



## WBCS 2022



SCIENCE

# POLLUTION





changes in our surroundings that have harmful effects on plants, animals and human beings.

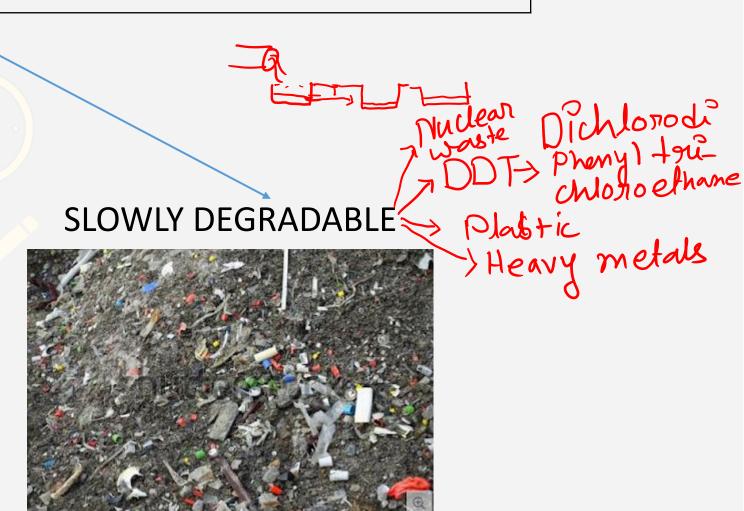
- ✓ A substance, which causes pollution, is known as pollutant.
- ✓ Pollutants can be solid, liquid or gaseous substances present in greater concentration than in natural abundance and are produced due to human activities or due to natural happenings



#### TYPES OF POLLUTANTS

DEGRADABLE > Sewage

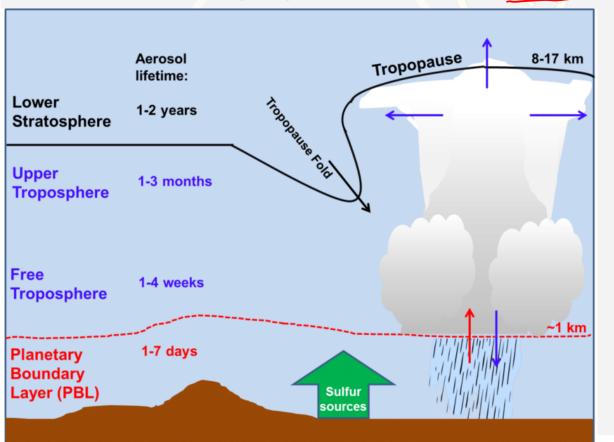






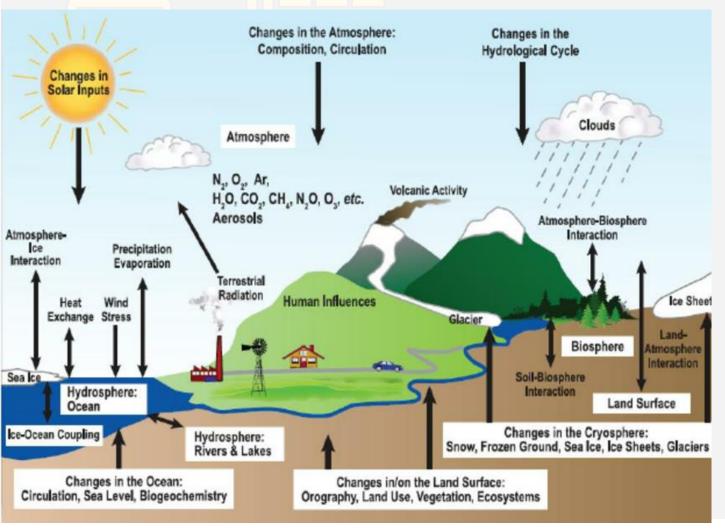
#### ATMOSPHERIC POLLUTION Ain

- $\Box$  The lowest region of atmosphere in which the human beings along with other organisms live is called troposphere. It extends up to the height of  $\sim$  10 km from sea level.
- ☐ Above the troposphere, between 10 and 50 km above sea level lies stratosphere.





## Atmospheric pollution is generally studied as tropospheric and stratospheric pollution.

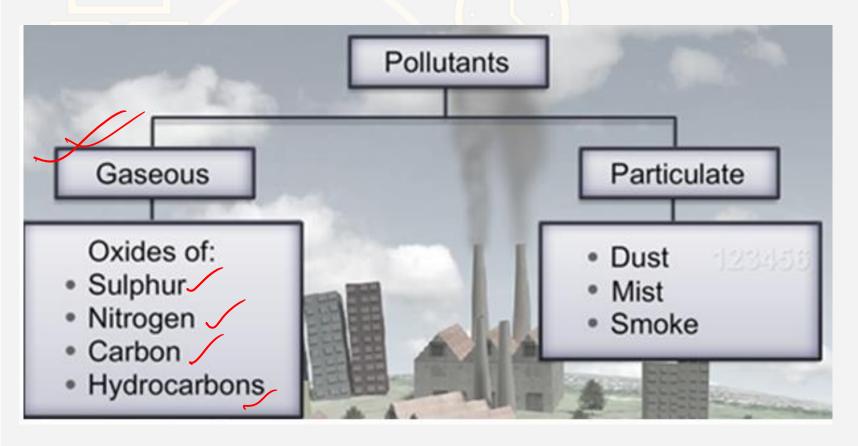




#### TROPOSPHERIC POLLUTION

Tropospheric pollution occurs due to the presence of undesirable solid or gaseous particles in the air.

The following are the major gaseous and particulate pollutants present in the troposphere:





#### OXIDES OF SULPHUR - SOUTCE FULL BY

- 1.  $2SO_2(g) + O_2(g) \rightarrow 2SO_3(g)$
- II. The reaction can also be promoted by ozone and hydrogen peroxide.

III. 
$$SO_2(g) + O_3(g) \rightarrow SO_3(g) + O_2(g)$$

IV. 
$$SO_2(g) + H_2O_2(I) \rightarrow H_2SO_4(aq) \longrightarrow Aad Rain$$

It has been reported that even a low concentration of sulphur dioxide causes respiratory diseases e.g., asthma, bronchitis, emphysema in human beings. Sulphur dioxide causes irritation to the eyes, resulting in tears and redness. High concentration of SO2 leads to stiffness of flower buds which eventually fall off from plants.



## OXIDES OF NITROGEN Lightning 2NO(g) N2 + 02 1483 K NO

$$N_2(g) + O_2(g) \rightarrow 2NO(g)$$

NO reacts instantly with oxygen to give NO<sub>2</sub>

$$2NO(g) + O_2(g) \rightarrow 2NO_2(g)$$

Rate of production of NO<sub>2</sub> is faster when nitric oxide reacts with ozone in the stratosphere.

$$NO(g) + O_3(g) \rightarrow NO_2(g) + O_2$$



### WBCS BATCH 2022







**MONDAY TO FRIDAY - 11:30 AM TO 1:30 PM** 



## W.B.C.S -YouTube schedule for 5-days

TIMING	DAYS				
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
11:30	ECO	CA	ECO	POL	BEN
12:00	REAS	SCI	POL	// SCI	CA
12:30	ENG	MATHS	ENG	MATHS	ENG
13:00	GEO	HIS	GEO	HIS	HIS



#### WBCS BATCH 2022



### WBCS OFFLINE BATCH STARTS FORM 26<sup>TH</sup> FEBRUARY

TIMING - 1:30-5:30PM

**BOOK YOUR SEAT NOW** 

9230141497/8017652045/6386903177/6291322109

