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Impact of construction of hydro-electricity power station on environment.

For purposes of general paper discussion is to guide students on answering following likely questions

- (i) Assess the impact of constructing hydro-electricity power station on environment of Uganda

Remainder

- (i) General paper questions calls for general knowledge and ability to use the English language to support general arguments rather than giving factual answers.
- (ii) Each point should be stated in full statement, described/all explained and illustrated with an example where necessary to earn full marks (3marks)
- (iii) Points should be rewritten in full paragraphs rather lists
- (iv) Answers to each question should be introduced by explaining the key terms.

Definition of key terms

Environment means the surroundings or conditions in which a person, animal, or plant lives or operates.

Hydroelectricity is a type of electric power generated when kinetic energy of flowing water turns turbines

Impact of constructing hydro-electricity power station on environment of Uganda

These can be positive or negative

Positive impacts

Reduces dependence on wood fuels which reduces the rate of deforestation and this protects the environment from draughts and soil erosion

Reduces excess use of fossil fuel. This reduces the amount of carbon dioxide emission and slows the greenhouse effect.

Reduces excessive use of fossil fuel thereby saving the nonrenewable resources for the future generation.

Reduces water and environment pollution from impurities formed by fractional distillation of crude oil and sulphur gases during thermal electric generation

Electricity generated provides light and power that drive human activities. For instance electricity allows operation of computers, industrial machinery, and electric cars and so on.

Construction of hydroelectricity plant creates job and market for agricultural produce from the communities of surrounding areas.

Hydroelectricity leads to development of urban centers making easier for the government to provide social services

Big projects like building a hydroelectric plant provide Corporate Social Responsibility (CSR) initiatives and Community Development Action Plan (CDAP) projects such building school and health centers that benefit the surrounding communities.

Negative impacts

To build a dam, new roads and power lines that cause displacement of people and wild life despite the compensation. For instance construction of Karuma Dam forced many people to leave their home areas.

Dams also often form reservoirs that flood large areas and displace natural habitats. When dams flood areas, it creates sections of still or stagnant water that kills vegetation which emits greenhouse gasses as it rots. This is especially true in humid and tropical environments.

Construction of a hydroelectric plant and electric transmission cause destruction of forests. This promotes soil erosion and destruction of animal homes

Blocking the flow of water can also seriously impact fish migration, especially for species like salmon that rely on rivers to spawn

Development associated with production of electricity attract high population density of people leading to development of slums, dumping, power hygiene and negative social behaviours such prostitution and

The final environmental disadvantage of hydroelectric energy on our list is water quality. When dams are created, they limit the flow of water, which affects the oxygen levels in the water. Lower oxygen levels behind the dam can result in lower oxygen levels downstream as well. When there is not as much oxygen in the water, it is more difficult for some species of fish to survive, which affects river habitats.

The increase in carbon dioxide and methane emissions from a hydroelectric plant can also harm all forms of aquatic plant life. The increased pollution of these greenhouse gases can cause plant life beneath the water to rot, which can severely impact the surrounding ecosystem.

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