A bright sun with prominent rays is positioned in the upper center of the frame against a clear blue sky. Below the sun, a vast expanse of water is covered with numerous icebergs of various sizes and shapes. The icebergs appear to be melting, with some showing signs of weathering and discoloration. The overall scene suggests a significant environmental impact, likely related to global warming and the melting of glaciers or ice sheets.

Global Warming

Lecture 6.3

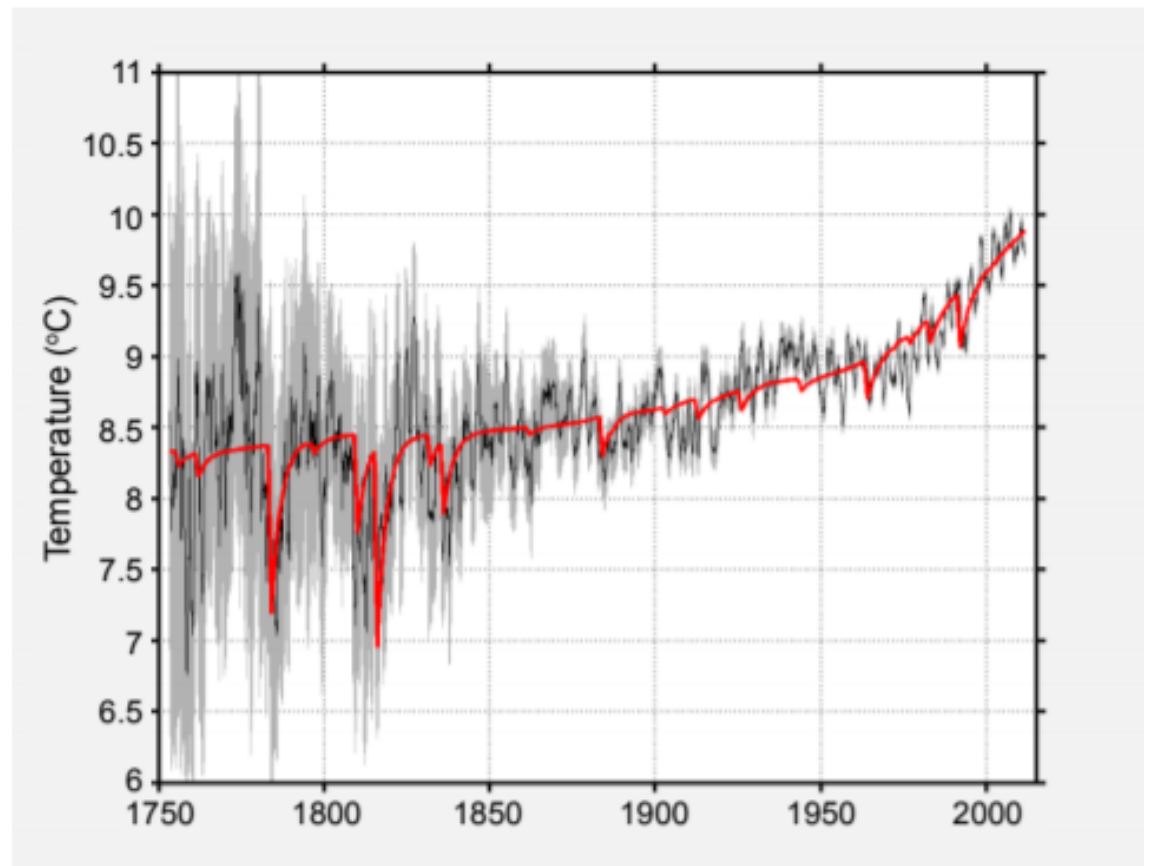
Geoengineering

Geoengineering

A cooling to offset the effects of human-caused global warming.

- Albedo modification
 - Increase the albedo (e.g., injecting aerosols into the stratosphere)
 - > more sunlight to be reflected; less sunlight to be absorbed.
 - > cooling

$$T_s = \left(\frac{(1 - \alpha)S}{4(1 - \frac{\varepsilon}{2})\sigma} \right)^{\frac{1}{4}}$$



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- > cooling

- Once begin, you need to keep doing it forever!

- CO2 Removal