

how can we help save the ozone layer?

- Patronize ozone-friendly products. Check the labels of consumer goods and do not buy products with ODS.
- Patronize ozone-friendly services. Have your car aircons, refrigerators and home aircons repaired at service shops accredited by the Department of Trade and Industry (DTI).
- If your car aircon still runs on CFC-12, have your aircon system retrofitted to a non-CFC system in a DTI-accredited service shop. All cars must be CFC-free by 1 January 2012.
- Beware of illegal refrigerant dealers and mislabeled refrigerants. All refrigerants are imported, and there is no "Class A versus B" or "imported versus local" classifications. Refrigerants with very low prices could be smuggled and/or adulterated.
- Carefully study the uses of ODS and its alternatives to help phase out ODS and protect the environment.
- Share your knowledge on this matter with family, friends and colleagues.



THE MONTREAL PROTOCOL AND THE PHILIPPINES' COMMITMENT

The Philippines is one of the 196 countries that ratified the Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol is an agreement where its member countries agreed to gradually reduce and eventually eliminate their production and consumption of ODS following an agreed schedule. The Philippine Ozone Desk (POD) of the Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB) is tasked to ensure that the Philippines complies with its commitments to the Montreal Protocol. All ODS are imported, and POD is charged with the issuance of clearances for ODS imports. POD is also responsible for raising awareness on the different ODS and their alternatives, and on government laws and programs related to ODS phaseout.



Philippine Ozone Desk

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OZONE LAYER: Nature's Umbrella



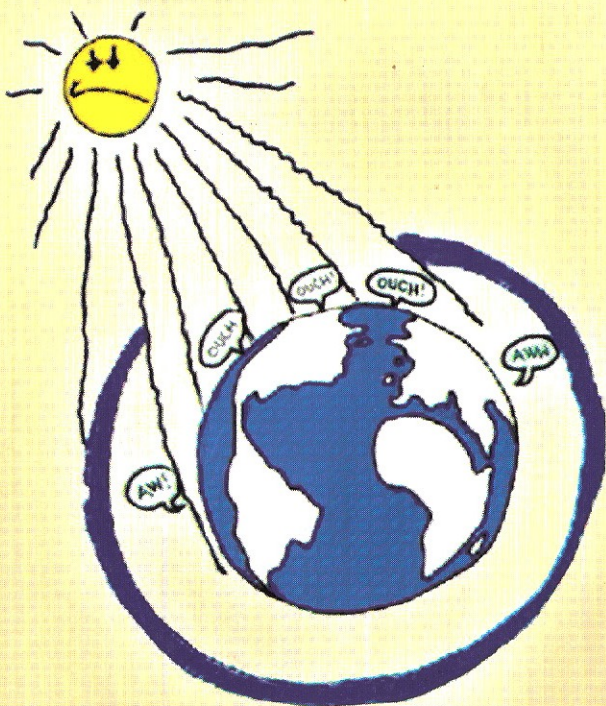
Protect the
Ozone Layer!
It Protects
YOU!

what is the ozone layer?

The ozone layer is a thin, fragile shield that envelops the earth and acts like an umbrella that protects us from the sun's harmful ultraviolet-B radiation (UV-B). It is made up of ozone (O_3) molecules and located in the upper atmosphere, 20 to 40 kilometers above the earth's surface.

what is happening to the ozone layer?

There is a hole in the ozone layer! Ozone depletion means that there is a thinning of the ozone layer and more UV-B enters the earth's surface. Because of this, the earth is at risk.



what are the effects of ozone depletion?

Ozone depletion allows the entry of UV-B, which is harmful and causes negative effects in plants, animals and humans.

• On health

UV-B is dangerous to our health. The immune systems of humans exposed to high levels of UV-B will deteriorate, which makes us more prone to diseases. UV-B exposure also increases the risk of skin cancer and cataracts which can lead to blindness. UV-B also causes rapid aging.

• On trees and plants

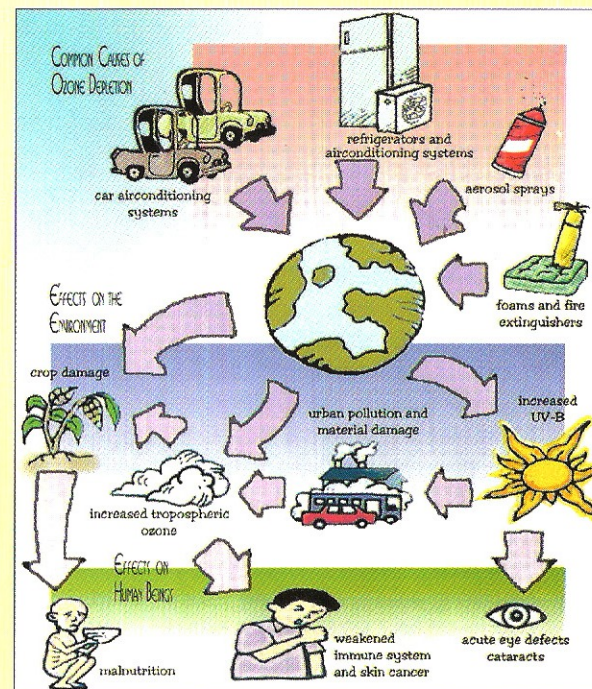
UV-B inhibits the growth of crops and trees. It also lowers the quality of agricultural products such as tomatoes, potatoes, soybeans, etc.

• On water organisms

UV-B penetrates the ocean floor and damages the propagation of phytoplankton organisms, the primary food source of most marine life. This affects the marine food chain, which involves humans at the end of the food chain. Fish eggs and young plants are also particularly susceptible to damage from UV-B.

• On building materials

UV-B degrades polymers used in buildings, paints, packaging and many other substances. Plastics used outdoors are likely to be affected, and countries located in the tropical regions like the Philippines are more severely affected.



what causes ozone depletion?

The depletion of the ozone layer is caused by certain man-made chemicals called ozone-depleting substances or ODS. ODS are compounds containing chlorine and/or bromine that have the potential to react with ozone molecules.

Some ODS and their uses

- **CFC or chlorofluorocarbon** is used as cooling agent for refrigerators, home air-conditioners and car air-conditioners, as blowing agent for foam, as propellant for aerosols and as solvent for cleaning electronic appliances.
- **HCFC or hydrochlorofluorocarbon** has the same uses as CFC but has a lower ozone-depleting potential or ODP, which is the ability of an ODS to destroy ozone molecules. Additionally, HCFC may also be used as a fire-extinguishing agent.
- **Halon** is used as a fire-extinguishing agent.
- **Methyl Bromide** is used as a pesticide or fumigant for soil, pre-shipment and quarantine applications, structural facilities, buildings, golf courses and stored commodities.