

# KASAKU TEA ESTATE

## Sample questions:

1. For any one field work you have carried out as an individual or a group:
  - (a) (i) State the topic of the study.
  - (ii) Outline the objectives of the study.
2. For any one field work study done on a plantation;
  - (a) State the;
    - (i) topic,
    - (ii) objectives of the study

**Topic:** The growth and development of Kasaku tea estate in Kasaku village in Kawolo sub county East of Lugazi municipality in Buikwe district.

## **Objectives:**

- ✓ To find out the location of Kasaku tea estate.
- ✓ To identify the historical background of Kasaku tea estate.
- ✓ To find out the tea varieties at Kasaku tea plantation.
- ✓ To find the methods of harvesting tea at Kasaku tea estate.
- ✓ To identify the factors that favoured tea growing at Kasaku tea estate.
- ✓ To identify the benefits of Kasaku tea Plantation to the surrounding site.
- ✓ To find out the market centres for the tea grown at Kasaku tea estate.
- ✓ To find out the problems facing tea growing at Kasaku plantation.
- ✓ To find out the solutions to the problems facing Kasaku tea estate.
- ✓ To find out the future prospects at Kasaku tea estate.

## **PREPARATION STAGE**

### Sample questions:

1. *Describe the activities that you carried out as preparation for the field work study.*
2. *Describe the pre-field activities that you carried as preparation for the field work study.*

**Candidates may present in this way:**

- ✓ We identified the area of study and also carried out a pilot study at Kasaku tea estate where we sought permission from the in charge field work as well as making prior arrangement with the respondent.
- ✓ We formulated the topic of the field work study which was "The growth and development of Kasaku tea estate in Kawolo Sub County in Buikwe district."
- ✓ We formulated the objectives of the field work study such as to find out the location of Kasaku tea plantation
- ✓ We selected the methods of data collection like interview, sampling and measurement.
- ✓ We secured the tools to be used while at Kasaku tea plantation for instance the map extract of Lugazi, camera, tape measures and Writing materials.
- ✓ There was formulation of study groups by the geography teacher where each group was given a specific task to undertake during the field work study, for example group A was assigned the task of identifying the factors that have favoured the establishment of Kasaku tea estate.
- ✓ We sought permission from the head teacher who permitted us to go for the field work at Kasaku tea plantation.
- ✓ We carried out literature review in line with tea growing related to the topic from text books and existing documents.
- ✓ We were briefed by our teacher who cautioned us on how to conduct ourselves while at Kasaku tea estate.

**DATA COLLECTION STAGE:**

Sample questions:

1. With relevant examples, describe the investigations you took to collect information during the fieldwork study.
2. Describe the activities carried out during the field work study.

**Presentation**

- ✓ Observation is a method of data collection that involves the use of eyes and other senses interpret and analyse geographical features in the field. I used my eyes to see the different physical features at Kasaku tea estate such as Moniko hills, Lwere swamp and Waziwe stream.
- ✓ Interview method is where the researcher asks oral questions to the respondent who in turn provides oral answers. I asked the workers at Kasaku tea estate questions like: What are the problems

facing Kasaku tea estate? They said that they face problems like snake bites, underpayment, accidents, etc

- ✓ Recording: This is a method of data collection involving the writing down of information and drawing of sketches and tables on paper using a pen and pencil. I used a pen and paper to write down the methods of harvesting tea like hand picking and use of machines
- ✓ Measurement is a method of data collection that involves the use of the tape measure to establish the length, width and size of geographical features. I used a tape measure to determine the area covered by Kasaku labour camp which was 400metres long and 50metres wide. Therefore area =  $400\text{m} \times 50\text{m} = 20,000 \text{ m}^2$
- ✓ Sampling is a method of data collection that involves the careful selection of part of the population to be studied to represent the whole population. I selected one respondent at Kasaku tea estate whom I asked about the location of kasaku tea estate. He said that it is located in Kasaku village in Kawolo Sub County along Kampala-Jinja road.
- ✓ Questionnaire involves the drafting of questions that are delivered by researcher either physically or use of post office to the respondent who provides written answers. I used a pen and paper to draft questions like,

**Question:** What factors led to the establishment of Kasaku tea estate?

**Response:** Large capital provided by Mehta, Abundant land, etc.

- ✓ Map orientation is a method of data collection that involves the turning of base maps or map extracts such that features on the maps tally with features on the ground. I turned the map extract of Lugazi and I discovered that Kasaku tea estate is in the west of Lugazi town.
- ✓ Literature review refers to the gathering of information from secondary sources such as text books, newspapers and magazines. I gathered data from newspapers about the historical background of Kasaku tea estate that it started in 1935 by the British and transferred ownership in 1937 to Mehta family.

#### **MERITS OF THE FIELD WORK TECHNIQUES.**

##### **Sample Question:**

1. Explain the merits of using the methods chosen in (a) above.
2. Outline the advantages and disadvantages of using the above methods.

### **Advantages / merits of observation method**

- ✓ First-hand information was obtained since geographical phenomena were seen directly such as physical features at Kasaku tea estate like Kasaku hill, Lwere swamp and Waziwe stream.
- ✓ It was a cheap and a faster method of data collection because there were no expenses involved in identifying the methods of harvesting tea at Kasaku tea plantation.
- ✓ The method facilitated collection of unbiased data because it never required the respondent
- ✓ It enabled us to judge facts on the ground through the use of naked eyes to identify the landuses at Kasaku tea plantation like settlement, tea growing, industrialization and afforestation.
- ✓ It was a time-saving method of data collection because a large area at Kasenyi fish landing site was covered in a short time.
- ✓ It was a reliable and flexible method of data collection because it involved a variety of observation tools like naked eyes, nose, ear, etc to interpret data at Kasaku tea estate.
- ✓ It enabled me to develop the mental map of the area studied thus there was a high level of memorizing what Kasaku tea estate.
- ✓ It enabled us to obtain data on features which do not talk at Kasaku tea plantation like Moniko hill and Lwere valley.
- ✓ It overcame the problem of language barrier because there was no need of the respondent at Kasaku tea plantation.
- ✓ The method yielded immediate quick results given that we used our naked eyes to analyse and interpret data at Kasaku tea plantation.

### **Advantages of the recording**

- ✓ It was a flexible and convenient method as it was done in different ways such as writing down benefits and drawing the sketches of Kasaku tea estate.
- ✓ It ensured a permanent record about Kasaku tea estate for future references.
- ✓ It enabled making of inferences/conclusions about the field studied at Kasaku tea estate for instance tea grows well in acidic soils.
- ✓ It acted as a link between the different methods of data collection thus it is used in all the methods in data collection at Kasaku tea plantation.
- ✓ Interpretation of data was easy because of converted and recorded statistical data at Kasaku tea plantation.
- ✓ The records helped us to keep track of changing geographical phenomena like decline in tea production at Kasaku tea estate.

- ✓ The recorded data formed the basis for analysis and synthesis of data collected at Kasaku tea plantation.

### **Advantages of the measurement method**

- ✓ Accurate information was obtained because I used a tape measure to establish the area covered by Kasaku labour camp.
- ✓ It enabled us to establish the quantitative characteristics of geographical phenomena like area covered by Kasaku labour camp.
- ✓ It was a flexible method of data collection as different tools and techniques were used, for example pacing and use of a tape measure to quantify features at Kasaku tea estate.
- ✓ It enabled making predictions about the phenomena investigated, like reduction in the size of the Lwere swamp North of Kasaku tea estate.
- ✓ It helped in easy conversion of values from one unit to another when using pacing to quantify area covered by Kasaku labour camp.
- ✓ Enabled estimation of distances when using pacing like we estimated that Lwere valley is 100m from Kasaku tea estate.
- ✓ Some of the measuring methods were cheap and fast like pacing to quantify area covered by Kasaku labour camp.

### **Advantages/merits of sampling method**

- ✓ It was time-saving since I selected one respondent to represent others at Kasaku tea estate.
- ✓ It allowed a detailed study of Kasaku tea plantation hence yielding a lot of information
- ✓ Unbiased data was obtained because we came into contact with the phenomena like tea harvesting at Kasaku tea estate.
- ✓ It enabled drawing of generalizations or conclusions basing on Kasaku tea plantation thus all tea estates are situated on gentle slopes.
- ✓ First hand information was obtained because we were able to study Kasaku tea plantation in detail.
- ✓ The technique was easy to use because it was less tedious but only selected one respondent whom we asked about the methods of harvesting tea at Kasaku tea plantation.
- ✓ It was a cheap method of data collection since a small area of Kasaku tea estate was studied therefore less expensive in terms of costs and labour force.

- ✓ Good quality work was obtained since the respondent at Kasaku tea plantation generated the required data.

#### ***Advantages of the method of analyzing of existing information***

- ✓ It was a cheap method of data collection at Kasaku tea estate compared to other methods like questionnaire.
- ✓ It enabled us to collect information on past events especially historical background of Kasaku tea estate.
- ✓ First hand information was obtained since records were reflected in the documents like the number of employees at Kasaku tea estate.
- ✓ It avoided the risk of harassment by potential respondents since typed questions about location and historical background of Kasaku tea estate were sent to the respondent.
- ✓ It overcame the problem of hostility and biasness experienced in other methods like interview since I gathered data in a text book about problems facing Kasaku tea plantation.
- ✓ The method was time saving since the data about benefits of tea growing at Kasaku tea estate was readily accessible from Newspapers.

#### ***Advantages of field sketching***

- ✓ We were able to gain the skill of field sketching like drawing the cross-section of Kasaku tea plantation.
- ✓ Sketches summarized geographical information of the area studied like the sketch map of Kasaku tea estate.
- ✓ Drawn sketches such as panoramic view and transect of Kasaku tea estate offered a permanent record of data.
- ✓ Reliable information was obtained based on drawn sketches such as sketchmap of Kasaku tea estate.

#### ***Advantages/merits of questionnaire method***

- ✓ It saved time as many respondents were reached and provided data like fish species at Kasaku tea estate in a short time.
- ✓ Reliable data was obtained since respondents answered questions independently like future prospects of Kasaku tea estate.
- ✓ It avoided the risk of harassment by potential respondents since typed questions about location and historical background of kasaku tea plantation.
- ✓ It was a flexible method of data collection at Kasaku tea estate since many respondents were reached in different ways like through post office and Email about fish species at Kasaku tea plantation.

#### ***Advantages of map orientation***

- ✓ It was a faster method of data collection because much of the area was drawn on the map of Lugazi.

- ✓ It enabled us to acquire the skill of map reading and interpretation where we able to locate Kasaku tea estate on the map extract of Lugazi.
- ✓ It enabled us identify the local names, positions and patterns of features in the field such as Moniko hill in the North of Kasaku tea plantation.
- ✓ First hand information was obtained from the base maps which were drawn on scale like the direction of Kasaku tea estate from Lugazi.

#### **Advantages of Interview method**

- ✓ First-hand information was obtained especially when using sample interview where we selected one respondent at Kasaku tea estate.
- ✓ It was a faster method of data collection when using random interview to gather information about the problems facing Kasaku tea plantation.
- ✓ It was a flexible method of data collection because questions such as methods of harvesting tea at Kasaku tea estate were also modified during the interview. Information was corrected on spot and the attitude of the respondent was easily detected.
- ✓ It enabled collection of invisible information such as historical background of Kasaku tea estate and level of income.
- ✓ It generated interpersonal relationship thus cordial relationship or interaction/rapport with the respondent at Kasaku tea estate.
- ✓ The technique was easy and cheap to use especially when using random interview to identify the benefits of Kasaku tea estate to the surrounding areas.

#### **LIMITATIONS DURING DATA COLLECTION**

##### Sample questions:

1. What problems did you face when using the methods above?
2. Outline the limitations of using the methods described above.
3. Outline the challenges that you encountered when using the techniques described above.
4. What problems did you face during the field work study?
5. Explain the limitations of the methods used during the field work study.
6. Outline the challenges that you encountered during the field work study

#### **Observation**

- Inaccessibility due to wet conditions in Lwere swamp which limited us to identify the land uses in the swamp.
- Poor visibility due to mist on Kasaku hill therefore I failed to establish the land uses on the hill top.

- Hostility by the casual workers at Kasaku tea estate hence I failed to identify the income they earn per month.
- Obstruction from physical barriers such as Moniko hill and Kasaku hill hindered us from identifying the land uses

#### *Recording*

- Abrupt weather changes especially sudden down pour which limited us from noting down the problems facing Kasaku tea estate
- Obstruction by physical features like tall trees on Moniko hill that limited us to identify the land uses.
- Inadequate recording materials for example cameras which limited us to take up the photograph to show the landscape of Kasaku tea estate.
- Speedy respondents especially by the estate manager which hindered us from writing down the benefits of the Kasaku tea estate to the surrounding areas.

#### *Sampling*

- It was not a true representation of the whole population therefore we failed to establish the various tea varieties.
- Biasness based on individual preferences hindered the identification of the problems facing Kasaku tea estate.
- Physical obstructions from thick forests on Moniko hill that limited identification of the soil types.
- Faulty tools like the spades and beakers that limited me from establishing soil types at Kasaku labour camp.
- Inaccessibility due to restrictions therefore I failed to establish the methods of processing tea at Kasaku tea factory.
- Inadequate tools like spades to scoop the soil, beakers, etc therefore I failed to establish the type of soil in Lwere swamp.

#### *Interview*

- Language barrier especially from the casual workers that limited us to identify the location of Kasaku tea estate.
- Hostility from the respondents and other people in the area were uncooperative therefore I failed to identify the market centres for the tea grown at Kasaku tea estate.
- Hiding of information hence I missed to obtain the income earned by workers at Kasaku tea estate.
- Fast respondent which hindered us from identifying the modes of marketing tea at Kasaku tea estate.

- Fears and suspicions by the respondents who declined to tell us the number of employees at Kasaku tea estate.

#### Map orientation

- Obsolete maps therefore I could not establish the direction of Kasaku tea estate.
- Some features could no longer be traced on the ground especially manmade features like forests and industries for we failed to find out the position of the coffee industry.
- Worn out map extracts of Lugazi that hindered us from finding the position of Kasaku health centre.

#### Questionnaire

- High mortality rate due to loss of questionnaires therefore I failed to identify the benefits of Kasaku tea growing on the surrounding areas.
- Wrong information was obtained limiting collection of data about the future prospects of Kasaku tea estate.
- Faulty questionnaires results into inaccurate data therefore we failed to establish the historical background of Kasaku tea estate.

### PROBLEMS FACING KASAKU TEA ESTATE

#### Sample question:

1. Outline the problems faced by people living in the area studied.

#### Presentation

- ✓ Inadequate market for tea processed at Kasaku tea estate due to competition from other tea estates such as Kyamuhunga and Igata tea.
- ✓ Poor sanitation at Kasaku labour camp due to poor disposal of wastes leading to outbreak of diseases like diarrhoea, cholera, etc.
- ✓ Pollution of the environment from Kasaku tea factory leading to global warming.
- ✓ Loss of vegetation in Mabira forest due to increased demand for firewood for drying and processing tea in Kasaku tea factory.
- ✓ Soil exhaustion due to monoculture leading to low tea yields.
- ✓ Prolonged drought leading to low output of tea.
- ✓ Rugged terrain that limits the transportation of tea to the processing industry and market centres.
- ✓ Soil exhaustion due to monoculture at Kasaku tea estate leading to loss of soil fertility.
- ✓ Pests and diseases leading to poor quality tea and low output.

## **RECOMMENDATIONS**

### Sample questions:

1. State any two recommendations you made to the people living in the area.
2. Outline the proposals you made to solve the above.

### **Presentation**

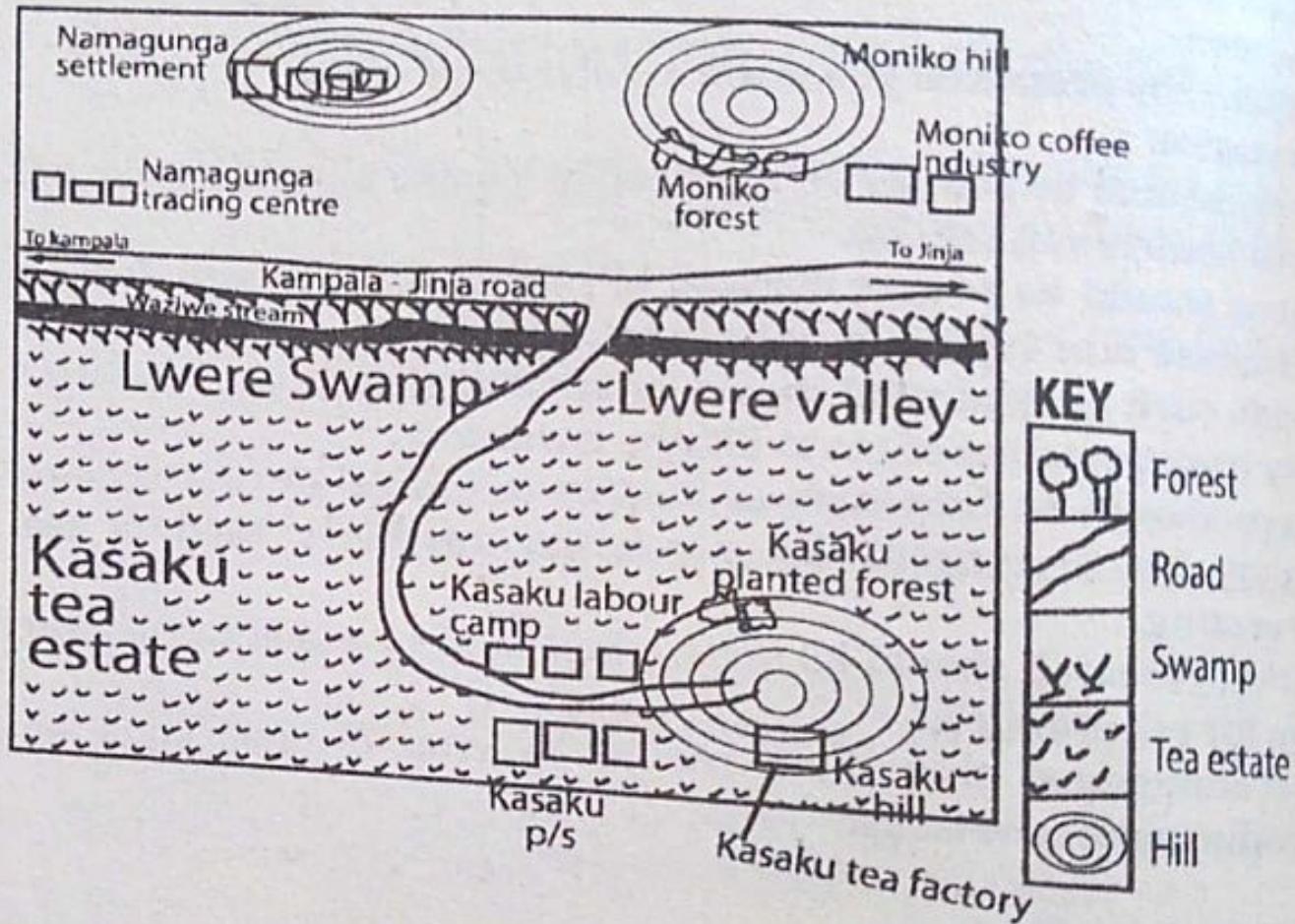
- ✓ Trees should be planted on the steep of Moniko hill and Kasaku hill so as control soil erosion.
- ✓ There should be proper disposal of rubbish through introduction of rubbish bins especially at Kasaku labour camp.
- ✓ Roads such as Bibo road should be rehabilitated so as to facilitate easy transportation of tea to Kasaku tea factory.
- ✓ There should be formation of SACCOs to enable farmers acquire capital for investment for purchasing machines used in tea harvesting.
- ✓ Market research should be undertaken so as to widen the market base for tea produced.
- ✓ I recommended that there should be crop diversification by introducing of new crops.
- ✓

## **FIELD SKETCHING**

### **SKETCHMAP**

1. Draw an annotated sketch map of the area studied and on it, mark and name:
  - (i) physical features
  - (ii) man-made features
2. Draw a sketch map of the area studied showing the layout of the plantation.
3. Draw a sketch map of the area studied and on it, mark and name the different types of land use.

*A Therapy to Understanding Field Work*  
**A sketch map of Kasaku tea estate showing physical features and man made features.**

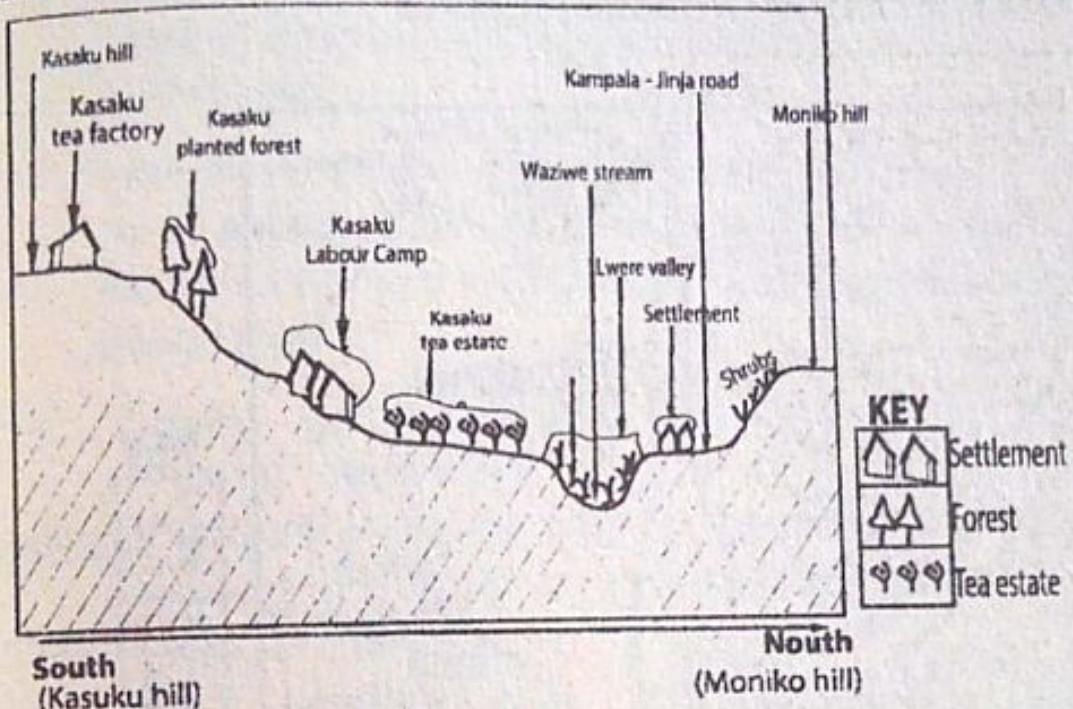


**CROSS SECTION/ TRANSECT/ TRANSVERSE/ RELIEF SECTION**

Sample Question:

- 1 Draw an annotated cross-section of the area studied showing physical and human features.
- 2 Draw an annotated transect of the area studied.

## A cross - section of Kasaku tea estate from Kasaku hill to Moniko hill showing physical features and human features.

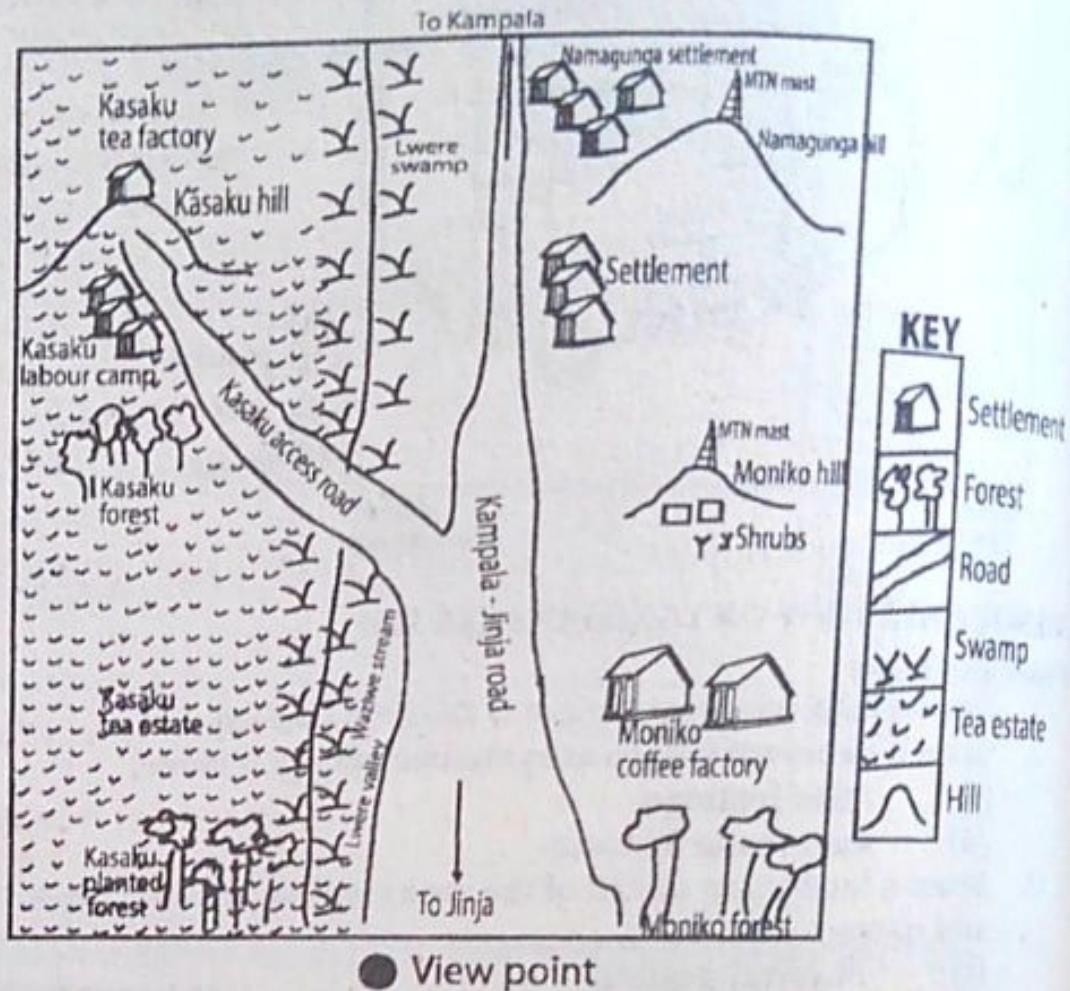


## A PANORAMIC VIEW OR LANDSCAPE SKETCH

### Sample questions:

1. Draw a fully panoramic view of the area studied
2. Draw a panorama of the area studied and on it name;
  - (i) relief features,
  - (ii) man-made features
3. Draw a landscape sketch of the area studied and on it mark and name:
  - (i) Physical features
  - (ii) Landuse activities
4. Draw a fully annotated panoramic view of the plantation.

*A Therapy to Understanding Field Work*  
***A fully annotated panorama of Kasaku tea estate showing physical features and man-made features***



## **FIELD WORK FINDINGS**

### **Sample questions:**

1. Explain the significance of the study in the understanding of the geography of the area.
2. What conclusions did you make about the geography of area studied?
3. To what extent was the field work geographical?
4. What were the findings of the field work study?
5. How did the fieldwork study help you to understand the geography of the area?
6. Examine the relevance of the field work study in the understanding of the geography of the area.
7. Explain how the study enabled you to understand the geography of the area.

This may be presented as follows.

- ✓ Lwere valley north of Kasaku tea estate has favoured the existence of Lwere swamp due to wet conditions. Monika hill north of Kasaaku hill has favoured the growth of shrubs due to thin soils
- ✓ The gentle slopes north of Kasaku tea estate have favoured road construction such as Bibo and Kampala-Jinja road because they are well drained and cheaper to construct on gentle slopes.
- ✓ Kasaku tea plantation and Kasaku tea factory have attracted settlement due to the available employment opportunities. Roads such as Kampala-Jinja road and Biibo have attracted linear settlement because of easy accessibility to market centres.

## INFLUENCE OF PHYSICAL ENVIRONMENT ON HUMAN ACTIVITIES

Sample question:

1. Examine the relationship between human activities and the physical environment in the area studied.
2. Explain the influence of physical environment on human activities in the area Studied.

**Students may present as follows:**

- ✓ Kasaku hill south of south of Kasaku tea estate has enabled construction of Kasaku tea factory used in processing of tea because it is flat topped.
- ✓ Lwere swamp north of Kasaku tea plantation has favoured art and craft due to the existence of papyrus vegetation which facilitate making of baskets used in tea harvesting.
- ✓ Lwere stream north of Kasaku tea estate has favoured brick making and crop growing by Kasaku casual labourers due to abundant water supply.
- ✓ The soils in Lwere valley north of Kasaku te estate have favoured growing of water loving crops such as rice and yams by the workers at Kasaku tea estate due fertile alluvial soils with high humus content.
- ✓ The heavy rainfall of 1500mm per annum has facilitated luxuriant growth of Kasaku tea because it is reliable and well distributed throughout the year.

## **RELATIONSHIP BETWEEN PHYSICAL FEATURES AND HUMAN ACTIVITIES**

### Sample questions:

1. Explain the relationship between the physical features and the man-Made features in the area studied.
2. Describe the relationship between physical features and human features in the area studied.
3. Explain the influence of physical features on land use in the area studied.

### **Presentation**

- ✓ Kasaku hill south of Kasaku tea estate has enabled the construction of Kasaku tea factory because it is flat topped.
- ✓ Lwere swamp north of Kasaku tea plantation has promoted art and craft because of existence of papyrus vegetation which facilitate making of baskets used in tea harvesting.
- ✓ Lwere stream north of Kasaku tea estate has favoured brick making and crop growing by workers at Kasaku due to abundant water supply.

## **INFLUENCE OF RELIEF ON LAND USE ACTIVITIES**

### Sample questions:

1. Examine the influence of relief features on land use activities in the area studied.
2. Explain the relationship between relief and man-made features in the area studied.

### **Presentation**

- ✓ Kasaku hill top south of Kasaku tea estate has favoured settlement and construction of the tea factory because they are flat topped.
- ✓ The steep slopes of Moniko hill have discouraged settlement and crop growing by workers at Kasaku tea plantation due to thin or skeletal laterite soils. Kasaku steep slopes have favoured the planting of trees due to the need to control soil erosion and strong winds.
- ✓ The gentle slopes North of Kasaku tea estate have favoured road construction like Kampala-Jinja road used in marketing of tea because it is well drained and it is easy and cheap to construct on gentle slopes.
- ✓ Lwere valley north of Kasku tea estate has facilitated crop growing in form of cocoyam, rice, etc by casual workers due to existence of fertile deep alluvial soils.

## RELATIONSHIP BETWEEN RELIEF AND SETTLEMENT

Sample question:

- ✓ The hilltop of Namagunga hill north of Kasaku tea estate has favoured settlement because they are flat topped
- ✓ The steep slope of Moniko hill north of Kasaku tea estate has discouraged settlement due to thin lateritic soils.
- ✓ The gentle slopes North of Kasaku tea estate have attracted settlement because they are well drained and it is easy and cheap to construct on gentle slopes.
- ✓ Lwere valley north of Kasaku tea plantation has discouraged settlement because it is water logged.

## EFFECT OF HUMAN ACTIVITIES ON THE PHYSICAL ENVIRONMENT

1. Examine the impact of human activities on the physical environment of the area studied.
2. Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied.

*Positive impacts/effects namely:*

- Afforestation and re-afforestation in form of Kasaku planted forest contribute to modification of climate in form of heavy rainfall. They also bind the soil particles together. The leaf falls improves on soil fertility.
- Mulching and use of manures Kasaku tea estate has improved soil fertility.
- Urbanisation in Lugazi town has led to proper disposal of wastes due to use of rubbish bins and trucks.
- Construction of channels in Lwere valley has controlled flooding and therefore reduced siltation and loss of fertile soils.

*Negative impacts:*

- Urbanisation in Lugazi town East of Kasaku tea estate led to deforestation and encroachment on swamps Musambwa swamp resulting into reduction in rainfall amounts and flooding leading to soil exhaustion. Urbanisation at Lugazi town and Namagunga leads to poor disposal of wastes resulting into barren lands.
- Industrialisation has led to pollution of the environment due to air pollution from Kasaku tea factory leading to increased environmental temperature.

- Tea growing at Kasaku involves the use of fertilizers and chemicals leading to pollution of Waziwe stream and Lwere swamp which affects the biodiversity. It has also resulted into deforestation leading to a reduction in rainfall and increased environmental temperature. It also has also resulted into swamp reclamation leading to loss of biodiversity.
- Deforestation of Moniko forest due to lumbering and increased demand for fuel.
- The construction of roads such as Bibo and Kampala-Jinja road has led to destruction of the soil structure, accelerated soil erosion, siltation and loss of vegetation.
- Quarrying on Moniko hill has led to loss of vegetation, accelerated soil erosion and barren lands.

#### ***CONDITIONS THAT HAVE INFLUENCED THE ESTABLISHMENT OF THE PLANTATION***

**Sample questions:**

**Students may present as follows:**

##### **Physical factors**

- ✓ The acidic soils on the foot hills of Kasaku hill have facilitated growth of Kasaku tea estate.
- ✓ Abundant and reliable rainfall of about 1500mm per annum supports luxuriant growth of tea at Kasaku South of Kampala-Jinja road.
- ✓ The relatively flat relief that has facilitated the construction of roads like Bibo and Kampala-Jinja road enabling the transportation of tea.
- ✓ Abundant power supply used in drying, processing and packaging of tea at Kasaku tea factory.
- ✓ Abundant sunshine for growth, ripening, harvesting and drying of Kasaku tea estate South of Moniko hill
- ✓ Abundant land for extensive crop cultivation and establishment of farm, market, plantation, etc.
- ✓ Abundant water supply from river waziwe for domestic use at Kasaku labour camp.

### Human factors

- ✓ The well-developed transport roads such Bibo and Kampala-Jinja roads facilitating the transportation and marketing of tea to tea factory and market centres.
- ✓ Large capital base provided by the Mehta family for investment in Luwala tea estate and Kasaku tea estate.
- ✓ Large market for tea at Kasaku in the urban centres like Jinja, Mukono, Mbale and Kampala.
- ✓ Abundant power supply used in the running of drying, processing and packaging of tea at Kasaku tea factory the farms, etc.
- ✓ The Supportive government policy that encourages investment in the establishment Kasaku tea plantation and Kasaku factory.
- ✓ Abundant cheap and skilled labour force to work on tea estate at Kasaku, Luwala, Kayunga and Kasaku tea factory.

## EFFECT OF THE PLANTATION ON THE ENVIRONMENT

### Sample Questions:

1. Examine the impact of the plantation on the environment
2. How has the establishment of the plantation affected the environment in the area studied?
3. Explain the influence of the plantation on the environment in the area studied.

### *Presentation*

#### **Positive impacts:**

- Source of employment to the people in the surrounding areas such as Kasaka village, Kakubansiri, etc.
- It has led to development of transport routes especially roads like Bibo road
- Development of social facilities such as schools like Kasaku primary school and Kasaku health centre.
- Development of industries which process tea like Kasaku tea factory and other subsidiary industries.
- Generation of foreign exchange through exportation of tea to European Union countries and neighbouring countries like Kenya and Rwanda.

- Source of government revenue for infrastructural development through taxes levied on the industries that process Kasaku tea for instance Kasaku tea factory.
- Diversification of the economy thereby reducing on the over reliance on a few sectors like tourism and mining but also tea growing at Kasaku and Luwala.

### **Negative effects:**

- Tea drying and processing at Kasaku has led to loss of vegetation and accelerated soil erosion due to clearing of trees like Kasaku planted forest.
- Poor sanitation due to poor disposal of rubbish for example at Kasaku labour camp.
- Displacement of people in areas such as Bibo, Lugalambo and Luwala
- It has led to diversion of labour from other areas like Buikwe, Mukono and Jinja leading to food shortages.
- Profit repatriation since Kasaku tea estate is owned by Indians limiting re-investment.
- It is associated with urban related problems like high crime rates like gambling and prostitution in areas like as Lugazi town and Namagunga,
- Pollution of the environment from Kasaku tea factory leading to global warming.

## **GEOGRAPHICAL SKILLS**

### **Sample question:**

1. What skills did you gain from the field work study?

**The skills may be presented in this way;**

### **Example;**

- ✓ I gained the skill observing where I was able to use the naked eyes to see the methods of harvesting tea at Kasaku tea estate such as hand picking and use of machines.
- ✓ The skill of interviewing in that I was able to interact with the respondent whom I asked oral questions about the market centres for the tea at Kasaku tea estate like foreign markets.
- ✓ I gained the skill of recording where I was able to note down the problems facing Kasaku tea estate such as pests and diseases.

- ✓ The skill of field sketching where I was able to draw sketches such as the sketch map, panorama and cross-section of Kasaku tea estate.
- ✓ The skill of sampling where I selected one respondent whom I asked about the market centres for the tea grown at Kasaku tea estate like Kampala and Jinja..
- ✓ The skill of measuring where I used the tape measure to establish the distance from Kampala-Jinja road and Kasaku tea factory which is 500 metres.
- ✓ The skill of turning base maps where I turned the map extract of Lugazi to determine the direction of Kasaku tea estate from Lugazi town which was West
- ✓ I gained the skill of drafting questions where we used a pen and paper and drafted questions which we delivered through the post office to the respondent who provided written answers about the benefits of Kasaku tea estate to the surrounding areas.
- ✓ I gained the skill of gathering information from secondary sources for instance I read text books and News papers to identify the historical background of Kasaku tea estate and discovered that it was started by the Mehta family..

#### FOLLOW-UP OR POST-FIELD ACTIVITIES

##### Sample Questions:

- ✓ I sorted raw data of the field work findings at Kasaku tea estate which was put in order for instance problems like soil exhaustion due to monoculture.
- ✓ We compared data collected at Kasaku tea estate in form of groups about the field work findings like methods of harvesting tea like use of baskets.
- ✓ We verified data collected like benefits of Kasaku tea estate like provision of employment and compared it with existing data in the textbooks and documents.
- ✓ I interpreted and analysed the fieldwork findings at Kasaku tea estate in order to establish geographical relationships like gentle slopes favouring tea growing.
- ✓ We redrew the sketches so as to come up with fine sketches for instance sketch map of Kasaku tea estate.
- ✓ We presented field work findings like methods tea picking at Kasaku tea plantation such as use of hands and this was done in form of groups.

- A Therapy to Understanding Field Work*
- ✓ We discussed data collected at Kasaku tea estate basing on the existing views and my personal views like location of the estate that it is found in Kasaku village West of Lugazi town.
  - ✓ I drew conclusions and recommendations about geographical relationships and problems at Kasaku tea plantation like inadequate market.
  - ✓ I compiled the fieldwork findings at Kasaku tea estate into a final copy in form of fieldwork report.
  - ✓ We presented the fieldwork report about Kasaku tea estate to the subject teacher of geography for further analysis.

## TORORO CEMENT INDUSTRY

### Sample Questions:

*For any one field work you have carried out as an individual or a group:*

1. (a) (i) State the topic of the study.  
 (ii) Outline the objectives of the study.
2. For any one field work study done on a factory or an industry;
  - (a) State the;
    - i. Topic
    - ii. objectives of the study

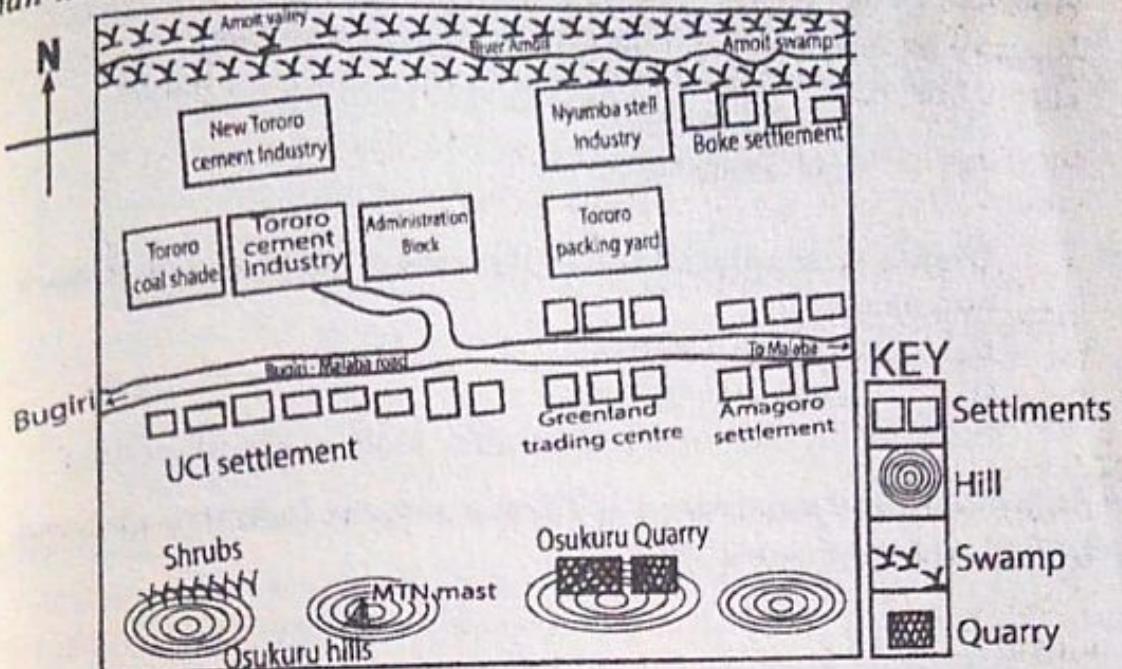
**Topic:** The growth and development of Tororo Cement Industry in Osukuru sub county in Tororo district.

### **Objectives:**

- ✓ To find out the location of Tororo Cement Industry.
- ✓ To identify the historical background of Tororo Cement Industry.
- ✓ To find out the raw materials used in the manufacture of cement at Tororo cement industry.
- ✓ To find out the industrial products at Tororo Cement Industry.
- ✓ To identify the factors that facilitated the establishment of Tororo Cement Industry.
- ✓ To identify the benefits of Tororo Cement Industry to the surrounding areas.

A Therapy to Understanding Field Work

*A sketch map of Tororo cement industry physical features and man-made features.*

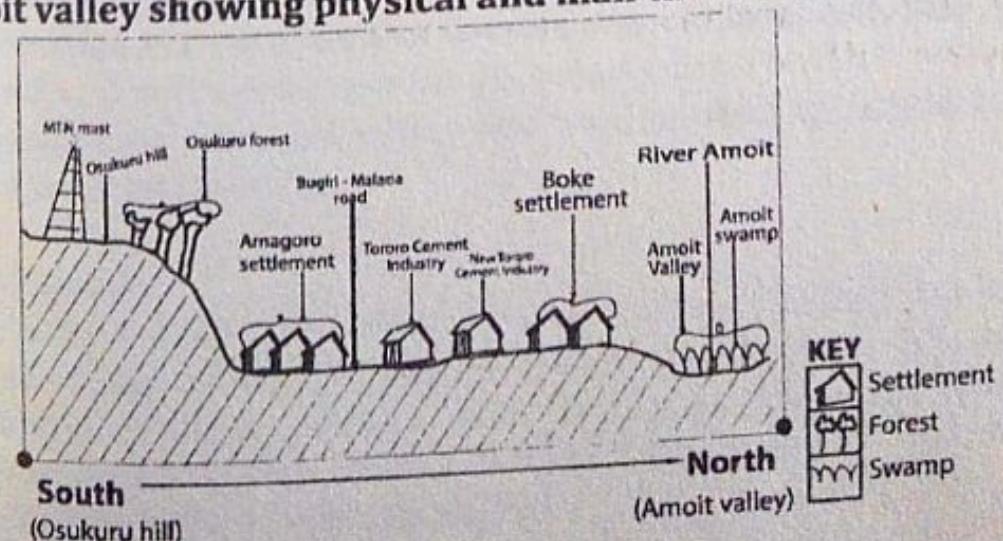


### CROSS SECTION/ TRANSECT/ TRANSVERSE/ RELIEF SECTION

#### Sample Question:

1. Draw an annotated cross-section of the area studied showing physical and human features.
2. Draw an annotated transect of the area studied.
3. Draw a physiographic section of the area studied and on it mark and name
  - i. physical features
  - ii. land uses

#### Transect across Tororo cement Industry from Osukuru hills to Amoit valley showing physical and man-made features

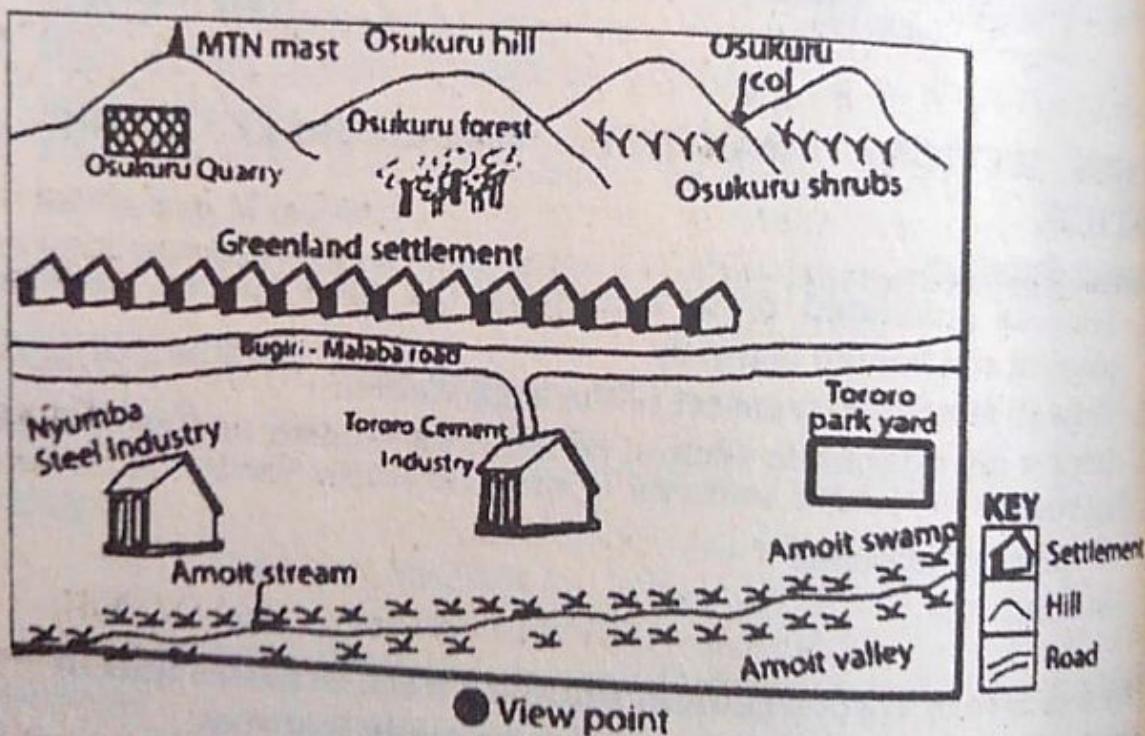


## A PANORAMIC VIEW OR LANDSAPE SKETCH

### Sample questions:

1. Draw a fully panoramic view of the area studied
2. Draw a panorama of the area studied and on it name;
  - (i) relief features,
  - (ii) man-made features
3. Draw a landscape sketch of the area studied and on it mark and name:
  - (i) Physical features
  - (ii) Landuse activities
4. Draw a fully annotated panoramic view of the plantation.

*A fully annotated panorama of Tororo cement industry showing physical and man-made features*



## CONCLUSIONS OF THE FIELD WORK STUDY

### Sample questions:

1. What were the conclusions of your field work study?
2. Explain the significance of the study in the understanding of the geography of the area.
3. To what extent was the field work geographical?
4. Explain the findings of your study.
5. Explain importance of the study findings in the understanding of the geography of the area.
6. Explain the geographical significance of the fieldwork study.
7. Explain how the study enabled you to understand the geography of the area.

### Presentation

- ✓ Amoit valley north of Tororo cement industry has favoured the existence of Amoit swamp due to wet conditions. Osukuru hills south of Tororo cement industry have favoured the growth of shrubs due to thin soils. Tororo rock in the East of Tororo cement industry has facilitated the existence of laterite soils due to steep slopes.
- ✓ The gentle slopes South of Tororo cement industry has favoured construction of Bugiri-Malaba road and settlement because they are well drained and cheaper to construct on gentle slopes.
- ✓ The existence of Tororo cement industry has attracted settlement due to available employment opportunities. Roads south of Tororo cement industry have attracted linear settlement, for instance along Bugiri-Malaba road due to easy accessibility.

## RELATIONSHIP BETWEEN HUMAN ACTIVITIES AND PHYSICAL ENVIRONMENT:

### Sample question:

1. Examine the relationship between the human activities and the physical environment in the area studied.
2. Explain the influence of physical environment on human activities in the area Studied.

### Presentation

- ✓ Tororo volcanic rock East of Tororo cement industry has favoured quarrying because it contains limestone. Osukulu hills south of Tororo cement industry have facilitated the establishment of telecommunication masts due to high elevation and need to transmit waves to distant places.

- A Therapy to Understanding Field Work*
- ✓ Amoit swamp north of Tororo cement industry has favoured the development of art and craft because it contains papyrus vegetation used for making of mats and baskets.
  - ✓ Amoit stream North of Tororo Cement Industry has favoured crop growing especially rice growing due to abundant water supply.
  - ✓ The fertile soils in Amoit valley north of Tororo cement industry have favoured the growing of crops like rice and cabbages due to alluvial deposition.
  - ✓ The heavy rainfall in the area north of Tororo cement industry has facilitated growth of crops in Amoit valley due to high moisture content.

### **RELATIONSHIP BETWEEN PHYSICAL FEATURES AND MAN-MADE FEATURES**

1. Examine the relationship between the physical features and the man-Made features in the area studied.
2. Describe the relationship between physical features and human features.
3. Explain the influence of physical features on land use in the area studied.

#### **Presentation**

- ✓ Osukuru hills south of Tororo cement industry have favoured quarrying because they contain limestone. Tororo rock East of Tororo cement industry facilitated the establishment of telecommunication masts due to high elevation and need to tap signals.
- ✓ Amoit swamp north of Tororo cement industry has favoured art and craft because it contains papyrus vegetation used for making of mats and baskets.
- ✓ Amoit steam North of Tororo Cement Industry has favoured crop growing especially rice growing due to abundant water supply.

#### **INFLUENCE OF RELIEF AND LAND USE ACTIVITIES**

1. Examine the influence of relief features on human activities in the area studied.
2. Explain the relationship between relief and man-made features in the area studied.

*Students may present as follows:*

- ✓ Osukuru hilltop south of Tororo cement industry has favoured the construction of telecommunication masts in order to enable transmission of waves to distant places.
- ✓ The Steep slopes of Osukuru hills south of Tororo cement industry have discouraged settlement and crop growing due to thin laterite soils.
- ✓ The gentle slopes south of Tororo cement industry have favoured construction of Bugiri-Malaba road and Toro Cement Industry because it is easy and cheap to construct on gentle slopes.
- ✓ Amoit valley north of Tororo cement industry has facilitated crop growing in form of cocoyam, rice, etc due to existence of fertile deep alluvial soils

#### **INFLUENCE OF RELIEF ON SETTLEMENT**

- ✓ Osukuru hill top south of Tororo cement industry has discouraged settlement because of rugged landscape.
- ✓ The Steep slopes of Tororo rock East of Tororo cement industry have discouraged settlement due to thin or skeletal laterite soils.
- ✓ The gentle slopes south as Tororo cement industry favoured establishment of nucleated settlements because it is easy and cheap to construct on gentle slopes.
- ✓ The existence of Amoit valley north of Tororo cement industry has discouraged settlement because it is water logged.
- ✓ Tororo volcanic rock East of Tororo cement industry has discouraged settlement due to the rugged landscape.

#### **Effect of Human Activities on the Physical Environment**

1. Examine the impact of human activities on the physical environment of the area studied.
2. Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied,

#### **Positive impacts/effects namely:**

- Afforestation and re-afforestation on Osukuru hills contribute to modification of climate in form of heavy rainfall. They also bind the soil particles together. The leaf falls improves on soil fertility.

- Mulching and use of manures in Amoit valley has improved soil fertility.
- Terracing and strip farming on Osukuru hills has controlled soil erosion.
- Urbanisation: proper disposal of wastes, planting of peri-urban forests and planned settlements in Tororo municipality has reduced congestion and poor garbage disposal
- Construction of drainage channels in Amoit valley has controlled flooding and therefore reduced siltation and loss of fertile soils.
- Cage fish farming on Amoit has led to increase in fish species.

**Negative impacts:**

- Urbanisation in form of Tororo town has led to deforestation and encroachment on swamps such as Amoit swamp resulting into reduction in rainfall amounts and soil erosion leading to soil exhaustion. Urbanisation/settlement also leads to poor disposal of wastes in Tororo town resulting into barren lands.
- Fishing farming in Amoit swamp has led to water pollution due to the use of chemicals.
- Crop growing in Amoit valley resulted into loss of vegetation leading to a reduction in rainfall and increased environmental temperature.
- Industrialisation results into Pollution of the atmosphere as a result of emission of dangerous gases such as carbon dioxide by Tororo cement industry. This results into destruction of the ozone and consequently increased global warming.
- The construction of road such as Bugiri-Malaba road has led to destruction of the soil structure. It also accelerates soil erosion, siltation and consequently soil exhaustion and loss of vegetation.
- Quarrying at Osukuru hills and Tororo rock has led to loss of vegetation, accelerated soil erosion and barren lands, etc

**FACTORS FAVOURING THE DEVELOPMENT OF THE INDUSTRY**

1. Examine the factors that have favoured the location of the factory.

2. Describe the conditions that favoured the establishment of the industry.
3. Explain the factors which have influenced the layout of the industry.
4. Describe the factors which have favoured the development of the landuse types in the area studied.

Students may present factors as follows

Physical factors:

- ✓ Large tracts of land for establishment of Tororo cement industry and New Tororo cement industry.
- ✓ Strategic location near the Bugirila-Malaba road has eased marketing of cement.
- ✓ The gently sloping relief for establishment of infrastructure such as Tororo cement industry and Bugiri-Malaba road
- ✓ Abundant raw materials like pozzalana from Kapchorwa, limestone from Tororo rock and Osukuru hills and Clay from Namatala in Mbale.

Human factors

- ✓ Adequate capital provided by the British and Indians for investment in the construction of Tororo pozzolana shade, Tororo cement industry and New Tororo cement industry.
- ✓ Large market for cement in local and foreign markets like Jinja, Bugiri, Tororo, Rwanda, Kampala and South Sudan, etc.
- ✓ Abundant and reliable power supply from Nalubaale and Kiira power stations used in the running of Tororo cement factory.
- ✓ Supportive government policy that encourages investment in the establishment of Tororo cement industry and Tororo limestone shade.
- ✓ Abundant cheap labour force in the surrounding areas like Amagoro, Boke, Amoit and Malaba.
- ✓ High level of technology used in industrial production like use of electro static precipitators and conveyors at Tororo cement industry.

**EFFECT/INFLUENCE /IMPACT OF TORORO INDUSTRY ON THE ENVIRONMENT**

**Sample Questions:**

- ✓ Examine the impact of the industry on the environment
- ✓ How has the establishment of farm, Market, etc affected the environment in the area studied?
- ✓ Explain the influence of the industry on the environment in the area studied.

**Positive impacts:**

- Source of employment to the people in the surrounding areas such as Osukuru and Amagoro.
- Development of transport routes especially roads like Bigiri-Malaba road
- Development of social facilities such as health centres like Opedele health centre II.
- It has led to the generation of foreign exchange through exportation of Cement to countries like Kenya, D.R.C and South Sudan.
- Source of government revenue through taxation for infrastructural development through taxes levied on Tororo cement industry.
- It is a training centre for secondary and undergraduates like Makerere and Kyambogo university through industrial training
- Provision of consumer goods in form of cement used in the constructing roads like Kampala-Tororo road and bridges like Karuma.

**Negative effects**

- Mining of limestone used as a raw material in Tororo cement industry has led to loss of vegetation at Osukuru hills and Tororo rock.
- There is accelerated soil erosion at Osukuru hills and Tororo quarry due to limestone extraction used as a raw material in Tororo cement industry.
- Displacement of people in Boke village due to industrial expansion
- Profit repatriation since Tororo cement industry is owned by foreign investors
- Pollution of the environment in form of dust and Noise pollution during limestone blasting in the Tororo quarry.

- ✓ I presented the fieldwork report based on Tororo cement industry to the subject teacher of geography for further analysis.

## VITA FOAM INDUSTRY

### Questions:

1. For any one field work you have carried out as an individual or a group:
  - (a) (i) State the topic of the study.
  - (ii) Outline the objectives of the study.
2. For any one field work study done on a small scale industry; (a) State the; (i) topic  
(ii) objectives of the study

### Presentation

Topic: The growth and development of Vita foam Industry in Njeru municipality in Buikwe district.

### Objectives:

- ✓ To find out the location of Vita foam Industry.
- ✓ To identify the historical background of Vita foam Industry.
- ✓ To find the raw materials used at Vita foam Industry.
- ✓ To identify the conditions that have favoured the establishment of Vita foam Industry..
- ✓ To identify the benefits of Vita foam Industry to the surrounding areas.
- ✓ To find out the market centres for the industrial products at Vita foam Industry.
- ✓ To find out the problems facing Vita foam Industry.
- ✓ To find out the solutions to the problems facing Vita foam Industry.
- ✓ To find out the future prospects at Vita foam Industry.

### PREPARATION STAGE

- ✓ Our teacher identified the area of study and also carried out a pilot study at Vita foam industry where he sought permission from the personnel as well as making prior arrangement with the respondent.
- ✓ We formulated the topic of the field work study which was "The growth and development of Vita foam Industry along Nyenga road in Njeru municipality in Buikwe district
- ✓ We formulated the objectives of the field work study such as to find out the historical background of Vita Industry.
- ✓ We selected the methods of data collection to be used at Vita

- ✓ foam industry like interview, sampling and measurement.
- ✓ We secured the tools to be used at Vita foam Industry for instance map extract of Jinja, tape measure and Writing stationery.
- ✓ There was formulation of study groups by the geography teacher where each group was given a specific task to undertake during the field work study, for example group A was assigned the task of identifying the market centres for the industrial products at Vita foam Industry.
- ✓ We sought permission from the head teacher and the head of the Geography department who allowed us to to Vita foam industry.
- ✓ We carried out literature review about industrial developments from text books and existing documents.
- ✓ We were briefed by our geography teacher who cautioned us on how behave well while at Vita foam Industry.

## STEPS TAKEN TO COLLECT DATA DURING THE FIELD WORK STUDY

### Sample questions:

1. With relevant examples, describe the investigations you took to collect information during the fieldwork study.
2. Describe the activities carried out during the field work study.

### Presentation:

- ✓ Observation is a method of data collection that involves the use of naked eyes and other senses to interpret and analyse geographical features in the field. I used my eyes to see the different industrial products at Vita foam industry like pillows, cushions, mattresses, etc.
- ✓ Interview method is where the researcher asks oral questions to the respondent who in turn provides oral answers. I asked the Mr Byamukama about the raw materials used in the manufacture mattresses at Vita foam industry where he said they include Polyo, water, etc
- ✓ Recording: This is a method of data collection involving the writing down of information and drawing of sketches and tables on paper using a pen and pencil. I used a pen and paper to draw table as seen below

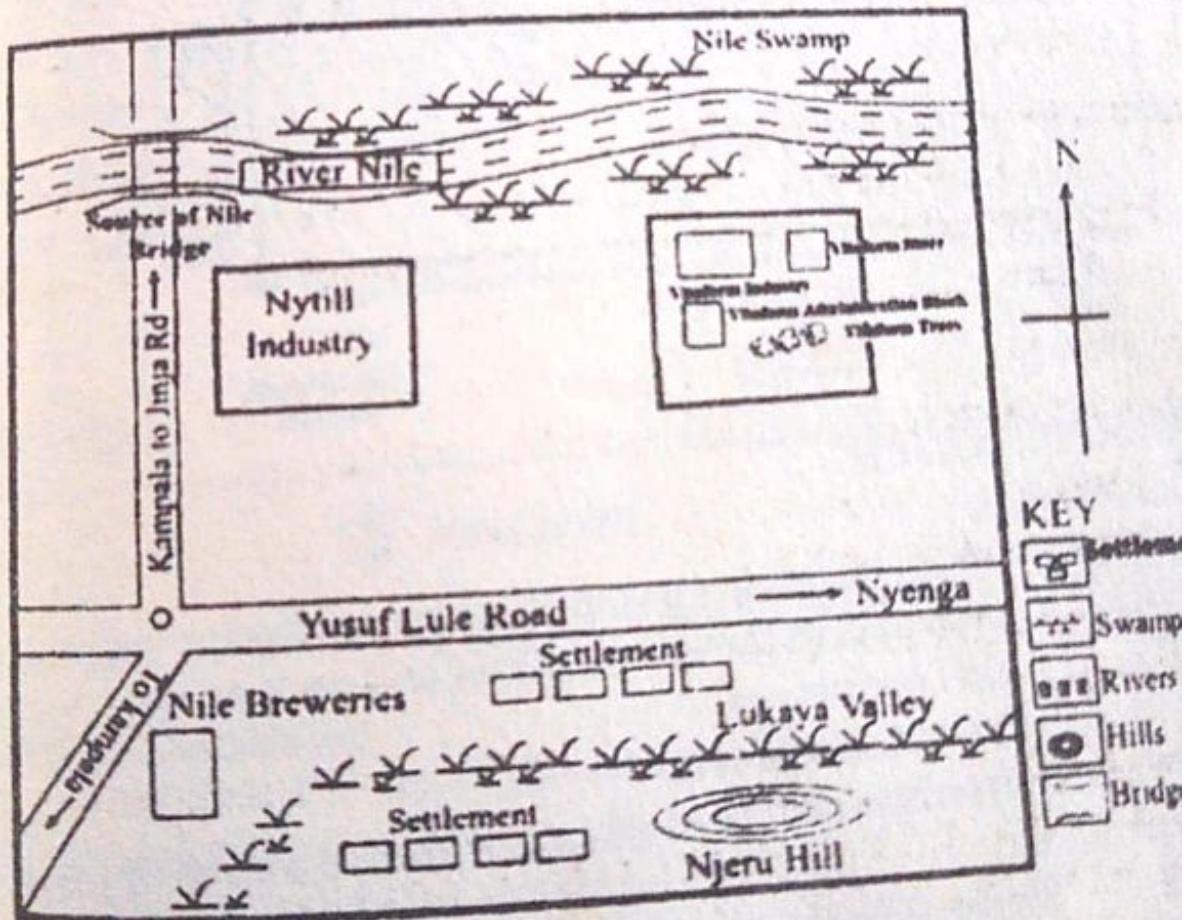
Problem	Solution
Inadequate market	Market research
Inadequate capital	Formation of SACCOS.

## SKETCHES

### SKETCHMAP:

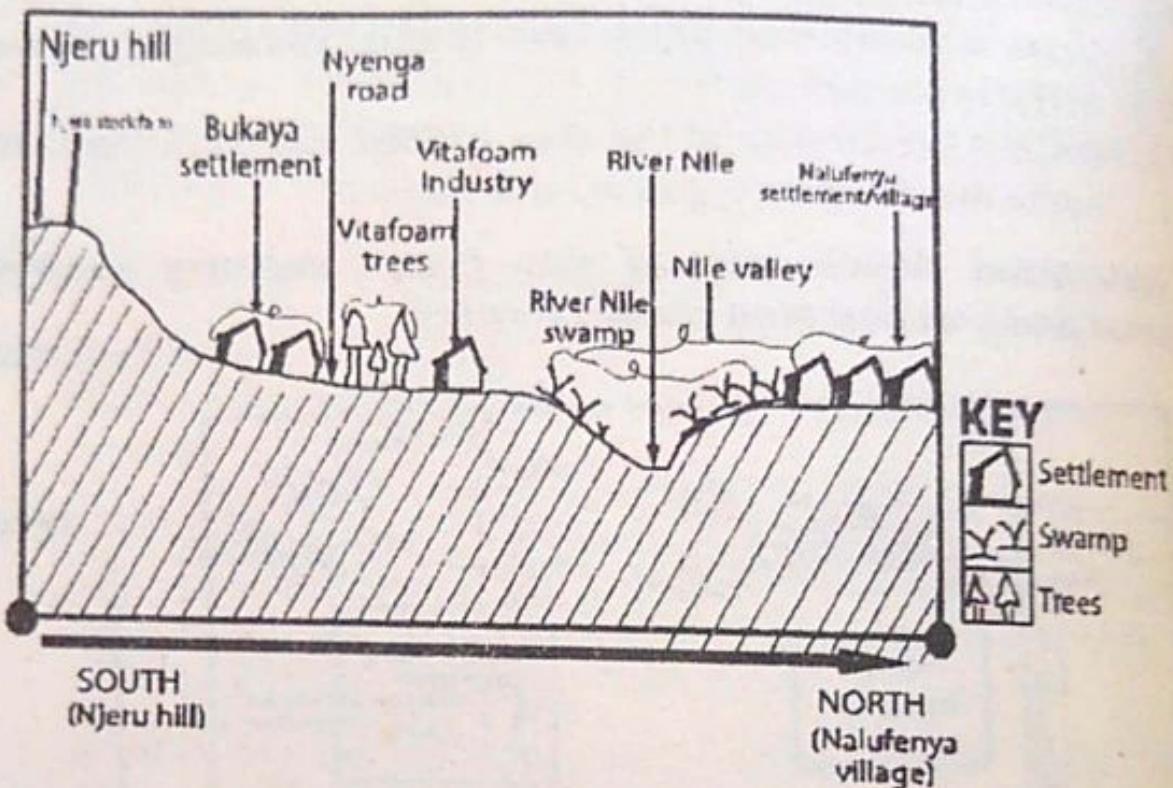
1. Draw an annotated sketch map of the area studied and on it, mark and name:
  - (i) physical features
2. Draw a sketch map of the area studied showing the layout of the urban centre.
3. Draw a sketch map of the area studied and on it, mark and name the different types of land use.

An annotated sketch map of Vita form industry showing physical features and man-made features.



## CROSS-SECTION DRAWING

A cross section across Vita foam industry from Njeru hill to Nalufenza village showing physical and man-made features.

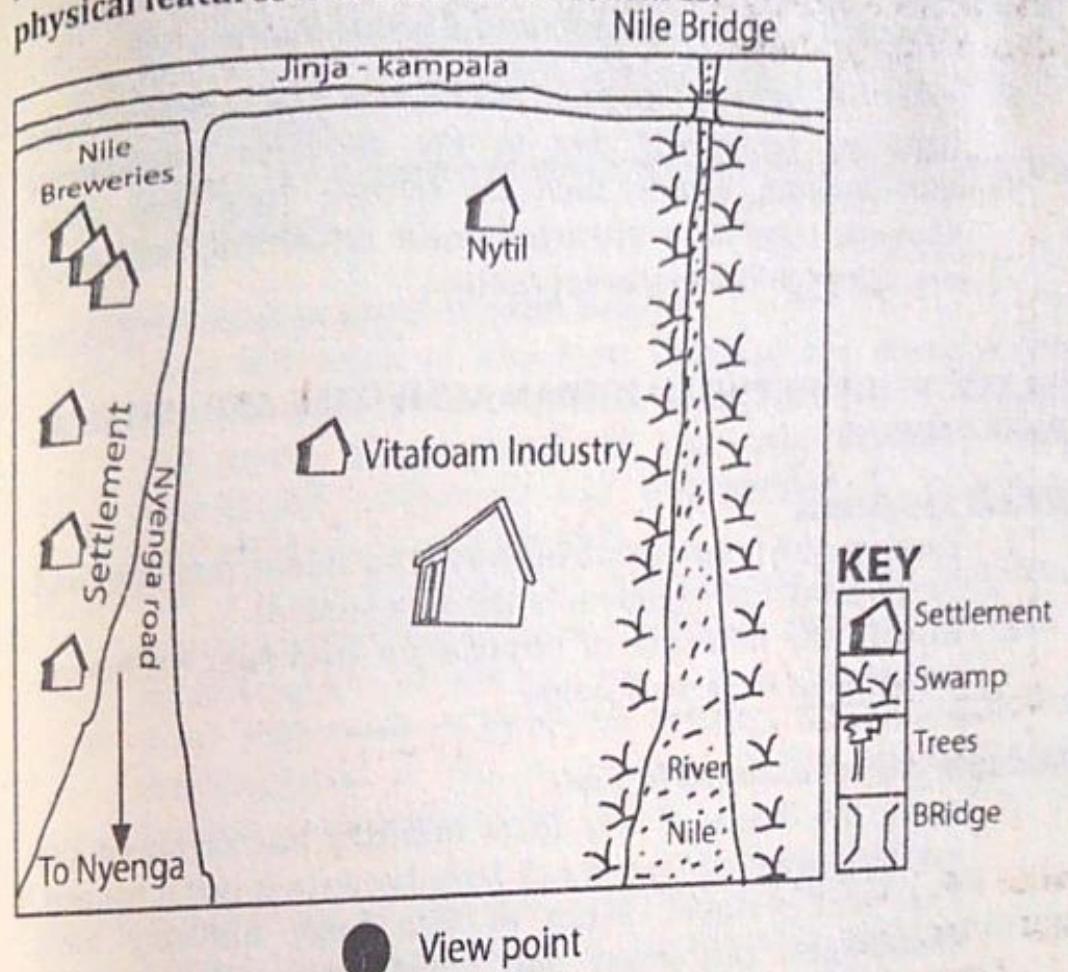


## LANDSCAPE SKETCH

Sample questions:

1. Draw a fully panoramic view of the area studied
2. Draw a panorama of the area studied and on it name;
  - (i) relief features,
  - (ii) man-made features
3. Draw a landscape sketch of the area studied and on it mark and name:
  - (i) Physical features
  - (ii) Landuse activities
4. Draw a fully annotated panoramic view of the industry and its surrounding.

*A Therapy to Understanding Field Work*  
**A fully annotated panorama of Vitaform industry showing physical features and man-made features.**



**THE EXTENT TO WHICH THE FIELD WORK WAS GEOGRAPHICAL**

**Sample questions:**

1. What were the conclusions of your field work study?
2. Explain the significance of the study in the understanding of the geography of the area.
3. To what extent was the field work geographical?
4. What were the findings of the field work study?
5. How did the fieldwork study help you to understand the geography of the area?
6. Examine the importance of the study findings in the understanding of the geography of the area.
7. Explain how the study enabled you to understand the geography of the area.

**Presentation**

- ✓ The existence of river Nile north of Vita foam industry has favoured the growth of the swamp due to wet conditions.
- ✓ Njeru hill south of Vita foam industry has favoured the growth of shrubs due to thin soils

- ✓ The gentle slopes south of Vita foam industry have favoured the construction of Nyenge road, Vita foam and settlements because it is cheap to construct on gentle slopes.
- ✓ Industries such as Vita foam, NYTIL and Nile breweries have attracted settlement due to the available employment opportunities. Roads such as Nyenga road and Jinja-Kampala road have attracted linear settlement, because of easy accessibility to market centres.

## RELATIONSHIP BETWEEN HUMAN ACTIVITIES AND PHYSICAL ENVIRONMENT

### Sample questions:

1. Examine the relationship between the human activities and the physical Environment in the area studied.
2. Explain the influence of physical environment on human activities in the area Studied.

### **Students may present as follows**

- ✓ Njeru hill South of Vita foam industry has favoured the establishment of Njeru stock farm because it is flat topped. The gentle slopes South of Vita foam industry have encouraged settlement and construction of industries because they are well drained
- ✓ The Nile swamp north of Vita foam industry promotes art and craft because it contains papyrus vegetation for making of mats and baskets
- ✓ River Nile north of Vita Form has favoured the establishment of Vita foam industry and crop growing because of abundant water supply.
- ✓ The fertile soils in Bukaya valley south of Vita foam industry have favoured growing of crops due to alluvial deposition.
- ✓ The heavy rainfall in the area promotes the development of Vita foam industry because it facilitates abundant water supply from river Nile used in the industry. The heavy rainfall of 1500mm per annum that is well distributed throughout the year has favoured luxuriant growth of crops in Bukaya village South of Vita foam industry due to high moisture content.

## **INFLUENCE OF PHYSICAL FEATURES ON LAND USE**

1. Explain the relationship between the physical features and the man-Made features in the area studied.
2. Describe the relationship between physical features and human features.
3. Explain the influence of physical features on land use in the area studied.

**Candidates may present as seen below:**

- ✓ Njeru hill south of Vita foam industry has favoured the establishment of Njeru stock farm because it is flat topped. The gentle slopes South of Vita foam industry have encouraged settlement and construction of industries because they are well drained
- ✓ The Nile swamp north of Vita foam industry promotes papyrus harvesting because it contains papyrus vegetation for making of mats and baskets
- ✓ River Nile north of VitaFoam industry has favoured the establishment of Vita foam industry and crop growing because of abundant water supply.

## **THE INFLUENEC OF RELIEF ON LAND USE ACTIVITIES**

1. Examine the influence of relief on land use activities in the area studied.
2. Explain the relationship between relief and man-made features in the area studied.

### **Presentation**

- ✓ *Njeru hilltop south of Vita foam industry has favoured the construction of telecommunication masts in order to enable transmission of waves to distant places.*
- ✓ *The Steep slopes of Njeru hill south of Vitafoam industry has discouraged settlement and crop growing due to thin or laterite soils.*
- ✓ *Gentle slopes south of Vitafoam industry have favoured construction of Nyenga road and Vita foam Industry because it is easy and cheap to construct on gentle slopes.*
- ✓ *Nava and Bukaya valleys south of Vita foam industry have facilitated crop growing inform of cocoyam, rice, etc due to existence of fertile deep alluvial soils*

## RELATIONSHIP BETWEEN RELIEF AND SETTLEMENT

### Sample questions:

- ✓ Njeru hilltop south of Vitafoam industry has favoured settlement because it is flat topped.
- ✓ The Steep slopes of Njeru hill south of Vitafoam industry have discouraged settlement due to skeletal or laterite soils.
- ✓ Gentle slopes South of Vita foam Industry have favoured establishment of nucleated settlements because it is easy and cheap to construct on gentle slopes.
- ✓ The existence of Bukaya valley south of Vitafoam industry has facilitated crop growing inform of cocoyam, rice, etc due to existence of fertile deep alluvial soils.
- ✓ The presence of outcrop rocks on Njeru hill south of Vitafoam industry has discouraged settlement due to the rugged landscape.

### ***Effect Of Human Activities On The Physical Environment***

1. Examine the impact of human activities on the physical environment of the area studied.
2. Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied.

### ***Effect of Human Activities on the Physical Environment***

1. Examine the impact of human activities on the physical environment of the area studied.
2. Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied.

### ***Positive impacts/effects namely:***

- Afforestation and re-afforestation at Vita foam industry helps to absorb the the carbondioxide from the the industry thereby controlling environmental temperature. They also bind the soil particles together. The leaffalls improves on soil fertility.
- Mulching and use of manures in Bukaya valley West of Vita foam industry has improved soil fertility.
- Terracing and strip farming on Njeru hill has controlled soil erosion.
- Urbanisation in Njeru municipality has led to proper waste

## NJERU STOCK FARM

### Sample Questions:

1. For any one field work you have carried out as an individual or a group:
  - (a) (i) State the topic of the study.
  - (ii) Outline the objectives of the study.
2. For any one field work study done on a farm:
  - (a) State the;
    - (i) topic,
    - (ii) objectives of the study

*Topic: The growth and development of Njeru stock farm Kiryowa village in Njeru Municipality in Buikwe district.*

### *Objectives:*

- ✓ To find out the location of Njeru stock farm.
- ✓ To identify the historical background of Njeru stock farm.
- ✓ To find the breeds of livestock reared at Njeru stock farm.
- ✓ To find the varieties of pasture for the livestock at Njeru stock farm.
- ✓ To identify the factors that facilitated the establishment of Njeru stock farm.
- ✓ To identify the benefits of Njeru stock farm to the surrounding areas.
- ✓ To find out the market centres for the products at Njeru stock farm.
- ✓ To find out the problems affecting livestock rearing at Njeru stock farm.
- ✓ To find out the solutions to the problems facing Njeru stock farm.
- ✓ To find out the future prospects at Njeru stock farm.

### **PRE-FIELD ACTIVITIES**

- ✓ Our teacher identified the area of study and also carried out a pilot study at Njeru stock farm where he sought permission from the farm manager as well as making prior arrangement with the respondent.
- ✓ We formulated the topic of the field work study which was "The growth and development of Njeru stock farm in Kiryowa village in Buikwe district."
- ✓ We formulated the objectives of the field work study such as to

- find out the breeds of animals reared at Njeru stock farm.
- ✓ We selected the methods that were to be used in data collection at Njeru stock farm like interview, sampling and measurement.
  - ✓ We secured the tools to be used in the field for instance Survey map/base map/ map extracts ,camera, Magnetic compass, tape measures and Writing materials (stationery), like pens, pencil, ruler, note books etc.
  - ✓ We came up with various study groups where each group was given a specific task to undertake during the field work study at Njeru stock farm, for example group 1 was assigned the task of identifying the breeds of cattle reared at Njeru stock farm.
  - ✓ We sought permission from the head teacher and the head of the Geography department of our school.
  - ✓ We read related information in relation to the topic of study from text books and existing documents about livestock rearing.
  - ✓ We were briefed by our teacher who gave us guidelines to follow while at Njeru stock farm in a polite way.

## **INVESTIGATIONS DURING THE FIELD WORK STUDY**

### **Sample question:**

1. With relevant examples, describe the steps you took to collect information during the fieldwork study.
2. Describe the activities carried out during the field work study.

### **Students may present as follows:**

Observation is a method of data collection that involves the use of naked eyes and other senses to interpret and analyse geographical features during the field work study. I used my eyes to see the varieties of pasture at Njeru stock farm such as star grass, couch grass, elephant grass and fodder crops.

Interview method is where the researcher asks oral questions to the respondent who in turn provides oral answers. Using interview method, I asked the farm manager questions like what are the factors favouring the location of Njeru Stock farm? He said that it is favoured by abundant land, proximity to Lake Victoria and accessibility to market centres.

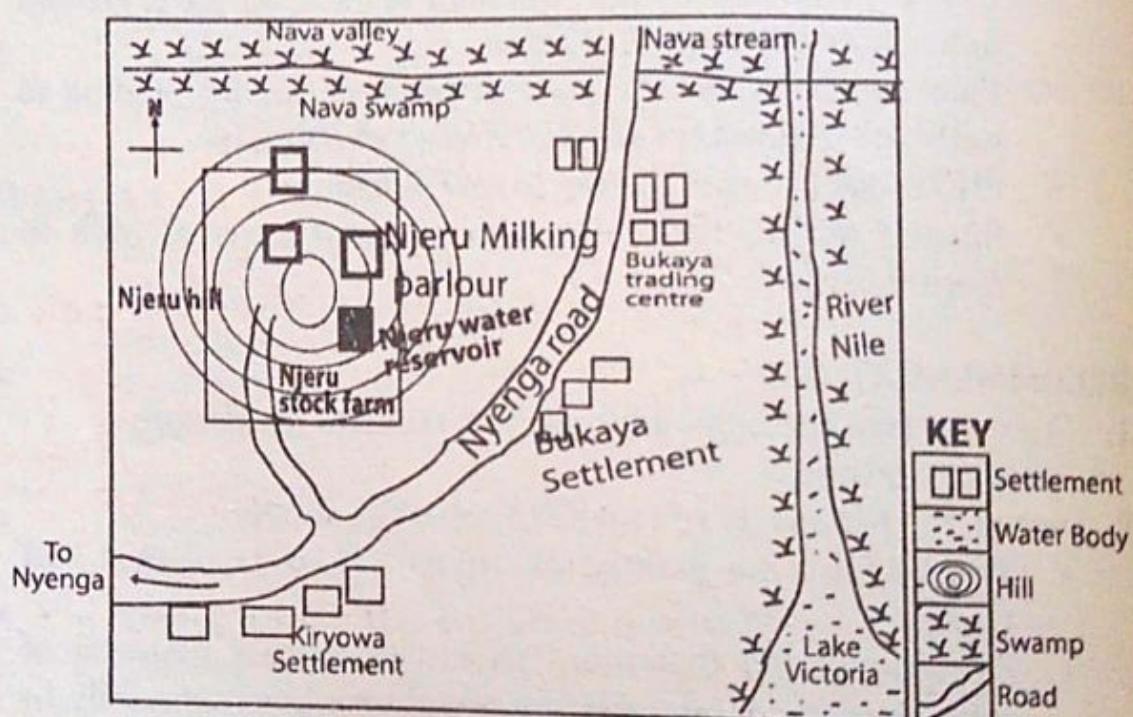
Measurement is a method of data collection that involves the use of the tape measure to establish the length, width and size of geographical features. I used a tape measure to determine the area

## FIELD SKETCHING

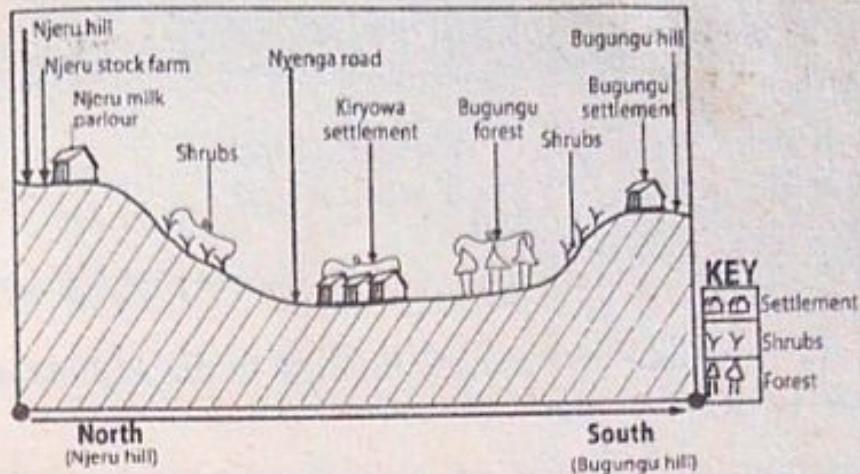
### SKETCHMAP

- ✓ Draw an annotated sketch map of the area studied and on it, mark and name:
  - (i) physical features
  - (ii) man-made features
- 2. Draw a sketch map of the area studied showing the layout of the urban centre.
- 3. Draw a sketch map of the area studied and on it, mark and name the different types of land use.

*A sketch map of Njeru stock farm showing physical features and man made features.*



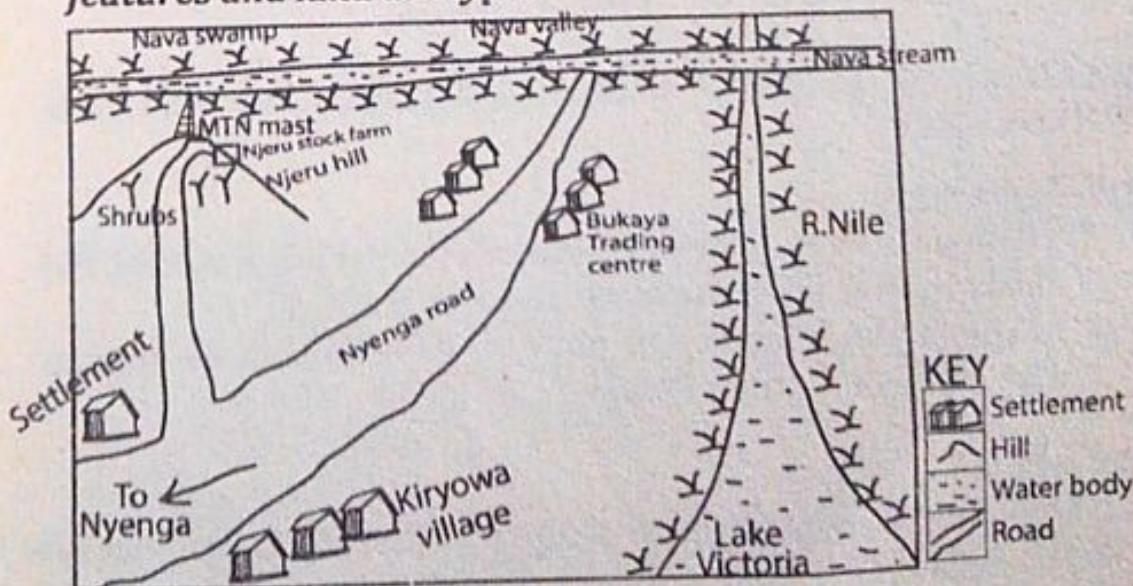
## A cross-section of Njeru stock farm from Njeru hill to Bugungu hill showing physical features and land use types



### Sample questions:

1. Draw a fully panoramic view of the area studied
2. Draw a panorama of the area studied and on it name;
  - (i) relief features,
  - (ii) man-made features
3. Draw a landscape sketch of the area studied and on it mark and name:
  - (i) Physical features
  - (ii) Land use activities
4. Draw a fully annotated panoramic view of the farm and its surrounding.

### *A landscape sketch of Njeru stock farm showing physical features and land use types*



● View point

## THE GEOGRAPHICAL IMPORTANCE OF THE FIELD WORK STUDY

1. What were the conclusions of your field work study?
2. Explain the significance of the study in the understanding of the geography of the area.
3. To what extent was the field work geographical?
4. What were the findings of the field work study?
5. Explain the findings of your study.
6. How did the fieldwork study help you to understand the geography of the area?
7. Examine the relevance of the study findings in the understanding of the geography of the area.

The varied relationships may be presented as follows

- ✓ *Nava valley north of Njeru stock farm has favoured the existence of Nava swamp due to wet conditions. The swamp is used as a grazing area and source of water for the livestock during the dry season. The steep slopes of Njeru hill north of Njeru stock farm have favoured the growth of shrubs due to thin soils.*
- ✓ *The gentle slopes North of South of Njeru stock farm have favoured road construction like Nyenga road because they are well drained and cheaper to construct on gentle slopes. The roads are used in the marketing of farm products.*
- ✓ *The existence of Njeru stock farm has attracted settlement and construction of roads due to available employment opportunities and need to market livestock products. Roads have attracted linear settlement, for instance along Nyenga road due to easy accessibility to market centres for the livestock products.*

## RELATIONSHIP BETWEEN HUMAN ACTIVITIES AND PHYSICAL ENVIRONMENT

### Sample question:

1. Examine the relationship between the human activities and the physical Environment in the area studied.
2. Explain the influence of physical environment on human activities in the area Studied.

### **Presentation**

- ✓ Njeru hill has enabled construction of Njeru stock farm because it is flat topped.

- ✓ Nava swamp North of Njeru stock farm has favoured art and craft due to the existence of papyrus vegetation which facilitate making of baskets
- ✓ Nava stream in the North and Lake Victoria South East of Njeru stock farm have favoured livestock rearing at Njeru stock farm due to abundant water supply.
- ✓ The soils in Nava valley in the north of Njeru stock farm have favoured growing of water loving crops such as rice, yams, etc by the workers due fertile alluvial soils with high humus content.
- ✓ The heavy rainfall of 1500m has facilitated luxuriant growth of pasture on Njeru stock farm because it is reliable and well distributed throughout the year.

## **INFLUENCE OF PHYSICAL FEATURES ON LAND-USE TYPES**

### **Sample questions:**

1. Examine the relationship between the physical features and the man-Made features in the area studied.
2. Describe the relationship between physical features and land-use activities in the area studied.
3. Explain the influence of physical features on land use in the area studied.

### **Presentation**

- ✓ Njeru hill has enabled construction of Njeru stock farm because it is flat topped.
- ✓ Nava swamp north of Njeru stock farm has favoured art and craft due to the existence of papyrus vegetation which facilitate making of baskets.
- ✓ Lake Victoria South East of Njeru stock farm has favoured brick making and live stock rearing due to abundant water supply.

## **RELATIONSHIP BETWEEN RELIEF AND LAND USE ACTIVITIES**

1. Examine the influence of relief features on human activities in the area studied.
2. Explain the relationship between relief and man-made features in the area studied.

### ***Presentation***

- ✓ *Njeru hilltop has favoured settlement and construction of Njeru stock farm because it is flat topped.*

- ✓ Steep slopes of Njeru hill north of Njeru stock farm have discouraged settlement and crop growing by the farmers due to thin or skeletal laterite soils. Bugungu hill south of Njeru stock farm have favoured the planting of trees due to the need to control soil erosion and protection of the farm against strong winds.
- ✓ The gentle slopes South of Njeru stock farm have favoured construction of roads used for marketing of farm products because it is well drained and it is easy and cheap to construct on gentle slopes.
- ✓ Nava valley north of Njeru stock farm has facilitated crop growing in form of fodder crops used to supplement on natural pastures due to existence of fertile deep alluvial soils.

#### **INFLUENCE OF RELIEF ON SETTLEMENT**

- ✓ Bugungu hilltop south of Njeru stock farm has favoured settlement because they are flat topped.
- ✓ The steep slopes of Njeru hill north of Njeru stock farm have discouraged settlement Because it is difficult to construct on steep slopes
- ✓ The gentle slopes South of Njeru stock farm have encouraged settlement because they are well drained and it is easy and cheap to construct on gentle slopes.
- ✓ Nava valley north of Njeru stock farm has discouraged settlement because it is water logged.

#### **EFFECT OF HUMAN ACTIVITIES ON THE PHYSICAL ENVIRONMENT**

1. Examine the impact of human activities on the physical environment of the area studied.
2. Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied.

#### **Positive impacts/effects namely:**

- Afforestation on Bugungu hill contributes to modification of climate in form of heavy rainfall. It has led to soil fertility through leaffalls.
- Mulching and use of compost manures in Nava valley north of Njeru stock farm has improved soil fertility.
- Terracing and strip farming on Njeru hill has controlled soil erosion.
- Urbanisation in Njeru town has led to proper disposal of wastes

## KIBIMBA RICE SCHEME

### Questions:

1. For any one field work you have carried out as an individual or a group:
  - (a) (i) State the topic of the study.
  - (a) (ii) Outline the objectives of the study.
2. For any one field work study done on a crop farm;
  - (a) State the;
    - (i) topic,
    - (ii) objectives of the study

Topic: The growth and development of Kibimba rice scheme in Kibimba village in Bukooli central in Bugiri district.

### Objectives:

- ✓ To find out the location of Kibimba rice scheme.
- ✓ To identify the historical background of Kibimba rice scheme.
- ✓ To find out the rice varieties at Kibimba rice scheme.
- ✓ To find out the methods of planting and harvesting rice Kibimba rice scheme.
- ✓ To find out the market centres for the rice grown at Kibimba rice scheme.
- ✓ To identify the factors that favoured the establishment of Kibimba rice scheme.
- ✓ To identify the benefits of Kibimba rice scheme to the surrounding areas.
- ✓ To find out the problems facing Kibimba rice scheme.
- ✓ To find out the solutions to the problems facing Kibimba rice scheme.
- ✓ To find out the future prospects of Kibimba rice scheme.

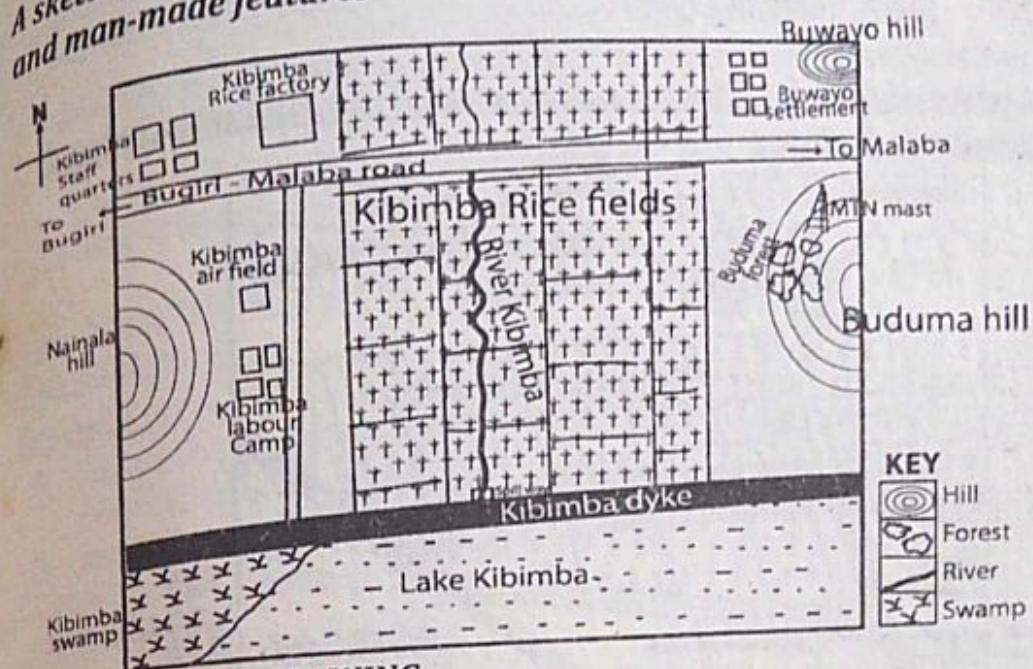
### **PREPARATION STAGE**

#### Sample questions:

- ✓ Our teacher identified the area of study and also carried out a pilot study at Kibimba rice scheme where he sought permission from the personnel as well as making prior arrangement with the respondent.
- ✓ We formulated the topic of the field work study which was "The growth and development of Kibimba rice scheme in Kibimba village in Bugiri district"

- ✓ Trees should be planted on the steep slopes on Nainala and Buduma so as to curb soil erosion and siltation of Lake Kibimba.
- ✓ There should be mechanisation of the farm especially harvesting.
- ✓ Spraying should be done so as to control pests and diseases.

*A sketch map of Kibimba rice scheme showing physical features and man-made features*



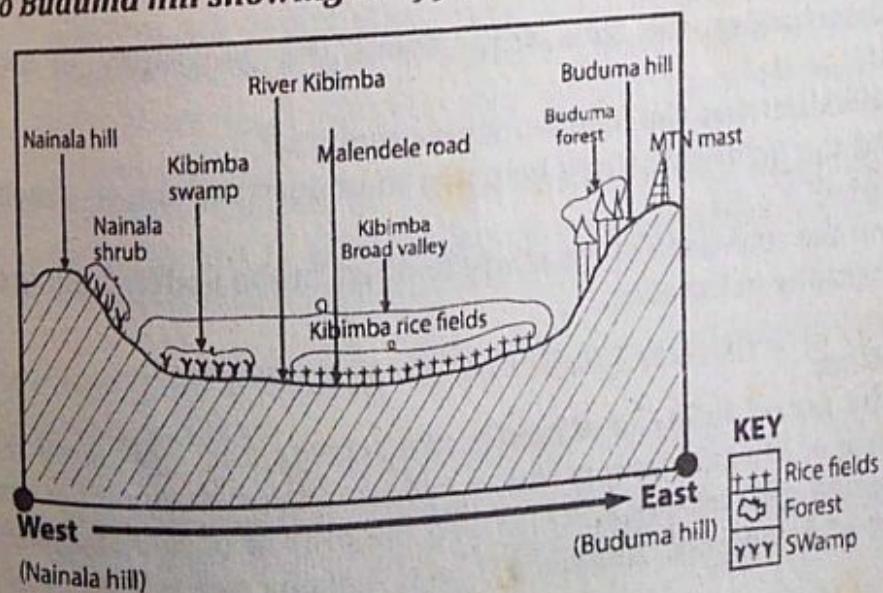
**CROSS SECTION DRAWING**

Sample questions:

1. Draw a transect of the area studied and on it mark and name

- (i) relief features
- (ii) land use types

*A Cross section accross Kibimba rice scheme from Nainala hill to Buduma hill showing rellef features and man-made features.*

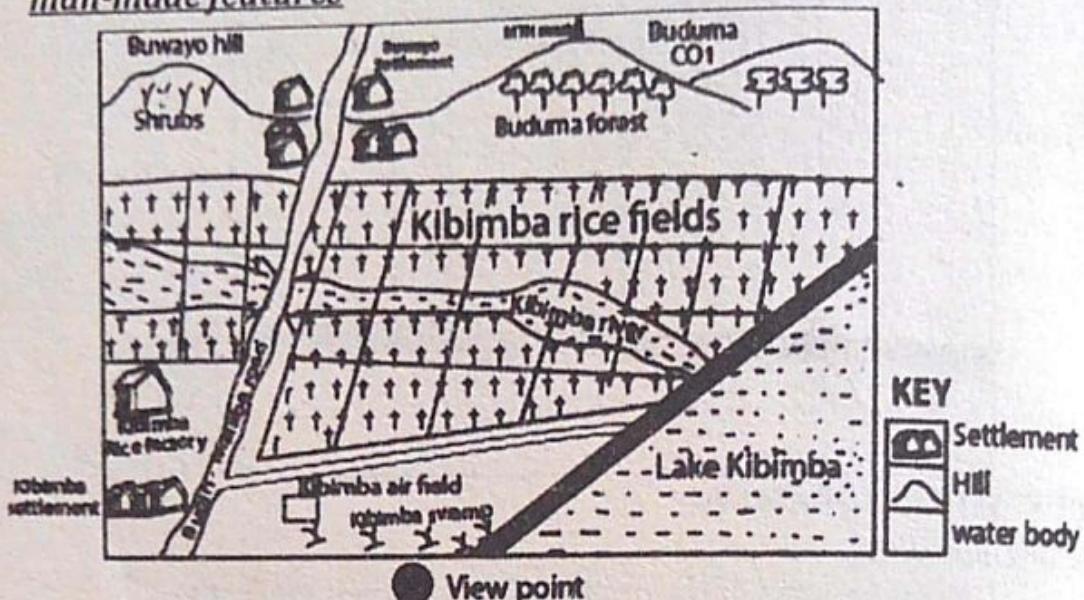


## LANDSCAPE SKETCH/ PANORAMA

### Sample questions:

1. Draw a fully annotated sketch of the area studied and on it mark and name:
  - (i) physical features
  - (ii) land use types

Landscape sketch of Kibimba rice scheme showing physical and man-made features



## GEOGRAPHICAL RELATIONSHIPS

### Sample questions:

1. Explain the significance of the study in the understanding of the geography of the area.
2. What conclusions did you draw about the geography of area studied?
3. To what extent was the field work geographical?
4. How did the fieldwork study help you to understand the geography of the area?
5. Examine the relevance of the study findings in the understanding of the geography of the area.

## Presentation

- ✓ *Kibimba broad valley at Kibimba rice scheme has favoured the existence of Kibimba swamp due to wet conditions. Buduma hill east of Kibimba rice scheme has favoured the growth of Buduma forest because of fertile soils. Nainala hill west kibimba rice scheme of has*

*favoured the existence of skeletal soils due to steep slopes.*

- ✓ *The gentle slopes North of Kibimba Lake have favoured construction of Bugiri-Malaba road and Kibimba factory because it is cheap to construct buildings and roads on gentle slopes. Kibimba steam at Kibimba rice scheme has encouraged rice growing because of constant water supply.*
- ✓ *Kibimba rice scheme and Kibimba factory have attracted settlement for the workers due to available employment opportunities. Bugiri-Malaba road in the centre of kibimba rice scheme has attracted linear settlement due to easy accessibility to market centres.*

### **RELATIONSHIP BETWEEN HUMAN ACTIVITIES AND PHYSICAL ENVIRONMENT**

Sample question:

1. Examine the relationship between the human activities and the physical Environment in the area studied.
2. Explain the influence of physical environment on human activities in the area Studied.

### **Presentation**

- ✓ Buduma hill in the east of kibimba rice scheme has favoured the establishment of telecommunication masts due the need to transmit waves to distant places.
- ✓ Kibimba swamp in the south of kibimba rice scheme has favoured art and craft due to the existence of papyrus vegetation which facilitate making of baskets
- ✓ Kibimba stream at kibimba rice scheme has favoured kibimba rice growing due to abundant water that facilitates irrigation.
- ✓ The swampland soils in Kibimba broad valley have encouraged rice growing at kibimba rice scheme because they have high humus content.
- ✓ The heavy rainfall of 1500m has facilitated luxuriant growth of Kibimba rice in Kibimba broad valley because it is reliable and well distributed throughout the year.

### **INFLUENCE OF PHYSICAL FEATURES ON LAND-USE TYPES**

Sample questions:

1. Examine the relationship between the physical features and the man-Made features in the area studied.
2. Describe the relationship between physical features and land-use activities in the area studied.

3. Explain the influence of physical features on land use in the area studied.

**Students may be presented as seen below:**

- ✓ *Kibimba broad valley has favoured Kibimba rice growing due to fertile swampland. Buduma hill east of kibimba rice scheme has facilitated the construction of masts due to high elevation.*
- ✓ *Kibimba papyrus swamp south of kibimba rice scheme has favoured art and craft due to the existence of papyrus vegetation which facilitate making of baskets.*
- ✓ *Kibimba stream at kibimba rice scheme has encouraged rice growing and formation of Kibimba man-made lake due abundant water supply*

### **RELATIONSHIP BETWEEN RELIEF AND LAND USE ACTIVITIES**

3. Examine the influence of relief features on human activities in the area studied.
4. Explain the relationship between relief and man-made features in the area studied.

#### **Presentation**

- ✓ *The hilltop of Nainala hill west of Kibimba rice scheme has favoured the construction of telecommunication masts in order to tap signals.*
- ✓ *Steep slopes of Buduma hill east of Kibimba rice scheme have discouraged settlement and crop growing due to thin laterite soils. Nainala hill west kibimba rice scheme has favoured the planting of trees due to the need to control soil erosion and protection of the farm against strong winds.*
- ✓ *The gentle slopes kibimba rice scheme has facilitated the construction of Bugiri road and settlement because it is easy and cheap to construct on gentle slopes.*
- ✓ *Kibimba broad valley has facilitated Kibimba rice growing due to existence of swampland soils.*

#### **INFLUENCE OF RELIEF ON SETTLEMENT**

- ✓ *The Buduma hilltop east of kibimba rice scheme has discouraged settlement because of rugged landscape.*
- ✓ *The steep slopes of Nainala hill west of kibimba rice scheme have discouraged settlement Because it is difficult to construct on steep slopes*
- ✓ *The gentle slopes kibimba rice scheme have encouraged settlement because they are well drained and it is easy and cheap to construct on gentle slopes.*

*A Therapy to Understanding Field Work*  
Kibimba broad valley kibimba rice scheme at has discouraged settlement because it is water logged and prone to occurrence of pests and diseases.

## EFFECT OF HUMAN ACTIVITIES ON THE PHYSICAL ENVIRONMENT

Examine the impact of human activities on the physical environment of the area studied.

Giving evidence from the fieldwork study, explain the influence of human activities on the environment in the area studied.

*representation*

**positive impacts/effects namely:**

Afforestation on Buduma hill contributes to modification of climate in form of heavy rainfall. It has led to soil fertility through leaf falls. The use of manures in Kibimba broad valley has led to improved soil fertility.

Urbanisation in Buwuni West of Kibimba rice scheme has led to proper disposal of wastes leading to reduced barren lands.

The construction of drainage channels in Kibimba broad valley has controlled flooding and therefore reduced siltation and loss of fertile soils.

**negative impacts:**

- ✓ Urbanisation and settlement in Buwuni in the West and Muwayo in the East of Kibimba rice scheme led loss of vegetation resulting into reduction in rainfall amounts and soil erosion leading to soil exhaustion,
- ✓ Fishing in Lake Kibimba has led depletion of fish due to overfishing.
- ✓ Rice growing in Kibimba broad valley has led to loss of vegetation resulting into reduction in rainfall, lowering of water table in Kibimba swamp and increased environmental temperature.
- ✓ Timber extraction in Muwayo forest East of Kibimba rice scheme has resulted into soil erosion, loss of vegetation and increased temperature.
- ✓ Kibimba rice factory has led to air pollution which causes global warming.
- ✓ The construction of Bugiri-Malaba road has led e destruction of the soil structure, soil erosion and loss of vegetation.

- ✓ Quarrying on Buduma hill has led to loss of vegetation, accelerated soil erosion and barren lands.

## **FACTORS FAVOURING THE DEVELOPMENT OF KIBIMBA RICE SCHEME**

1. Examine the factors that have favoured the location of the farm.
2. Explain the factors which have influenced the layout of the farm.
3. Describe the factors which have favoured the development of the landuse types in the area studied.

### **Physical factors**

- ✓ Existence of a permanent water body for example river Kibimba which supplies water for irrigation purposes at Kibimba rice scheme.
- ✓ Extensive swamp land for extensive rice growing North of Kibimba Lake
- ✓ Fertile dark clay soils that favour growth of rice in Kibimba valley
- ✓ Abundant and reliab<sup>l</sup>a rainfall of about 1500mm per annum supports luxuriant growth of rice Kibimba valley.
- ✓ The gently sloping relief from South- Northwards that enables extensive mechanisation and surface irrigation.
- ✓ Abundant sunshine for the growth, ripening and drying of rice like at Kibimba drying yard.

### **Human factors**

- ✓ Adequate capital for investment in mechanisation of farm like use of aircraft for aerial farm work and establishment of Kibimba factory.
- ✓ The well-developed transport roads such as Jinja-Malaba road for marketing of rice.
- ✓ Large market for rice in local and foreign markets like Jinja, Bugiri, Tororo and South Sudan, etc.
- ✓ Abundant and reliable power supply from Nalubaale and Kiira power stations used in the running of Kibimba rice factory.
- ✓ The supportive government policy that encourages investment in the establishment of Kibimba rice scheme and Kibimba factory.
- ✓ Abundant cheap labour force in the surrounding areas like Butema in the East, Mahoma in the West, Kagangu in the North and Malendele in the South.
- ✓ Increased research at Kibimba research station leading to innovations like introduction of improved rice varieties.