

Global warming images

Opinion

The opinion on global warming is sharply divided. On the one hand, we have the climate change deniers with different arguments for their position. On the other hand, there are the climate change affirmers, also suggesting a variety of arguments to support their case. Both fact and value figure in the psychology of climate change.

The facts

Global warming - what are the facts? According to the philosophy of science this kind of question is irrelevant. What is the fact depends upon theory or set of models involved. Facts do not speak for themselves, but have to be interpreted in terms of some concept framework.

How significant is a temperature rise of around 1 degree Celsius? The history of global weather shows a number of swings. Perhaps this augmentation is just stochastic? One needs a model to tell whether the increase is accidental or not?

The climate change AFFIRMERS point at the CO₂ concentration in the atmosphere of the Earth. Global temperature rise would reflect the greenhouse effect - here is a theory! A theory interlinks diverse facts through a system of hypotheses, thus reducing contingency. When a theory creates a web of interlinked models, then it may say to be corroborated.

Value

The greenhouse theory is a realist set of models. But its main contender empathies bias as a subjectivist theory it sees climate change as a value ingrained set of models. It forms a part of general environmentalists blaming society and government not to respect and protect the environment enough.

Global warming is the Mother of environmental scares. Climate change affirmers use global warming theme to call for more regulation and state intervention, especially by means of gross exaggeration of ecological threats.

Climate change Denyers come with two different approaches. Either one question single the lack of systemic evidence for global warming or one rejects all forms of environmental beliefs as mere political propaganda.

Environmentalism - the thesis that nature is being overexploited in a unsustainable way - was first rejected by economist Julian Simon with argument that low prices indicated plenty in nature. Aaron Wildavsky built a culture approach to explain why environmentalism and global warming received more and more support from citizens - environmentalism being left-wing egalitarianism. In culture theory the image of NATURE is what counts, individuals choosing their images or stories. The subjectivism of environmentalism proved attractive for political protest.

Many people hope that Dane Björn Lomborg is right when he downplays the relevance of global warming, but they fear it's consequences especially if irreversible.

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It is impossible to bypass psychological aspects of global warming beliefs, but to assert that all is fabrication amounts to oversimplification. People who live in certain parts of a country may have perfect reasons to be afraid.

A corroboration of realistic climate change

The yearly rises in average global temperature are well documented. Diagram 1 has the overall picture for more than one hundred Years, starting from 1880, set as 0. What could account for these ups and downs? Following the discovery or scientific revolution by S. Schneider, we try the amount of CO₂ emissions yearly. Thus, we have:

x =atmosphere concentration CO₂ in ppm

y = change in global surface temperature relative to 1951-1980 average temperatures

Regression line: $y = -3,4277 + 0,0106x$ (1)

Increase by 1 ppm CO₂ leads to increase in global temperature 0,01 degrees CO₂ concentration has grown from 315 to 410 so temperature has risen with c:a 1 degree as figure shows.

R-squared=0.913. A spurious correlation? Self-evident? No. Probably not, as it reflects the rising dependence on energy from fossil fuels. The fossil fuels are in much demand, because they offer cheap energy which is vital for affluence.

Is the planet already at its Hawking irreversibility? The notion of irreversible transformation is very menacing, as policy could only slow down the arrival of a global disaster.

There is a way to find out about irreversibility, namely to consult the global thermometer

CO₂ daily: 28/12 at 412 ppm and 408 one year ago (CO₂).

The Cambridge dictionary lists two meanings of "sustainable"; able to continue over the period of time firstly, and secondly causing no or little damage to the environment. Taking together these two concepts fit well into the environmental framework, but they do not apply to the demand and supply of energy. Here we need a second equation, namely:

$$CO_2 \text{ concentration in ppm} = 267.5 + 10 * \text{Energy in Billion tonnes of oil equivalent}; R \text{ squared equals } 0.992 . \text{ (II)}$$

The regression tells us that one billion energy amounts to ten CO₂ ppm.

Now, we can predict using these two equations (I) and (II) that temperature rise will be beyond the Paris Objectives. Look at figure 1 below.

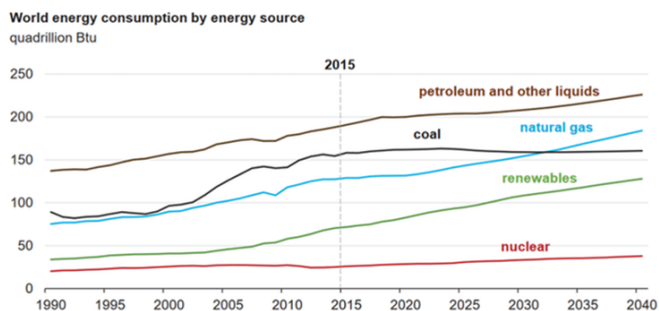


Figure 1 Energy projections according to IEA.

In Table 1 the relationship between energy consumption and temperature rise is modelled. Energy consumption is near 16 billion with +1 degree. Looking at stylised projections, we will move towards 24 billion with +2 degrees. That would create lots of difficult problems for mankind.

Table 1 Regression estimates for temperature rise based on energy consumption

Global Energy/ btoe	CO ₂ concentration/ PPM	Temperature rise/ degrees C
16	430	1.1
18	450	1.3
20	470	1.5
22	490	1.7
24	510	2.0

Conclusion

While the postmodern theory implies no action, the realist theory targets CO₂s. It predicts the following consequences of CO₂ emissions.

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Conflicts of interest

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References

1. British Petroleum: BP Energy Outlook. 2017.
2. CO₂ Earth.
3. CO₂ Earth. Latest Daily CO₂.
4. FAO Regional Office for Latin America and the Caribbean: Latin America and the Caribbean is the second largest producer of coal in the world.
5. Global Energy Monitor: Global Coal Plant Tracker.
6. International Energy Agency (IEA): World Energy Outlook 2019.
7. Lomborg, B. Prioritizing Development: A Cost Benefit Analysis of the United Nations’ Sustainable Development Goals. Cambridge, United Kingdom: Cambridge University Press; 2018.
8. Popper KR. Conjectures and Refutations. United Kingdom: Routledge, Abingdon; 1963.
9. Simon, J. A Life Against the Grain: the Autobiography of an Unconventional Economist. UK: Routledge, London; 2003.
10. Wildavsky, A: But is it True? A Citizen’s Guide to Environmental Health and Safety Issues. Cambridge, MA, USA: Harvard University Press; 1997.
11. World Bank: World Bank Open Data.