LESSON 35

WAYS TO CONTROL SOIL EROSION

Important Question

How can you lessen the harmful effects of soil erosion?

Soil erosion cannot be prevented since this is naturally occurring in the environment. However, there are practices that can help control soil erosion and its harmful effects.

Natural Vegetation

The simplest and natural way of controlling soil erosion is through natural vegetation, which is allowing plants and trees to grow naturally without human interference. By letting these plants grow, root systems will be developed. These root system grip on the soil and make it more stable, thereby minimizing the movement of the soil throughout the ground.

Trees can also serve as windbreaks. A **windbreak** is a row of trees planted in a straight path shielding and protecting plants and crops from strong winds and gales. Windbreaks prevents strong wind to directly blow the soil, thus lessening the soil erosion that takes place.

Trees that grow in the forest prevent soil erosion

Contour Plowing

Since erosion easily takes place on a slope, farmers who plant on mountainsides follow the contours or curves of the land instead of planting the crops up and down the slope so as to slow down the flow of water and the soil that carries. This technique is known as contour plowing.

Strip Cropping

This method involves alternately planting different crops in strips. These crops are planted across the slope, too. In this method, grass and other plants that grow close to the ground are planted in strips between bands of grain crops. The strip crops lessen soil erosion since they hold much water in the soil.

Terracing

Have you been to or at least seen photos of the Banaue Rice Terraces in Mountain Province? This is a very good example of terracing, which involves planting on terraces or steps built on the slopes of mountainsides. Farmers build wide flat rows of terraces on mountainsides to act as a ridge to help slow down the flow of water that carries soil. By doing so, the rate of erosion also slows down.

Crop Rotation

Farmers use crop rotation not just to prevent pests from destroying the plants but also maintain the good quality of the soil. Crop rotation refers to planting crops in a different spot each year. For example, a farmer would plant corn on one part of the field while cabbage would be planted on the other sides. After the harvesting season, the soil would rest for a while.

Then, the farmer would plant the corn on the area where cabbage was planted before and cabbage will be planted on the cornfield. Doing so helps the soil maintain its good quality.

A soil that has good quality is moist. Moist soil cannot be carried away easily by wind and water.

Riprapping

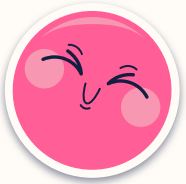
Another way off controlling soil erosion is by building ripraps or chunks of stones or rocks arranged on the edge of a slope. This arrangement of stones does not just serve as a foundation but also a ridge to control soil erosion. When rain pours down , most of the soil carried down the slope is deposited on the ripraps. Ripraps can be seen on river banks and shorelines.

How Forests Help in Controlling Soil Erosion

The forest canopy, the uppermost layer of the forest where most tree branches and leaves are found, act like an umbrella that lessens the impact of rain on the forest floor. This lessens the rate of the soil erosion.

The leaves that fall to the ground, together with the naturally growing mosses, cover the forest floor. This coverings minimize the force of surface runoffs so less soil is carried away by water.

Since a lot of trees and plants grow in the forest, more root system hold the soil together. Roots of trees spread out underground and keep the soil more intact. The more intact a soil is, the less prone it is to soil erosion.



Thank You!!