

S.5 GEOGRAPHY

Item 1

Imagine you are a geologist living in the 20th century and with your current research, you realise that there were several hypotheses that were put forward by several geologists about the present-day distribution of continents and ocean basins. In 1912, Alfred Wegener proposed his theory that continents had moved over time however it was met with scepticisms and criticisms by the scientific community at that time despite the reasons he gave to prove his theory.

Task

As a current geologist of the 20th century, justify the relevancy of the above theory to the present-day distribution of continents and ocean basin.

Item2

The Himalayas Mountain ranges were formed as a result of the collision between the Indian and Eurasian plates, the east African rift valley is also an example of continental rifting as well as the pacific ring of fire which is an area of high volcanic and seismic activity surrounding the Pacific Ocean. This therefore provides proof that the earth's crust is made up of plates which keep on moving to different directions and has led to the current position of continents and ocean basins as well as the various physical features.

Task

As a student of geography, discuss the proof about the plate tectonic theory and how it has influenced the formation of fault land forms in East Africa.

SECTION B

Item 3

"Lukaya is a remote village nestled at the edge of a gazetted forest reserve in Western Uganda.

For generations, the community of Lukaya has practiced shifting cultivation as their primary means of livelihood. Traditionally, after clearing a small plot of land by slashing and burning the vegetation, they would cultivate crops like maize, beans and cassava for about two to three seasons. They would then abandon the plot, allowing it to regenerate for a period

after exceeding 15 – 20 years, before returning to it. This long fallow period allowed the forest to cover and soil fertility to be restored.

However, over the last two decades, significant changes have occurred. Lukaaya's population has more than tripled due to natural increase and migration from other areas seeking available land.

The gazetted forest reserve nearby, while protected on paper, faces increasing encroachment pressures. Farmers in Lukaya now find themselves with much less land available for new clearings. Consequently, the fallow periods have drastically reduced, in some cases to as little as 3 – 5 years. The villagers are observing declining crop yields, increased incidences of soil erosion, and more frequent dust storms during dry seasons. Additionally, there are growing tensions between the community and the Uganda National Forestry Authority (NFA) over forest boundaries and resource use. The local primary school has also reported an increase in respiratory illness among children, which some attribute to smoke from frequent bush burning."

Task

- (a) With reference to the scenario, discuss the negative environmental impact resulting from the current, modified practice of shifting cultivation in Lukaya.
(09 scores)
- (b) Suggest practical and sustainable alternatives that could be introduced to the farmers of Lukaya to reduce their reliance on destructive shifting cultivation. For each alternative, briefly explain how it can address the challenges faced by the community.
(12 scores)

Item 4

Mr. Kato, a progressive farmer in Mbarara District, Southwestern Uganda, has been involved in dairy farming for the past 15 years. Initially, he started with a small herd of local Ankole cattle, primarily for subsistence. Over time, he observed a growing demand for milk in the nearby urban centres of Mbarara town and Kampala, as well as the potential for value addition through processing.

Driven by these opportunities, Mr. Kato decided to expand and modernize his dairy operation. He invested in improved breeds like installed milking machines, and established a small cooling plant on his farm. He also secured a loan to purchase specialized seeds, veterinary services, and expand his land under improved pasture.

However, Mr. Kato faces several challenges. He frequently experiences issues with fluctuating milk prices, especially during peak production seasons. Disease outbreaks, particularly foot – and -mouth disease occasionally decimate his modern equipment and managing improved breeds have proven difficult. Despite these hurdles, Mr. Kato remains optimistic about the future of dairy farming in the region, believing that with appropriate government support and technological advancements, the sector can significantly contribute to Uganda's economic development.

Task

- (a) Examine the challenges faced by commercial dairy farmers like Mr. Kato.
- (b) Suggest and explain measures that the Ugandan government could implement to promote sustainable dairy farming in the country.

SECTION C

Uganda is endowed with various natural resources especially rivers, lakes, valleys and wetlands and the people living around these resources especially lakes and the people fear to utilize these lakes and of recent these people have branded the lakes as “water resources”.

Task.

Explain the view that lakes are waste resources. (25 marks)

You are part of a school team conducting a field study a long a river in western Uganda. As you move from the source towards the mouth, you observe changes in the river's shape and flow. At one point, the river is fast-flowing while at another point, the river flows slowly. During your study, local residents tell you about tourism at the waterfalls, fishing activities in the lower areas, irrigation, and soil erosion problems in the steeper areas.

Task.

- a) Describe the main stages of a river profile giving examples from any Uganda river.
- b) Explain the ways in which different stages of river influence human activities along its course.
- c) Suggest ways in which people can sustainably use rivers and reduce the problems caused by river-related processes.

End