

Avatar: Environmental Problems Associated with Soil Erosion

Slide 1

Loss of topsoil is the number one problem of soil erosion. When topsoil is lost, valuable soil nutrients necessary for plant growth are lost too. Loss of productive land also occurs as gullies take over fields and forests.

Slide 2

Property damage occurs when soil moves down and buries roads, homes, and other structures. While this neighborhood covered in mud is an extreme example of soil erosion, it is one that happens regularly in certain parts of the world, especially areas where homes are built on steep land. The land becomes vulnerable to slipping downhill after heavy rainfalls.

Slide 3

Runoff water carries soil particles to streams and rivers, making them muddy and brown. The sediment load itself can harm the wildlife in the streams, but even more dangerous are the agricultural sediments that have pesticides and fertilizers in them. These chemicals can be especially harmful to wildlife and people that depend on the stream water. In urban settings, soils mix with chemicals from cars and factories. It is likely that the urban runoff in this picture contains pollutants derived from soil particles. The soil that's removed from land often ends up in larger streams and, ultimately, in the ocean.

Slide 4

Desertification is a condition that develops when an area becomes so damaged by soil erosion and long periods of drought that nothing can grow there. It is characterized by a growing area of desert, as in the Sahel region of Africa. It is also happening in China. Wherever it happens, it contributes to poverty and hunger because people are not able to grow the food they need.