

Discussion Questions (Ecosystem)

Tianmin Hua C11957230

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shortages in Miami. Its population is growing very fast which will, in turn, overruns its capacity to sustain the ever-increasing number of people. As the human population of Miami multiplies, they would need more and more water for irrigation in order to maintain the food supply. As a result, Miami would start depleting its waters through overpumping.

How much is local?

The growing population would consequently increase the demand for timber, paper, and firewood. In the long run, its demand would exceed the regenerative capacity of the forest. Over the past decades, Miami forest has been shrinking and with the absence of appropriate policies to compact population, the forest will continue to shrink. Thus, the ecosystem would suffer without the presence of trees which protects the soil and to minimize the runoff. Furthermore, continuous growth of Miami population eventually will lead to overflowing (Brown, 2012). That is the breaking of the ground that is exceedingly erodible which should not have been cultivated. The plowing of the marginal lands results to soil erosion and ultimately to the abandonment of the cropland. The land that would have otherwise been used to sustain trees and grass is turned into a wasteland. If the state of Miami will stop ignoring the earth's environmental stop signs and start formulating appropriate measures and policies that would enhance the quality of life now and in the future, they would have to undermine economic progress. If Miami population would not be slowed down, the population of people stuck in poverty and hunger will increase. This will, in turn, threaten food security, economic progress, and political stability.

No Miami forest!

? what forest

No. Huh?

Rethink this,

Question 2

DISCUSSION QUESTIONS (ECOSYSTEM)

What does it actually do to mitigate floods?
5 not all

Ground water also assist in the mitigation of drought and floods because it provides water to the ecosystem when there is no rain and it also stores water from the land surface when there is too much rain. This ensures that the existence of animals and plants is not compromised. The water can be used for human consumptions and growth of plants and therefore some species will be protected from extinction from the ecosystem. The use of water also ensure the inactivation of pathogens as well as active biodegradation of anthropogenic contaminants. This aspect is important because it protects the ecosystem from diseases and contamination and also increases nutrients rather than environmental waste. Pathogens can threaten the quality of the ecosystem but water assist in the elimination of some pathogens and contaminants.

Apart from the water use in drinking and agriculture, it is also used in the generation of energy for industrialization as well as solvent and cooling agent. All these ensure that industrial products are produced for human consumption and also to improve the well-being of human beings. In addition, water enhances biodiversity because it provides habitat for various microbial community in the ecosystem. This ensures that unique organisms are protected and can be researched to provide more solutions to human problems. The use of water is therefore critical to the ecosystem because without water, the ecosystem would not have been sustainable. Sustainability is key because it ensures balance in the environment while protecting endangered species from extinction (Hoekstra, 2014).

related?
new 100

good

↑ move up.

As much as water is important in the ecosystem services, excessive use or lack of its management can lead to various problems. The use of water needs to be managed and its sources protected for posterity and sustainability in the ecosystem. Generating too much wastes to water reservoirs and water bodies at the expense of human existence is harmful because the water will become toxic and affect biodiversity. Its excessive use and invading the water catchment areas will also reduce the quality and quantity of water as well as

drainage lines should be managed so that the quality of soil is protected. Population transition in human civilization makes these activities inevitable because the current population is growing at a high pace and there is a need to conduct these adjustments to ease the pressure (Lal, 2007). The current trends are therefore threatening the quality of soil.

There is also soil loss through stream bank erosion. Population transition in human civilization has created more demand for grazing, cultivation, expansion of human land and construction of more infrastructure to accommodate human needs. This has led to soil loss because the quality of soil at the stream banks are tampered with. Human civilization has brought about more needs and expansions which have triggered more erosions in places that were naturally protected. Soil can also be lost through mass movement as a result of clearing the slopes in the coastal area. The need to create more settlement and industrial areas has resulted to significant clearing of vegetation at the slopes to meet the needs of human beings. The increased demand for minerals and construction materials have led to clearing of vegetation and extraction of minerals which in turn promotes soil loss. To conclude, soil loss through wind erosion is caused by heavy winds especially in arid and semi-arid areas. The clearing of vegetation to create industries, human habitat and also grazing has significantly reduced vegetation cover which then expose soil to the wind. The soil is then blown and the place becomes bare. There is a need to formulate settlement areas for the ever-increasing human population and also to manage land use so that vegetation cannot be completely cleared to pave way for human activities such as industrialization.