Dr.Nadia Mohammed

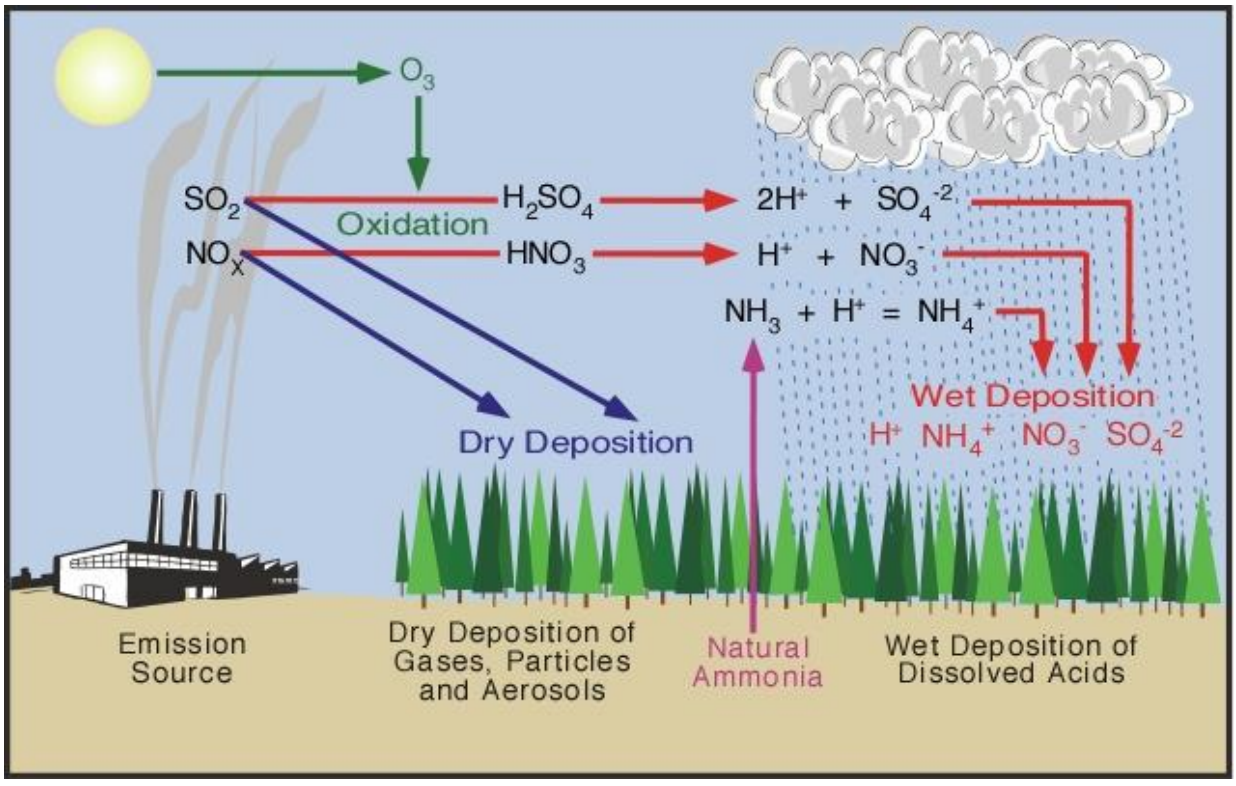
Damages and disadvantages of acid rain

Acid rain directly affects the chemical and pH balances in ground water. The excess aluminum created by acid rain makes aquatic environments such as the sea, lakes, and streams, toxic. The animals that can withstand the imbalance of the water's natural minerals might survive, but quickly lose their food source as the weaker creatures die off.

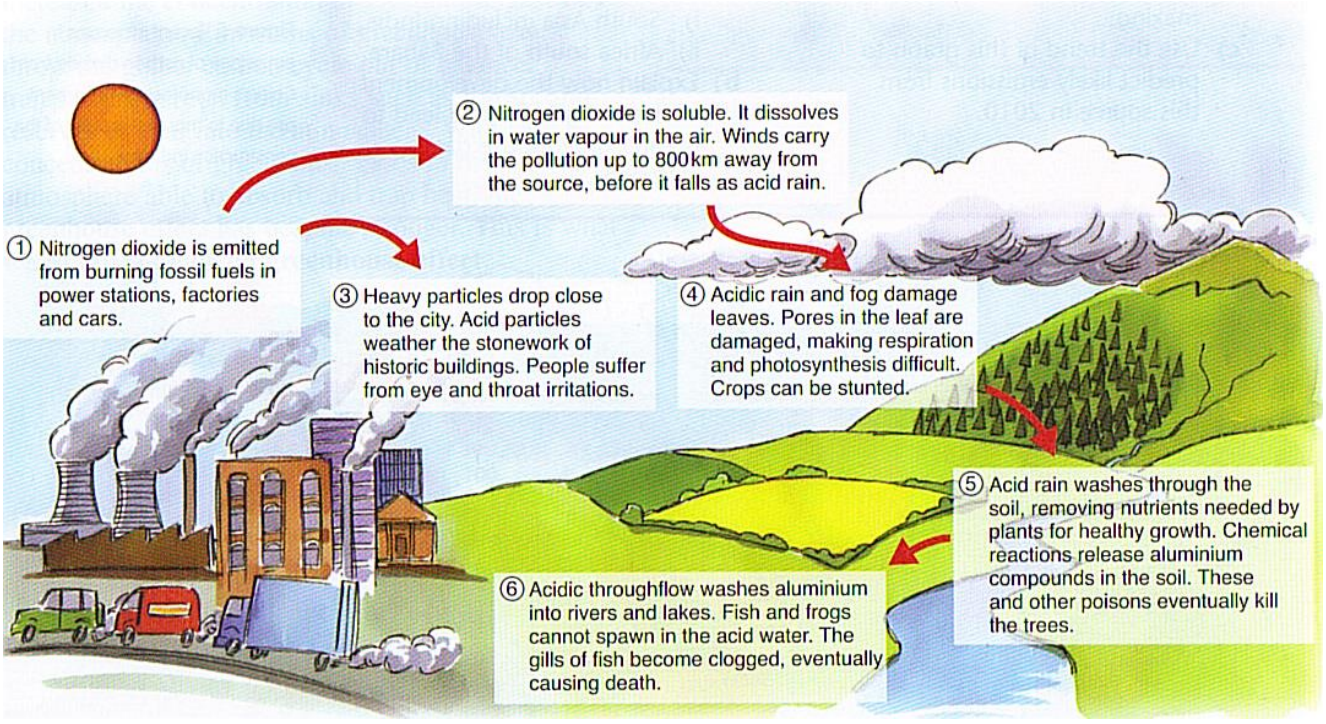
Acid rain leaches calcium out of the soil when it is absorbed by the earth. This directly affects the mineral levels of the soil and the creatures, such as snails, that rely on that calcium for shell growth. Consequently, snails die off and birds, which eat them for calcium, lay eggs with shells that are weak and brittle and therefore fail to hatch.

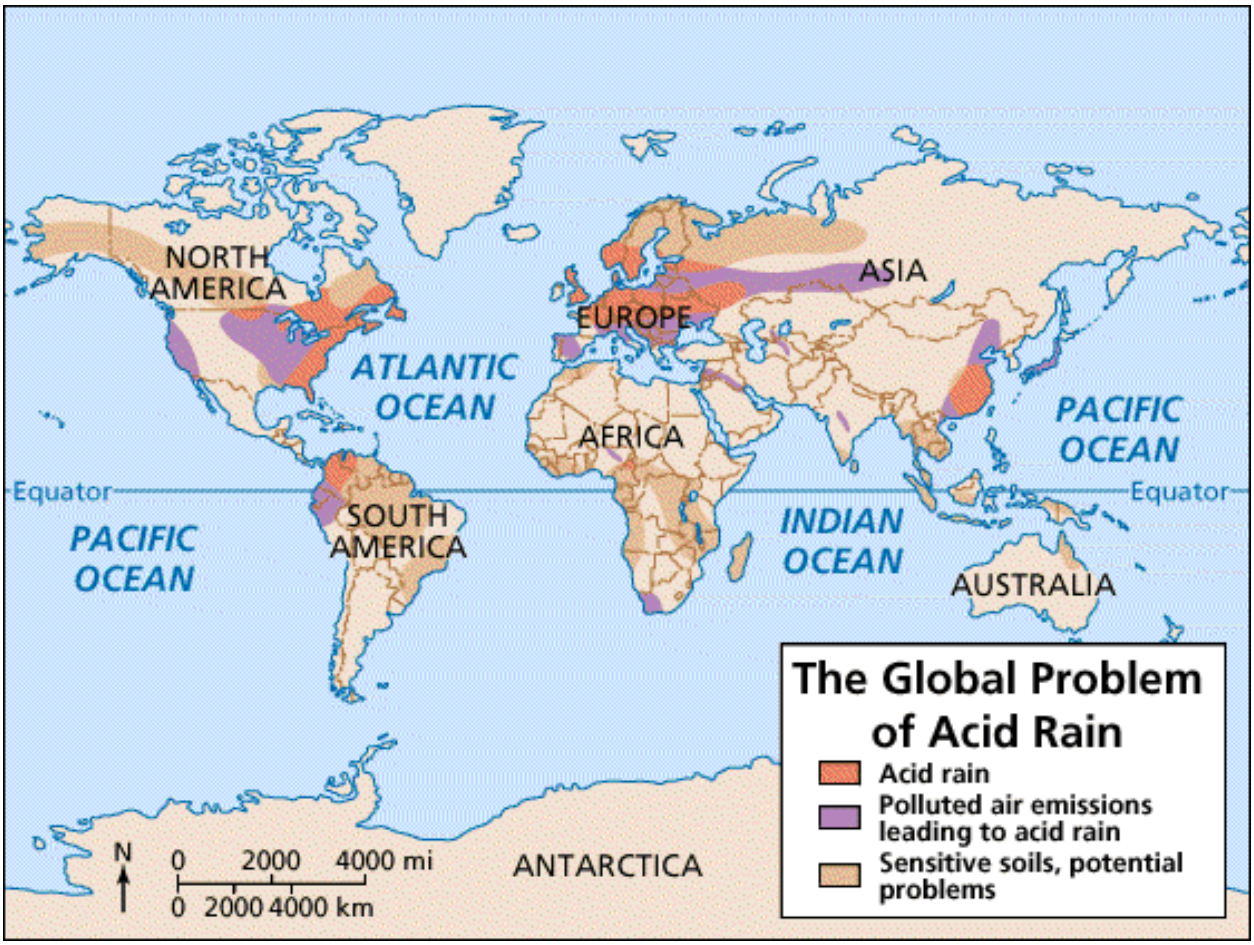
Acid rain directly impacts forest ecosystems and their inhabitants. Acid rain damages leaves as it falls. Acid rain runoff from the trees and forest floors infiltrates the forest's water supplies; runoff that doesn't enter the water supply is absorbed by the soil.

Acid rain is dangerous to humans. The same sulphate and nitrate particles that directly affect the soil and water pH balances can cause serious damage to the respiratory system if inhaled deeply. A damaged respiratory system means decreased oxygen in the blood supply, which eventually damages the heart.



	Direct effects	Toxic Effects	Nutrients Effects
Soil	Some organisms can't tolerate the change in pH	Reduce the population of soil microorganisms	Increase in acidity leads to accelerated leaching of calcium
Water	Damage organisms	Build up of mucus on fish gills and death from lack of oxygen	Eutrophication
Living Organisms	Damages tree leaves	Trees uptake toxic aluminum ions from soils	Reduced ability to carry out photosynthesis

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The Global Problem of Acid Rain
Acid rain
Polluted air emissions leading to acid rain
Sensitive soils, potential problems