

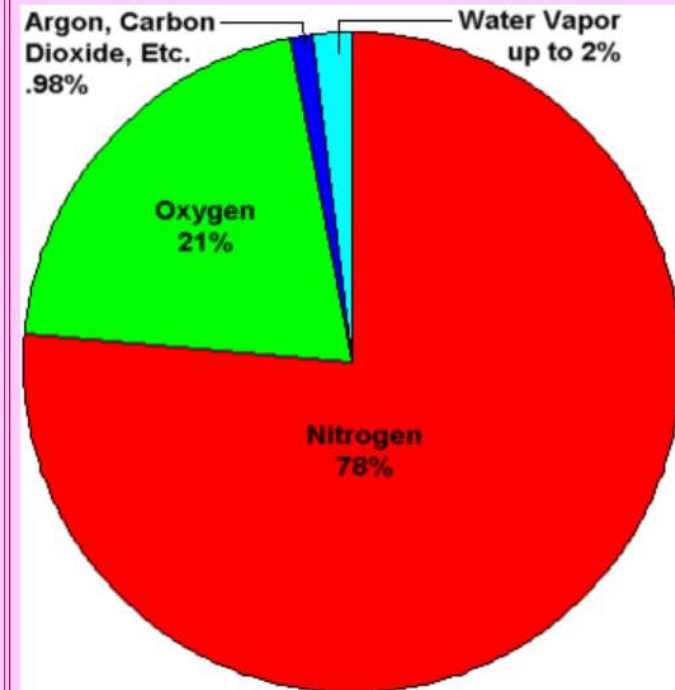
Carbon Emission as The Main Cause of Global Warming & Climate Change?

# Composition of the atmosphere

**Water Vapor >>> CO<sub>2</sub>+CH<sub>4</sub>+N<sub>2</sub>O**

**Composition of the Atmosphere near the Earth's Surface**

Permanent Gases			Variable Gases			
Gas Name	Chemical Formula	Percent (by Volume) Dry Air	Gas (and Particles)	Symbol	Percent (by Volume)	Parts per Million (ppm)*
Nitrogen	N <sub>2</sub>	78.08	Water Vapor	H <sub>2</sub> O	0 to 4	
Oxygen	O <sub>2</sub>	20.95	Carbon Dioxide	CO <sub>2</sub>	0.0400	400
Argon	Ar	0.93	Methane	CH <sub>4</sub>	0.00017	1.7
Neon	Ne	0.0018	Nitrous Oxide	N <sub>2</sub> O	0.00003	0.3
Helium	He	0.0005	Ozone	O <sub>3</sub>	0.000004	0.04
Hydrogen	H <sub>2</sub>	0.00005	Particles (dust, soot, etc.)		0.00001	0.01-0.15
Xenon	Xe	0.000009	Chlorofluorocarbons (CFCs)		0.00000002	0.0002



Pie chart showing percentage concentrations of gases in Earth's atmosphere. Water vapor is shown as a slice that can be up to 2% of the total. The concentration of water vapor is highly variable and ranges from near 0% to over 2%. Averaged throughout the entire atmosphere, water vapor makes up about 0.4% of the total.

**Water Vapor:**

**Greenhouse Gas No. 1 (0~4%)**

- The gas phase of water. Water vapor is literally individual molecules of H<sub>2</sub>O that are part of the collection of gases in the atmosphere.
- Varies greatly from place to place, and from time to time. It averages only about 0.4% of the atmosphere, but varies from as much as 4% in the humid tropics to near 0% in cold polar regions.
- Enters the atmosphere through evaporation of liquid water.
- Water vapor condenses into liquid and solid cloud particles that grow in size and fall to earth as precipitation
- Redistributes heat energy on earth and is important to the formation of storms. This is because large quantities of energy are involved in phase changes:
  - Evaporation (liquid to gas) energy is absorbed from environment
  - Condensation (gas to liquid) energy is released to the environment

**The primary cause of global warming is the heating of the Earth by the Sun, which leads to an increase in water vapor and subsequently to a rise in surface temperature. While CO<sub>2</sub> and other gas emissions can contribute to this warming, their impact is relatively minor in comparison.**

- Is a strong [greenhouse gas](#) that warms the earth's surface and its atmosphere. In fact water vapor is the most important greenhouse gas on Earth in that it contributes most to the atmospheric [greenhouse effect](#).

**Carbon Dioxide:**

**Greenhouse Gas No. 2 (0.04%)**

- Second most important greenhouse gas on Earth.
- Enters the atmosphere through the decay of vegetation, volcanic eruptions, [respiration](#), burning of fossil fuels, and from deforestation. It is removed from the atmosphere by *photosynthesis*, and the oceans.
- Concentration has been increasing due to human activities, mainly burning fossil fuels and deforestation. The amount of carbon dioxide has increased over 42% since 1750, from 280 ppm to 400 ppm.
- There is concern that this will strengthen the natural greenhouse effect leading to global warming, sea level rise, and other potentially harmful climate changes.

**Methane:**

**Greenhouse Gas No. 3 (0.00017%)**

- Another [greenhouse gas](#) that is increasing due to human activity. There is concern that the increasing amount of methane will also contribute to human caused global warming.
- Since 1750, methane concentrations have increased by more than 150% mainly due to human activity.
- The main sources are the breakdown of plant material in rice paddies, domestic grazing animals (biological reactions in their stomach), biological activities of termites.

**Nitrous Oxide:**

**Greenhouse Gas No. 4 (0.00003%)**

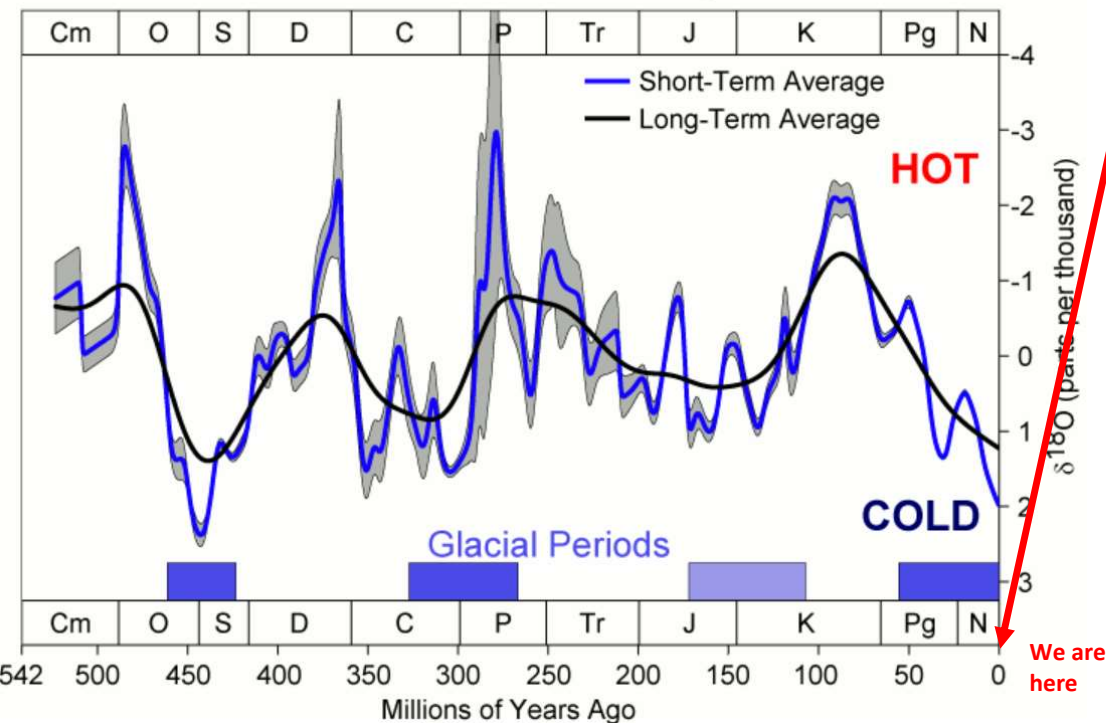
- Another important [greenhouse gas](#) that is increasing due to human activity. There is concern that the increasing amount of nitrous oxide will also contribute to human caused global warming.
- Since 1750, nitrous oxide concentrations have increased by more than 20% mainly due to human activity.
- Forms in the soil by bacterial processes and is destroyed by ultraviolet light from the sun.



## Timeline of Glaciation

Climate history over the past 500 million years, with the last three major ice ages indicated, Andean-Saharan (450 Ma), Karoo (300 Ma) and Late Cenozoic. A less severe cold period or ice age is shown during the Jurassic-Cretaceous (150 Ma).

Phanerozoic Climate Change



Source: [https://en.wikipedia.org/wiki/Timeline\\_of\\_glaciation](https://en.wikipedia.org/wiki/Timeline_of_glaciation)

## Human History Timeline

- 200,000 B.C. [Homo sapiens](#), the first modern humans, appear in Africa.
- 62,000 B.C. Bow and arrows with [stone points](#) (arrowheads) are used.
- 30,000 B.C. [Cro-Magnon man](#) is flourishing, moving from the Near East into Europe, lives by hunting and gathering. Cro-Magnon's painted caves with drawings of the animals they killed.
- 25,000 B.C. [Bering Strait](#) is crossed by humans, connecting Asia to the Americas.
- 18,000 B.C. [Clay pottery](#) ware is created. Humans begin to use raw metals.
- 10,000 B.C. Humans make it to the southern most point of South America.
- 8,000 B.C. The [Neolithic Revolution](#) and an agriculture way of life is discovered in the Fertile Crescent/Middle Eastern area. Cows and sheep were domesticated and crops were manipulated and tended. (interesting fact: first domesticated dog ever was found in Idaho, USA 8400 BC).
- 7000 B.C. A great earthquake destroys the city of Jericho.
- 6,500 B.C. The oceans and sea's rise, [England](#) is now cut off from Europe by land.
- 6000 B.C.. First [beer](#) is brewed from grain in the Near East.
- 5,500 B.C. First settled societies in the [Mesopotamia](#) region.
- 4,500 B.C. Humans learn how to use the [plow](#).
- 4,250 B.C. Development of [copper and bronze](#) metallurgy.
- 4,242 B.C. The very first year on the [Egyptian calendar](#).
- 4,000 B.C. The [wheel](#) is invented and begins to be used. Rice farming in China is developed.
- 3,400 B.C. Beginning forms of [writing](#). Earliest ziggurats are built.
- 3,300 B.C. [Indus Valley Civilization](#) established in South Asia.
- 3,200 B.C. Boats use [sails](#) on the Nile river.
- 3,113 B.C. First date in the [Mayan calendar](#).
- 3,100 B.C. [Egypt's 1st Dynasty](#) created by the joining of the upper and lower kingdoms of Egypt.
- 3,000 B.C. [Bricks](#) are used widely (and made by a fired process). First city-states are created.

Throughout Earth's history, the planet has gone through several ice ages and warm spells, long before humans came on the scene. Now, it looks like we might be heading into the latest warm phase.

Source: <https://humanhistorytimeline.com/>

# CO2 Emissions by Country

#	Country	CO2 Emissions (tons, 2016)	1 Year Change	Population (2016)	Per capita	Share of world
1	China	10,432,751,400	-0.28%	1,414,049,351	7.38	29.18%
2	United States	5,011,686,600	-2.01%	323,015,995	15.52	14.02%
3	India	2,533,638,100	4.71%	1,324,517,249	1.91	7.09%
4	Russia	1,661,899,300	-2.13%	145,275,383	11.44	4.65%
5	Japan	1,239,592,060	-1.21%	127,763,265	9.70	3.47%
6	Germany	775,752,190	1.28%	82,193,768	9.44	2.17%
7	Canada	675,918,610	-1.00%	36,382,944	18.58	1.89%
8	Iran	642,560,030	2.22%	79,563,989	8.08	1.80%
9	South Korea	604,043,830	0.45%	50,983,457	11.85	1.69%
10	Indonesia	530,035,650	6.41%	261,556,381	2.03	1.48%
11	Saudi Arabia	517,079,407	0.92%	32,443,447	15.94	1.45%
12	Brazil	462,994,920	-6.08%	206,163,053	2.25	1.29%
13	Mexico	441,412,750	-2.13%	123,333,376	3.58	1.23%
14	Australia	414,988,700	-0.98%	24,262,712	17.10	1.16%
15	South Africa	390,557,850	-0.49%	56,207,646	6.95	1.09%
16	Turkey	368,122,740	5.25%	79,827,871	4.61	1.03%
17	United Kingdom	367,860,350	-6.38%	66,297,944	5.55	1.03%
18	Italy	358,139,550	0.84%	60,663,060	5.90	1.00%
19	France	331,533,320	2.11%	64,667,596	5.13	0.93%
20	Poland	296,659,670	2.67%	37,989,220	7.81	0.83%

#	Country	CO2 Emissions (tons, 2016)	1 Year Change	Population (2016)	Per capita	Share of world
21	Taiwan	276,724,868	1.91%	23,618,200	11.72	0.77%
22	Thailand	271,040,160	1.55%	68,971,308	3.93	0.76%
23	Malaysia	266,251,542	6.54%	30,684,654	8.68	0.74%
24	Spain	251,892,320	-3.12%	46,634,140	5.40	0.70%
25	Ukraine	233,220,080	8.03%	44,713,702	5.22	0.65%
26	Kazakhstan	231,919,540	1.64%	17,830,901	13.01	0.65%
27	Egypt	219,377,350	4.72%	94,447,073	2.32	0.61%
28	United Arab Emirates	218,788,684	4.43%	9,360,980	23.37	0.61%
29	Vietnam	206,042,140	0.09%	93,640,422	2.20	0.58%
30	Argentina	200,708,270	0.16%	43,508,460	4.61	0.56%
31	Pakistan	178,013,820	9.13%	203,631,353	0.87	0.50%
32	Venezuela	175,884,256	-1.90%	29,851,255	5.89	0.49%
33	Netherlands	163,419,285	1.63%	16,981,295	9.62	0.46%
34	Iraq	162,646,160	1.22%	36,610,632	4.44	0.45%
35	Algeria	156,220,560	0.17%	40,551,392	3.85	0.44%
36	Philippines	126,922,662	12.37%	103,663,816	1.22	0.35%
37	Czech Republic (Czechia)	111,825,428	1.39%	10,618,857	10.53	0.31%
38	Uzbekistan	109,347,340	1.60%	31,441,751	3.48	0.31%
39	Kuwait	101,492,225	1.36%	3,956,875	25.65	0.28%
40	Qatar	98,990,085	1.79%	2,654,374	37.29	0.28%

China = 29.18

Germany + Canada +  
Australia + UK + Italy +  
France + Poland +  
Netherlands = 9.47%

The carbon emissions of China is much higher than those of other advanced countries that are currently desperately trying to reduce their own emissions, even to the extent of harming their own industries, agriculture, and military power.

# To combat climate change, military forces should be reduced?



NAVY · Published March 18, 2023 7:00am EDT

## Navy secretary cited climate change as top priority as Biden proposes shrinking the fleet

The Biden administration proposed cutting two ships from the Navy in its 2024 budget plan



By Peter Kasperowicz | Fox News



<https://www.foxnews.com/politics/navy-secretary-cites-climate-change-top-priority-biden-proposes-shrinking-fleet>



To combat climate change, the most productive farmers should stop cultivating their land?

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## Up to 3,000 'peak polluters' given last chance to close by Dutch government

State attempts to push through plans to shut hundreds of farms to cut nitrogen oxide emissions

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About this content  
**Senay Boztas**  
Wed 30 Nov 2022 17:00 GMT

f t e



<https://www.theguardian.com/environment/2022/nov/30/peak-polluters-last-chance-close-dutch-government>

# To combat climate change, stop using chemical fertilizers and pesticides?



## Sri Lanka's organic farming disaster, explained

A shift to better farming practices is possible, but Sri Lanka's abrupt switch to organics offers a bitter lesson in how to change food systems in a sustainable way.

By Kenny Torrella | @KennyTorrella | Jul 15, 2022, 10:37am EDT




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# To combat climate change, ban gas stoves?

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Natural gas production. (Photo: ucr.edu)

## The Tangled Government Web Behind the Push to Ban Gas Stoves

*If natural gas stoves are really as dangerous as they claim, they would go after professional commercial kitchens*

By [Katy Grimes](#), January 12, 2023 2:45 am

We know that California is pushing to become the first state to ban natural gas heaters, water heaters, and furnaces by 2030, a policy of the California Air Resources Board, entirely made up of appointees by the governor.

Now the federal government wants to ban gas stoves. They claim "U.S. homes have a climate impact comparable to the annual carbon dioxide emissions of 500 000 cars."

<https://californiaglobe.com/fl/the-tangled-web-behind-the-push-to-ban-gas-stoves/>

# To combat climate change, ban short-haul flights?

euronews.green

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## It's official: France bans short haul domestic flights in favour of train travel



Paris to London journeys could soon be a thing for the past for jetsetters. - Copyright Getty/frankpeters

By [Lottie Limb](#) • Updated: 04/04/2023 - 11:16

<https://www.euronews.com/green/2022/12/02/is-france-banning-private-jets-everything-we-know-from-a-week-of-green-transport-proposals>



# Pay and then you could emit?

## Carbon tax

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From Wikipedia, the free encyclopedia

A **carbon tax** is a [tax](#) levied on the [carbon emissions](#) required to produce goods and services. Carbon taxes are intended to make visible the "hidden" [social costs of carbon emissions](#), which are otherwise felt only in indirect ways like more [severe weather](#) events. In this way, they are designed to reduce [carbon dioxide \(CO<sub>2</sub>\) emissions](#) by increasing prices of the fossil fuels that emit them when burned. This both decreases demand for goods and services that produce high emissions and incentivizes making them less [carbon-intensive](#).<sup>[1]</sup> In its simplest form, a carbon tax covers only CO<sub>2</sub> emissions; however, it could also cover other [greenhouse gases](#), such as [methane](#) or [nitrous oxide](#), by taxing such emissions based on their CO<sub>2</sub>-equivalent [global warming potential](#).<sup>[2]</sup> When a [hydrocarbon](#) fuel such as [coal](#), [petroleum](#), or [natural gas](#) is burned, most or all of its carbon is converted to CO<sub>2</sub>. [Greenhouse gas emissions](#) cause [climate change](#), which damages the environment and human health. This [negative externality](#) can be reduced by taxing carbon content at any point in the product cycle.<sup>[3][4][5][6]</sup> Carbon taxes are thus a type of [Pigovian tax](#).<sup>[7]</sup>

Research shows that carbon taxes effectively reduce emissions.<sup>[8]</sup> Many economists argue that carbon taxes are the most efficient (lowest cost) way to [tackle climate change](#).<sup>[9][10][11][12][13]</sup> Seventy-seven countries and over 100 cities have committed to achieving [net zero](#) emissions by 2050.<sup>[14][8]</sup> As of 2019, carbon taxes have been implemented or scheduled for implementation in 25 countries,<sup>[15]</sup> while 46 countries put some form of [price on carbon](#), either through carbon taxes or [emissions trading](#) schemes.<sup>[16]</sup>

On their own, carbon taxes are usually [regressive](#), since lower-income households tend to spend a greater proportion of their income on emissions-heavy goods and services like transportation than higher-income households. To make them more progressive, policymakers can try to redistribute the revenue generated from carbon taxes to low-income groups by lowering [income taxes](#) or offering [rebates](#),<sup>[17]</sup> then as part of the [politics of climate change](#) the overall policy initiative can be referred to as a [carbon fee and dividend](#), rather than a tax.<sup>[18]</sup>

A carbon tax as well as [carbon emission trading](#) is used within the [carbon price](#) concept.



A coal-fired power plant in [Luchegorsk](#), Russia. A carbon tax would tax the CO<sub>2</sub> emitted from the power station.



## Gwyn Morgan: Net Zero Has Been a Boon to Dictators

Worshipping at the net-zero altar has led to two dictators controlling both energy security and the supply of manufactured goods



An oil tanker unloads imported crude oil at Qingdao port in China's eastern Shandong province on May 9, 2022. (STR/AFP via Getty Images)



By [Gwyn Morgan](#)

October 11, 2022 Updated: October 11, 2022

**A** Print



Implementing current measures to combat climate change will cause:

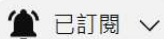
- higher inflation;
- widespread famine;
- more impoverished people;
- carbon credit traders making a lot of money;
- government exerting stricter control over people's lives (food, clothing, housing, and transportation).

## Wicked Globalists Are Causing Starvation and Poverty Under the Guise of Environmentalism



Jordan B Peterson ✓

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## Dutch Government Prepares To Seize Farmers' Lands, Protests Erupt | Netherlands | Europe Crisis

**F.** Firstpost ✓  
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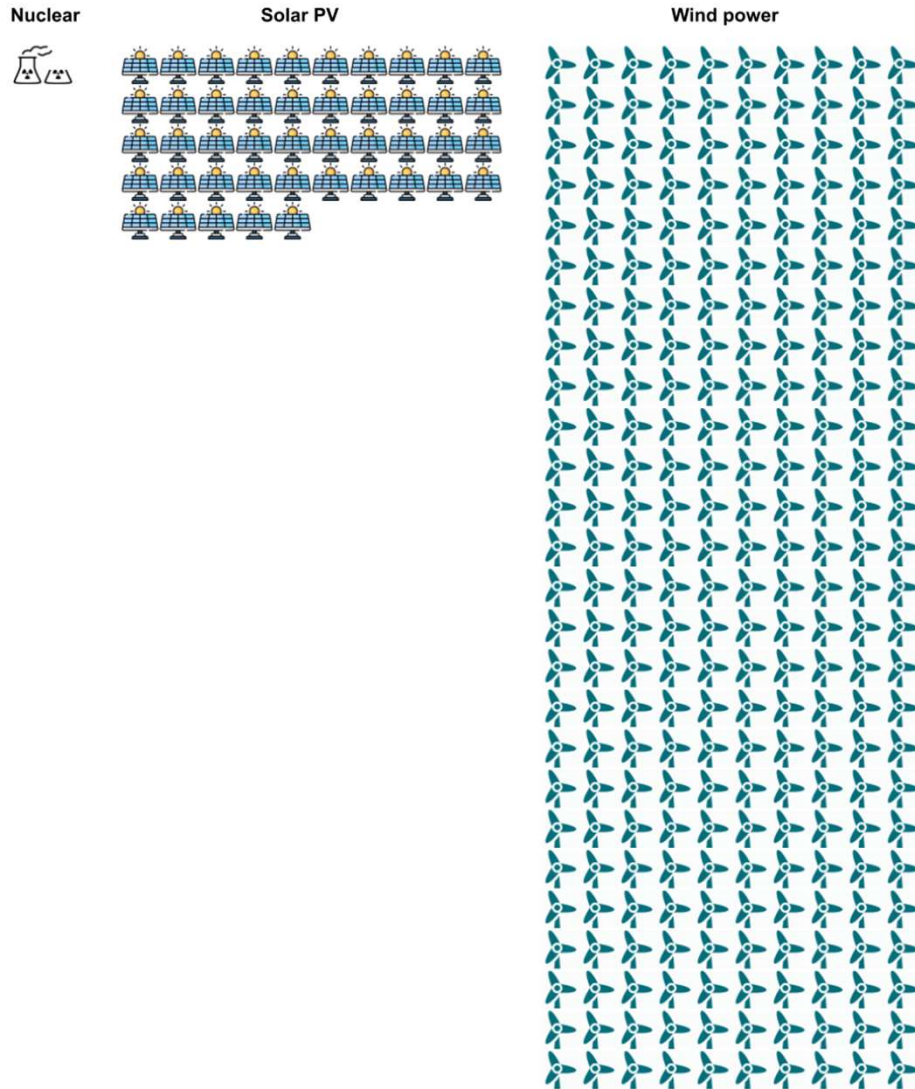
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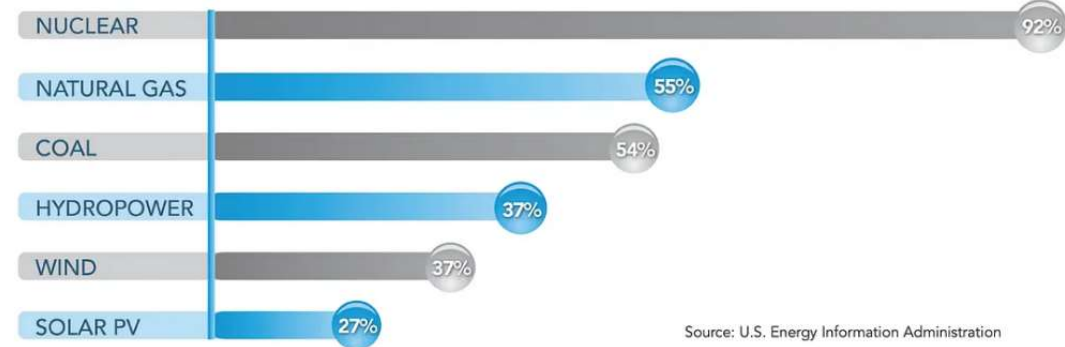


## The Land Footprint of PV Solar (and Nuclear and Wind Power)



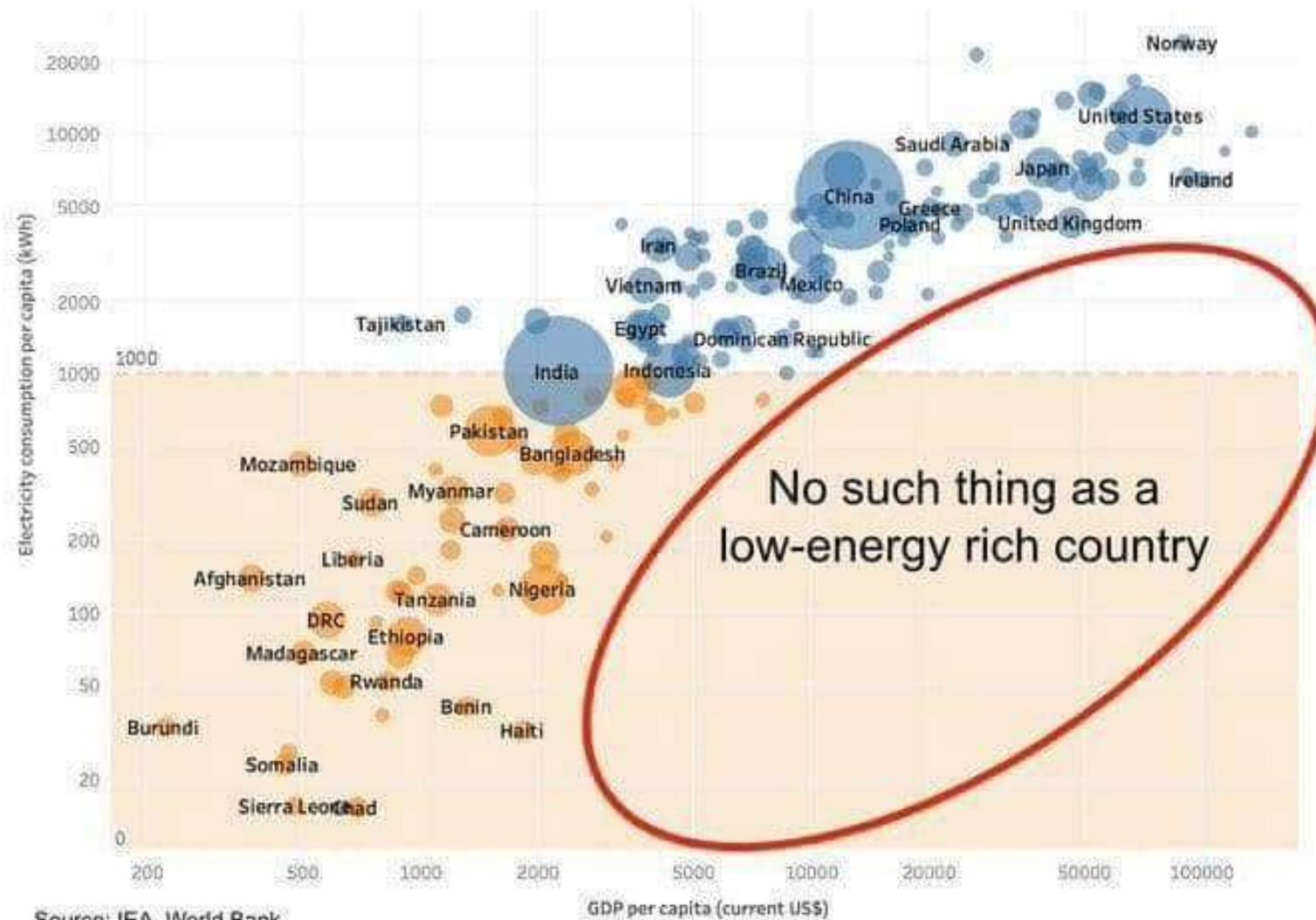
**No nuclear?**

### CAPACITY FACTORS FOR UTILITY SCALE GENERATORS 2017



"The Ultimate Fast Facts Guide to Nuclear Energy", US Department of Energy, 2019.


## Electricity & Income (per capita, all countries)



# "Experts" who can't decide between ice age and global warming

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**ROMAN BALMAKOV**  
Host, The Epoch Times

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Inconvenient Truth: 32 Climate Predictions Proven False

 Facts Matter with Roman Balma...  
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# Rules for thee and not for me



<https://www.foxnews.com/politics/john-kerry-family-private-jet-sold-shortly-after-accusations-climate-hypocrisy>

# Rules for thee and not for me



<https://www.cnbc.com/2023/02/07/private-jet-use-and-climate-campaigning-not-hypocritical-bill-gates-.html>

# Rules for thee and not for me



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## 'Masterclass In Hypocrisy': Global Elites Arrived At Davos Summit In Private Jets To Discuss Climate Change

13 min read 🕒



**Isha Sharma**

Updated on Jan 18, 2023, 23:09 IST



<https://www.indiatimes.com/trending/environment/global-elites-slammed-for-arriving-at-davos-summit-in-private-jets-590644.html> <sup>20</sup>



## Rules for thee and not for me

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# Hundreds of ultra-short private jet flights to Davos revealed, as global leaders head into World Economic Forum



Greenpeace International

13 January 2023 • 3 min read •  4 Comments

# The Impacts

# Man-made global food shortage



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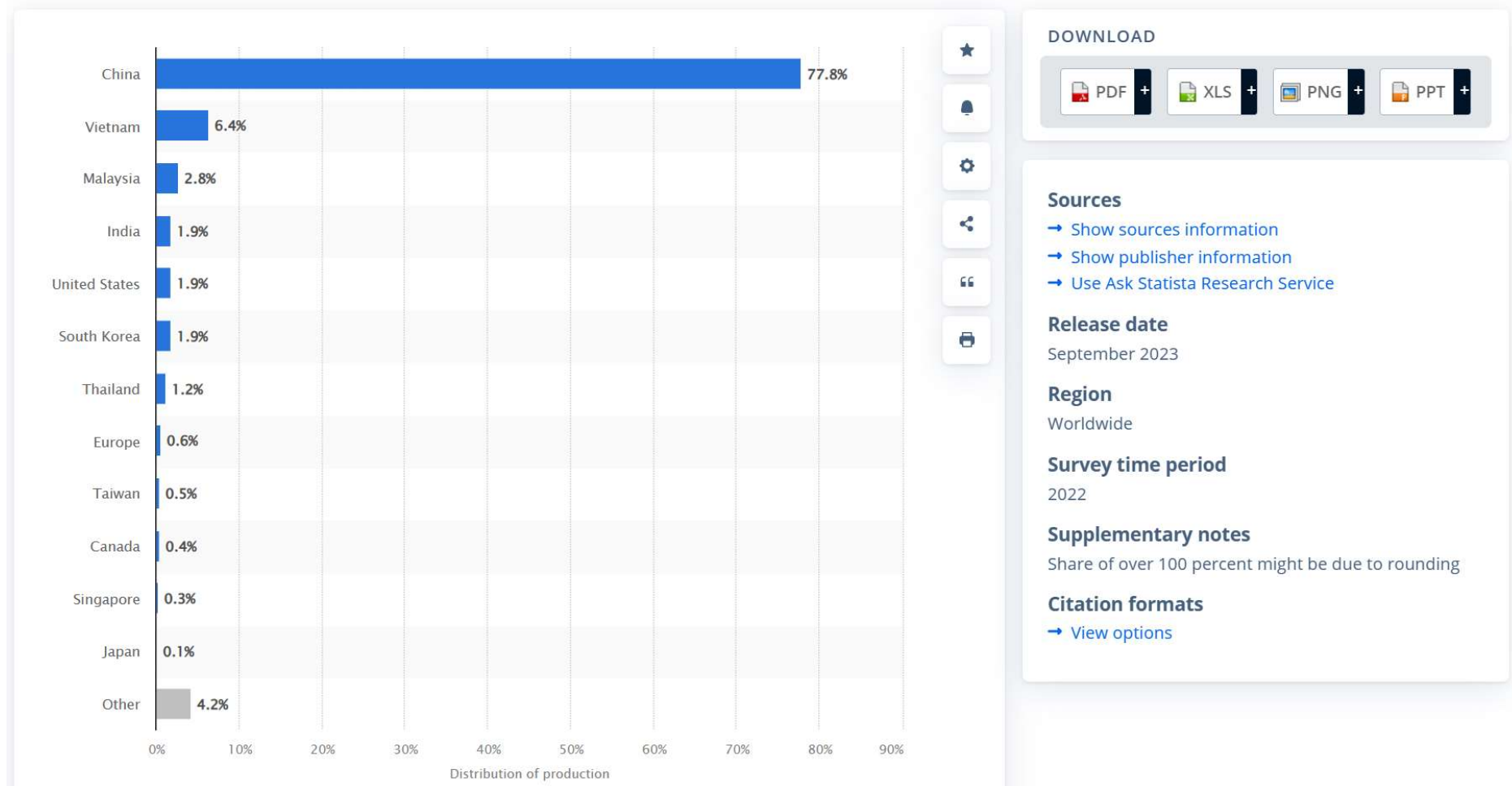
**No Farmers No Food: Will You Eat The Bugs? | Documentary**

[https://www.theepochtimes.com/epochtv/nofarmersnofood-5390883?utm\\_medium=FactsMatter&utm\\_source=YouTube&utm\\_campaign=NoFarmersNoFood&utm\\_content=09-19-2023?utm\\_source=ref\\_share&utm\\_campaign=copy](https://www.theepochtimes.com/epochtv/nofarmersnofood-5390883?utm_medium=FactsMatter&utm_source=YouTube&utm_campaign=NoFarmersNoFood&utm_content=09-19-2023?utm_source=ref_share&utm_campaign=copy)



# Who benefits the most from massive solar PV installation?

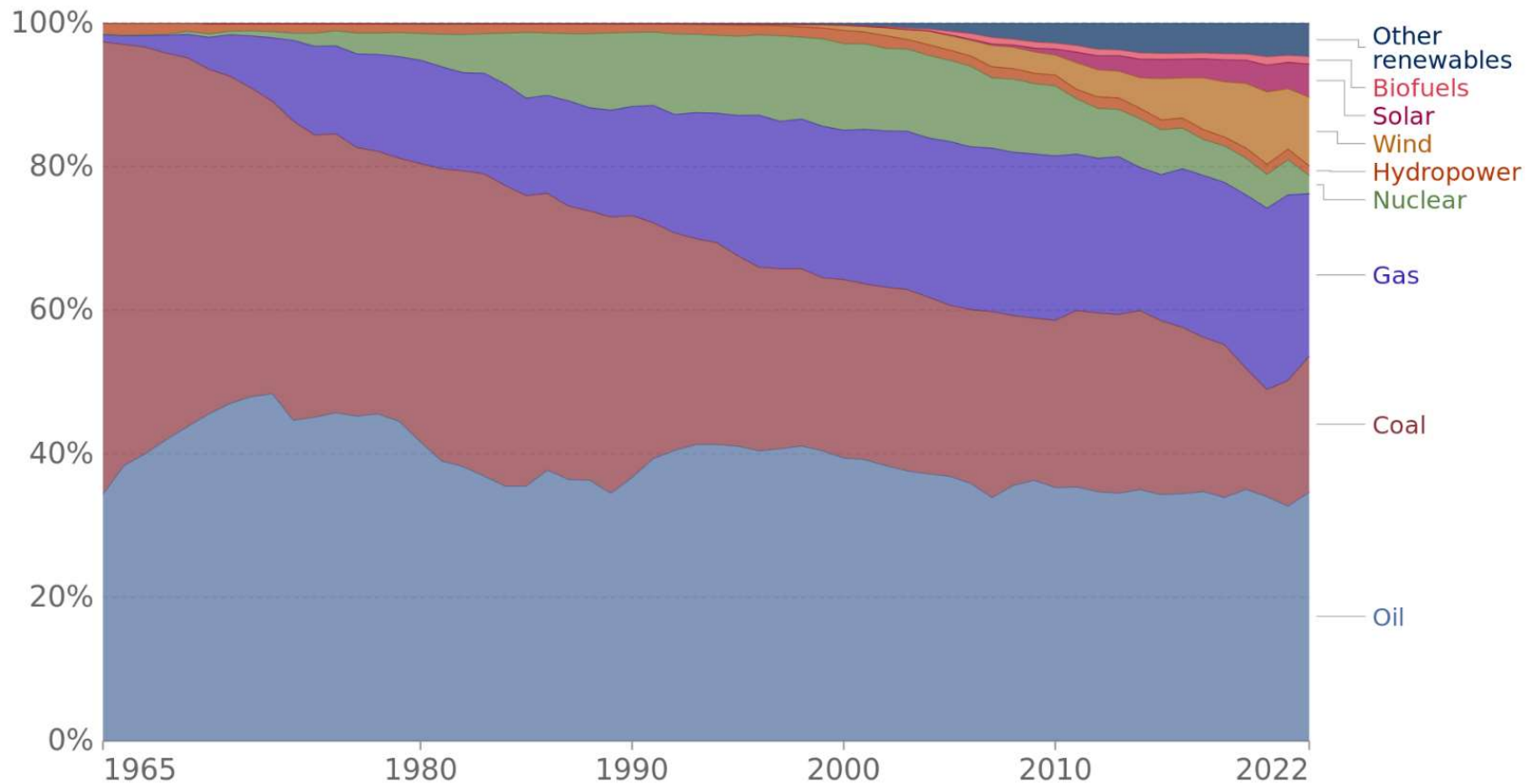
## Distribution of solar photovoltaic module production worldwide in 2022, by country



# Energy consumption by source, Germany

Our World  
in Data

Primary energy consumption is measured in terawatt-hours (TWh). Here an inefficiency factor (the 'substitution' method) has been applied for fossil fuels, meaning the shares by each energy source give a better approximation of final energy consumption.



Source: Energy Institute Statistical Review of World Energy (2023)  
Note: 'Other renewables' includes geothermal, biomass and waste energy.

[https://en.wikipedia.org/wiki/Energy\\_in\\_Germany](https://en.wikipedia.org/wiki/Energy_in_Germany)

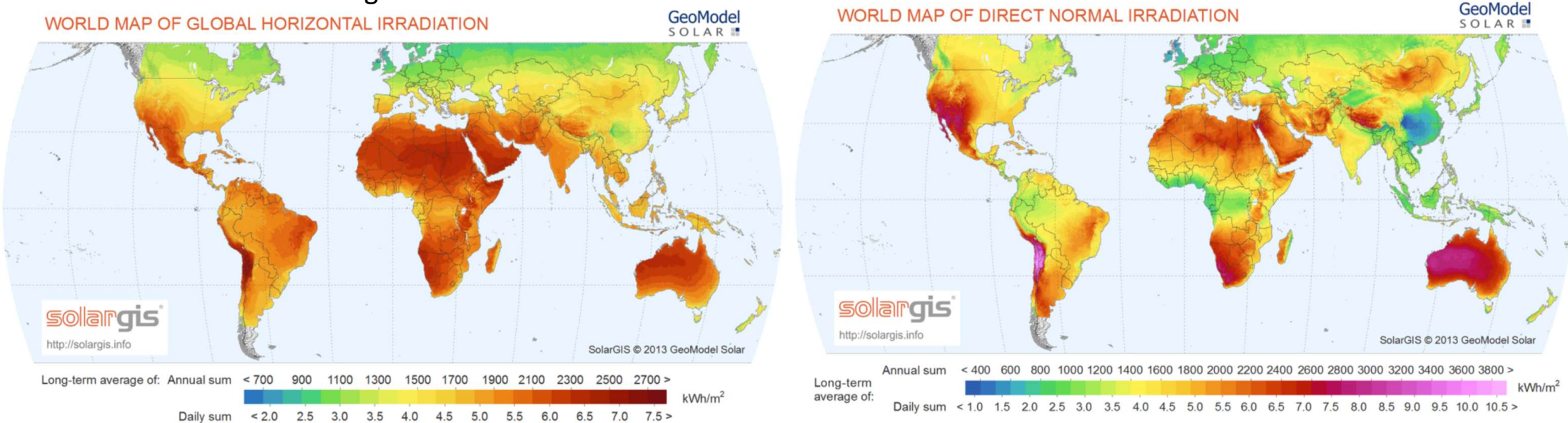
# World map of GHI

The radiation that reaches the earth's surface is represented in different ways, namely, global horizontal irradiance (GHI) and direct normal irradiance (DNI). GHI is the total amount of solar irradiation from the sky that is received by a surface horizontal to the ground, independently of its direction. Normal PV technologies have been optimized to capture global irradiance, combining diffuse radiation (e.g. scattered through clouds) as well as direct normal irradiance. DNI on the other hand, is irradiance that is received by an area that is always held perpendicular to the sunrays incoming directly from the sun's position in the sky. The utilisation of DNI is in the interest of concentrating technologies such as CPV and CSP which need to be tracking the sun throughout the day.

The behaviour of GHI and DNI vary based on geographical locations on earth. Normally GHI is copious in areas below a latitude of  $45^{\circ}\text{N}$  and areas particularly near the equator such as the Sahara, Australia and Saudi Arabia as shown in Figure 1.

DNI on the other hand has high presence in sub tropic regions normally around latitudes of  $23^{\circ}\text{N}$  and  $23^{\circ}\text{S} \pm 10^{\circ}$ . Global areas such as Chile, North Western Australia, Northern Mexico, South Africa and pockets of sub-saharan Africa receive high amounts of DNI.

Figure 1



<https://www.alternativeenergyhq.com/best-solar-power-regions-worldwide.php>

**\*\*The green and yellow zones are not ideal for solar power\*\***