

Dan and Dave's Global Change Questionnaire, 2008

Name:

1) Circle the discipline that best fits you:

- | | |
|-----------------------------------|-----------------------------------|
| Ocean/atmosphere/climate dynamics | Paleoclimate/geochemistry |
| Atmosphere/ocean chemistry | Biology/ecology |
| Human dimensions | Program management/administration |
| Other (please specify) | |

2) On a scale of 1 to 10, how confident are you that we have already witnessed human-induced climate change? (1=no confidence, 10=absolutely certain)

3) What scientific evidence is most compelling in support of this view?

(Choose three, ranked, 1=most compelling)

- a) Keeling curve
- b) Ice core records
- c) Retreat of glaciers
- d) Instrumental surface temperature
- e) Mann curve
- f) GCM simulations
- g) Changes in species abundance/habitat
- h) Arctic sea ice retreat
- i) Other: (please identify)

4) Over the next 50 years, what aspect of environmental change will have the greatest impact on society? (Choose three, ranked, 1=most important)

- a) Sea level rise
- b) Temperature rise
- c) Changes in precipitation
- d) Loss of biodiversity
- e) Pollution
- g) Disease
- h) Mountain snowmelt

5) Over the next 50 years, what is the most important cause of environmental change?
(choose one)

- a) Population growth
- b) Economic development
- c) War/terrorism
- d) Energy technology/use
- e) Human land use
- f) Other: (please identify)

6) In what year will the Arctic ocean be ice free in the late summer?

7) What will the cumulative contribution to sea level rise (in cm) by melting land ice be in 2100?

8) What is your best guess of the global average temperature change (in degrees Celsius relative to present)

a) in 2050?

b) in 2100?

9) What is the catastrophic environmental change that worries you most?

10) What do you think the atmospheric CO₂ concentration will be in 2100?

11) Today, global carbon emissions are between 8 and 9 Gt C per year. What will they be in 2100?

12) If society is able to stabilize atmospheric CO₂ levels by 2100, what will be the most important causes? (Choose three, ranked, 1=most important)

- a) widespread efforts in energy efficiency and conservation
- b) widespread use of carbon sequestration for fossil fuel
- c) widespread use of renewable energy sources
- d) widespread use of nuclear energy
- e) economic collapse

Some scientists have proposed using a variety of technologies to reflect sunlight from the earth to mitigate the impacts of increasing greenhouse gases.

13) Do you think research on these technologies and their impacts should be a priority for global change research programs?

Yes

No

14) Do you think research on these technologies and their impacts will accelerate or decelerate their deployment?

15) Do you think this technology will be used within the next 50 years?