



HUMAN & SOCIAL SCIENCE: HSSC4

LESSON 9

UNIT STANDARD: 115483 SO4

Welcome again to lesson 9. I hope you are fine and working hard to get a much clearer understanding of all the information in HSSC4. We are continuing with the Unit Standard 115483. Remember our last explanation (SO3) was on the relationship between society and the environment. We also discussed the sustainable use of human and natural resources (SO2). Remember we also tried to clarify the concepts of sustainable development and unsustainable development by looking at the differences between developed and developing countries (SO1). We are now going to look at managing environmental and social problems (SO4). This is connected with what we did in lesson 7 and 8. In these lessons we were looking at bringing about change as active citizens. Yes indeed, we need active citizens to manage environmental and social problems. You need to know what must be done to solve problems that face your community. On the side of the environment, you need to go back to lesson 2 where we mentioned environmental problems and solutions. This lesson will therefore, be part of lesson 2 and so we will only explain few things. For now let us discuss:

RECYCLING

This is the process of turning one thing into more of the same thing. When we recycle, used material is changed into new product. Materials are reused (used again). Recycling saves energy, conserves (saves) resources, protects the environment, reduces pollution, saves money, reduces the amount of wastes that must be sent to landfills (big holes created to dump wastes), cleans the environment etc.

Waste material such as plastics and cardboard, cans, glass and bottles, tins etc. can be recycled. Many things that we use every day in our lives are manufactured from resources that were used before.

Nature also recycles all the time. When leaves fall off from trees, they fall to the ground where they die and decay into compost, which nourishes (feed), the soil. The new plants use nutrients (food) from this as they grow. The old leaves are themselves a resource.

You must have seen people in our townships going around picking plastics and cardboard boxes for recycling. On the social part, such people are making a living (getting money). Our places are also getting much cleaner.

You will remember in our last discussions, we said resources are **not equally distributed**. You know that South Africa has inequalities created by the past injustices. Remember that there is inequality of access to resources, unequal access to employment, unequal access to education and health etc. These inequalities make the management of resources much harder for people who are poor. It is the responsibility of any active citizen to educate the community on the important environmental projects such as recycling.

Let us have a look at the use of mining resource. Just try this small activity before.



Activity 1



- 1.1 Explain the concept recycling.
- 1.2 What are the advantages of recycling?
- 1.3 Name any 5 things that can be recycled.
- 1.4 How can you make sure that recycling in your community takes place properly?

TOPIC: 2 MANAGEMENT OF MINING RESOURCES

Minerals are found in the rocks of the earth. **Mining** is the word we use to describe the process of digging out minerals from the ground. When we dig stones and sand from the mountain, we call this **quarrying**. We get many useful minerals to make things that we want. From Aluminium for example, we make tin foil and cans. Silicon is found in the form of sand. We make glass and parts of computers with it.

Some minerals are found close to the surface. So we do not need to dig deep to find them. They are called **Open- Cast mines** (including quarrying). These mines cause dust and air pollution that may be of danger to our health. The water flows through these holes to our rivers and are often dirty. Animals and plants lose their place. The environment also appears ugly with large holes.

Minerals such as gold and copper are mined very deep under the ground. This is **Underground mining**. It is expensive to mine. These mines are dangerous to workers because they sometimes collapse (fall) and people are then buried underground.

Alluvial mines occur on the seashore (part of the land along the coast) or seabed (bottom of the river). Minerals such as diamond can be found on the sand.

South Africa is rich in minerals. There are some good things (advantages) about mining. Mines produce work for the people. We make products in the industries from what we get from the mines. We export (sell to other countries) minerals.



Minerals that we get from the mines are taken to industries where important products are made (such as tin foil, pipes, rings, etc.). Many industries were created because of mining. So we have cities because of mining.

Although mining is good to us, there are also **disadvantages** (bad or negative impacts). The ecosystem is destroyed, Plants and animals are destroyed, Air and water Pollution increase, People are affected by diseases caused by mining, Most workers die from the collapse of mines, there is an over use of electricity and water, overpopulation occurs as more people want to stay near the mine for employment, the natural beauty of land is destroyed, wild life such as game reserves that promote ecotourism is disturbed. Mine water with acid and (toxic) poisonous substances flow into our rivers.

It is important that the mining companies must take action against all the disadvantages brought about by mining. Unused mines must be covered, Planting of vegetation or trees (reforestation) must be done, there must be safety measures or plans to protect mine workers, more money must be invested to protect the environment, Government must ensure that mines work according to proper rules of the government, People who stay in the mining area must be provided with their basic needs such as health, education, housing etc. You can still play your part as active citizen to make sure that the mining of minerals does not come with this high cost to our lives and our environment.

Activity 2



- 2.1 What are the disadvantages of mining as seen on the picture?
- 2.2 What are the benefits of mining for our country?



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