

MPPSC MAINS

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What are climate changes? Explain the role of human beings in climate change - 2000

Climate change is any change in a weather (Rainfall, temperature, humidity) of a particular region on entire earth over a prolonged period of time.

Climate change is caused by disturbance in the incoming and outgoing solar radiations balance. The balance can be

disturbed due to following two factors -

INTERNAL FACTORS - The factors which are part of climate system (Atmosphere, lithosphere, hydrosphere, biosphere). It includes, El Niño,

La Niña, Decadal oscillation, Multi-decadal Antarctic oscillations, Albedo.

EXTERNAL FACTORS - The factors which are not the part of climate system itself.

It includes, Earth's orbital variation, solar variation, volcanism, tectonic plate movement and human influence.

Human beings are the implicit part of environment. Human activities have caused

deteriorating effect on the environment and has drastically changed the global climate.



GLOBAL WARMING - Various human activities like burning of fossil fuels (coal, petroleum) releases green house gases like CO_2 , CH_4 , water vapours, CFCs into the atmosphere resulting in more absorption of outgoing IR radiation and increase in global temperature.

OZONE DEPLETION - Release of gases like CFC, HCFC, Halon, HBFC, etc. has resulted in blistering of ozone layer.

GLOBAL DIMMING - Release of SO_2 has caused the lowering in incoming solar radiation resulting in lowering or cooling effect in atmosphere.

Climate change is a global problem and effective measures **BHOPAL** required to keep the earth habitable for humans.

Excellant!