

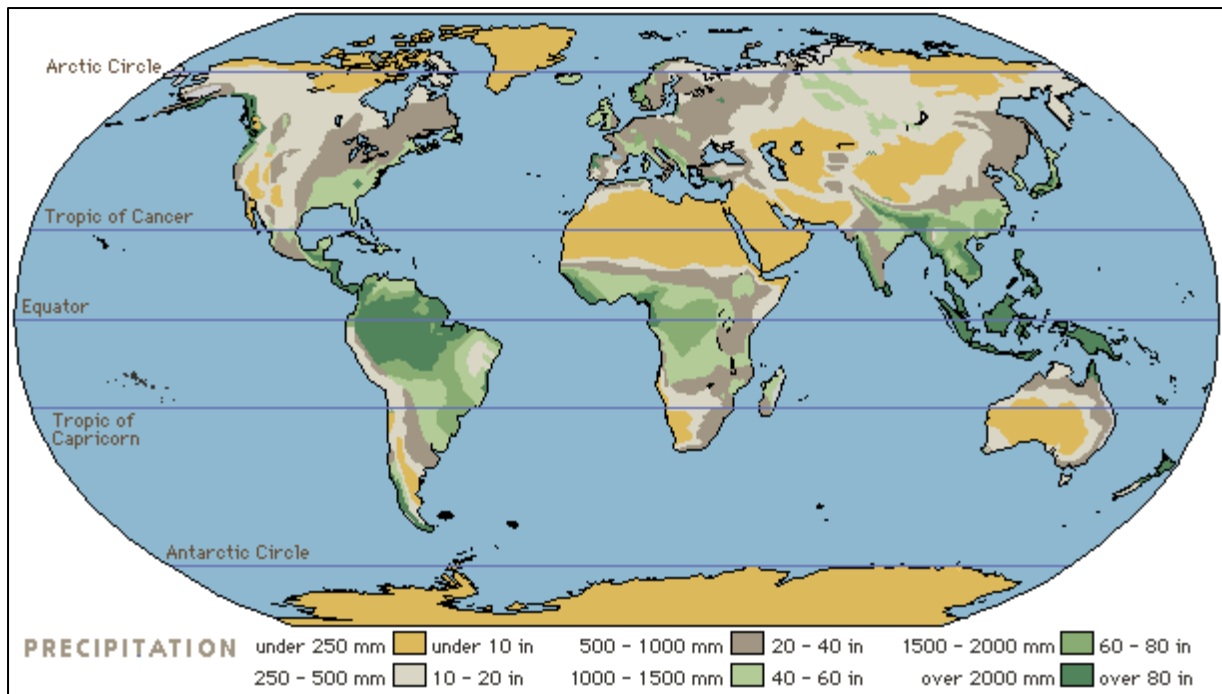
24. Atmosphere – precipitation patterns

Atmosphere and the Earth's surface are continuously in interaction (linked together) by the change of water vapour (air humidity). Precipitation is distributed unequally ⇔ determined by many influencing factors:

- *air pressure*
- *air humidity*
- *ocean currents*
- *atmospheric circulation*
- *distribution of oceans and land mass*

Four precipitation zones differ from each other:

- **Humid warm zone** = 20° around equator, i.e. 2000-3000 mm of rainfall
- **Dry warm zone** = 20°-30° of north and south latitude, i.e. deserts and semi-deserts
- **Humid temperate zone** = 30°-60° of north and south latitude, east-west gradient (250-1000 mm of rainfall), western parts are more humid, damper
- **Dry cold zone** = solid precipitation <250 mm



Relief is another influencing factor, especially in smaller areas => rain shadow effect.

- **Example:** Krušné hory in Czechia, Tibetan plateau in Asia, Great Dividing Range in Australia, etc.

With increasing altitude, precipitation also increases.

Keywords

water vapour, air pressure, air humidity, atmospheric circulation, precipitation zone, damp air, rain shadow effect