

UN says earth's ozone layer is healing

Experts say upper ozone layer above northern hemisphere should be repaired by 2030s

Earth's protective ozone layer is finally healing from damage caused by aerosol sprays and coolants, a new United Nations report has said.

The ozone layer had been thinning since the late 1970s. Scientists raised the alarm and ozone-depleting chemicals were phased out worldwide.

As a result, the upper ozone layer above the northern hemisphere should be completely repaired in the 2030s and the gaping Antarctic ozone hole should disappear in the 2060s, according to a scientific assessment released Monday at a conference in Quito, Ecuador.

The southern hemisphere lags a bit and its ozone layer should be healed by mid-century.

"It's really good news," said report co-chairman Paul Newman, a chief Earth scientist at NASA's Goddard Space Flight Centre.

"If ozone-depleting substances had continued to increase, we would have seen huge effects. We stopped that." High in the atmosphere, ozone shields earth from ultraviolet rays that cause skin cancer, crop damage and other problems. Use of man-made chemicals called chlorofluorocarbons (CFCs), which release chlorine and bromine, began eating away at the ozone.

In 1987, countries around the world agreed in the Montreal Protocol to phase out CFCs and businesses came up with replacements for spray cans and other uses.

At its worst in the late 1990s, about 10 per cent of the upper ozone layer was depleted, said Newman.

Since 2000, it has increased by about 1 to 3 per cent per decade, the report said.

This year, the ozone hole over the South Pole peaked at nearly 9.6 million square miles. That's about 16 per cent smaller than the biggest hole recorded 11.4 million square miles in 2006.

The hole reaches its peak in September and October and disappears by late December until the next Southern Hemisphere spring, Newman said.

The ozone layer starts at about 10 km above Earth and stretches for nearly 40 km; ozone is a colourless combination of three oxygen atoms. If nothing had been done to stop thinning, the world would have destroyed two-thirds of its ozone layer by 2065, Newman said. It's not a complete success yet, said University of Colorado's Brian Toon, who wasn't part of the report. "We are only at a point where recovery may have started," Toon said, pointing to some ozone measurements that haven't increased yet.

Another problem is that new technology has found an increase in emissions of a banned CFC out of East Asia, the report noted.

On its own, the ozone hole has slightly shielded Antarctica from the much larger effects of global warming it has heated up but not as much as it likely would without ozone depletion, said Ross Salawitch, a University of Maryland atmospheric scientist who co-authored the report.

—AP

