

Dust from Asia pollutes US, Canada air: study

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Skyscrapers in downtown Seoul are shrounded by yellow dust storms blowing in from China's Gobi desert in 2006. Dust and aerosol pollution from Asia travels across the ocean and sullies the air in the United States and Canada, possibly worsening the effects of climate change, a study showed Thursday.

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About half of the <u>aerosol particles</u> in North America come from foreign sources, and most are just from naturally occurring dust rather than from burning coal or other fossil fuels, said the research published in the journal *Science*.

Since <u>dust emissions</u> could rise as a result of increasingly <u>dry weather</u>,



drought and desertification brought on by <u>climate change</u>, efforts by North America alone to curb pollution would not be enough, it said.

Instead, all nations must work together to cut back on <u>harmful emissions</u> in the environment, the study urged.

The imported aerosols could be harming the environment by absorbing radiation from the sun, altering cloud formation along with rain and snow patterns, and speeding snow melt in the western US mountains, said the study.

The research was based on data from a US-French environment satellite called CALIPSO that allowed scientists to separate which particles were natural dust and which were pollutant based.

The team included experts at the University of Maryland, NASA Goddard Space Flight Center and Universities Space Research Association in Maryland.

"To mitigate aerosol impacts on regional climate change, actions by a single nation are inadequate. The world must work cooperatively and act synchronically to meet the challenges of global health on a changing planet," said the study.

It also called for more study on how dust itself may affect climate.

"Dust emissions can respond to climate changes, such as changes of wind, precipitation and vegetation. It is thus essential to acquire better understanding of the interactions between dust and climate," the study said.

Researchers noted that their current focus was on foreign dust and aerosols carried into the United States and Canada, but that aerosols



emitted and produced in North America certainly affect other regions in much the same way.

More information: "Aerosols from Overseas Rival Domestic Emissions over North America," by H. Yu, *Science*, 2012.

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