

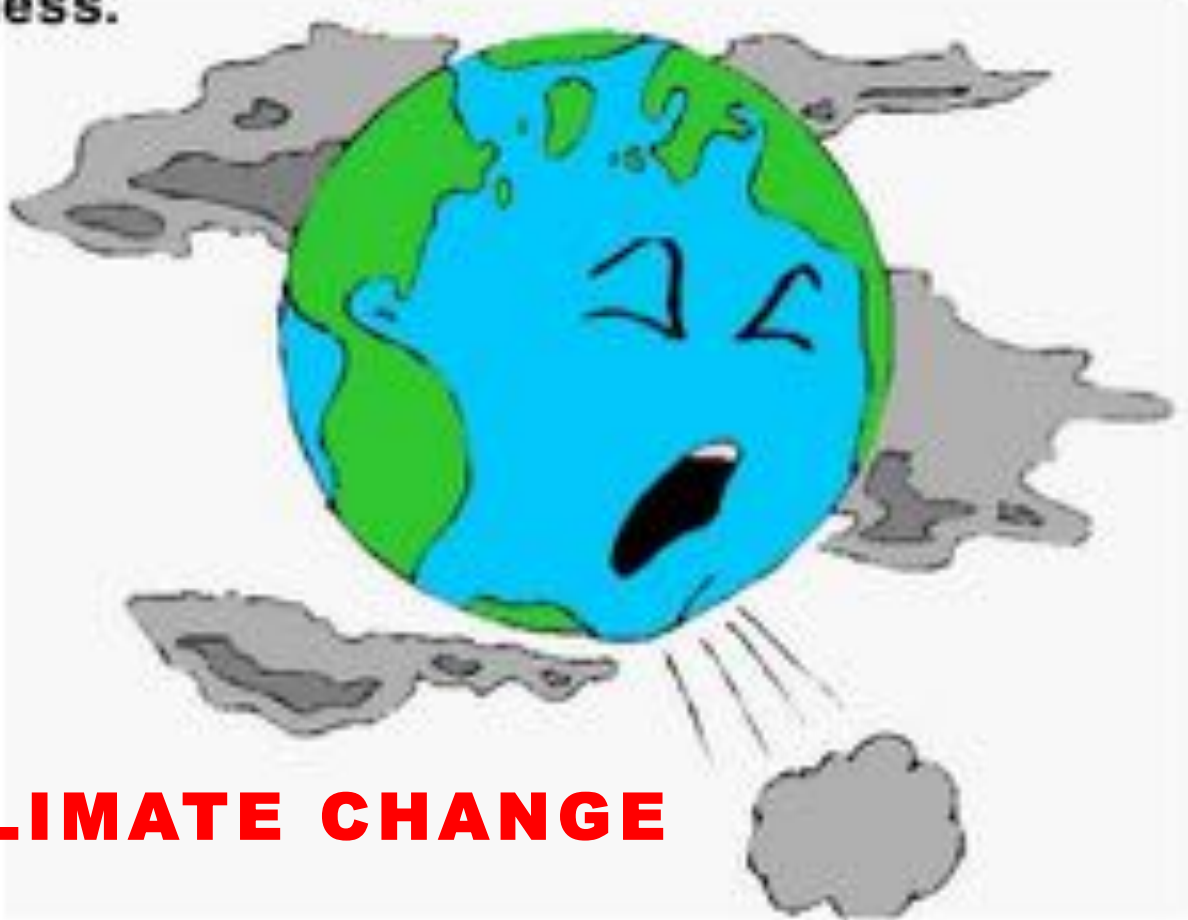


THE EARTH

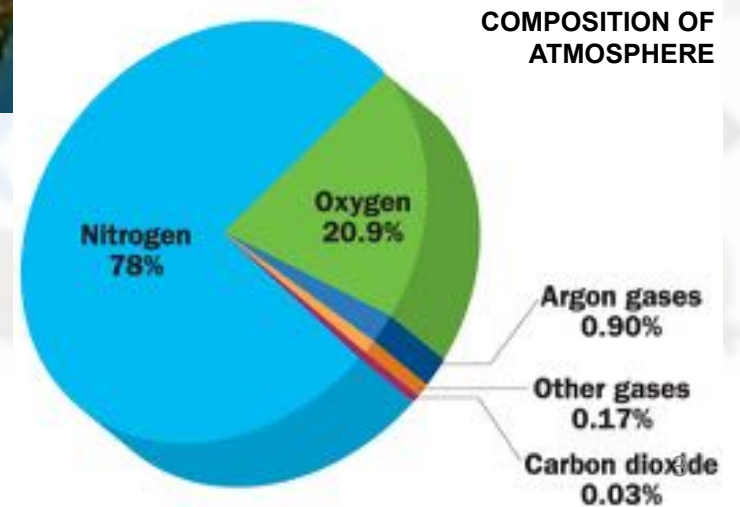
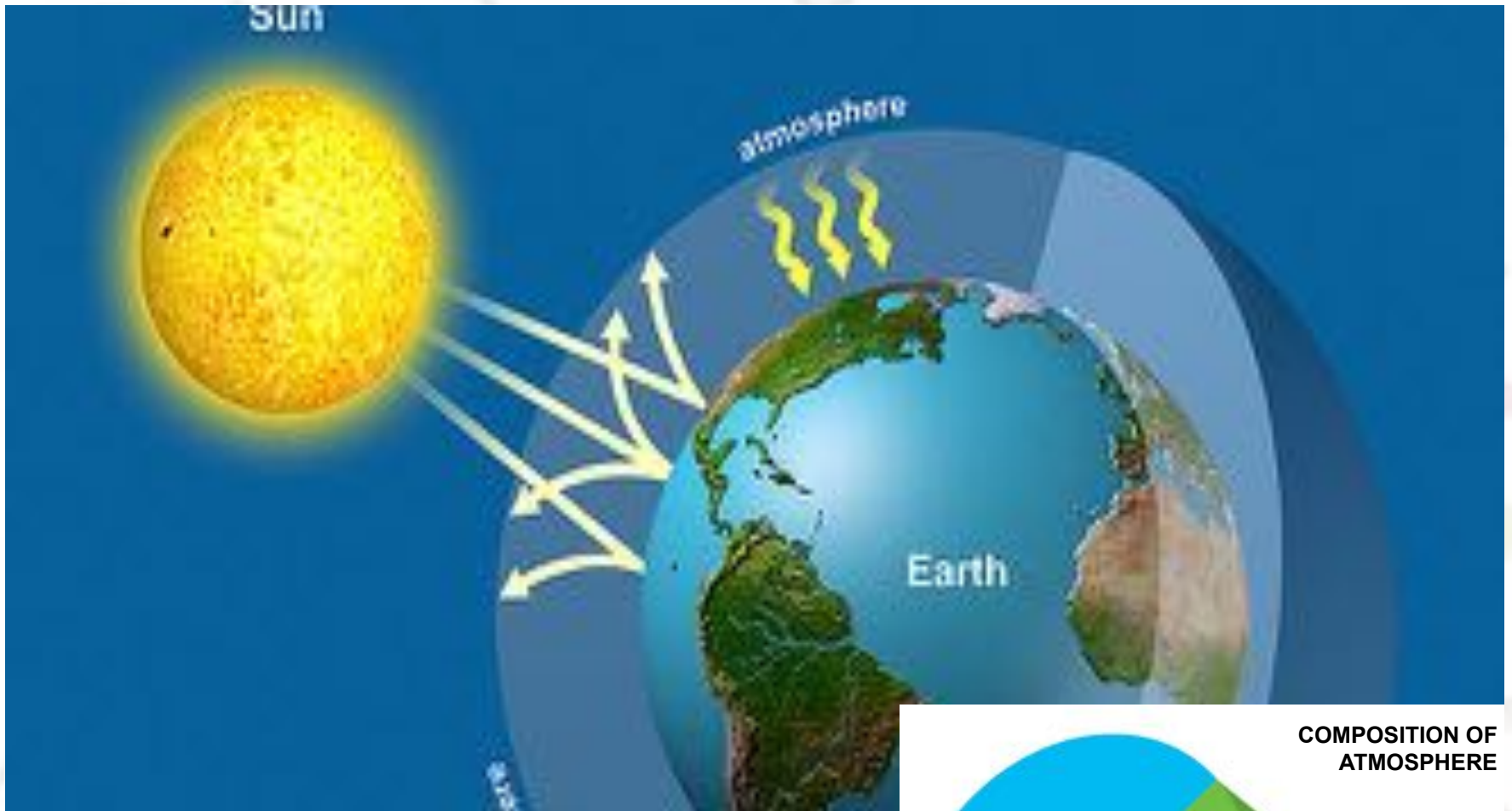
as seen from the moon

“Look again at that dot. That's here. That's home. That's us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. “ - Carl Edward Sagan

Look at this planet. It's under such stress! If we make changes now, we will avoid a big mess.



CLIMATE CHANGE





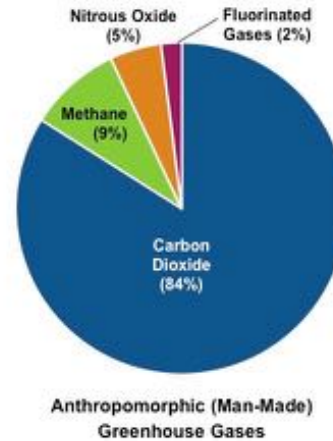
CLIMATE CHANGE

WHAT IS CLIMATE CHANGE ?

GREENHOUSE GASES (GHG) –

gases in the atmosphere that absorb and emit sun's radiation

1. Carbon Dioxide (CO₂)
2. Nitrous Oxide (N₂O)
3. Methane (CH₄)
4. Water Vapour (H₂O)
5. Ozone (O₃)
6. Chloroflucarbons (CFCs)



CLIMATE CHANGE is a result of human activities (**anthropogenic**) that have **increased the concentration of the greenhouse gases in the atmosphere** which is resulting in **the additional warming of the earth surface and atmosphere** and which may **adversely affect natural eco-systems and mankind**

CO₂ - burning of coal, oil, natural gas (fossil fuels); deforestation; soil erosion; animal agriculture

N₂O - burning of coal, oil, natural gas (fossil fuels); industrial processes; agriculture; bio-mass burning

CH₄ - production, distribution and combustion of fossil fuels; eating of food by cows, sheep, goats; landfills & waste; animal & human waste streams; bio-mass burning; rice farming; bio-fuels

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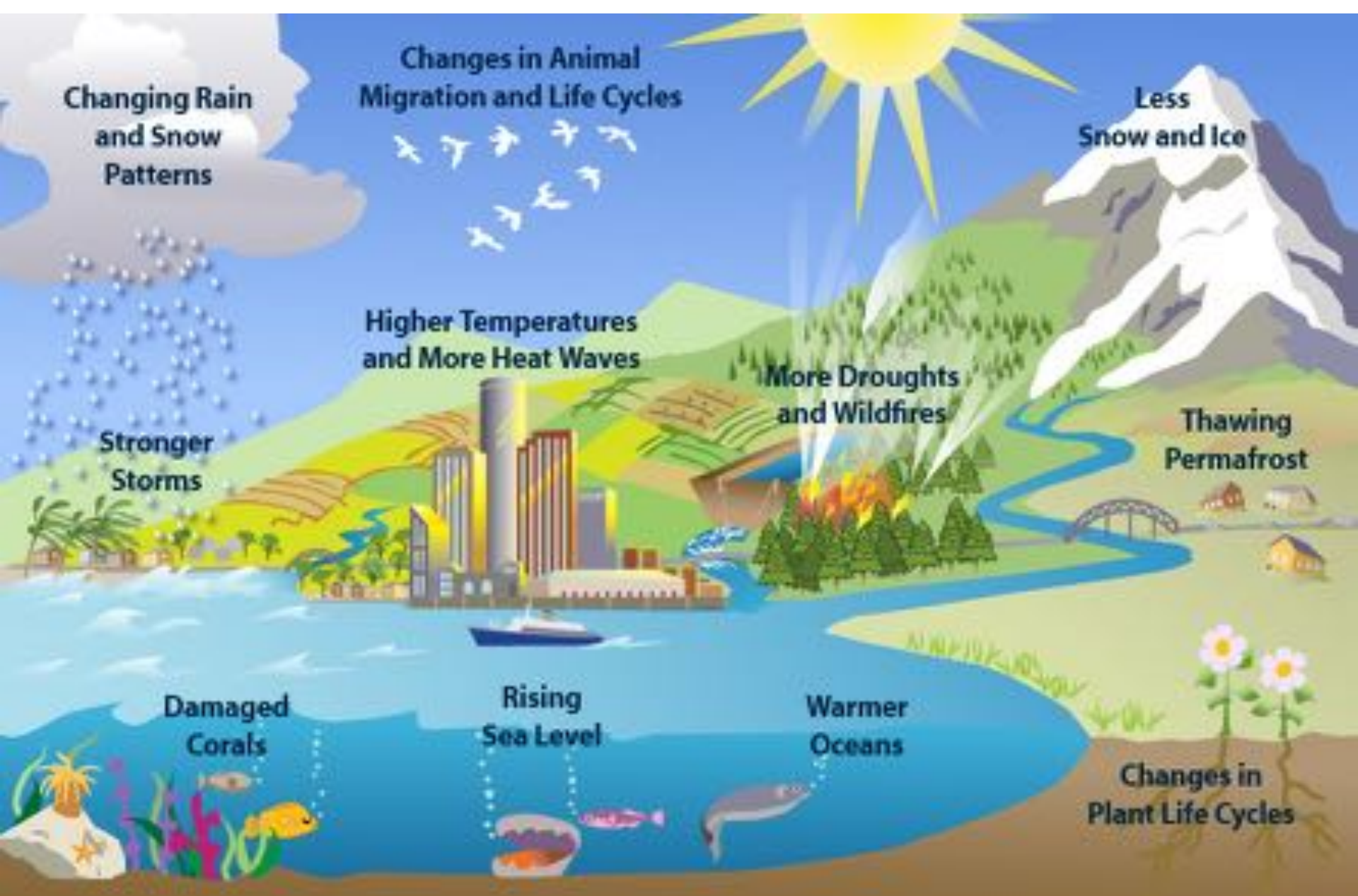


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CH₄ production, distribution and combustion of fossil fuels; eating of food by cows, sheep, goats; landfills & waste; animal & human waste streams; bio-mass burning; rice farming; bio-fuels







1750

INDUSTRIAL REVOLUTION IN ENGLAND

Climate and weather are not the same
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WEATHER



Sunny



Partly Sunny



Partly Cloudy



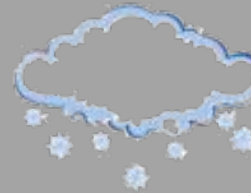
Sun & Rain



Raining



Thunderstorms



Snowing



Cloudy



Windy



Rainbow



Tornados / Hurricanes



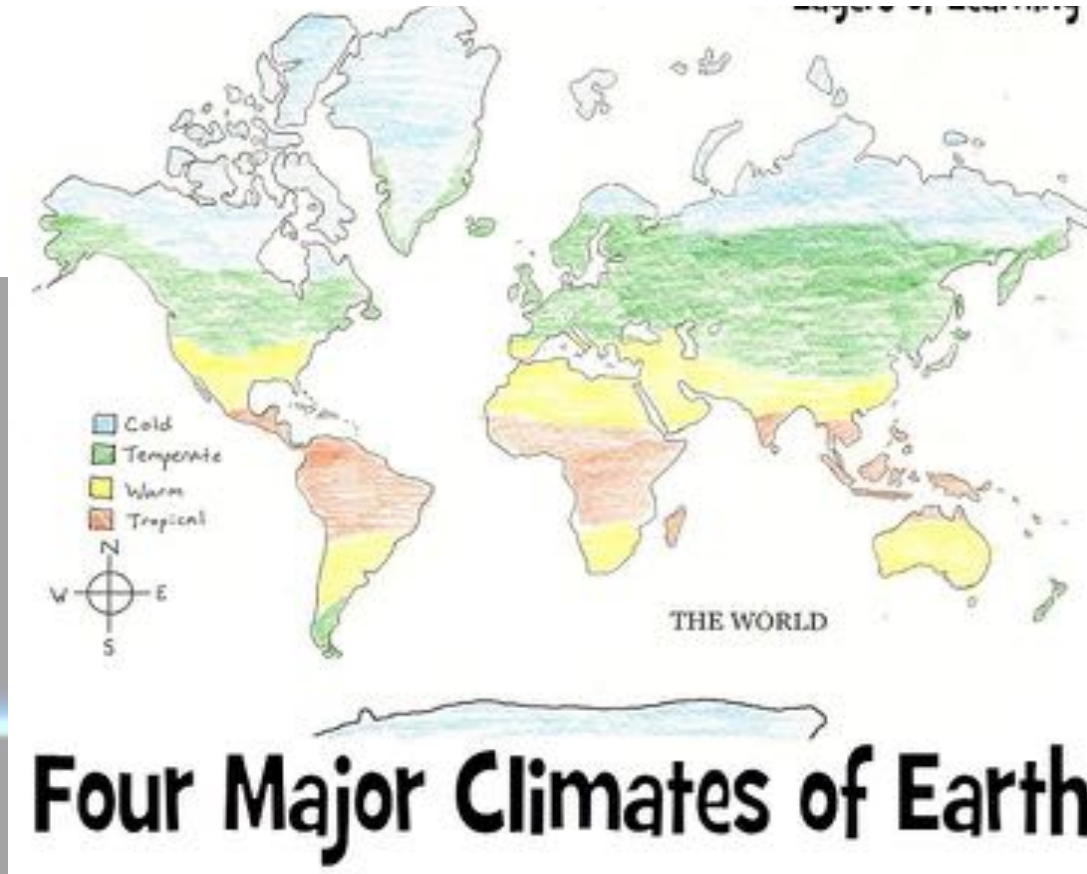
Clear

WEATHER is basically the way the Atmosphere is behaving

It is a **SHORT TERM** (minutes / months) change in the atmosphere

Weather can change from minute to minute, hour to hour, day to day and season to season

CLIMATE

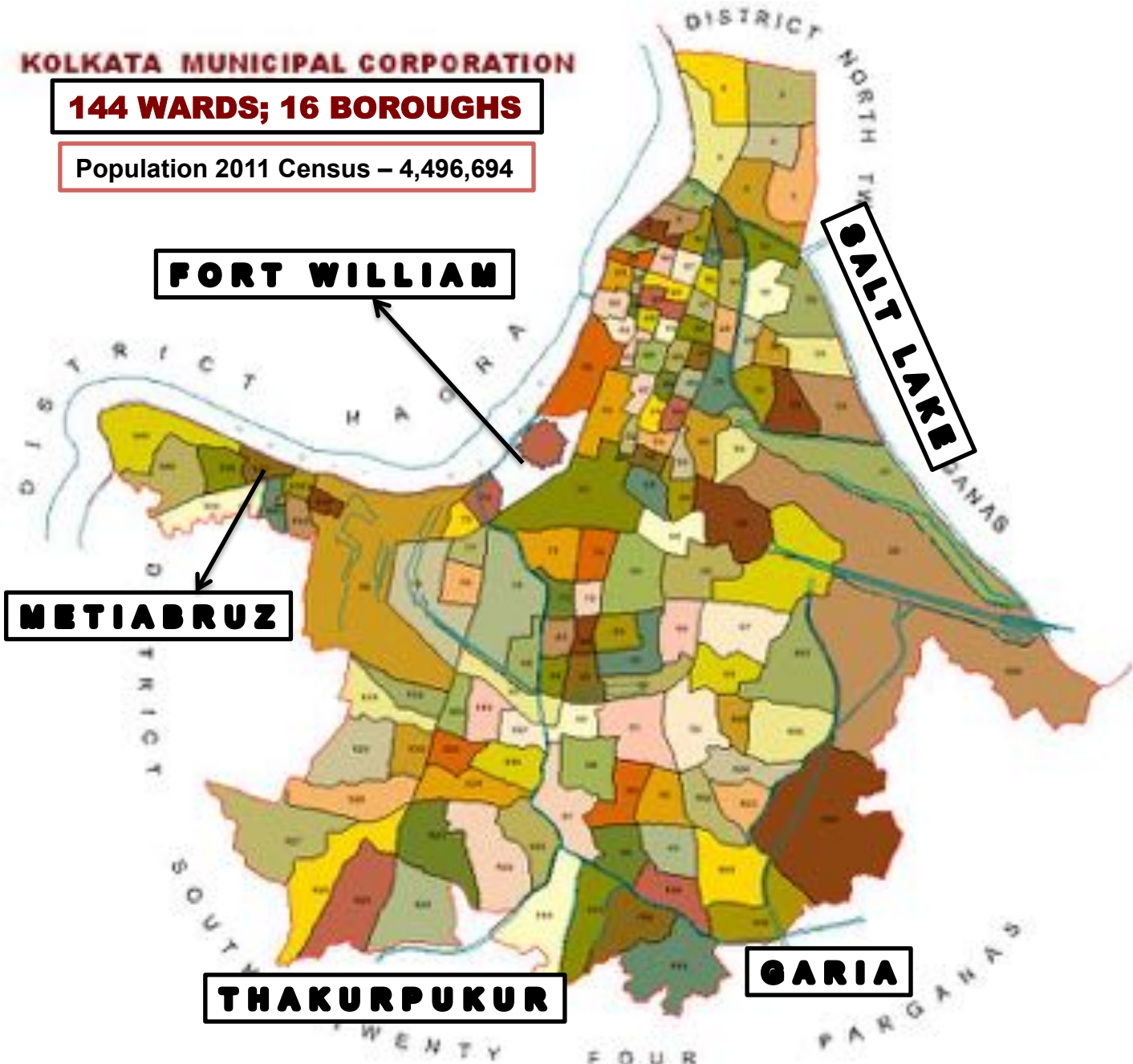


CLIMATE is a description of a long term weather in a particular region
Usually over a period of many many years

KOLKATA MUNICIPAL CORPORATION

144 WARDS; 16 BOROUGHS

Population 2011 Census – 4,496,694



KOLKATA & CLIMATE CHANGE

1. Increased incidence of urban storm, tidal upsurges, cyclones, intense precipitation
2. Urban flooding is predicted to be a major hazard in Kolkata; Flooding will happen more frequently by 2050 submerging large areas for longer periods of time
3. 1.2 to 1.8 degrees rise in the city's temperature by 2050
4. By 2050 40% of the city's area and 25% of the city's will be the worst affected, and the urban poor will be worst off
5. By 2070 Kolkata will be one amongst the top 10 countries in the world in terms of Population exposure

- World Bank Report, 2012

THANK YOU