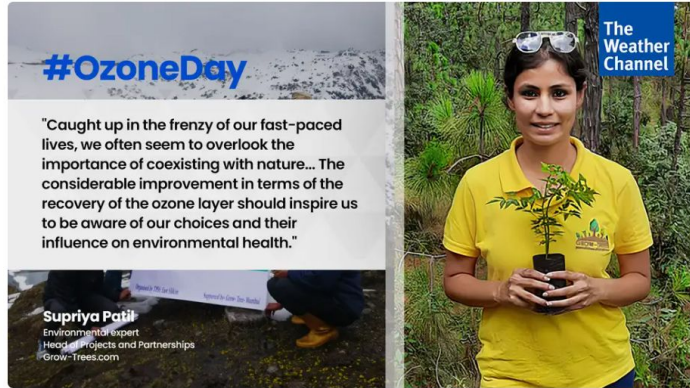


ENVIRONMENT

World Ozone Day: As Our Protective Shield Recovers, Can We Wake Up To a Greener Tomorrow?

By Supriya Patil · 15 September, 2021 · TWC India



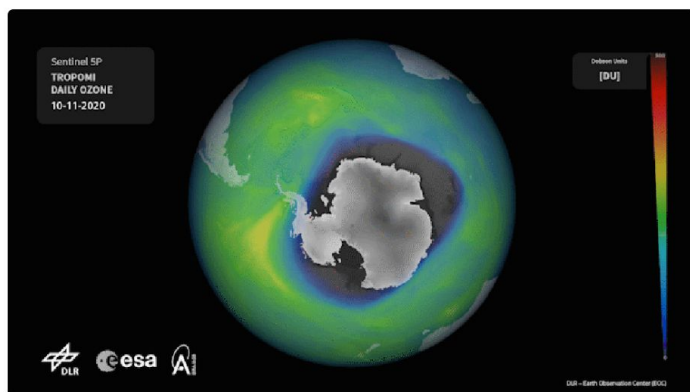
Caught up in the frenzy of our fast-paced lives, we often seem to overlook the importance of coexisting with nature. For the same reason, an onslaught of unprecedented natural occurrences continues to confront us, disturbing our ecological equilibrium and putting our health and well-being in jeopardy.

As we go about our daily lives, the protective layer created by ozone molecules functions as a shield, protecting biological processes essential for the survival of life on Earth by blocking the sun's damaging ultraviolet radiation. Scientists believe that the ozone layer supported the development of life on Earth by filtering out fatal amounts of UVB radiation—hazardous UV rays with wavelengths between 315 and 280 nanometres—and allowing life forms to migrate from the oceans to the land.

Chemical activities that generate and destroy ozone molecules and winds, and other transport mechanisms that transfer ozone molecules across the planet, cause the quantity of ozone in the stratosphere to vary naturally throughout the year. However, over the last few decades, human activities alone have altered the ozone layer substantially.

As the quantity of stratospheric ozone decreases, more UV radiation reaches the Earth's surface, raising concerns that this might have severe consequences for ecosystems and human health. Concerns about physiologically hazardous amounts of UV radiation were the driving force for the establishment of World Ozone Day on September 16 back in 1994.

Success of Montreal Protocol



Earth's Ozone Hole 2020

(European Space Agency (ESA) / Earth Observation Center (EOC))

The international community established a structure to take measures to safeguard the ozone layer after scientific evidence of its depletion in the form of the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987. The Montreal Protocol's main objective was to maintain the ozone layer by enacting measures to limit total world production and use of ozone-depleting chemicals, with the eventual goal of eliminating them based on advances in scientific understanding and technical information.

The United Nations General Assembly declared September 16 as the International Day for the Preservation of the Ozone Layer to honour the date of the signing of this protocol.

Increased knowledge of ozone layer depletion and its implications resulted in a significant reduction of the emission of ozone-depleting chemicals over the last three decades. According to the most recent Scientific Assessment of Ozone Depletion conducted in 2018, portions of the ozone layer have recovered at a pace of 1-3 per cent each decade since 2000. To say the least, this considerable improvement should inspire us to be aware of our choices and their influence on environmental health.

Ozone-depleting substances (ODS) are released into the atmosphere by some industrial operations and consumer goods. Chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), carbon tetrachloride, methyl chloroform, and halons are the most common ODS. The day reminds us that we must be cautious of chemicals that contribute to the ozone layer's depletion and eliminate their use entirely.

Planting trees for a better tomorrow



Plantation activity organised by Grow-Trees.com.

(Grow.Trees.com)

While beneficial for us up in the stratosphere, Ozone can be a hazardous air pollutant at ground levels. And planting trees is among the most effective tools for reducing ground-level ozone pollution. Trees absorb toxic substances through their stomata, or pores, which efficiently filter the air. Trees also lower ground-level ozone levels and provide life-giving oxygen, which also helps offset the greenhouse gas effect.

The worldwide crisis of 'climate change' is staring us in the face, and its repercussions are becoming more visible by the day. The warming of the Earth's surface and its corresponding air environment due to rising carbon emissions is the primary cause. Like the challenge of ozone depletion, we need effective global action to mitigate the cascading impacts of climate change.

We can reduce carbon dioxide in the atmosphere by planting trees that function as carbon sinks and sequester carbon dioxide upon maturity. At Grow-Trees.com, we believe that trees can take care of us round the clock. Only by acknowledging our responsibility towards the environment and its inhabitants can we solve the challenges of environmental degradation and disturbed ecological balance.

The environment belongs to our flora and fauna as much as it belongs to us. In order to offer a convenient yet fulfilling platform to plant trees, we introduced individuals and organisations to 'Greet with Trees'. The initiative reinforces the importance of sustainable gifting and beckons us to contribute to socio-environmental systems while gifting trees.

Large-scale plantation drives are organised in different parts of India as part of thoughtful projects that involve planting trees for various purposes such as Trees for Rural Communities, Forests & Wildlife, Himalayas, and Rivers. To ensure that the plantations are carried out effectively in India's diverse geographical terrain, we emphasise certain factors such as site selection, species adaptability, site preparation, geographical conditions, and traditional practices. We also take regular inputs from the forest departments and village institutions and involve local communities in plantation projects.

Our disregard for the environment has resulted in ozone depletion, climate change, and global warming. After seeing some of the terrifying natural events, most recently the COVID-19 pandemic, I often find myself brooding over the questions. What will be a larger eye-opener? What will awaken us to the gravity of our actions? Will we ever understand the fundamental value of coexisting with nature?

The world will be a happier and healthier place to live in if we take up the responsibility of finding answers to these questions, not just for ourselves but the planet at large.

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