



SOIL EROSION & CONSERVATION

Sehrish Mansoor ^a, Aliya Iqbal ^a, Ujala Akbar ^a, Maher Bano ^a, Usra Jamil ^b

^a Department of Chemistry, Jinnah University for Women

^b Department of Microbiology, Jinnah University for Women



ABSTRACT

Soil Erosion is the movement of the upper layer of soil, one type of soil degradation. This natural method is caused by the dynamic activity of erosive agents, that is water, ice, snow, wind, plants, animals, & humans. Erosion is sometimes separated into water erosion, glacial erosion, snow erosion, wind erosion, zoogenic erosion, and anthropogenic erosion. It may happen at an alarming rate causing a serious loss of topsoil. Prevention of soil Erosion is also known as conservation of soil.



INTRODUCTIONS

Soil erosion is the removal or destruction of top layers of soil by natural forces such as running water or wind and by human activities such as mining. Soil conservation. Soil conservation is the process of protecting the soil from erosion to maintain its fertility. Soil Conservation is a combination of practices used to protect the soil from degradation. First and foremost, soil conservation involves treating the soil as a living ecosystem.

METHODOLOGY

- The materials that have been used, are as follows:
- 3 bottles, boxes, glue, Scissors, knife, Soil from the garden and compost, Seedlings, Mulch, Water etc.
- There are three methods of soil erosion and conservation:
- Soil with plants, Soil with mulch, Soil alone.

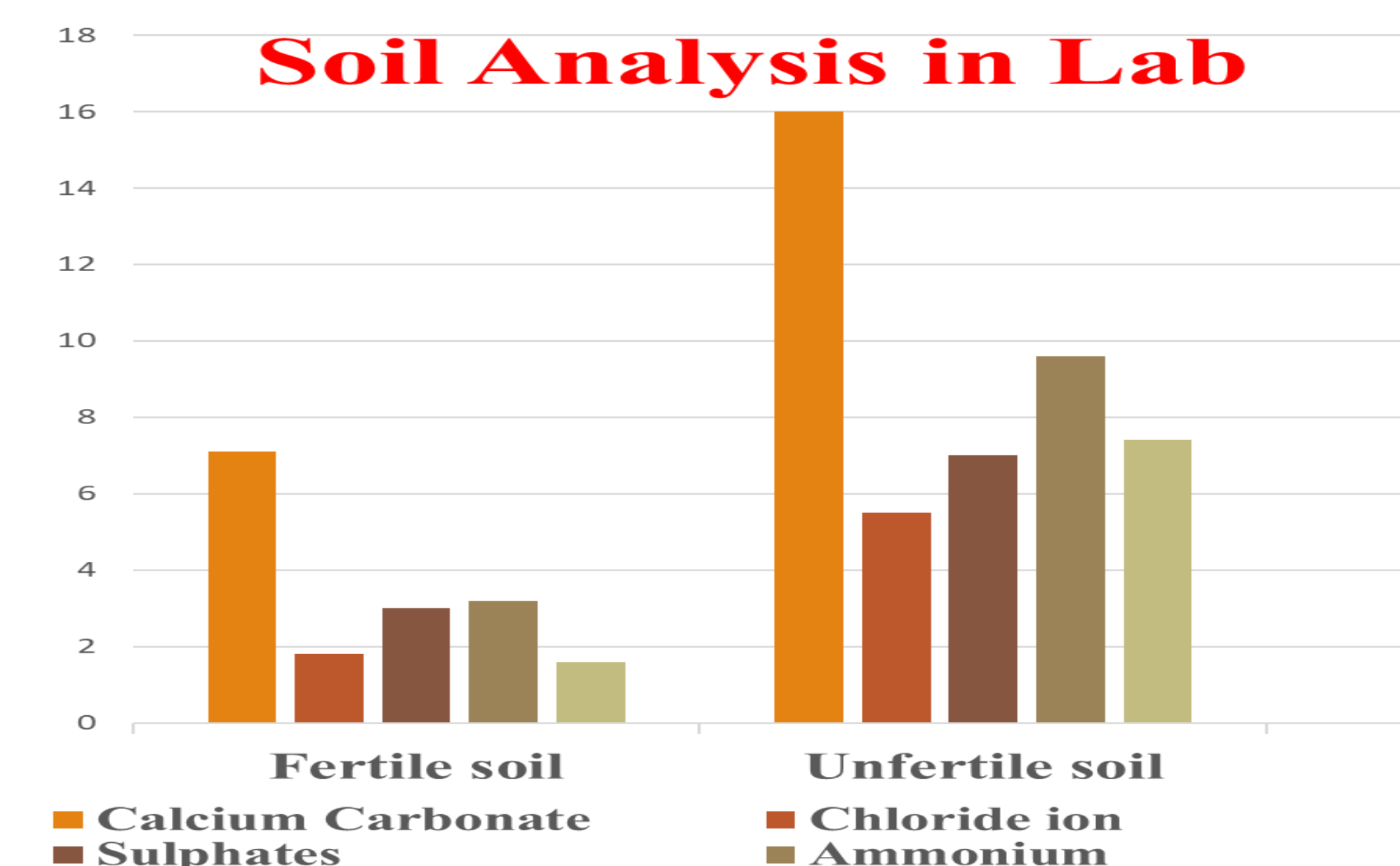
Soil Erosion:

It is the natural process of wearing away topsoil, but human activities have accelerated the process.

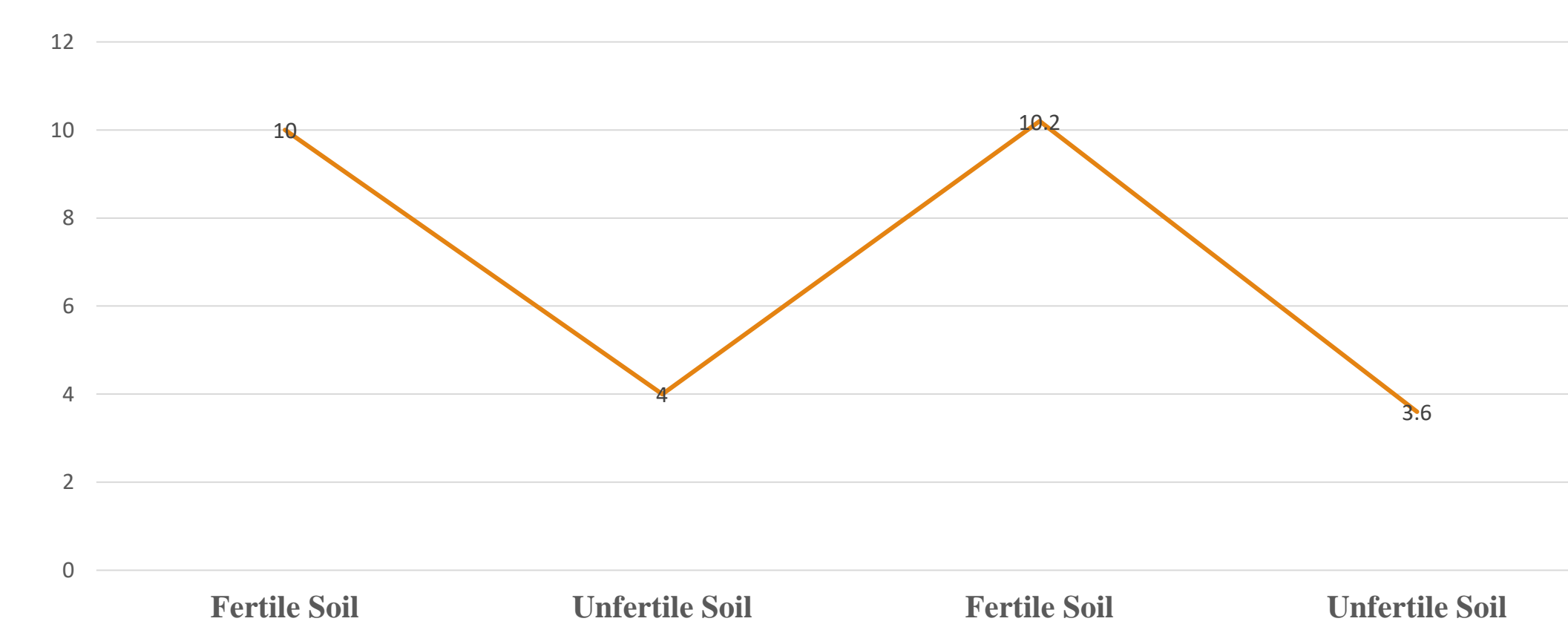
Farming, grazing, mining, construction and recreational activities are some of the causes of soil erosion.

Soil Erosion Prevention:

Plant trees on barren lands to limit erosion of soil. Add mulch and rocks to prevent the plants and grass underneath to prevent soil erosion.



Microbial Loading in Soil



Soil	Testing of Soil	Results
Fertile	Staining	Gram +ve, short rods, purple color.
Unfertile	Staining	Gram +ve, long rods in chain, purple color.

RESULT

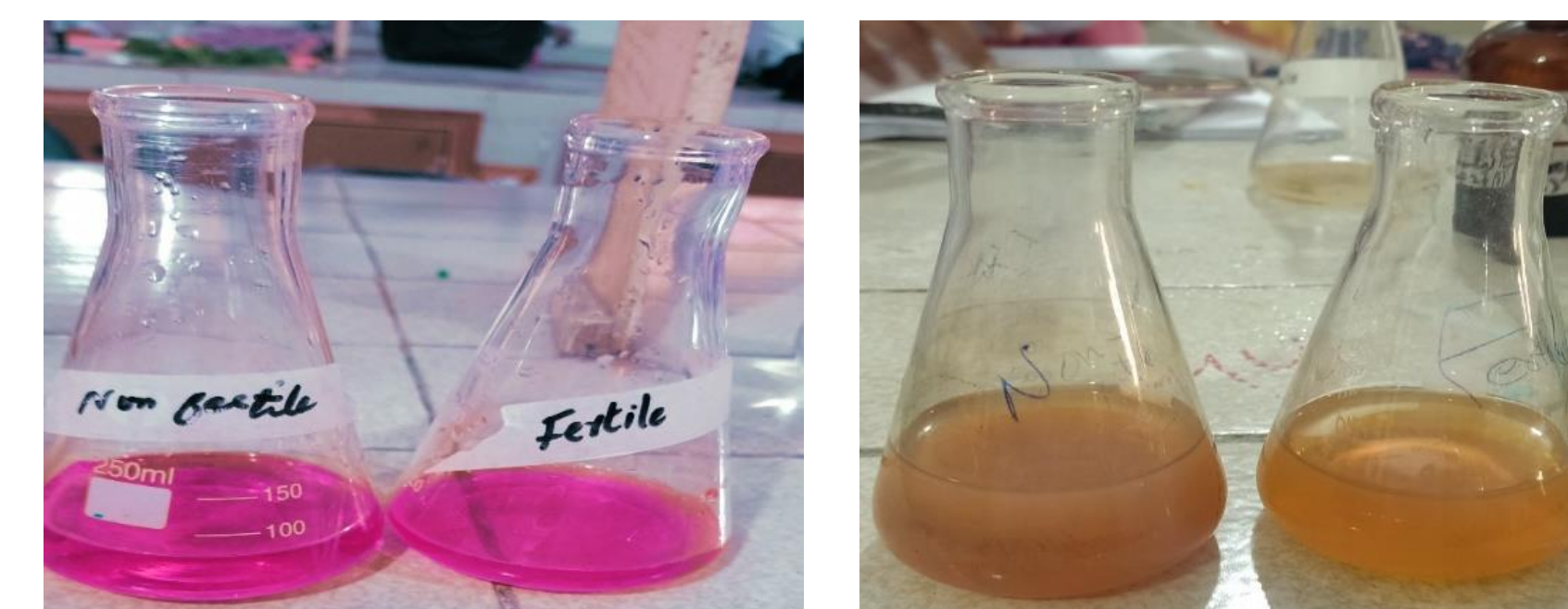
First Experiment's Result:

- Soil with plants 2) Soil with mulch 3) Soil alone.
- Water collected in first bottle is clear, water collected in second bottle contain less dirt and third bottled water collected is dark brown because the soil is loose and is washed off along with water.



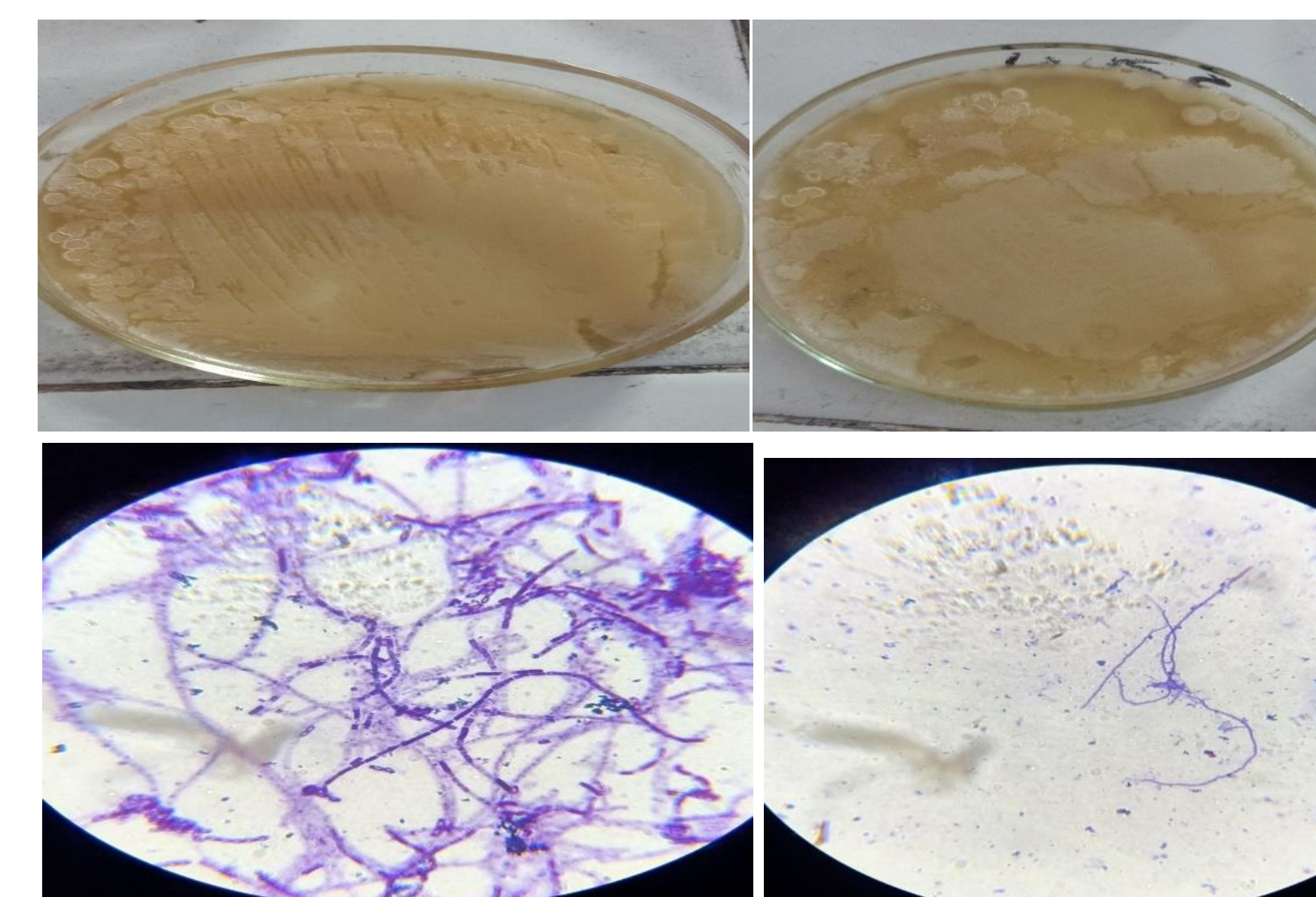
Second Experiment's Result:

- Determination of Chloride and Calcium Carbonate in Soil Sample:
- Chloride content is less in fertile soil than non-fertile soil.
- Calcium carbonate content are more in non-fertile soil than fertile soil.



Third Experiment's Result:

- Microbial growth activity are more in fertile soil and less in non-fertile soil.
- Staining of microbial growth in fertile soil, show the gram +ve bacteria, short rods, purple color.
- Staining of microbial growth in non-fertile soil, show the gram +ve bacteria, long rods, purple color.



CONCLUSION

Soil erosion by water is a geologic process that has occurred since the Earth formed. The most common human activities leading to accelerated erosion are agricultural practices that occur over vast areas covered with soils that are very productive but easily eroded if not protected from erosive forces. Soil conservation is proven to increase the quality and quantity of crop yields over the long term because it keeps topsoil in its place and preserves the long-term productivity of the soil.

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