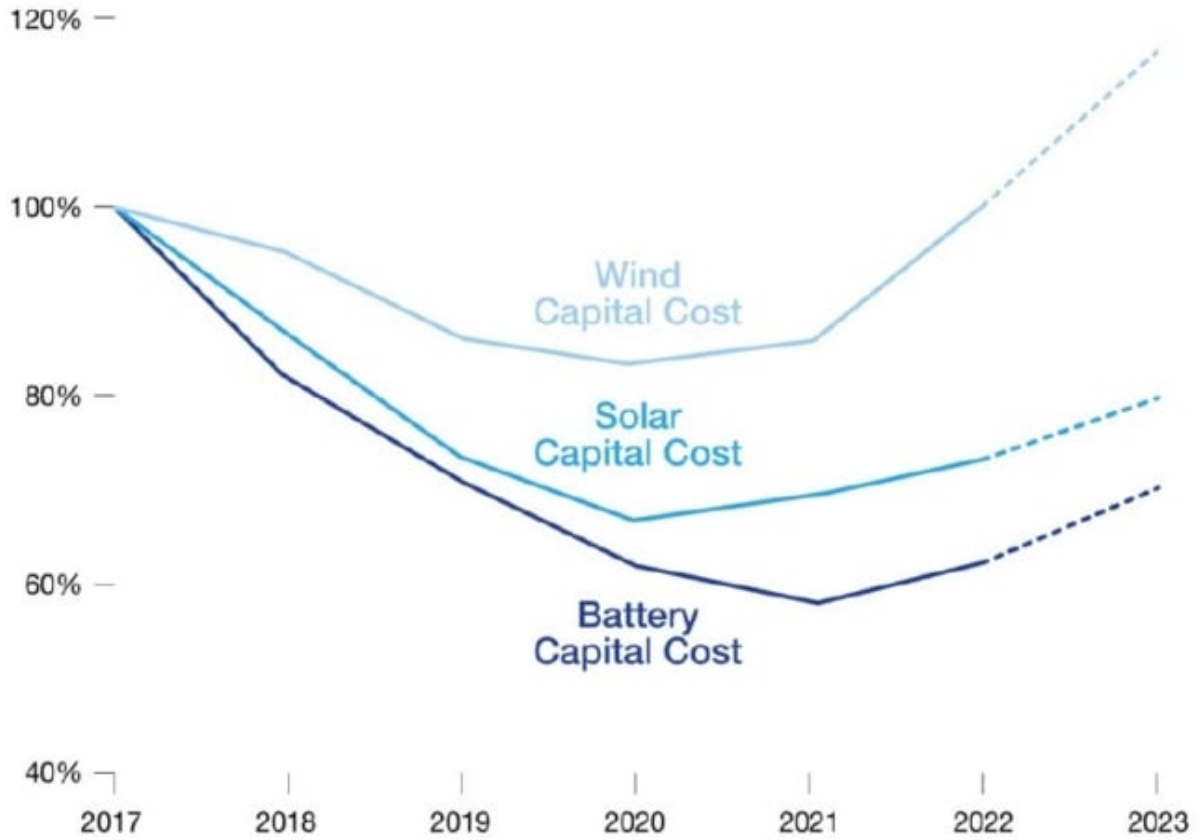






### Costs of Wind, Solar, and Battery Hardware

Change from 2017

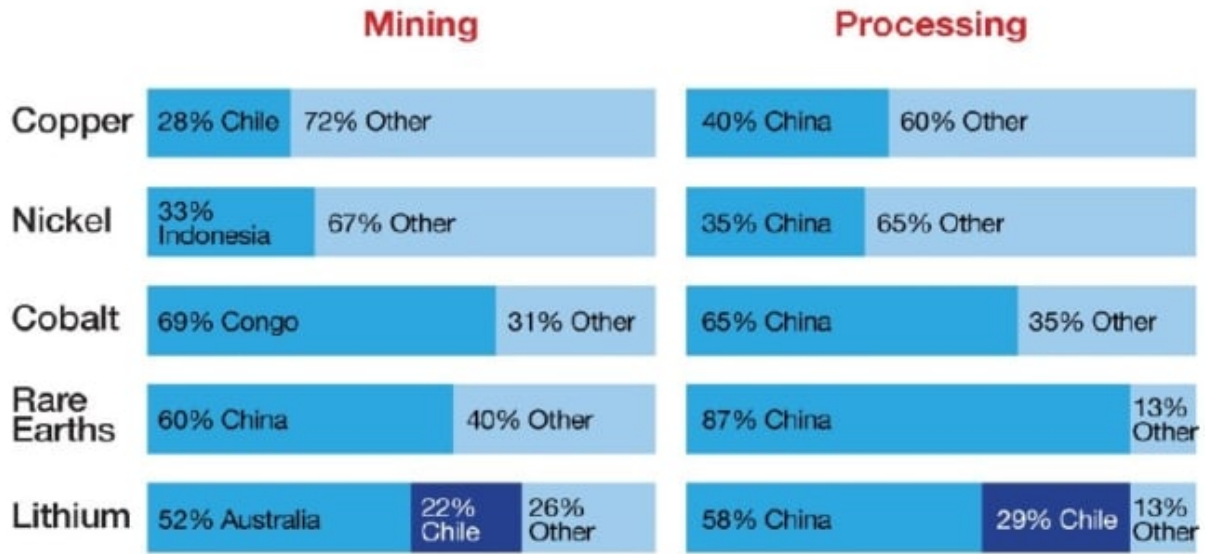


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#### 4. ?????????OPEC???

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### Sources of Key Energy Transition Minerals



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Posted in ???, ????? | No Comments »

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?? ?? · Saturday, April 8th, 2023



HiddenCatch/iStock

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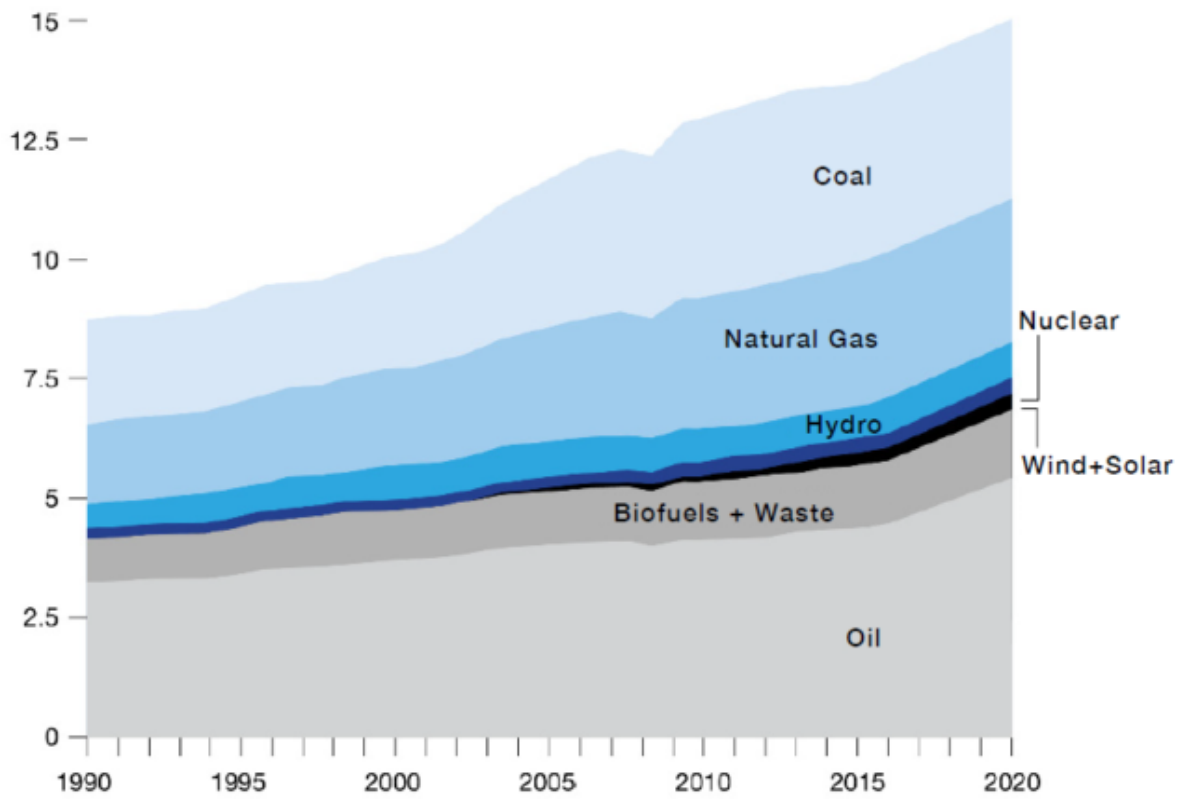
2050??

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

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### Growth in Global Energy Supplies

Oil Equivalent (Billion Tons/Year)\*



## 2. ????????????????

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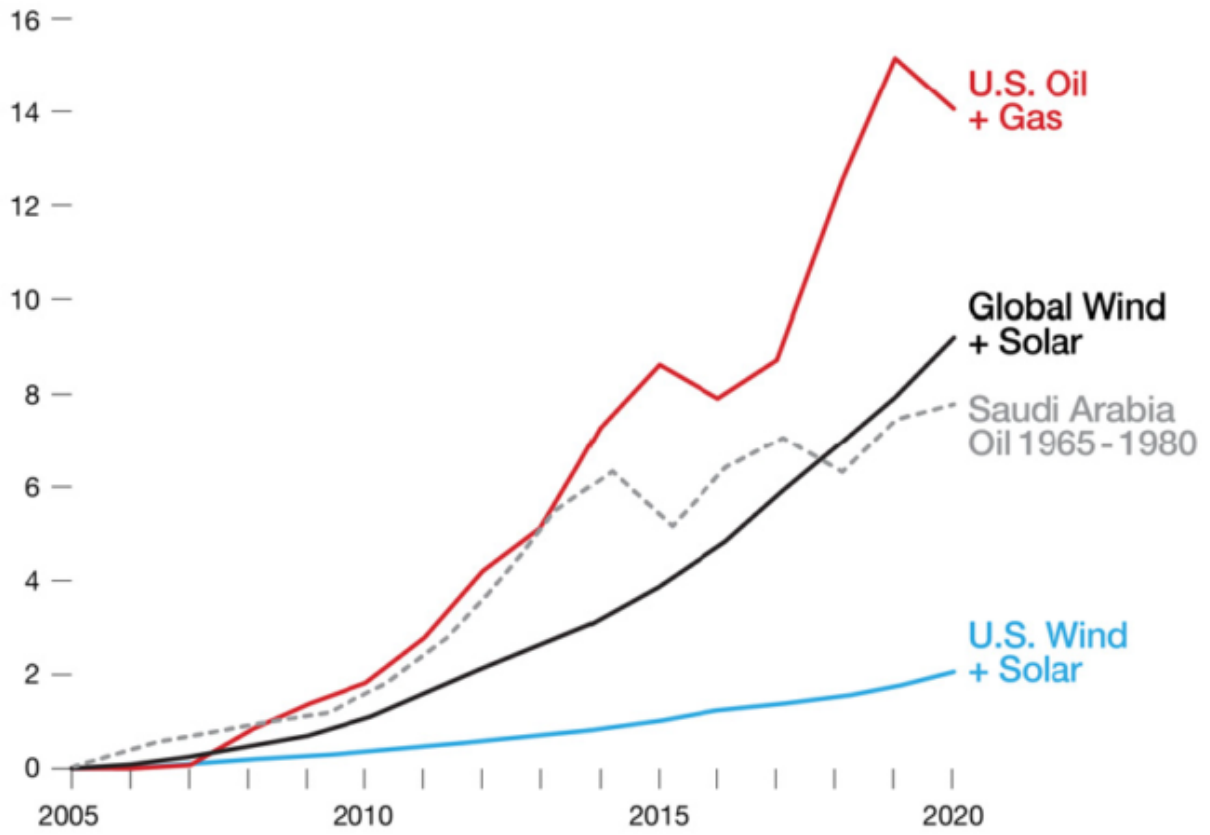


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 ??60??????????????5??100????80????????????????????100??  
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### Growth of Shale Energy vs. Wind+Solar 2005–20, Compared with Saudi Arabia Oil 1965–80

Increased Production (Million BOE/Day)

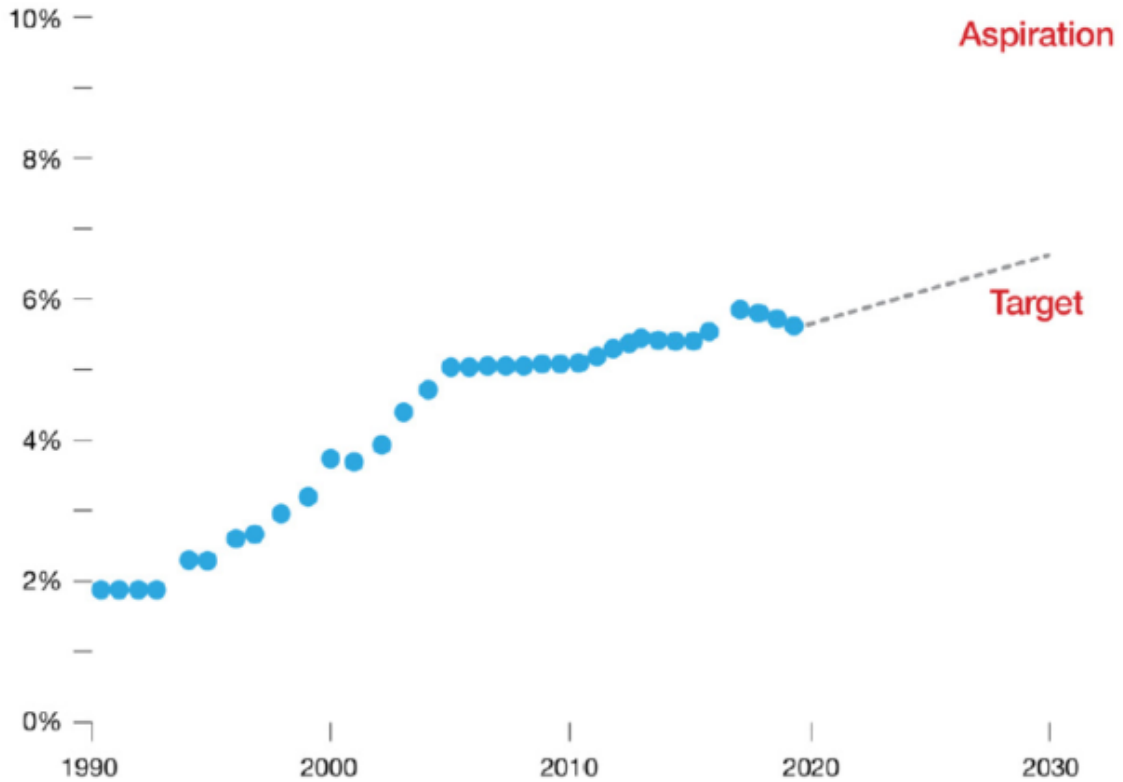


#### 4. ?????????????????????

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Battery Energy Density\* (% of Gasoline Density)



\*Note: Density comparison incorporates the doubly superior efficiency of a battery+motor vs. gasoline+engine.

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Posted in ???, ????? | No Comments »

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

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?? ?? · Tuesday, April 4th, 2023



Viktor Sidorov/iStock

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Posted in ???, ????? | No Comments »

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 ?? ? · Sunday, April 2nd, 2023



Jorm Sangsorn/iStock

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20km 4

100 150

2 4 5

CO2

CO2

7 CO2

1 CO2 1 6 11 1km 28 99 3.5 2 1 100 kW

6

1853 3 70 1923 1995 2011 2016 100 150

1850

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

## ??EV????????????????????????????????

?? ??? · Saturday, April 1st, 2023



????? ????/iStock

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

????????15.4??2020????????????????11.0????????4.4????????????????????6200????????  
1600????7800????????????????EV????????????????1640??2021????????1????????

????????????????????15????????15.4????????1????????????????EU????????????????EV????  
????????????????1??EV????????????????

EV????????????????1??500kg????????????2000kg????????1??EV????????7000????????3000?  
????????????????????????????500kg?7000?? ? 2000kg?3000??9500????????????

2020????EV????????145.5GWh????????2021.11????EV??80kWh????????500kg????????6kg?kWh??  
?145.5kWh????????90????????????1??EV????????????9500????2020????????100????????  
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TESLA MOTORS CLUB?????

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EV????????????67??2019????????????95????????EV????????????EV??CO2??  
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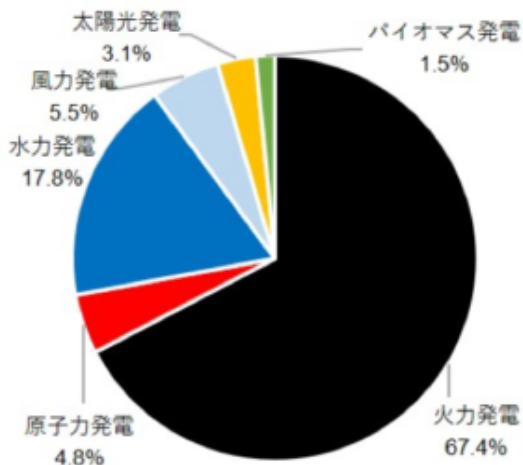


図4 2019年の中国の発電電力量の構成

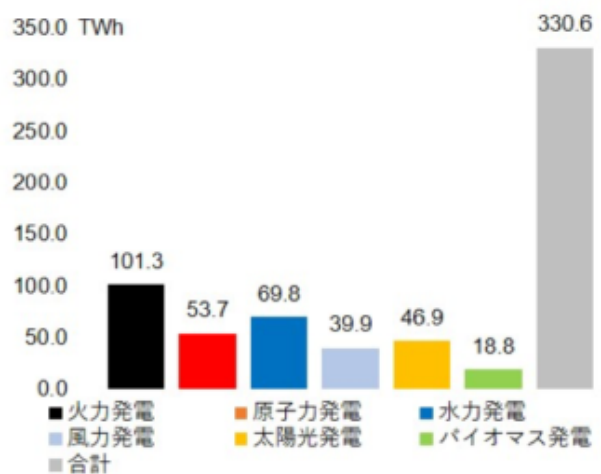


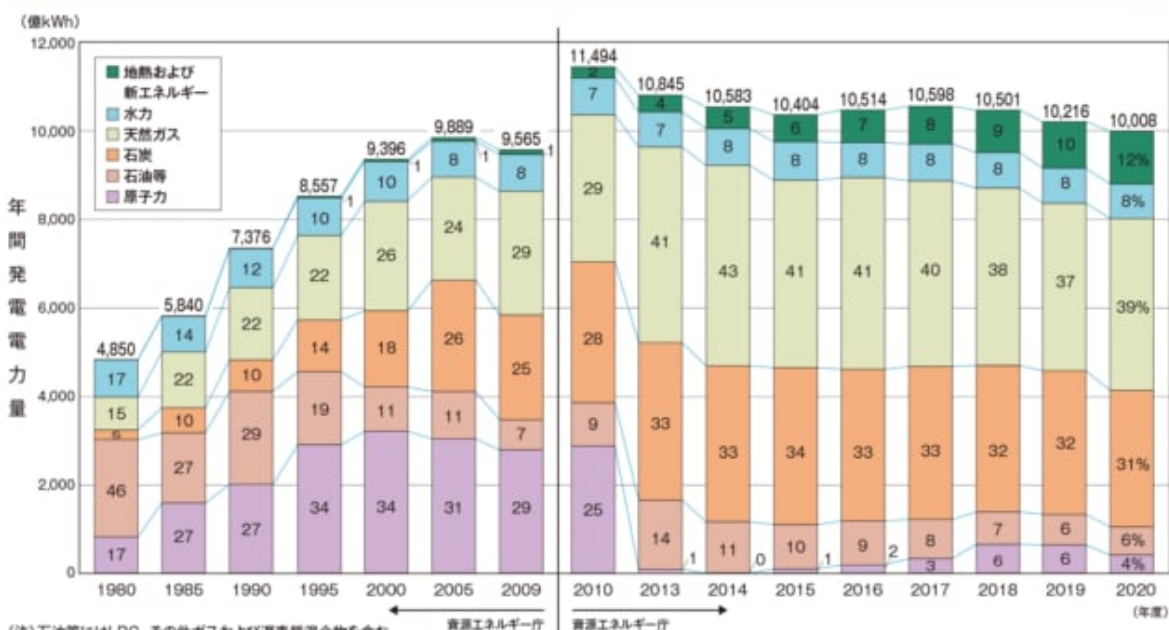
図5 2019年に増加した発電量の内訳

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????????EU????????2035????????EV????????????????????????  
????????????????????CO2????????????

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### 電源別発電電力量の推移



(注) 石油等にはLPG、その他ガスおよび混焼質混合物を含む  
四捨五入の関係で合計値が合わない場合がある  
グラフ内の数値は構成比(%)

← 資源エネルギー庁「電源開発の概要」、「電力供給計画の概要」を基に作成  
→ 資源エネルギー庁「総合エネルギー統計」を基に作成

1-2-7 出典：資源エネルギー庁「エネルギー白書2022」より作成

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EV??CO2??

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