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**Special  
report**  
Climate  
change

## Earth is 20% darker, say experts

**David Adam**

**Thursday December 18, 2003**

[The Guardian](#)

Human activity is making the planet darker as well as warmer, scientists say. They believe levels of sunlight reaching Earth's surface have declined by up to 20% in recent years because air pollution is reflecting it back into space and helping to make bigger, longer-lasting clouds.

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The "global dimming" effect could have implications for everything from the effectiveness of solar power to the growth of plants and trees. "Over the past couple of years it's become clear that the solar irradiance at the Earth's surface has decreased," said Jim Hansen, a climate scientist with Nasa's Goddard Institute for Space Science in New York.

Experts say global dimming is probably down to tiny particles such as soot, and chemical compounds such as sulphates accumulating in the atmosphere. "Data from 100 stations around the world show that the amount of black carbon in the atmosphere is twice as big as we assumed," said Dr Hansen.

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