

Ozone layer over Arctic region experiences record loss, UN agency reports



5 April 2011 – The United Nations agency dealing with weather and climate today reported that ozone loss over the Arctic has reached an unprecedented level this spring owing to the continuing presence of ozone-depleting substances and extremely cold temperatures.

Data shows that the Arctic region has suffered an ozone column loss of about 40 per cent from the beginning of the winter to late March, according to a <u>news release</u> issued by the World Meteorological Organization (WMO). The highest loss previously recorded was about 30 per cent over the entire winter.

"The Arctic stratosphere continues to be vulnerable to ozone destruction caused by ozonedepleting substances linked to human activities," said WMO Secretary-General Michel Jarraud.

"The degree of ozone loss experienced in any particular winter depends on the meteorological conditions. The 2011 ozone loss shows that we have to remain vigilant and keep a close eye on the situation in the Arctic in the coming years," he said.

WMO notes that the record loss is despite the success of the Montreal Protocol on Substances that Deplete the Ozone Layer in cutting production and consumption of ozone-destroying chemicals.

Substances such as chlorofluorocarbons (CFCs) and halons, once present in refrigerators, spray cans and fire extinguishers, have been phased out under the protocol.

"Without the Montreal Protocol, this year's ozone destruction would most likely have been worse," stated WMO. "The slow recovery of the ozone layer is due to the fact that ozone-depleting substances stay in the atmosphere for several decades."

The depletion of the ozone layer – the shield that protects life on Earth from harmful levels of ultraviolet rays – is also due to a very cold winter in the stratosphere, which is the second major layer of the Earth's atmosphere, just above the troposphere.

WMO noted that even though this Arctic winter was warmer than average at ground level, it was colder in the stratosphere than for a normal Arctic winter.

The agency also pointed out that although the degree of Arctic ozone destruction in 2011 is unprecedented, it is not unexpected. Ozone scientists have foreseen that significant Arctic ozone loss is possible in the case of a cold and stable Arctic stratospheric winter.

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