OZONE: My Biography (1840-2100 AD)

- 1840 — DISCOVERY OF OZONE
- 1970s — DISCOVERY OF OZONE DEPLETION
- 1987 — WORRY UNITED TO FIGHT DEPLETION
- 2000s — UNITY MADE RECOVERY PATH
- 2014 — OZONE ACTION CONTRIBUTED IN BETTER CLIMATE:UNITY DELIVERED
- 21st Century End — TROPICS IS UNDER WORRY DUE TO CLIMATE CHANGE
- Uncertain — CLIMATE CHANGE THREATENING GOOD OZONE : NEED DELIVERY FROM CLIMATE SCIENTISTS COMMUNITY

IT IS A STORY WRITTEN BY MANY: SCIENTISTS, TECHNOLOGISTS, ECONOMISTS, LEGAL EXPERTS, AND POLICYMAKERS WHERE CONTINUOUS HEALTHY DIALOGUE HAS BEEN A KEY INGREDIENT.

CAN'NT WE FOLLOW THE SAME PATH FOR ABETING CLIMATE CHANGE?

Environmental Information System Centre

(Acid Rain and Atmospheric Pollution)

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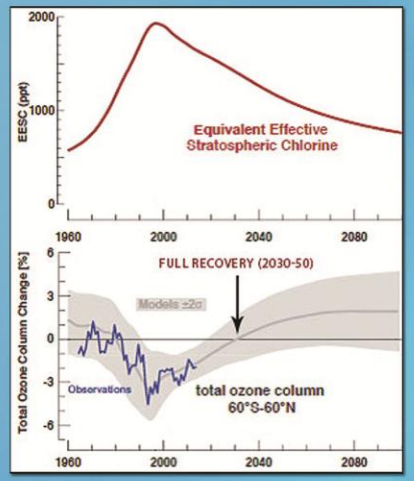
OZONE LAYER

Path to Ozone Recovery



Ozone: Today & Tomorrow

Latest from UNEP-WMO Ozone Assessment Report - Sept. 2014

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INDIAN INSTITUTE OF TROPICAL METEOROLOGY

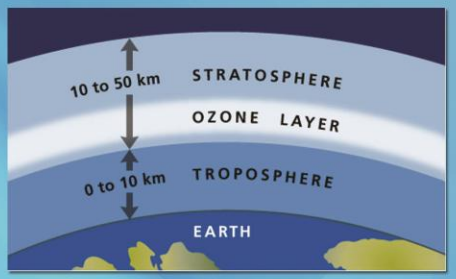
(Autonomous Institute of Ministry of Earth Sciences, Govt. of India)

Ozone :

Ozone is very rare in our atmosphere, averaging about three molecules of ozone for every 10 million-air molecules. So little but ozone plays a vital role in the atmosphere. Ozone is mainly found in two regions of the Earth's atmosphere.

TROPOSPHERE:

Only 10-15% of ozone resides in a region from surface to ~15 km. Here, ozone comes into direct contact with life-forms and shows its destructive side (hence, called "bad ozone") which is toxic to living systems, harmful to crop production, forest growth, and human health.

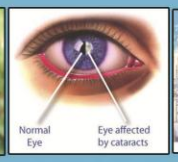


STRATOSPHERE:

ozone (about 85-90%) resides in a layer between 15 -50 km above the surface, a region known as stratosphere where it absorb Sun's harmful Ultraviolet radiations (UV).

HARMFUL:

If ozone is depleted in this region then it will increase UV at surface resulting in increasing the incid-
ences of skin cancer and eye cataracts, adversely affect plants, crops, and ocean plankton.



PROBLEM:

- It is found in mid-1970s that some Human-produced chemicals known as ozone-depleting substances (ODSs) were steadily increasing in the atmospheres that are leading to Good ozone depletion. These ODSs are chlorofluorocarbons (CFCs) used in refrigeration and air conditioning, foam blowing, and industrial cleaning.

ACTION:

- To stop ozone depletion and check the growing use of ODSs, the governments of the world under United Nations crafted a protocol on 16th September 1987 known as ***"Montreal Protocol"***. This day **16th September** is celebrated as the ***"WORLD OZONE DAY"*** since then.

- The discovery, understanding, decisions, actions, and verification under the MP yielded notable achievements and progress conveyed to world through a report ***"Scientific Assessment of Ozone Depletion"***, published every 4 year.

SUCCESS

- The SUMMARY of latest assessment series is released on 10th September 2014" which revealed success story that ozone layer is showing first signs of recovery. We expect substantial recovery of the ozone layer by 2040 - 2060

Future Ozone Worry

(21st Century end)

Role of Climate Change in Tropics(India)