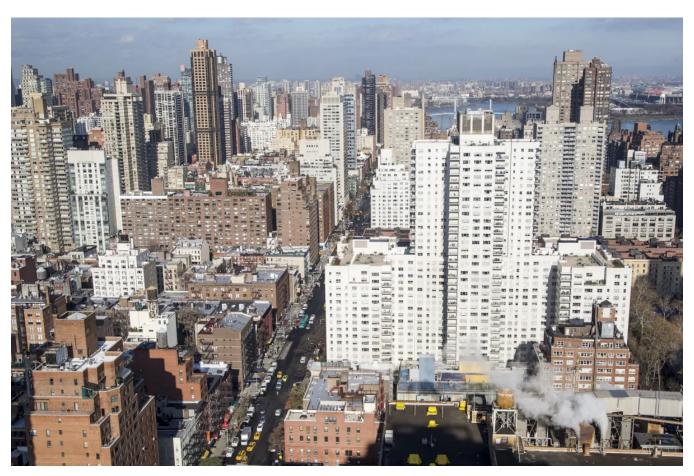
THE EPOCH TIMES

SCIENCE NEWS

New Study Suggests Global Warming Could Be an Urban Problem, Caused by Natural Factors



A view of Manhattan, New York on Nov. 24, 2014. (Samira Bouaou/The Epoch Times)





A new study on climate change found problems with the United Nations' manmade conclusion on global warming, showing that the U.N.'s climate change report ignored facts that could show natural causes. The <u>study</u> by 37 researchers from 18 countries, published in the peerreviewed scientific journal Climate, found two main areas that change the final conclusion about the cause of the slight increase in global temperatures over the past 200 years.

In a nutshell, the first area was the bias introduced by the heat-island effect of urban areas, where weather stations are located and the temperatures used in the U.N. report were taken. The second area is that it is probable that the U.N.'s report underestimated the role of the sun in global warming since the 19th century.

Urban Temperature Bias

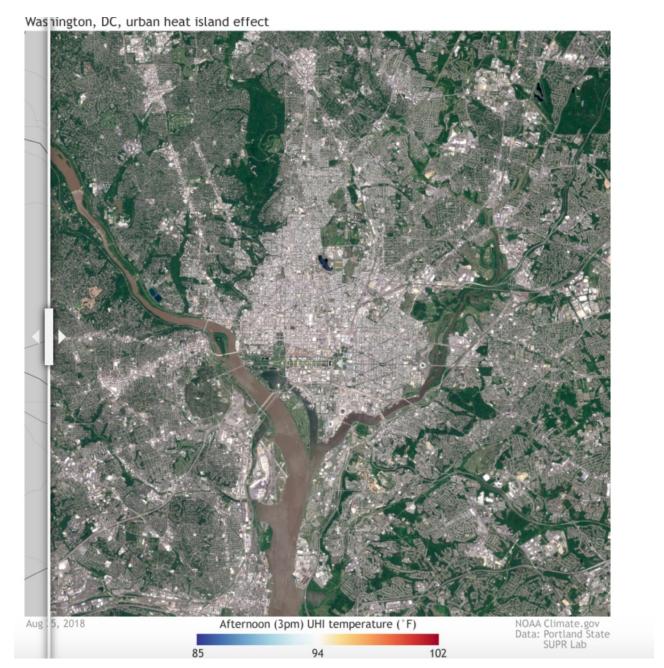
The Climate study, headed by scientists Willie Soon and Ronan Connolly, affiliated with the Center for Environmental Research and Earth Sciences (CERES), used both a rural and urban blend of temperatures and a rural-only dataset.

Urban areas amount to only 4 percent of Earth's land surface, according to CERES.

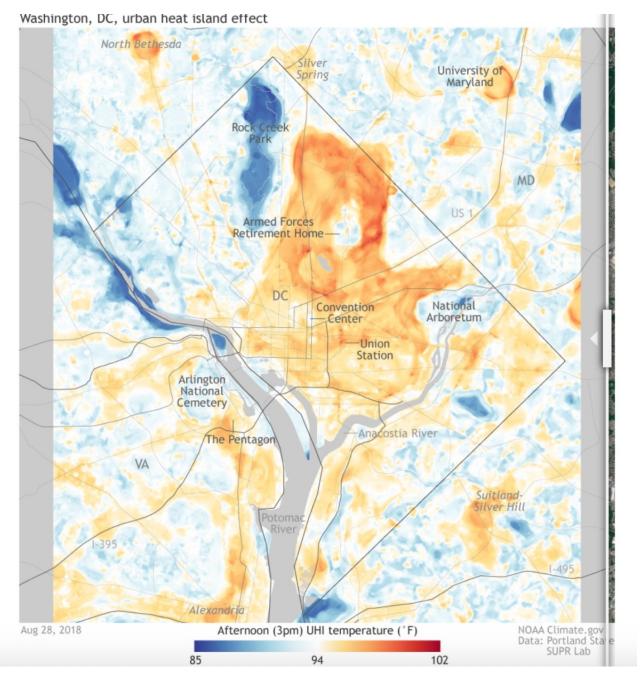
The result was that global warming estimates could be contaminated by urban areas' heat island effect.

More specifically, a rural and urban blend of temperatures in the new study showed an increase of 0.89 degrees Celsius per century since 1850, which matches the U.N.'s estimate. A rural-only dataset showed an increase of 0.55 degrees Celsius per century.

The heat-island effect observed in cities could have been incorporated as a global warming cause in the U.N.'s report.



A satellite photo of Washington. (Screenshot/National Oceanic and Atmospheric Administration)



A heat map of Washington shows the heat island effect, as urban areas have higher temperatures (red), while green parkland and waterways have lower temperatures (blue). (Screenshot/National Oceanic and Atmospheric Administration)

Solar Activity

The second problematic area in the U.N.'s climate report is the estimate for solar activity, as solar activity can affect Earth's temperature.

The Climate study took into consideration three climatic drivers, similar to the U.N.'s Intergovernmental Panel on Climate Change (IPCC) report: solar activity, volcanic activity, and anthropogenic (man-made) factors.

Whereas the IPCC only considered one dataset as a solar activity estimate to publish its conclusion, the new study examined two alternate solar activity datasets, or Total Solar Irradiance (TSI) datasets.

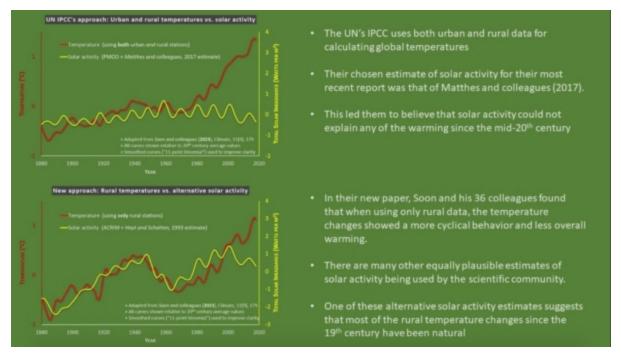
The first TSI was also used by IPCC, but the second—which is not less likely to be correct and estimates higher solar activity—was overlooked by the IPCC.

This second TSI lead to a different conclusion regarding to the cause of global warming.

The second set lead to a natural cause, or a blend of man-made and natural causes, for global warming. It also corresponded with the increases and decreases in Earth's temperature since the 19th century, showing that there are period fluctuations in temperature, with global warming but also global cooling.

More specifically, in periods when this second solar estimate was giving higher solar activity, a slight increase on Earth's temperature is observed. In periods where the solar activity is lower, a slight decrease on Earth's temperature is observed.

The first solar dataset used by IPCC cannot explain these cyclical fluctuations.



Diagrams of temperature (red), and solar acivity (yellow). The first diagram shows urban and rural temperatures and the UN's solar estimate. The second diagram shows rural only temperatures and the alternate solar estimate. Solar activity and temperature fluctuation seem to correspond to one another in the second diagram. (CERES-Science/Screenshot via The Epoch Times)

Problems With UN's Climate Report

The new study by Mr. Soon and Mr. Connolly tried to identify why warming occurred in the Northern Hemisphere from 1850 until 2018.

It found that urban warming amounts to 40 percent of global warming. In contrast to this, the U.N.'s report said that urban warming amounts to less than 10 percent of global warming.

The study examined whether global warming is mostly human caused, and found that most of the warming and cooling trends can be explained by solar activity.

Mr. Soon described the implications of the findings.

"For many years, the general public has been assuming that the science on climate change is settled. This new study shows that this is not the case," he said in a CERES report.

Another author of the study, Ana Elias, is the director of an atmospheric laboratory at the National University of Tucumán in Argentina. She said the analysis "opens the door to a proper scientific investigation into the causes of climate change."

The Climate study tried alternate datasets in both the temperature estimates and in solar activity estimates. These lead to the conclusion that global warming could be natural.

"It reveals that important challenges remain for the broader detection and attribution problem of global warming," the study says. "(1) urbanization bias remains a substantial problem for the global land temperature data; (2) it is still unclear which (if any) of the many TSI time series in the literature are accurate estimates of past TSI; (3) the scientific community is not yet in a position to confidently establish whether the warming since 1850 is mostly human-caused, mostly natural, or some combination."

However, the U.N.'s recent climate assessment report claims that contemporary climate change is "overwhelmingly due to human influence."

This conclusion was based on "a comparison of observed global temperature estimates to modeled 'hindcasts' (retrospective 'forecasts' of past climate)," the Climate study says about the U.N.'s report.

"The model hindcasts using only two natural forcings (solar and volcanic) were unable to simulate any substantial warming, but those using human-caused ('anthropogenic') forcings matched well with observations."

Causes of Bias

This approach has two major problems, according to a 2021 study by Mr. Connolly.

- "1. Urban areas represent a small fraction of the global land area, yet the land component of the IPCC's global temperature estimates includes many urbanized weather stations. As a result, there is concern that they might be contaminated by urbanization bias, i.e. warming biases from the growth of urban heat islands around weather stations.
- "2. The Total Solar Irradiance (TSI) dataset recommended by the CMIP6 organizers for estimating past solar activity, is a 'low solar variability' estimate, just like the four datasets considered by the CMIP5 modeling groups for AR5 [3,7,12], and implies a much smaller role for the Sun than using a 'high solar variability' dataset."

Mr. Connolly said that "both problems could significantly bias" the final conclusion on the cause of global warming, as they are "prematurely concluding with unjustified confidence that the long-term global warming implied by the global temperature estimates was mostly human-caused."

"Indeed, they showed that by altering the choice of TSI and/or the temperature records considered, they could explain the observed long-term warming as being anything from 'mostly human-caused' to 'mostly natural' or a mixture of both human-caused and natural factors," the study says.

The new study also cites three other past studies which clearly state that the U.N.'s climate reports have "substantially underestimated the solar contribution."

"Ironically, one of AR6's citations in the above quote—Shi et al. (2019) [29]—had specifically emphasized that recent literature had emerged questioning the AR5 finding," the Climate study says, referring to AR5, the previous U.N. climate report, on which the most recent AR6 was based.

"Surprisingly, Panmao Zhai, one of the co-chairs of AR6 had even drawn attention to the significance of Soon et al. (2015)'s [7] analysis of urbanization bias (and also their concerns about TSI) in his own work."

"Yet these insights appear to have been overlooked by the authors of Chapter 2" of the IPCC's report, the study says.

Other Critics of UN Climate Models

A spokesperson for the IPCC told the researchers that "the reason for this particular oversight was apparently that 'decisions on citations are up to the chapter team authors not the co-chairs," the researchers said in the study.

In terms of the debates over the solar dataset choice, the U.N. reports "had been criticized" by six different studies "for only considering 'low solar variability' TSI datasets and dismissing any 'high solar variability' TSI datasets," according to the Climate study.

"However, rather than expanding the range of TSI datasets considered," the organizers of the U.N. climate model, CMIP6, instead "prioritized ensuring all participating models used 'common CMIP6 forcings' for the hindcasts considered by AR6," the Climate study authors said.

"Therefore, they only recommended one TSI dataset, ... [a] 'low solar variability' dataset," they said.

The Epoch Times reached out to U.N.'s IPCC for comment.

The new study also cites 10 other studies raising concerns about the U.N.'s two previous assessment reports over the "reliability of both the CMIP5 and CMIP6 hindcasts in replicating observed climate changes."

Cloud coverage and cloud variations are yet another complex factor that affects the Earth's temperature that all the major climate models fail to address, Nobel laureate John Clauser told The Epoch Times in a previous report.

Mr. Clauser was one of two Nobel laureates to recently sign a declaration organized by the Clintel Foundation alongside 1,600 other scientists and professionals, stating "there is no climate emergency."

The Climate study had similar results with <u>another recent study</u> published in a different scientific peer-reviewed journal, Research in Astronomy and Astrophysics, with some of the authors being the same.

This second study used an additional 25 estimates of solar activity and three extra temperature estimates.

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