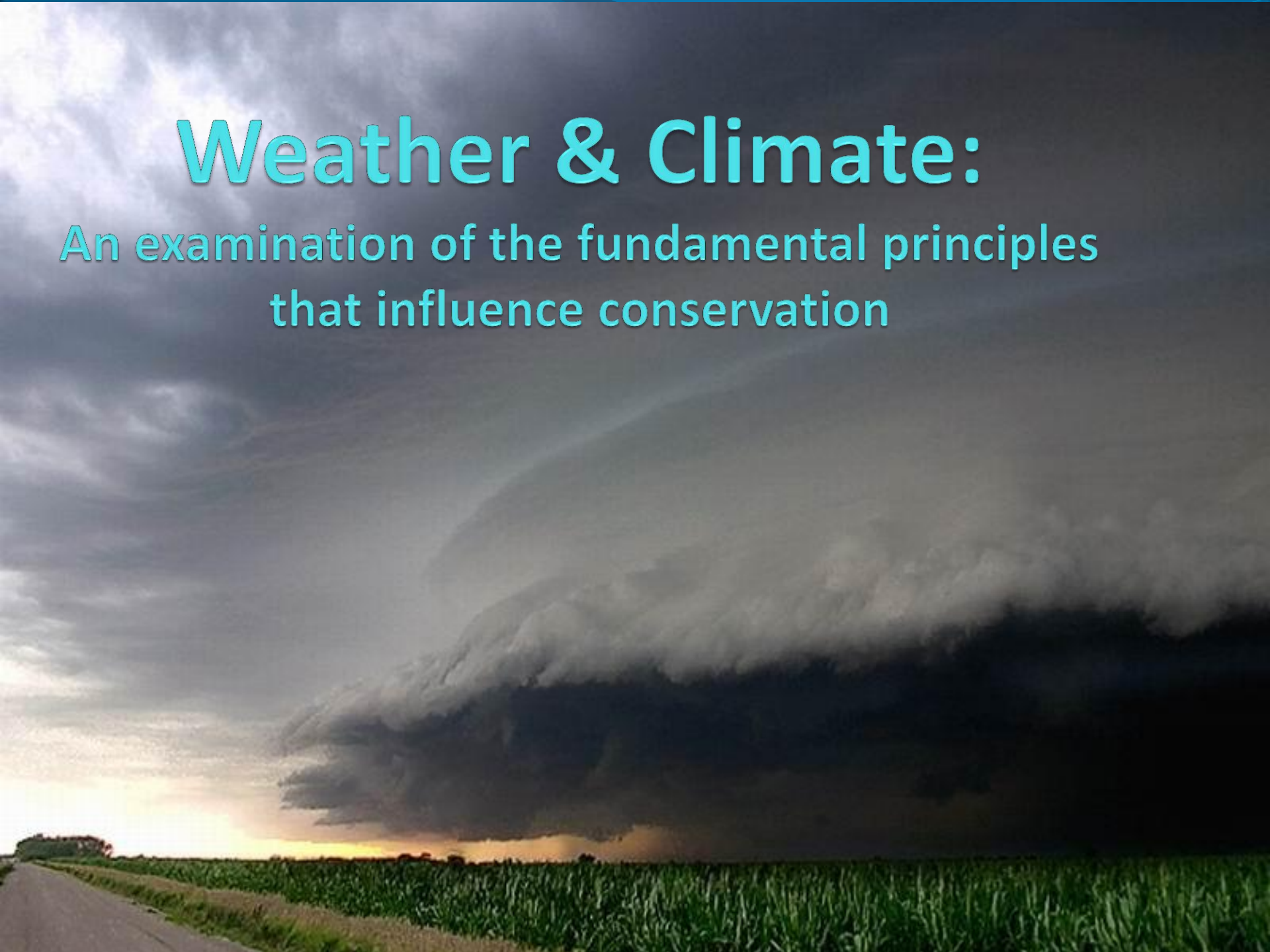
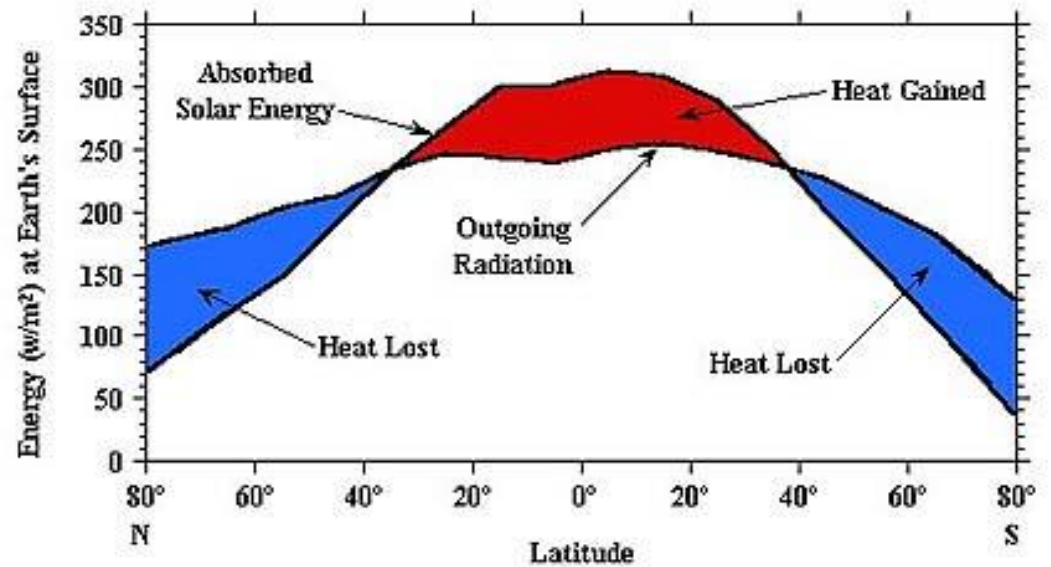
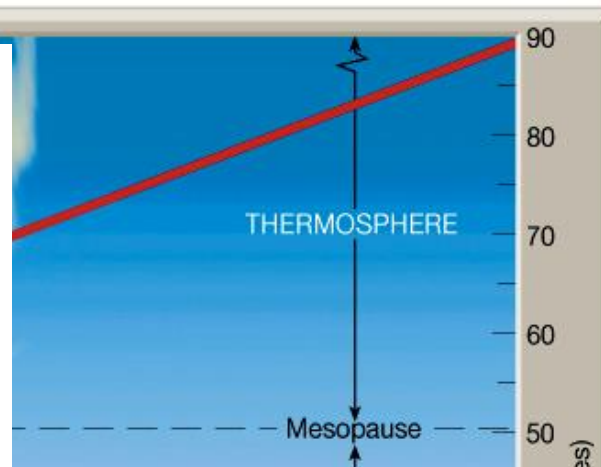
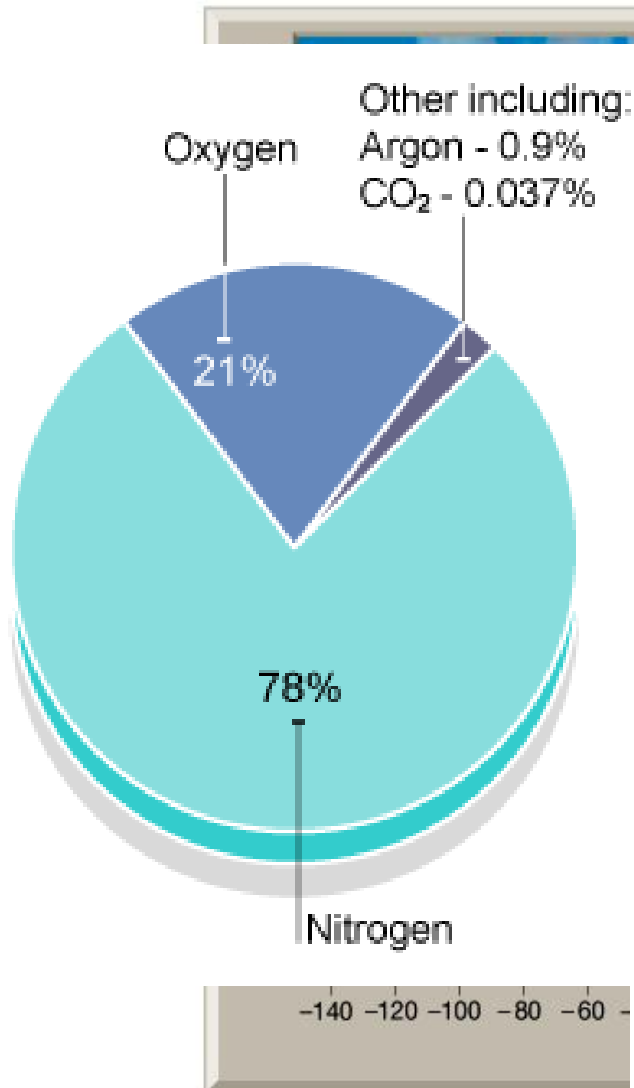


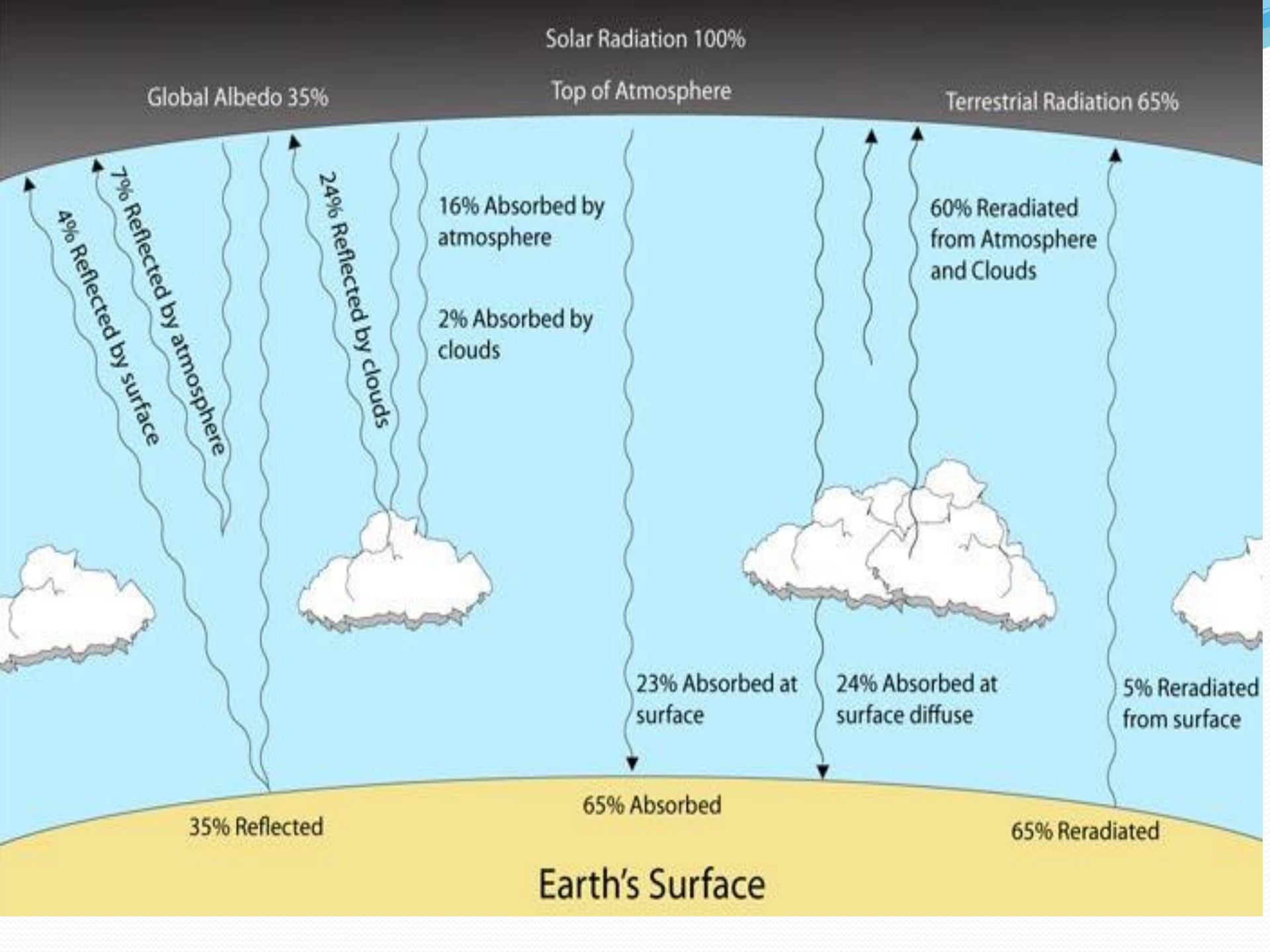
Weather & Climate:

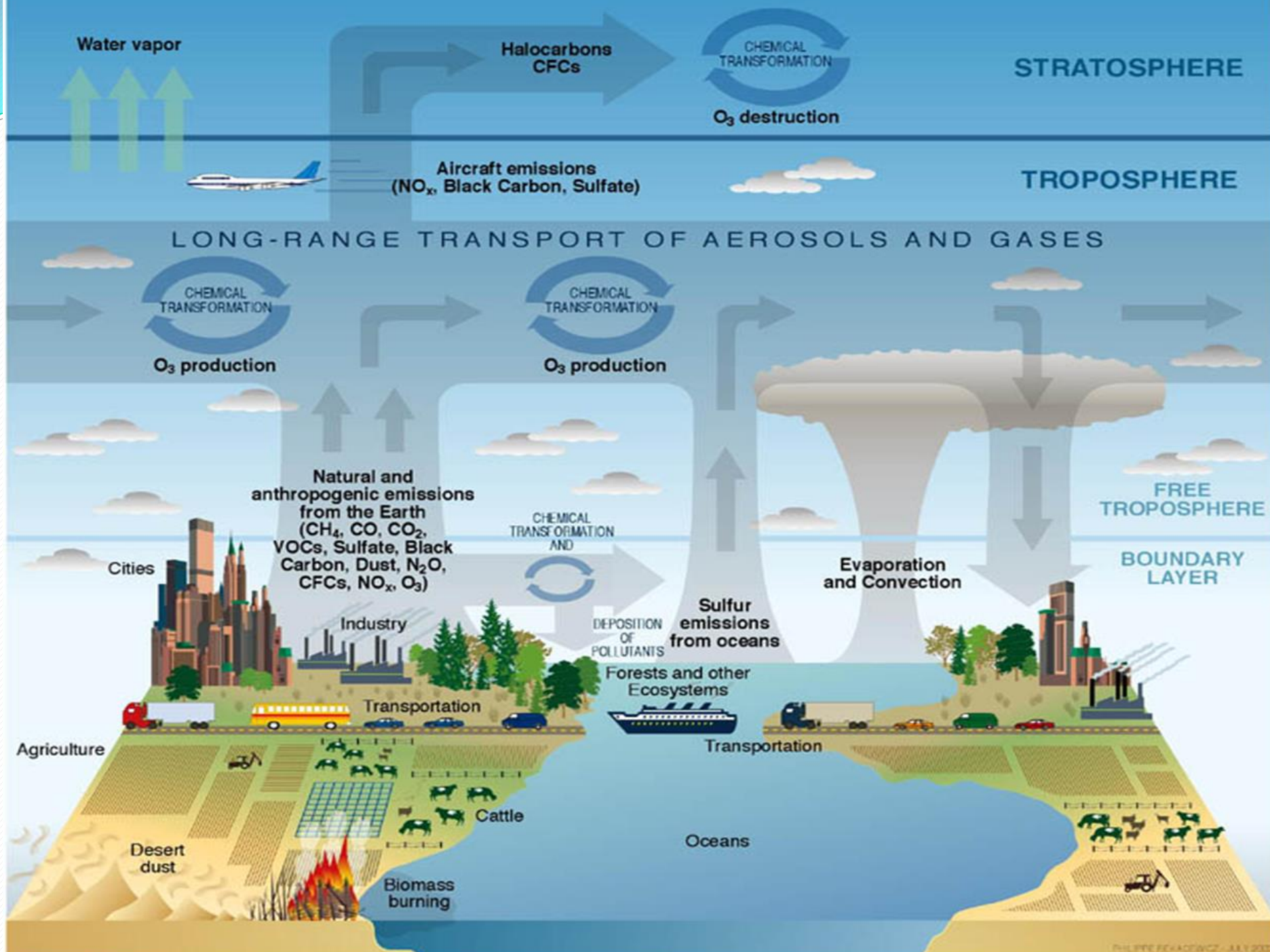
An examination of the fundamental principles
that influence conservation



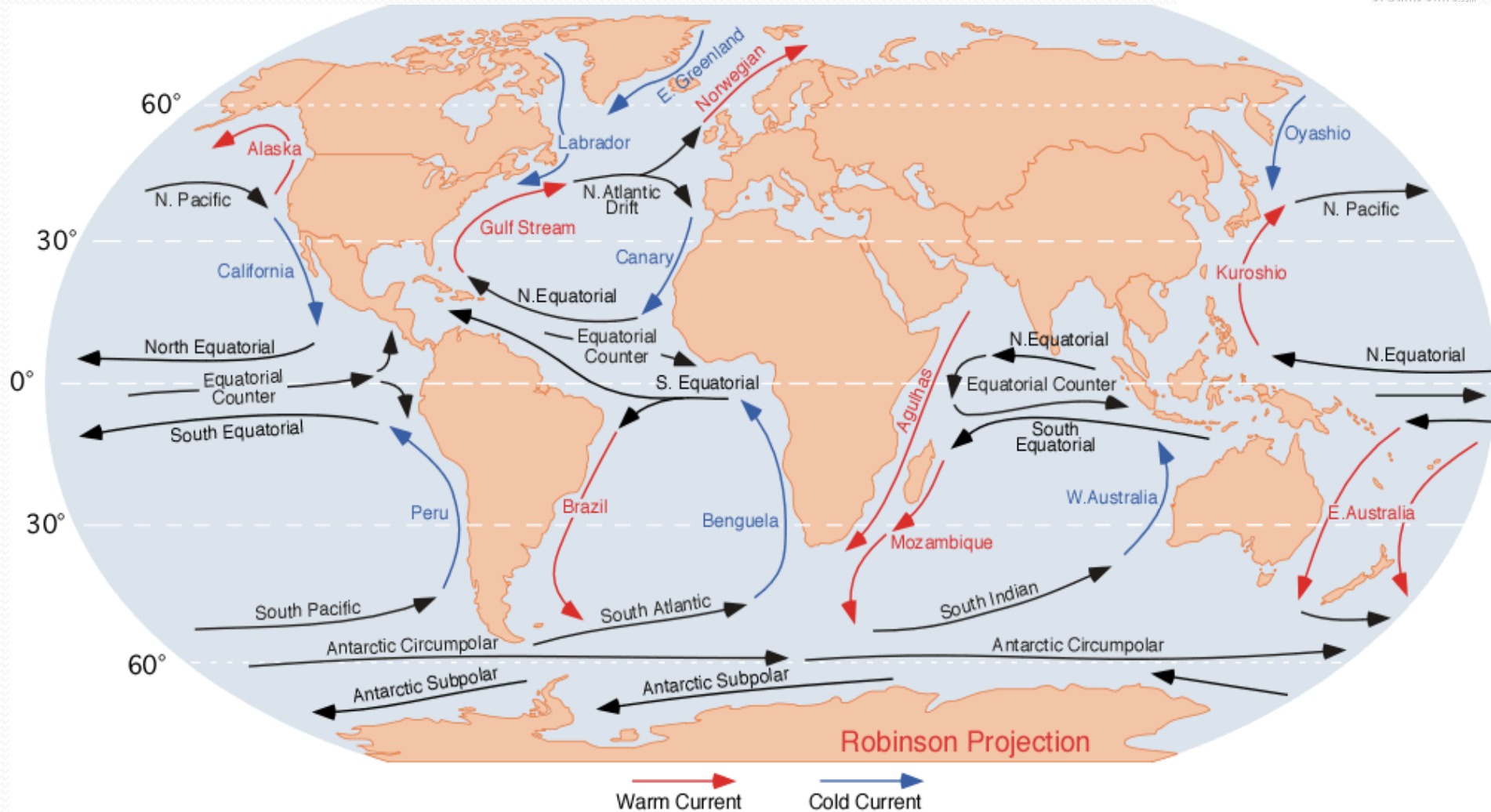
Introduction







Insolation



Moisture

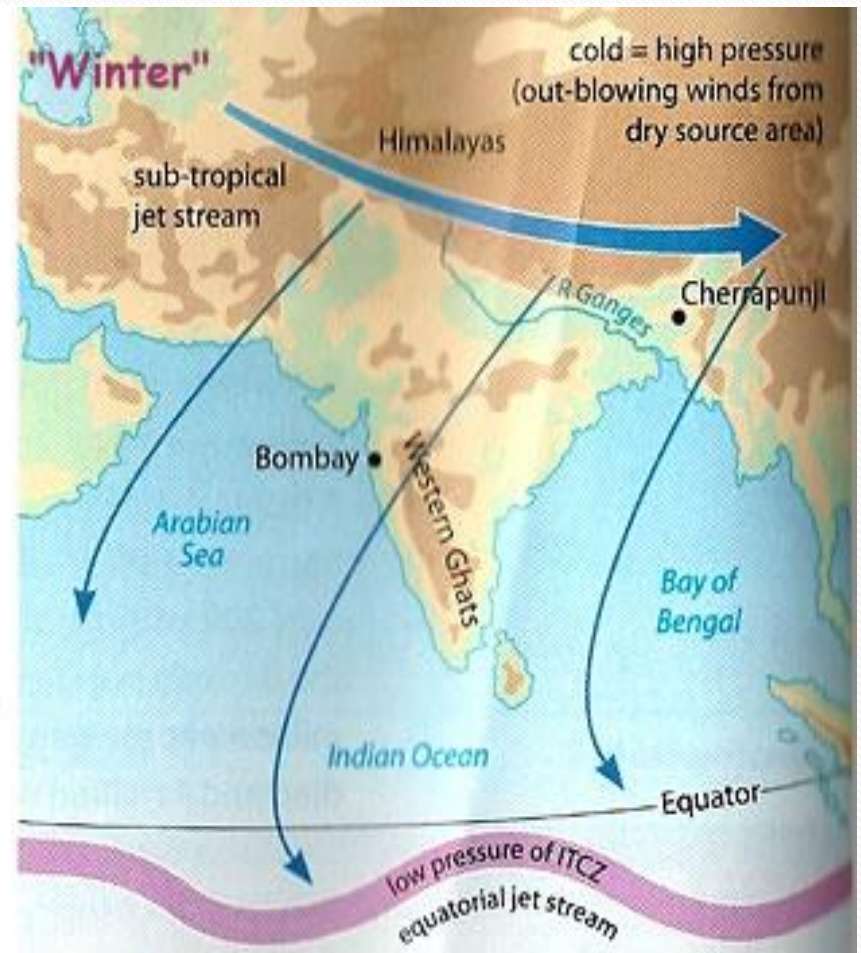
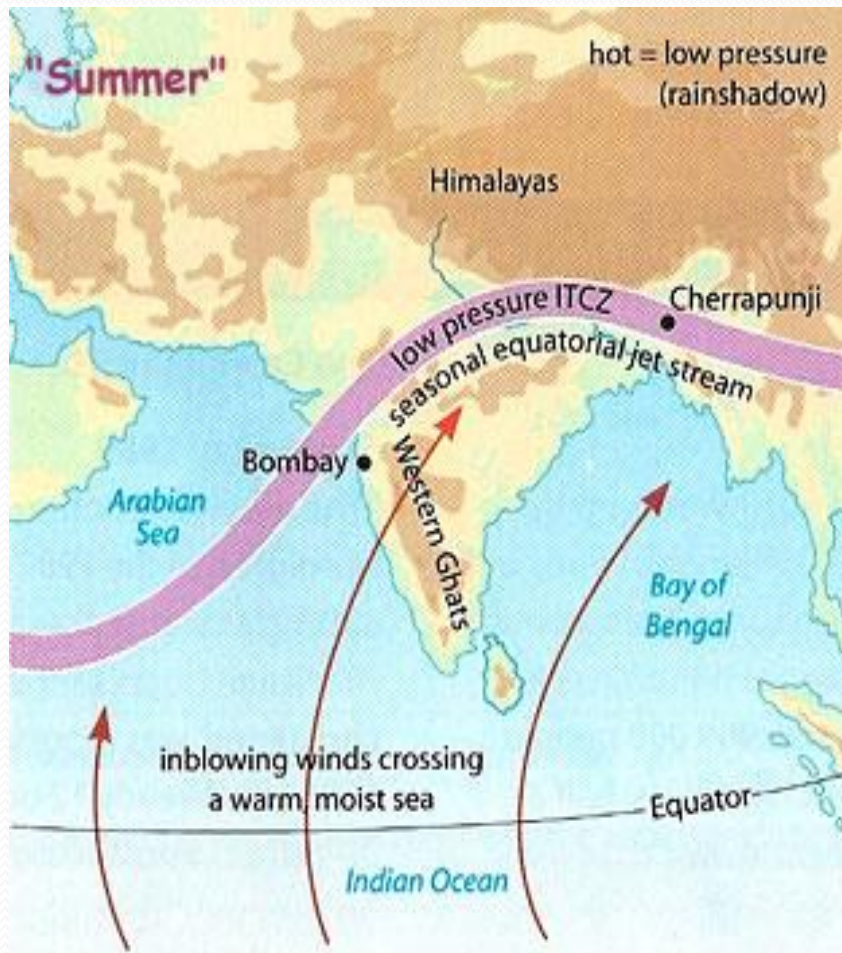


Average Annual precipitation mm, [in.]

3000 [120]	2000 [80]	1000 [40]	500 [20]	250 [10]	below 250
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Credit: Earth Forum, Houston Museum of Natural Science

Macro Scale: Synoptic systems



Scale

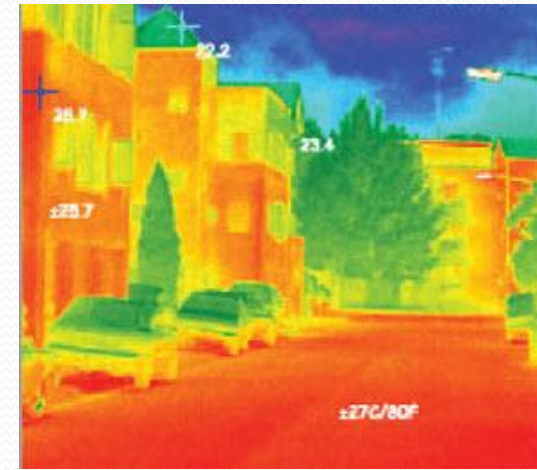
Meso Scale

- Local Winds

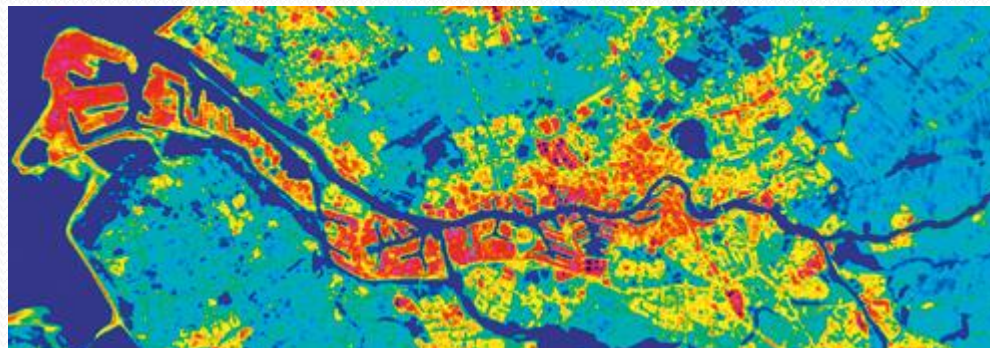
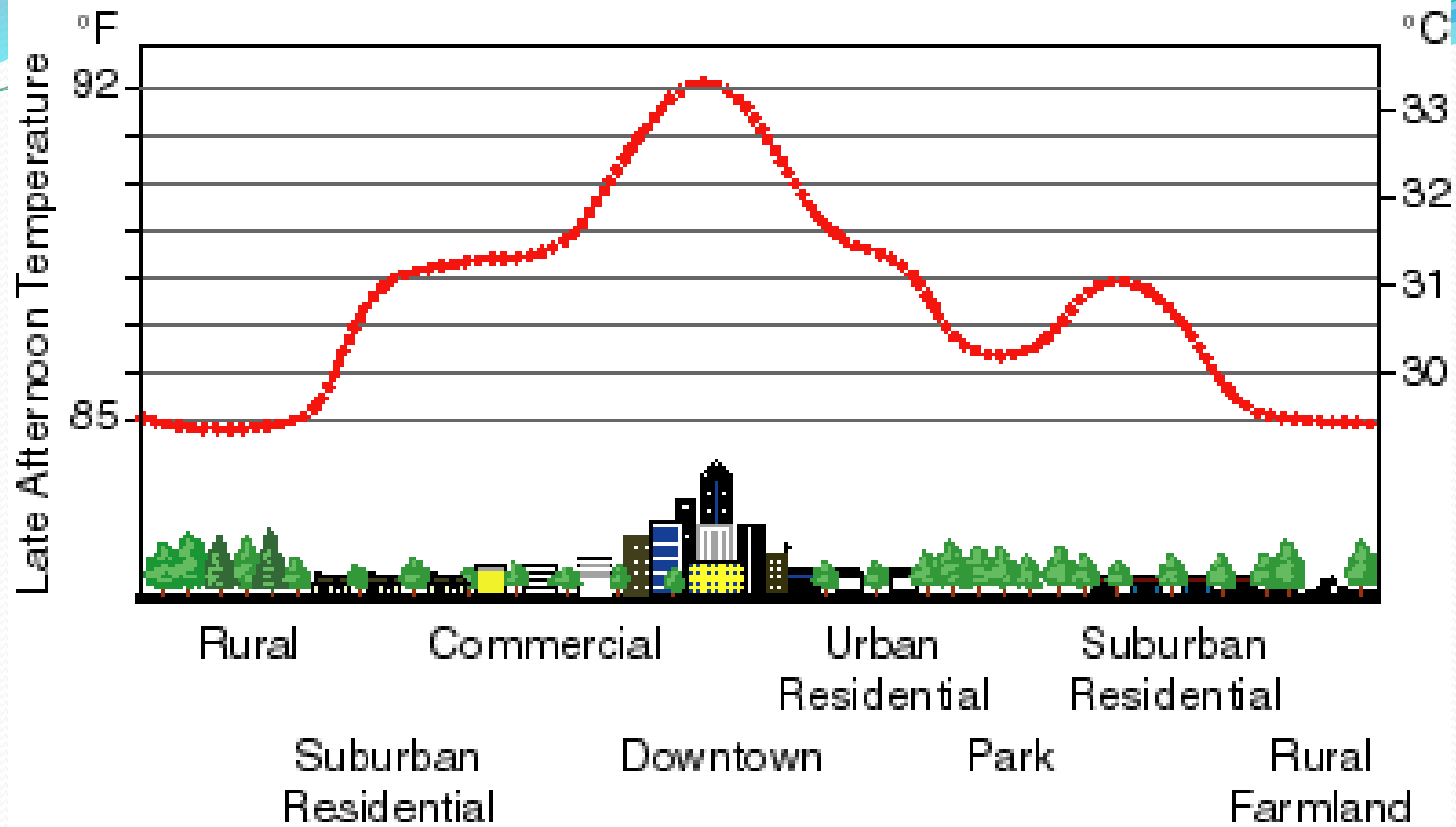


Micro Scale

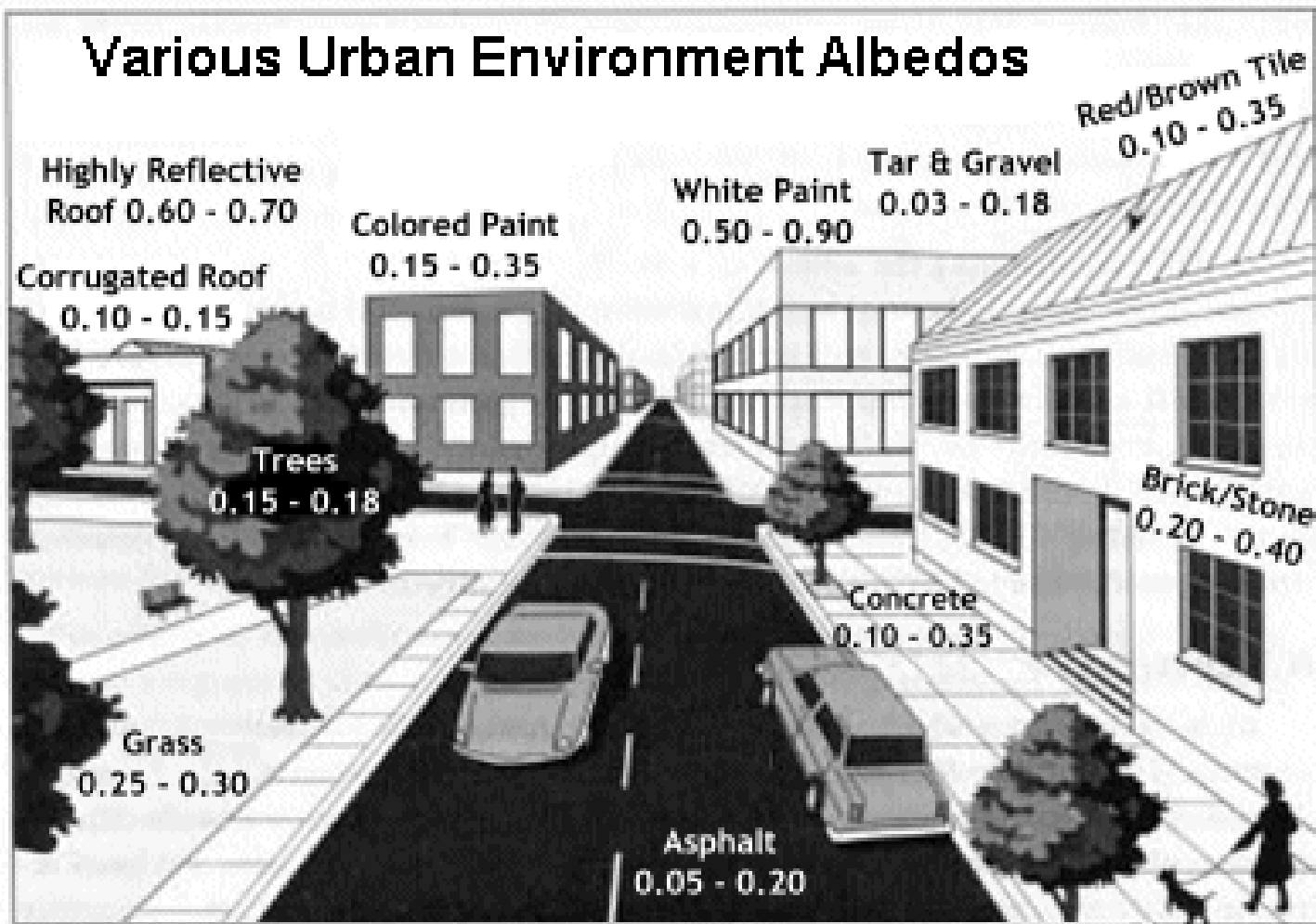
- Urban Climates (Heat Island see next slide)
 1. Anthropogenic heat release
 2. Albedo effect. (Heat retaining (non-reflective) and emitting properties of building materials) See next slide
 3. The lack of vegetation within towns and cities means that less light is intercepted, less evapotranspiration, thus less vapour is released (which naturally cools air surrounding vegetation).
 4. Canyon Geometry Traps heat
 5. Venturi effect: Buildings change wind velocity
 6. urban canopy layer
- Temperature inversion (Following slides)



Sketch of an Urban Heat-Island Profile

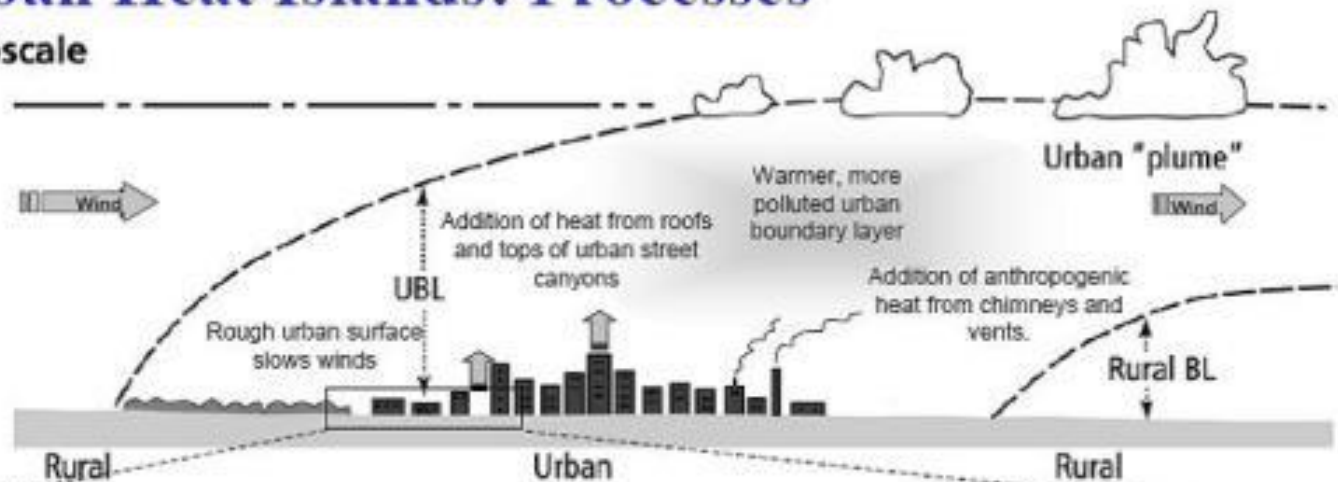


Various Urban Environment Albedos

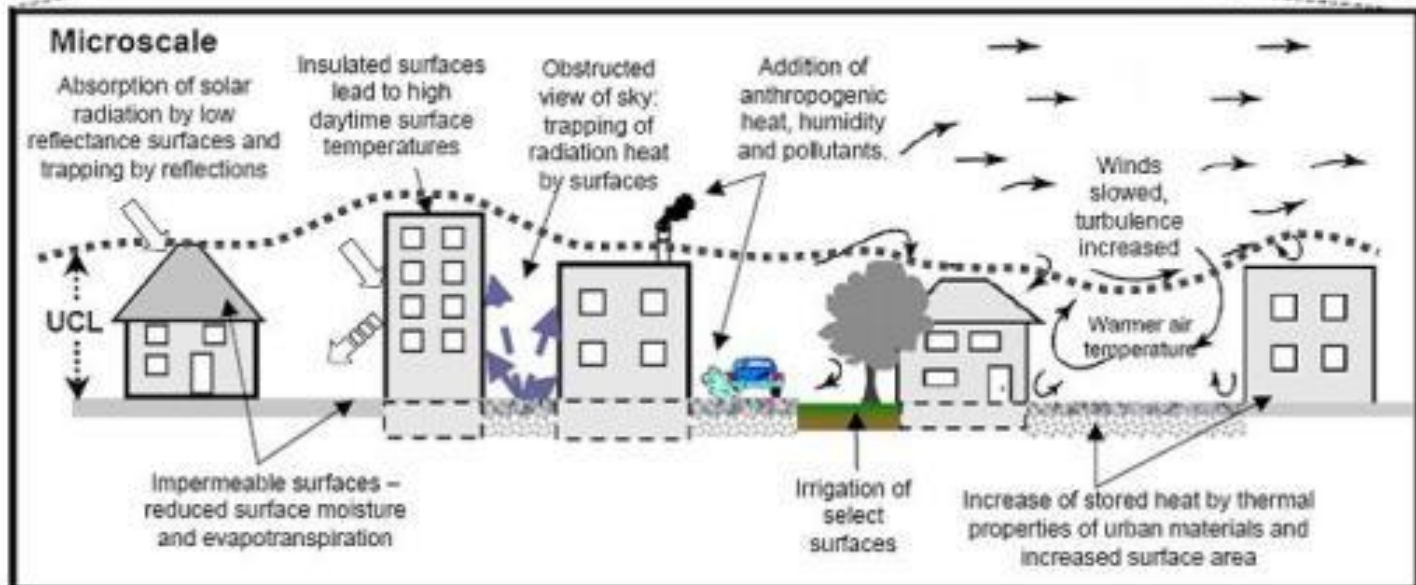


Urban Heat Islands: Processes

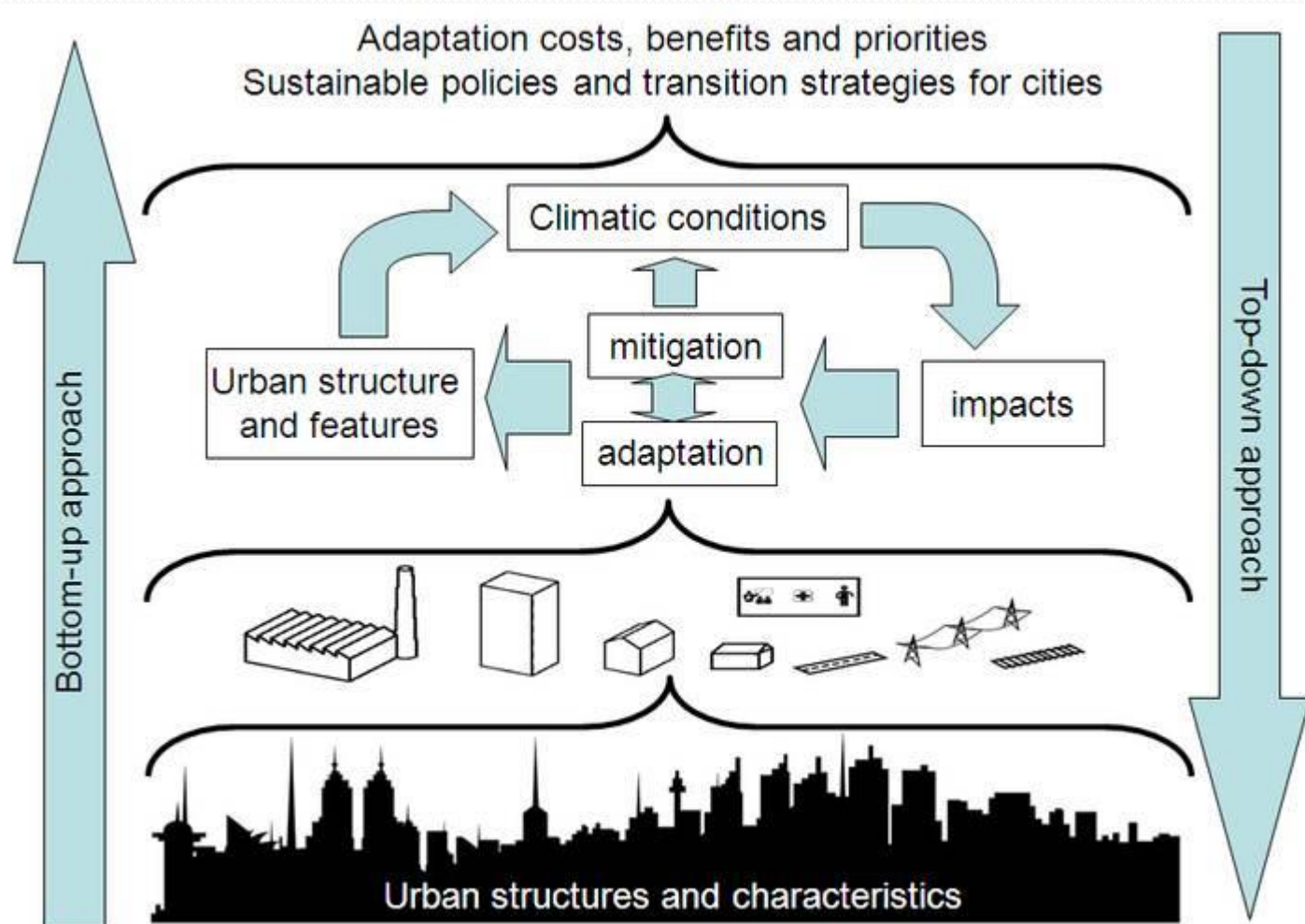
Mesoscale



Microscale



Sustainable climate management











Climatic Change

BBC Extraordinary Planet

Episode 1 Orbit.

Notes: Why is a knowledge of the planet important for conservation?

