UACE Geography paper 3: S101 General Paper section A: Desertification in Uganda

Desertification isa serious issue affection millions of people around the world including Uganda. Desertification is the extension of desert-like conditions such as increased temperatures, reduced rainfall, reduced humidity, strong winds and less cloud cover to areas that were not originally having them.

In Uganda area experiencing desert like conditions include North-eastern Uganda in places like Moroto, Kotido, Nakapiriprit, abim, Kaabong; the rift valley floor (Albert flat); Ntoroko parts of Kasese and the Ankole-Masaka corridor in places like Rakai, Sembabule, Lyantonde, Kiruhura, Isingiro and so on.

Causes of desertification in Uganda

- Climate change which brings drought and unpredictable weather change.
- Practices of overstocking and overgrazing by livestock and wild animals in game parks like Kidepo National park leads to reduction in vegetation thus affecting formation of rainfall through evaporation/transpiration.
- Deforestation e.g. depletion of forests in Nakasongola and Luwero eliminates the source of atmospheric moisture through transpiration. This lead to increase in temperature and changes in rainfall season is a result of deforestation.
- Unsustainable agricultural practices such as monoculture practiced in sugar and tea plantations of Uganda.
- Wetland reclamation either for settlement or agriculture for example along the shores of Lake Victoria eliminates source of vapour through evapotranspiration. This leads to scarcity of rainfall as well as reduction in humidity leading to desertification..
- Bush burning by farmers particularly the pastoralists in north-east Uganda destroys vegetation leading to reduced atmospheric vapour. The smoke contributes to the greenhouse effect leading to increasing temperatures thus desertification.
- Industrialization leads to desertification through a number of ways. First it involves wetland reclamation and Deforestation to create land for industrial establishments. This eliminates source of atmospheric vapour. For example Namanve plantation forest was converted into industrial park.
- Greenhouse gases and smoke from industries of Kampala leads to destruction of the ozone layer le g to increasing temperature.
- Drilling bore holes and construction of valley dams in Nakasongola tend to drop the water table

that is a source of water for vegetation. This is followed by increasingly poor and scanty vegetation.

- Mining and quarrying for example in Kotido leads to destruction of vegetation thus elimination of the source of atmospheric vapour. This also leads to accelerated soil erosion which culminates into desertification. ' .
- Political conflict and wars especially in Kasese and other places, have led to destruction of vegetation.
- Forests are partly destroyed in the bid to eliminate rebel hiding grounds. Consequently this eliminates the source of atmospheric vapour leading to reduced humidity, rainfall, and rising temperatures hence desertification
- Charcoal burning for example in Nakasongola destroys forest cover leading high temperatures and low rain causing desertification.

Effects of desertification in Uganda

The effects of desertification are far reaching and can impact the environment and human society. They include

Loss of fertile land leads to decreased crop yields and finally to food shortages and famine.

Desertification can force people to migrate in search of water and food.

Desertication increase the occurance of natural disasters such as flooding, dust storms.

Desertification leads to extinction of biodiversity.

Poverty results from reduced soil productivity and increased costs of food and necessities. People waste a lot of time and move long distances in search of water and food.

Unfavorablely high temperature for human settlement

Solutions to desertication in Uganda

Desertification is a huge problem that needs timely resolutions. There are several solutions that can help mitigate desertification and these include

- Sustainable land use practices such as crop rotation, agroforestry, rotation grazing and so on
- Afforestation and reafforestation can help restore degrades land and prevent further desertification.
- Better water mangement systems such as rain water harvesting that can help conserve water and reduce the effects of draught.
- Education and awareness raising campaigns can help to promote sustainable land use practices and reduce the impact of desertification.

- **Rural electrification** and provision of other sources of energy such as solar energy, biogas etc. as an alternative to wood fuel.
- Promotion of population control measures through population re-distribution and family planning as well as encouraging late marriages, discouraging polygamy etc. to avoid over population, which would lead to land shortage and deforestation.
-

Thank you
Dr. Bbosa Science