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How can mining become more sustainable and energy efficient?

My country, Guyana, has many resources such as bauxite, gold, timber, metals such as aluminium also diamonds and other semi-precious stones that are currently being mined for their useful purposes. These resources are very important to my country because their mining activities do not only provide employment for many Guyanese but also generates foreign exchange, attracts investors and provides an economic boost for the country. Therefore, it is critical for Guyana's resources to be mined sustainably and mining to become more energy efficient. The following paragraphs outline two important ways that mining in my country can become more sustainable and energy efficient.

Firstly, mining can become more sustainable and energy efficient in that miners should practice green mining techniques thereby utilising green technologies. Green mining techniques and green technologies are those that are environmentally friendly and aim to minimise destruction to the environment from whence the resources are obtained and where mining occurs. These techniques would reduce wastage of energy and resources, reduce the emission of harmful greenhouse gases and reduce both air and water pollution. In other words, only when the environment is sustained can mining become sustainable. How can you sustain mining if the water that is required to carry out those mining processes is polluted? Additionally, how can mining be sustained if the machines used for mining that require water become damaged due to water contamination by metals? On the other hand, green technologies would improve energy efficiency in that maximum mining output would be achieved using less energy. Additionally, green technologies would improve energy efficiency of mining through the use of alternative energy sources that are much cheaper and environmentally friendly. Finally, green technologies would improve the sustainability and energy efficiency of mining in that there would be a reduction in the amount of harmful greenhouse gases that are released into the atmosphere such as carbon dioxide.

Secondly, mining in my country can become more sustainable and energy efficient in that new mining regulations should be implemented to ensure that miners comply with mining

laws. These new mining regulations and laws would prevent the illegal mining of resources, over-mining and use of non-environmentally friendly practices and techniques. The new regulations should state that all mining activities should utilise only environmentally friendly and energy efficient techniques or miners would be subjected to imprisonment or harsh fines. Moreover, these new regulations should clearly highlight some examples of alternative energy sources and green technologies that could be used to ensure both energy efficiency and mining sustainability.

Mining is very important to my country and it requires the use of technology, water, electricity and human resources. Green mining practices play an important role in the sustainability of mining since it ensures preservation of the environment and ensures that efficient mining practices continue to exist. The use of environmentally friendly green technologies also plays an important role in both the sustainability and energy efficiency of mining. New mining regulations would also ensure the sustainability of mining and energy efficiency because these regulations would guide miners into practicing and exploring sustainable mining techniques that are also energy efficient.

