

23 April 2009 05:38 UK

Pollution 'fights global warming'

By Matt McGrath
BBC News science reporter



Generating station in Sun Valley, California
Increased pollution has enhanced plant productivity, the report says

Air pollution may be helping the fight against global warming by enhancing the ability of plants to absorb carbon dioxide, scientists say.

Since the 1960s, increased levels of atmospheric pollution have enhanced plant productivity by as much as one quarter, research has found.

In terms of carbon dioxide, this means that an extra 10% has been stored in the soil.

The research was published in the scientific journal, Nature.

It is a common assumption that plants grow best in clear sunny weather, but scientists say this is not always the case.

Research has shown that forests and crops can also thrive in hazy conditions because clouds and particles in the atmosphere scatter sun light so that it bathes more leaves.

That enhances photosynthesis, the process by which plants turn light and carbon dioxide into food.

Global dimming

Researchers have now analysed the impact on plants of the dimmer, hazier skies that have resulted from increases in air pollution around the world since the 1960s.

They have calculated that this so-called "global dimming" is responsible for increasing plant productivity by as much as one quarter from 1960 to 1999.

Dr Lina Mercado from the UK's Centre for Ecology and Hydrology, the lead author of the study, said:

"This resulted in a net 10% increase in the amount of carbon stored by the land once other effects were taken into account," she was quoted as saying by the Press Association.

This study highlights some of the complications that arise when we try and tackle global warming.

As the world attempts to reduce the amount of smog and particulates in the atmosphere to improve human health, it will require even greater efforts to cut back on carbon dioxide.

This new research shows that plants will simply not absorb as much carbon dioxide in cleaner air conditions.

The research will also add weight to arguments about geo-engineering, the idea of curbing global warming by adding reflective materials to the atmosphere.

US President Barack Obama's chief scientific adviser, Professor John Holdren, recently told reporters that such ideas, once dismissed as half-baked, would have to be seriously discussed, such was the scale of the climate challenge.