

## Soil Erosion Due to Rainforest Deforestation

The clearing of rain forests is one of the leading causes of soil erosion worldwide. In the Amazon rain forest of Brazil for example, an area the size of a football field is cut every second, leaving vast swaths of land vulnerable to wind, rains and floods that cause erosion. Because tree roots hold the soil together and retain water in an ecosystem, habitat can be destroyed by deforestation and the subsequent cycle of erosion set in motion.

### Causes of Deforestation

Trees are cut down and used for many things, for example, furniture, utensils and even toilet paper. Cattle farms also require a lot of space for herds to graze so areas of rainforest are cut down to make way for grasslands. Agriculture is another major cause of deforestation and erosion. Even though farming replaces forest with crops, the roots of non-native plants like cotton and soybeans do little to hold rain forest soils in place. The topsoil and essential nutrients are eventually washed away and the land becomes useless. This land is then abandoned and a new area cleared.

### Erosion

Almost half the world's topsoil has been lost to erosion. Once plant cover is gone, soil is exposed and moisture evaporates killing organisms which help vegetation grow. Also, with no roots to hold the soil in place during rainstorms, topsoil is washed away. Logging trucks also leave deep tire marks that erode at an accelerated pace and deposit a high volume of sediment into streams and rivers.

### Consequences of Erosion

Eroded sediment can even change the course of rivers like the Yangtze in China, which suffers from huge deposits of silt from deforestation.

Desertification is another possible consequence of erosion through deforestation this is when enough plant cover is lost, erosion takes over and former lush rain forest can be transformed into arid desert.

- 1) What is one of the leading causes of soil erosion?
- 2) Why are parts of the rainforest being cleared?
- 3) Do you think these are good reasons to clear parts of the rainforest? Explain your answer.
- 4) What impact does a loss of topsoil have?
- 5) What is 'desertification'?