

Freshwater Sources

Name

Course

Tutor

Institution

Date

It is a well-known fact that up to two-thirds of Earth is covered with water. That is the main reason why it may seem that there is enough water for each person on our planet. Why then is there a shortage of water in certain regions? Consider the following facts:

- Saline water (oceans and seas) take up to 97% of all water resources on Earth, which means that freshwater takes up only 3%.
- Out of these 3%, about 69% are contained in icecaps and glaciers, 30% in groundwater, and only 1% water can be found on the planet's surface.
- This 1% of surface water is contained in lakes (87%), swamps (11%), and rivers (2%).

Water is an essential resource for people today, as it has been for many thousands of years. At present, water is mainly used for irrigation, household, and industry. That is why the necessity to monitor the amount of water available and the level of its pollution is clear. We can see in the news that some parts of the world have water shortages. Populations on our planet are growing rapidly; at the same time we tend to use even more water than before. No one can be perfectly sure that he or she can always be guaranteed the necessary amount of water, unless each of us feels responsible for its usage.

The main sources of freshwater are:

- Antarctica and Greenland, which contain up to 99% freshwater ice on Earth.
- The Great Lakes in the USA make up to 21% of surface freshwater resources.
- Lake Baikal in Russia contains up to 20% of unfrozen freshwater.
- Lake Victoria in Africa is the second largest freshwater lake by area.
- Lake Tanganyika in Africa is the second largest by volume of contained freshwater.

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Industrial revolution has led us to some dire consequences such as increasing levels of pollution. This is also a serious issue when conversing about freshwater. Both surface and ground water is being polluted. The main sources of surface water pollution are pesticides and fertilizers, which are washed off the land and are not so easily detected at first. Other sources of pollution include runoff from roads and parking lots, which are often polluted with gasoline, oil, and road salt. Another way that surface water is polluted is with the rain, which contains nitrogen oxides, sulfur, dioxin, and mercury. Groundwater is also being polluted in spite of the fact that soil can be viewed as a filter that stops hazardous chemicals. The main sources of pollution are leaking oil tanks, spills at gas stations, leaking sewage lagoons, and chemicals from industrial activity.

Apart from pollution, there is also a problem of inefficient water usage. To cope with this, we need to rethink the way we use water. For example, it is believed that the irrigation systems are not as efficient as they could be, wasting up to 60% of water before it reaches the crops. Modern technology is capable of managing water usage more efficiently, and as a result, water would not be wasted for agricultural and industrial use, as well as for personal use by the population.

References

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