

Modified In-School Off-School Approach Modules (MISOSA)
Distance Education for Elementary Schools
SELF-INSTRUCTIONAL MATERIALS



PREVENTION OF SOIL EROSION



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PREVENTION OF SOIL EROSION

At the end of this lesson, you will be able to:

- Demonstrate how people and plants help prevent soil erosion (e.g. contours plowing, alternate strip cropping, planting trees/cover crops, etc.)



Try to Recall

A. Study the list of words below. Some are causes of soil erosion, others are the effects. Write them under the proper heading.

Do it in your notebook.

illegal logging
overflowing of rivers
landslides
mining
destruction of roads
exposed bed rocks

burning of trees
strong winds
barren soil
uprooting of trees
loss of top soil
digging

Causes	Effects
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.





Exploration Time

A. Do this activity.

- Get 2 pans or basins of the same size.
- Build a hill of soil on each pan or basin.
- Cover one hill with grass.
- Tamp the grass firmly so that it will stick to the soil.
- Sprinkle water over each hill.
- Observe the soil as water flows downhill.



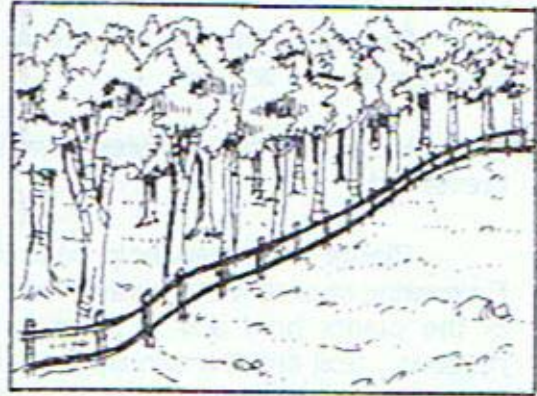
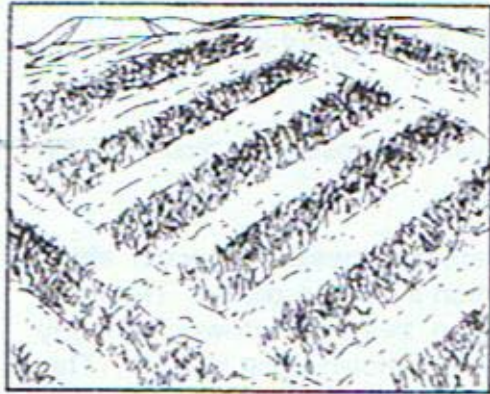
Answer these questions:

1. What happened to the soil on the two pans/basins?
 2. Which pan or basin has more soil left?
 3. What prevented the soil from being washed away?
- Imagine this hill is a forest. Would it also prevent the soil from being washed away?
 - Make a conclusion on how do plants prevent soil erosion.



B. Study the pictures below.

Think on how these ways or practices prevent soil erosion
Write your answers in your notebook.



C. READ AND LEARN MORE:

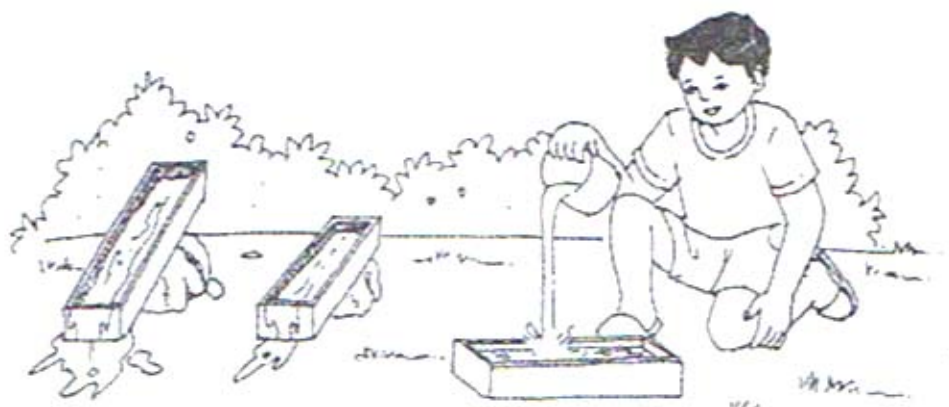
Preventing Soil Erosion

Erosion is the washing away of soil. It is harmful in many ways to men. Plants and animals.

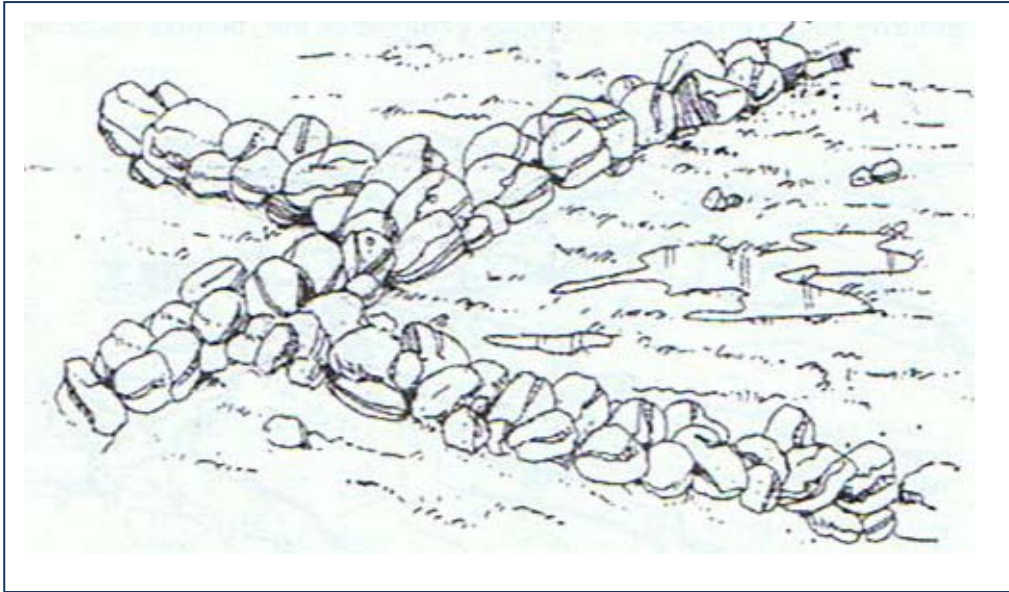
Here are the different ways by which erosion of soil can be prevented.

Plants and trees help control soil erosion, besides a water shed. Rainwater cannot wash away much soil when it falls on plants. The roots of the plants hold soil in place. Trees are being cut down for many reasons. Soil erosion can be prevented when reforestation is done. This is the planting of young trees to replace trees that have been cut down or burned.

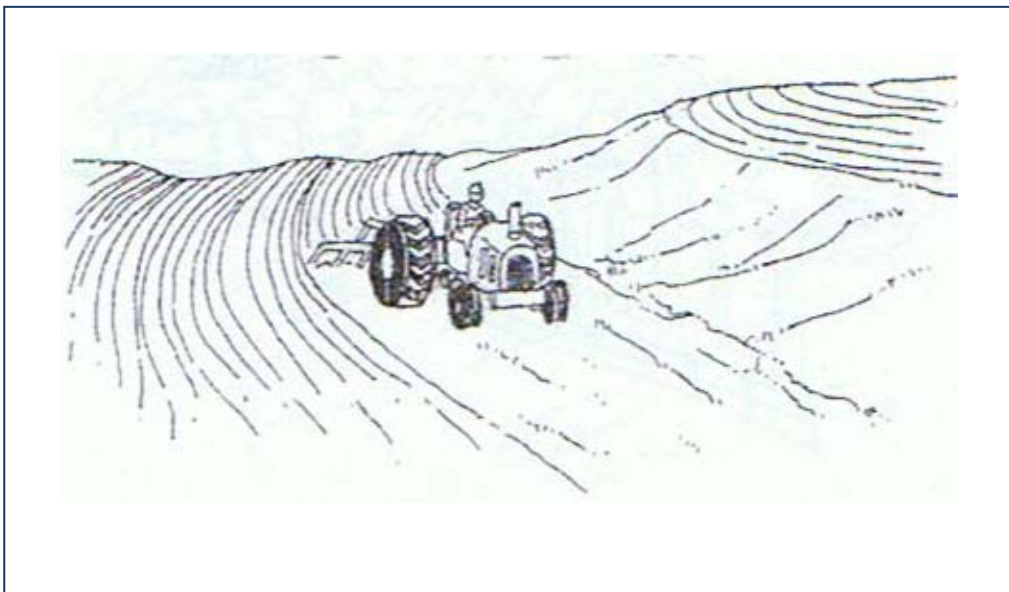
Strip cropping is another way of conserving soil. Here the plants are arranged in strips of alternate bands or row crops and cover crops. The cover crops hold the soil and reduce water run-off. Example is planting crops and grass alternately. Grasses prevent the soil from going downhill.



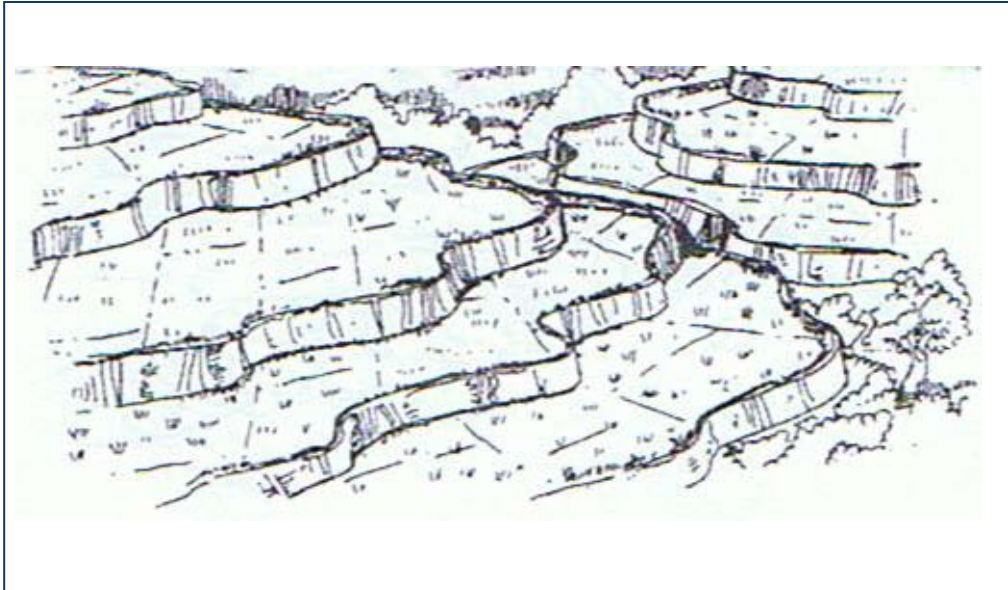
Building dikes of stones or logs may be used to slow down water as well as prevent water from flowing out. The dikes prevent soil from being washed away by rain.



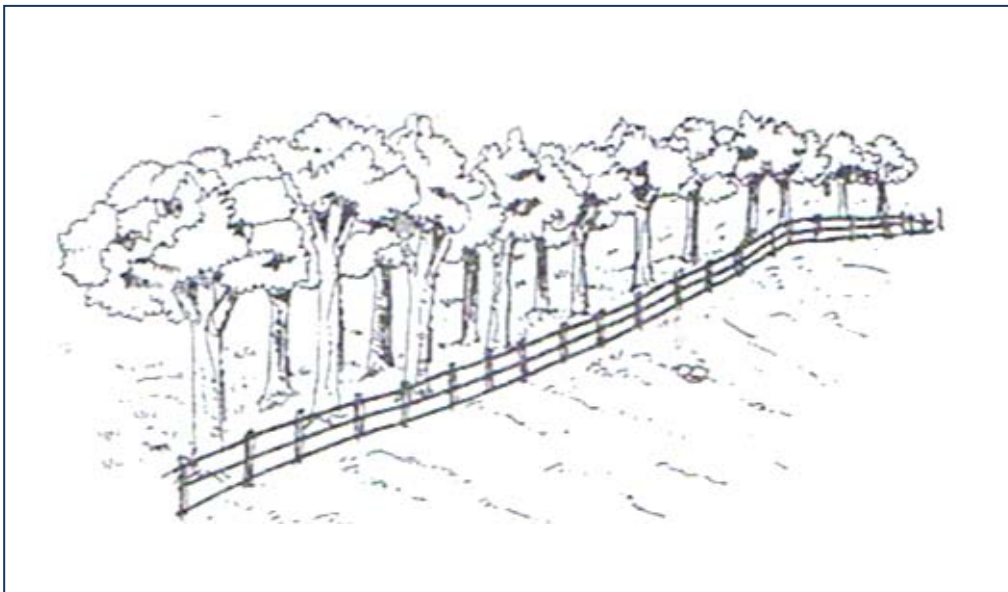
When the rain falls, the rainwater flowing downhill carries large amount of topsoil. One way to prevent this is through contour plowing. Here, the land is plowed around the hills instead of up and down. Running water is prevented and cannot flow easily.



Terracing is another method to prevent soil erosion. Terraces are flat areas built on the mountain sides. Since it is flat, it prevents soil from going down easily. Unlike if it has slopes wherein water and soil can flow down easily. These terrace are then planted with rice and other crops. The Banawe Rice Terraces is a famous example of the method terracing.



Planting rows of trees or bushes is another way of preventing soil erosion. These plants act like fences or walls. They block the force of the wind. These trees are called windbreak. The soil will not be easily carried away by the wind.



1. What are the different methods of preventing soil erosion?
2. Discuss each method.
3. Which method is applicable to flat lands?
4. Which method is applicable to hills or mountains?



I learned that:

- erosion is the washing away of soil.
- There are ways of preventing soil erosion like.

contour plowing
terracing
strip cropping

reforestation
tree wind break
dikes



Apply It

A. Go around your community.

**Look for measures you see there that prevents soil erosion.
Draw and write how does this prevent soil erosion.**

B. Study each situation then answer the question that follows. Choose the letter of the correct answer.

1. It is your job to sweep your home yard. Loose particles of soil are carried away as you sweep. Much topsoil is lost this way. Which would best solve the problem?
 - a. Sweep the litter only.
 - b. Let grass grow on the ground.
 - c. Let the dry leaves rot and cover the soil.
2. Why would you join a “ Plant A Tree ” campaign in the community?
 - a. To be with friends with the people who are in the campaign
 - b. To beautify the community and conserve soil
 - c. To be recognized by barangay officials



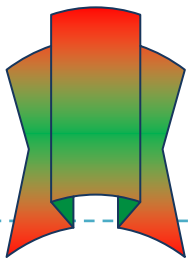
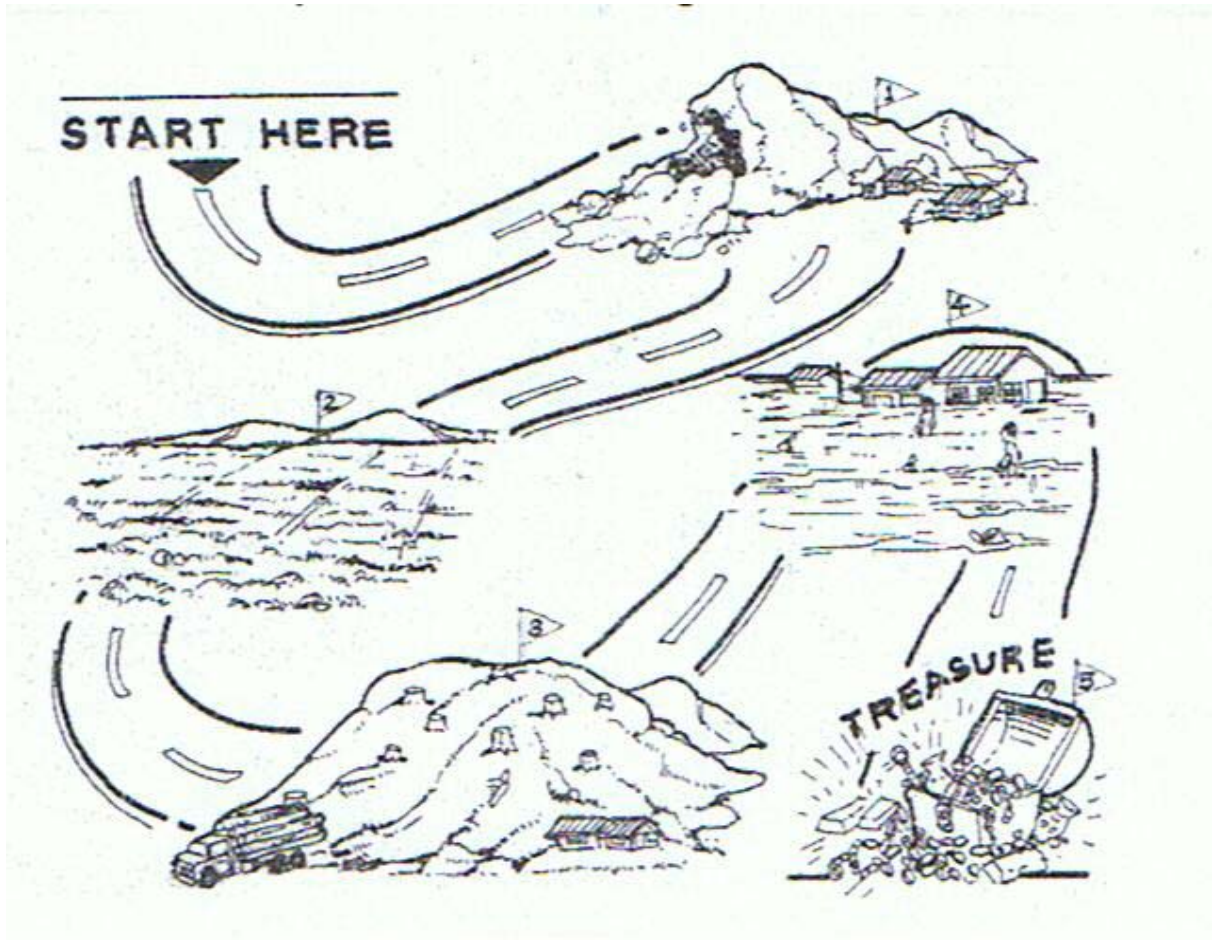


Test Yourself

A. Write the letter of the correct answer in your notebook.

1. What is erosion? It is the _____?
 - A. washing away of soil
 - B. replanting of crops
 - C. cutting down of trees
2. Why is plant cover such as grass important?
 - A. It holds soil in place
 - B. It grows easily
 - C. It makes the place green
3. What is reforestation ?
 - A. It is the planting of crops alternately to hold water.
 - B. It is the planting of more trees to block the wind.
 - C. It is the planting of new trees.
4. What is the best way to prevent soil erosion?
 - A. Re-planting trees
 - B. Cutting down trees
 - C. Constructing a wall around the denuded area
5. Where is terracing most useful?
 - A. in mountain sides
 - B. near river banks
 - C. in flat lands
6. What should be done to prevent soil erosion on flat lands?
 - A. Build dikes around it.
 - B. Plant trees in it.
 - C. Build contours around it.
7. Which method best prevents soil erosion in high and steep mountains
 - A. contour plowing
 - B. terracing
 - C. building dikes

- B. You're going on a treasure hunt. Along the way, you will see traces of soil erosion. You can only move forward if you can think of methods or ways to solve the problem in each trail indicated by the number in the flaglet.



Congratulations for trying your best in accomplishing this module, try to share the things you have learned with your classmates and friends.