

Illustration 10.3 - Drought

10.3 DROUGHT: WHEN THERE IS NOT ENOUGH WATER

Heat can make drought worse by drying soils, plants and water sources faster.

HOW DROUGHT DEVELOPS AND SPREADS

THREE KINDS OF DROUGHT

These often overlap, but not always.



1. METEOROLOGICAL DROUGHT

Unusually little rain over a period of time.



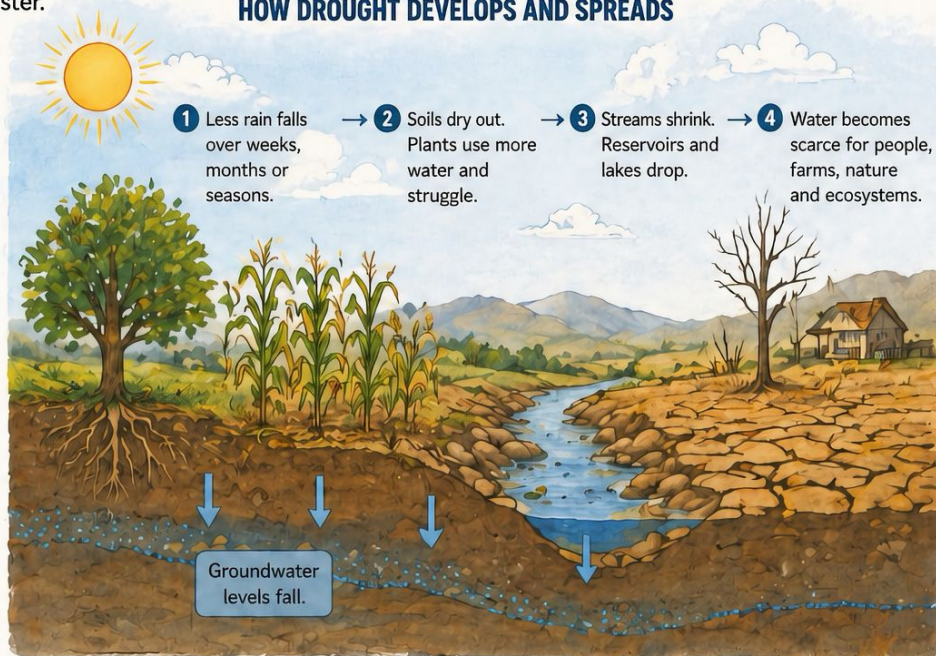
2. AGRICULTURAL DROUGHT

Soils are too dry for crops and plants.

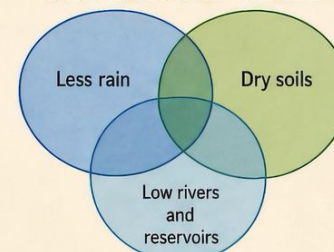


3. HYDROLOGICAL DROUGHT

Rivers, reservoirs, lakes or groundwater have fallen too low.



DROUGHTS CAN OVERLAP



A dry spring may stress crops even if reservoirs are still fairly full.

A hot summer can dry soils quickly even if the year began with plenty of rain.

HOW HEAT MAKES DROUGHT WORSE



Warmer air holds more water vapour. This can lead to heavier downpours when conditions are right.



But warmth also increases evaporation from soils, lakes and rivers, and transpiration from plants.



The same extra heat that loads the air with moisture can also pull water out of land more quickly.

Strange but true: heavier rain in some situations, yet worse drying in others.

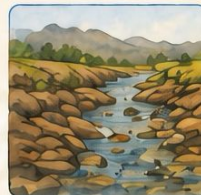
WHAT HAPPENS WHEN LAND DRIES OUT



Grass turns yellow.



Leaves wilt.



Streams shrink.



Crops need more water.



Wildlife searches harder for shade and water.



Dry land heats up more easily.

FEEDBACK LOOP

Drought can feed back into heatwaves.

Heat dries the land, and dry land can make heat worse.

