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GLOBAL

1- Why Is the Ozone Hole Growing?

TORONTO, Sep 13 (IPS) - A huge ozone hole has developed over Antarctica for the second year running, exposing southern Argentina and Chile to high levels of damaging ultraviolet radiation from the Sun. The "hole" over the South Pole -- actually an annual thinning of the ozone layer during the southern hemisphere spring months of September and October -- currently measures about 25 million square km and growing, according to European Space Agency satellite data, and it may yet become the biggest hole in history.

While this seems at odds with recent announcements that the amount of ozone-depleting chlorofluorocarbons (CFCs) in the lower atmosphere has finally started to decline, those chemicals will remain in the atmosphere for many decades.

Meanwhile, increases in other ozone-depleting substances like methyl bromide are rising and continued illegal use of CFCs means the fight to protect the ozone layer is far from over.

"New holes will likely develop for at least the next 30 to 40 years," says Craig Long, a meteorologist with the U.S. National Oceanographic and Atmospheric Administration's (NOAA) Climate Prediction Centre, located in the eastern state Maryland.

"This year's Antarctic hole should reach its maximum size mid-September," Long told Tierramérica. The timing coincides with the United Nation's International Day for the Preservation of the Ozone Layer, September 16. "Thanks to the Montreal Protocol on Substances that Deplete the Ozone Layer, the risk of harmful radiation appears to be receding," said UN Secretary-General Kofi Annan in a statement.

The 1987 Montreal Protocol requires the 184 nations that signed it to phase out the use of CFCs and nearly 100 other chemicals that break down the three-oxygen ozone molecules in the Earth's stratosphere. The ozone layer covers the entire planet at an altitude of around 15 to 30 km and protects living organisms from harmful ultraviolet (UV) rays. Reduced ozone levels over the past few decades has increased UV exposure around the world, resulting in higher levels of skin cancer, eye disease and other health issues in humans and in many other species of animals and in plants. But there was a levelling off of declining ozone levels globally between 1996 and 2002, according to a new study by the Centre for Integrating Statistical and Environmental Science at the University of Chicago.

While this is good news, scientists urged caution. "Some of these chemicals remain in the stratosphere for many decades, meaning that chemicals produced years ago will continue to be harmful for decades to come," said Sherwood Rowland, in a statement. Rowland and colleagues Mario Molina and Paul Crutzen won the 1995 Nobel Prize in Chemistry for their work identifying the threat to the ozone layer in the 1970s.

But there is concern because the Montreal Protocol allows the release of other ozone depleting substances for critical short-term use. For example, methyl bromide was to have been completely phased out by Jan.

1, 2005. However, U.S. vegetable and fruit growers will use nearly 10 million kg (23 million pounds) of the chemical pesticide in 2005 -- more than the country used in 2002.

The United States has convinced countries party to the Protocol to continue to allow some 8.5 million kg of methyl bromide in 2006, more than the rest of the industrialised world combined.

Although there are alternatives, methyl bromide is cheap and easy to use.

Alternatives to CFCs, meanwhile, are in wide use throughout the world, but because they are more expensive there is a thriving black market trade for CFC use as refrigerants, fire suppressants and industrial solvents.

Millions of pounds of CFCs have been illegally imported into the United States. Though the problem may be on the decline there, it is "an emerging significant problem especially in Asia" according to UN Environment Program (UNEP). The region still has equipment reliant on CFCs, despite commitments to reduce consumption and production these gases.

Under the Montreal Protocol, developing countries agreed to reduce CFC consumption 50 percent by January 2005, and to fully eliminate use by January 2010.

This has led to increased smuggling of these chemicals and hampered adoption of alternatives, UNEP reported in January. Finally, weather conditions can also exacerbate ozone loss over the polar regions. The Arctic has had fewer and smaller ozone holes than Antarctica but suffered its greatest-ever loss last winter due to extremely cold conditions.

Some experts blame climate change. As the Earth surface warms, the upper atmosphere is getting colder in the polar regions, creating just the right conditions for chemicals like CFCs and bromine to destroy ozone.

Although more is known about climate change impacts in the Arctic, the same thing could potentially happen in Antarctica, Claus Zehner, of the European Space Agency in Italy, told Tierramérica.

Ultimately, local weather and the degree to which the Montreal Protocol is respected worldwide will determine if there will be ozone holes in the second half of the 21st century, Zehner said.

What's certain is that this southern hemisphere spring, residents of southern Chile and Argentina, and possibly New Zealand and Australia, will need to protect themselves more than ever from exposure to the Sun's harmful rays.

Source: Tierramérica network. By Stephen Leahy, IPS correspondent, 10 September 2005, <http://www.ipsnews.net/>

2- Environmentalists Call on European Countries to Stop Producing Ozone-Destroying Chemicals as Ozone Hole Approaches Record Size

London, 16th September 2005; The Environmental Investigation Agency (EIA) are marking World Ozone Day by calling on European Union countries still producing ozone destroying chemicals, such as CFCs, to halt production in light of new evidence of the most severe thinning of the ozone layer.

EIA urges the European Countries which still produce CFCs or have production quotas, namely; UK, France, Greece, Netherlands and Spain, to rapidly and significantly reduce this production. China, which is the world's largest CFC producer, has already made a commitment to stop CFC production in 2007? three years ahead of schedule.

The ozone hole over Antarctica is currently around 22 million square kilometres and is continuing to grow, approaching the size of the largest ever recorded ozone holes measured in 2000 and 2003. In addition, earlier this year, the greatest ever ozone losses were recorded over the Arctic, and it was feared an Arctic ozone hole may soon develop.

Dr Ezra Clark, Senior Campaigner, said: "The situation of continued production of CFCs in Europe is untenable, particularly as many developing countries are now making huge advances in reducing production and consumption of CFCs."

Overexposure to ultraviolet radiation, which can occur due to ozone depletion, is linked to skin cancer with children particularly at risk. Earlier this year in Central Europe, authorities were forced to issue health warnings as the ultraviolet radiation levels reached an all-time high due to a mini ozone hole forming in this region.

Clark continued: "It has been 18 years since the global community agreed to phase out CFCs. It is imperative that these European countries show leadership and stop producing these ozone destroying chemicals. The time has come to move to a CFC-free world and allow the ozone hole to recover for future generations."

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Source: Environmental Investigation Agency (EIA) <http://www.eia-international.org>

LATIN AMERICA and CARIBBEAN

3- Mexico Beats Deadline for Eliminating Ozone-Depleting Chemicals

MONTEREY, Mexico - Mexico has stopped producing ozone-depleting chemicals four years before a deadline set by an international agreement, Mexican Environment Secretary Jose Luis Luege Tamargo announced Friday.

The last chlorofluorocarbons, or CFCs -- manmade chemicals used in aerosol sprays, refrigerators and air conditioners -- were produced last month in this northern industrial city, Luege Tamargo said.

Scientists have linked the use of CFCs to a withering ozone layer.

"Mexico is a pioneer when it comes to protecting the ozone layer, and in the last 15 years has reduced by 90 percent the use of CFCs," the Mexican environment secretary said at a Cydsa chemical plant in Monterrey.

Cydsa, a chemicals and fibers industrial group, was the largest producer of CFCs in Latin America. Mexico is one of 189 nations that in 1987 signed the Montreal Protocol, an agreement that aims to phase out the use and production of CFCs by 2010.

Luege Tamargo said all domestic and commercial refrigerators made in Mexico after 1997 are free of CFCs, aerosol spray products are now using alternative substances and companies producing polyethylene foam have also stopped using CFCs.

The measures taken in Mexico will reduce the production of CFCs 12 percent worldwide, said Sidi Sir Ahmed, director of environmental programs at the U.N. Industrial Development Organization.

"Mexico is the first developing country to completely eliminate its CFCs production ... and it's meeting its obligation in a very efficient and accelerated manner," he said.

Despite the advances, Mexico still has to eliminate the use of CFCs in old domestic and commercial refrigerators dependent on CFCs as a coolant.

To tackle the problem, Mexico's Environment Department has set up recycling centers and is keeping a close watch on companies that may want to import or export CFCs.

It is also providing technical and financial assistance to industries switching to refrigerators that use ozone-friendly substances, Luege Tamargo said.

The ozone layer, between 10 and 25 miles (16 and 40 kilometers) above the earth in the stratosphere, has thinned and a hole has opened over the Antarctic.

In the 1970s, scientists warned that manmade chemicals, including CFCs and methyl bromide, a pesticide used in agriculture, were destroying the ozone, which works to prevent most of the sun's ultraviolet rays from reaching the surface.

The depletion of ozone allows more harmful ultraviolet rays to reach the earth, which can cause skin

cancer, eye damage and other health problems.

Scientists say it could be 20 years before ozone levels recover noticeably, and full recovery can be expected around 2050.

Source: Associated Press, 12 September 2005 - By Olga R. Rodriguez

AFRICA

4- Nigeria makes progress in ozone layer preservation

Nigeria has made significant progress in preserving the ozone layer, the Director-General of Nigeria Meteorological Agency (NIMET) , Mr. Liwhu Akeh has said. "NIMET established ozone layer monitoring station in 1993 and had been actively involved in monitoring, data collection, research, public awareness campaign and , collaboration with other organisations," he said.

He spoke to journalists at the weekend in Lagos to commemorate the world day on the preservation of the ozone layer, on Sept. 16.

Akeh said that government had been doing "quite a lot in the control of environmentally harmful substances, such as CFCs and halons known to deplete ozone."

Our correspondent reports that ozone is a naturally occurring gas found within 20 to 30 km away in the earth's stratosphere.

It forms a shield in the stratosphere and its concentration reduces the intensity of certain wavelengths of the ultra-violet radiation from reaching the earth which in turn, protects all life of the earth from its harmful effects.

However, man's activities had led to its massive depletion, culminating in the ratification of a convention in 1987 to preserve the gas. Nigeria was a signatory to that convention.

Akeh stated that as part of government's efforts to implement the phase-out of ozone-depleting substances, old technologies were being replaced with the state-of-the-art ozone-friendly alternatives especially in the refrigeration sector.

"Government had also banned the importation of second hand refrigerators and freezers into the country," he said.

He observed that without the convention, by 2050, ozone depletion would have risen to at least 50 per cent in the northern atmosphere's mid latitudes and 70 per cent in the southern mid latitudes.

The country representative of UNIDO, Dr. David Tommy, highlighted the problems caused by ozone depletion to include damage to the human eye, skin cancers, suppression of the efficiency of the body's immune system, reduction in plants growth as well as upsetting of the balance of the ecosystems.

Source: The Tide Online, 21 September 2005, <http://www.thetidenews.com>

North America

5- Farmers phasing out methyl bromide (USA)

NORTH COUNTY ---- On a recent foggy morning, the faint, pungent aroma of tear gas wafted through the air at a Pauma Valley nursery.

Guided by two men wearing gas masks, a compact tractor laid down long strips of plastic sheeting on the black soil. At the same time, chemicals from a tank on the tractor were infused into the soil.

The smell and tarps signaled a seasonal activity, but one that is changing. Every year before planting tomatoes, strawberries and other crops, farmers across California fumigate the soil to eliminate weeds and pests.

An international agreement to cut back on ozone-destroying chemicals is pushing growers in San Diego County and the rest of the state away from the most prominent tool in a fumigator's kit: methyl bromide.

While that's good news for the ozone layer, some public health advocates are watching the switch with dismay because two chemicals that farmers are substituting are linked to short- and long-term health risks. Use of one chemical may be tightened by the federal Environmental Protection Agency in the next few years because of its acute toxicity.

Acute pesticide-related illnesses in San Diego County have stayed low in the last few years, in comparison with the California's Central Valley, where agriculture dominates. In fact, the county department of agriculture reported no fumigant-related poisoning incidents in the last five years. Doctors and farmworkers advocates say pesticide-related illnesses are hard to detect among Spanish-speaking workers who are reluctant to report problems related to their employment. "If we focus on pesticides, farm owners may not let us come in to check for diabetes, for example," said Eduardo Gomez, a caseworker at Vista Community Clinic, which runs mobile clinics for farmworkers.

The symptoms of acute pesticide poisoning can mimic either flu or psoriasis, with exposed people having headaches, dizziness or rashes, said Irma Cota, executive director of North County Health Services. "It's not as much a problem as it was a few years ago," she said. "You have to be a good sleuth to pick it up."

Buffer zones

In the interests of public health, state law already places a number of strict regulations on how and when soil fumigants can be used.

At the Pauma Valley nursery earlier this month, a San Diego County agriculture inspector, Abdel Amador, kept bystanders 40 feet away. The size of the buffer zone ---- sometimes a few hundred feet ---- depends on how much is being applied and the weather conditions, he said.

Farmers are required to notify neighbors 48 hours ahead of the application period. The tear gas smell comes from chloropicrin, another fumigant usually applied in a mix with methyl bromide, which is actually odorless.

Employees of the Hollister-based firm Trical, who were operating the tractor, wore protective respirators. Nursery employees who walked behind the tractor moving soil with shovels did not. The reason is that under state law, workers who are exposed to methyl bromide only a few times a year, such as the nursery employees, are not required to wear protective equipment, Amador said. Ozone eater Under the Montreal Protocol framework, signed by the United States and more than 100 other countries in 1997, methyl bromide is being phased out because it degrades the Earth's ozone layer, which protects life below from the sun's ultraviolet light.

In the United States, use of methyl bromide was scheduled to stop completely at the beginning of 2005, unless exempted for conditions deemed "critical use." Governments agreed that some uses were too economically valuable to cut off abruptly, such as the billion-dollar agribusiness of cultivating tomatoes and strawberries.

Most recently, international negotiations in Montreal in July allowed the United States in 2006 to use 32 percent of the methyl bromide it had used in 1991.

Environmental groups have criticized the United States for delaying the phase-out. The EPA is planning to ask for "critical use" exemptions for 2007, but the total amount requested will be less than for 2006.

Alternatives catch on slowly Some farmers in San Diego County say they have started to use alternative fumigants ---- partly because the cost of methyl bromide has been rising ---- but they are reluctant to give up something they have grown to depend upon.

"We're still using only methyl bromide," said Peter Mackauf, general manager at Carlsbad Strawberry Co. in Carlsbad, where fumigation finished at the end of August. "We have tested various alternatives, and even considering the cost, the alternatives don't come close when you consider the long-term use of the ground."

The U.S. Department of Agriculture has spent more than \$146 million on developing alternatives, which range from other chemicals to rotating crops, treating soil with pest-killing bacteria and using the heat of the sun to kill pests and weeds. Strawberry farmers in Southern California have been more willing to try alternative chemicals, said Neil Nagata, a strawberry grower in San Luis Rey. If forced to give up methyl bromide, many strawberry growers would turn to the "next best thing": Telone and chloropicrin.

Pick a poison Susan Kegley, a chemist at Pesticide Action Network in San Francisco, argues that the chemical alternatives farmers are turning to could be worse than methyl bromide, especially for farmworkers or people who live near fields that are regularly treated.

Each alternative compound creates health concerns, Kegley said.

California's regulations on fumigants have been getting tighter, and knowing that something has

specific toxic qualities is not the same as a clear and certain danger to people, said Glenn Brank, state Department of Pesticide Regulation spokesman.

For example, metam sodium, a fumigant used heavily in the rest of California, is acutely toxic. Exposure can result in eye and respiratory irritation and headaches, according to state and federal officials.

Metam sodium breaks down quickly in soil and escapes into the air, and does not accumulate in fruits and vegetables, according to the DPR.

Kegley is concerned that more use of metam sodium will mean more poisoning incidents such as the one that occurred in the Kern County community of Arvin in 2002.

Wind blew fumes from a metam sodium application into a plant processing carrots and a nearby neighborhood, according to a DPR report. One woman was hospitalized with serious respiratory problems and 249 others reported feeling ill.

The Environmental Protection Agency is considering clamping down on the use of metam sodium. A preliminary risk study issued by the EPA in June states that when farmworkers apply metam sodium, their exposure levels are too high for federal risk standards, even when they use protective equipment.

The assessment could lead to additional nationwide restrictions on how metam sodium can be used, such as buffer zones or limits on how much can be used at once, EPA officials said.

On the other hand, Telone is less acutely toxic, Kegley said.

State officials banned Telone in California in 1990 after monitoring found the levels in the air in some areas to be high enough to present a significant cancer risk. It was reintroduced in 1995 after Dow AgroSciences developed a different way to apply it, through "shanks" plunged deep into the soil.

"It won't poison people right away," Kegley said. "Cancer's the main concern with Telone."

State laws on Telone now include buffer zones, respirator requirements, and limitations on how much can be applied in a given area and how fast. The volume being used is a small fraction of the Telone applied in the 1980s.

Contact Quinn Eastman, staff writer qeastman@nctimes.com

Source: North County Times, 23 September 2005

SOUTH ASIA

6- Shenzhen to be awarded for ozone efforts

Xinhua, China, BEIJING, Sept. 15 -- Shenzhen will get a gold award for its achievement in protecting the ozone layer at a conference to mark the 10th anniversary of the International Ozone Layer Protection Day, the Daily Sunshine reported Wednesday. The conference will be held in Shenzhen for the first time, from Sept. 16 to 17. Officials from the United Nations Environment Program, State Administration of Environmental Protection, representatives from more than 40 countries and mayors of 41 Chinese cities will attend the meeting and discuss how to protect the ozone layer.

Source: Xinhua, 15 September 2005 http://news.xinhuanet.com/english/2005-09/15/content_3493427.htm

WEST ASIA

7- Two UN projects for Protection of Ozone Layer (Oman)

MUSCAT - The multi-party fund of Montreal Protocol has endorsed during the 46th meeting of its executive committee held in Montreal, Canada, recently the implementation of two ozone-layer protection projects in the Sultanate. The first project deals with preparing a plan to manage gradual disposal of the ozone depleting substances, while the second project focuses on the renewing the institutional support project second phase. The United Nations Organisation for Industrial Development will implement the two projects. These projects will help the Sultanate build national

capabilities in the ozone-layer protection, meet the Montreal Protocol requirements and curb usage of the ozone depleting substances. Following the approval of its membership in Vienna Pact to protect the ozone layer and the Montreal Protocol, the Sultanate was classified as one of the countries of the protocol's fifth article. The individual's average annual consumption of the substance depleting the ozone layer in these countries is less than 0.3 kg. - ONA

Source: Times of Oman - 30 August 2005 <http://www.timesofoman.com/>

Featured Reading >>>

Campaign to phase-out the use of methyl bromide in Costa Rica

--- The public must be alerted when lifestyles harm the environment, but what if there is little or no public money to mount a campaign to promote changes? And what is a Government to do when the public wants both high spending and low taxes? The United Nations Environment Programme (UNEP) is offering some answers--- (see pages 34-35 about: A campaign to phase-out the use of methyl bromide pesticide by melon and flower growers in Costa Rica --- example of how the involvement of the target audience aids their behaviour change. Workshops are used to raise awareness, to make the links between theory and individual practice, and to gather data about on-the-ground performance.

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