

# SWITZERLAND

Switzerland lies between 45.8°N and 47.7°N and between 6.0°E and 10.5°E. It covers an area of 41,293Km<sup>2</sup> and a population of 7.7 million people. The average population density is 186 people per sq. Km. It is a land locked country in central Europe and it is bordered by Germany in the North, Austria and the Principality of Liechtenstein in the East, Italy in the South and France in the West. The capital City is Bern and the largest city is Zurich. Other major towns include Geneva, Basel, Lucerne, Lausanne, Winterthur and St. Gallen.

Switzerland is a major watershed (an area where rivers originate from) or a divide (highland area dividing different river systems). Major rivers with their sources in Switzerland include the Rhine, Rhone, Ticino and Inn. River Rhine drains into the North Sea, Rhone into the Mediterranean Sea, Ticino into the Adriatic Sea and river Inn into Eastern Europe.

Switzerland is mountainous and more so in the south where there is limited land for cultivation. The country has limited natural resources. There are a few minerals and forests. However it has a well developed Tourism and Industrial sector.

## **Disadvantages of Land lockedness to Switzerland**

- a) The county's imports and exports are subjected to taxation by the countries through which they pass.
- b) The foreign routes have to be paid for.
- c) In times of political misunderstanding, the county's export and import trade may become difficult.

## **Drainage of Switzerland**

Switzerland is drained by the rivers Rhine, Rhone, Ticino, Inn, Aare and Emmental. The lakes include: Thun, Brienz, Constance (Bodensee), Geneva, Neuchatel, Maggiore, Zurich, Lucerne and Lugano.

## **THE PHYSICAL DIVISIONS OF SWITZERLAND**

Switzerland has three (3) major physical divisions which include the following:

- a) Swiss Alps
- b) Swiss plateau (Mitteland)
- c) Jura

### **THE SWISS ALPS:**

This covers about  $\frac{2}{3}$  or 60% of the country. It is made up of a complicated mountainous zone formed by a number of folded mountain systems which include the Bernese oberland, Rhaetian alps, Glarus alps, Leopontine alps, Pennine alps and Adula alps. It extends from Lake Geneva to Austria and Germany in the East and North respectively. It also extends to Italy in the south. It is a region of low agricultural value since the soils were heavily eroded by glaciers and is sparsely populated. It has a population density of about 25 persons per Km<sup>2</sup>.

The Swiss Alps is characterised by the following:

- Rugged terrain with steep slopes.
- Dominance of glaciated landscape like pyramidal peaks, arêtes, cirques, U-shaped valleys, hanging valleys etc.
- It is dissected by a number of river valleys.
- Wide spread snow fields and glaciers.
- Shallow and rocky soils.
- Has an average height of 1,700 metres.
- The highest point/elevation is Dufourspitze of Mount Rosa i.e. 4,634 metres high.

The conditions in the Alps have limited cultivation to the valleys. However, the glaciated scenery has been used to promote the Tourism Industry.

#### **Reasons for the low population in the Swiss Alps**

- a) The very cold conditions and snow cover.
- b) The infertile and rocky nature of the soils that has limited cultivation.
- c) The difficult relief i.e. rugged terrain that has made construction of transport routes and homesteads very difficult.
- d) The risk if avalanches or glacial landslides that are destructive.

#### **Economic activities in the Swiss Alps**

- 1. Tourism:** A number of tourist attractions and more so glaciated scenery exist in the region. Winter sporting activities are also carried out in the region.
- 2. Pastoralism:** During winter animals are stall fed in the valleys and during summer the animals are grazed outdoors in the highlands on the flat sections known as benches. Benches with pastures are known as saeters. This farming system characterised seasonal migration of animals is referred to transhumance.
- 3. Cultivation in the valleys:** Arable farming is practiced and the crops grown include wheat, barley, vines, sugar beets and fruits. This is because the valley soils are relatively fertile.
- 4. Lumbering:** Trees are felled for timber and other products. The trees felled are either coniferous or deciduous.
- 5. Forestry:** This involves the growing and maintenance of trees for economic and environmental purposes. There are coniferous, deciduous and mixed forests.
- 6. Mining:** There is some small scale mining of salt, sand, clay, marble, gravel, and anthracite (coal).

## **THE SWISS PLATEAU (Mitteland)**

This covers 30% or  $\frac{1}{3}$  of the total land area. It extends from Lake Geneva in the West to Lake Constance in the North East and lies between the Swiss Alps and the Jura.

### **Characteristics of the Swiss Plateau**

- a) It tends to be gently sloping towards the North.
- b) It comprises of gently rolling hills or undulating land formed by glaciation thousands of years ago.
- c) It is made up of sediments which piled up from the Alps due to glacial deposition.
- d) The average height of land is 460 metres.
- e) Soils are made up of morainic (glacial) deposits and tend to be fertile.

The region has a number of lakes which include Lake Zurich, Lucerne and Constance (Bodensee). Some of these lakes are moraine-dammed lakes. They were formed as a result of moraine being deposited across a river channel and blocking the course of the river leading to the accumulation of water into a lake on the upstream side.

The region is the most densely populated area in Switzerland and most of the economic activities are concentrated in this region.

### **Reasons for the high population density in the Swiss Plateau**

1. The relatively flat or gently sloping nature of the land that has favoured settlement.
2. The mild climatic conditions that has favoured human habitation i.e. there are no extreme climatic conditions.
3. The fertile soils that have enabled cultivation of crops.
4. The industrial development in the area as well as several other economic activities that have attracted population to the region for employment.
5. Existence of a well developed transport and communication system in the area.

### **Economic activities in the Swiss Plateau**

- a) Industrial processing and manufacturing.
- b) Cultivation of crops such as wheat, maize, barley etc.
- c) Pastoralism: There is cattle keeping and more especially dairy farming.
- d) Trade and commercial activities like banking, insurance services etc.
- e) Tourism activities such as sightseeing, hiking, sailing etc.
- f) Transportation and provision of postal and telecommunication services.
- g) Forestry: maintenance of coniferous and deciduous forests.

## **THE JURA**

This covers only 10% of the total area of Switzerland. It covers the Northern and Western parts of the country.

### **Characteristics of the Jura**

1. They are low simple mountain ranges consisting of less rugged terrain.
2. They are young folded mountain ranges.
3. The folded ranges have been dissected by erosion creating gaps referred to as cluses.
4. Towards the North West it tends to be plateau land.
5. The altitude varies from 700 – 1,700 metres. The average height is 1,300 metres.
6. The geology or rock material is mainly of limestone nature.
7. The region has several Karst features resulting from the weathering of limestone rocks e.g. Caverns, Sinkholes, limestone gorges etc.

The Jura as compared to the Swiss Plateau is sparsely populated. There is limited surface drainage because of the porous or permeable nature of the rocks in that water tends to sink or soak into the ground and then develops into underground rivers. These rivers flow a long rock joints, erode the surrounding rocks and later lead to the development of underground caves (Caverns).

### **Economic activities in the Jura**

- a) Mining of minerals like salt in the valleys, limestone quarrying etc.
- b) Pastoralism or rearing of animals like cattle, goats and sheep.
- c) Forestry i.e. conservation of forests especially on the slopes.
- d) Lumbering in the forested areas.
- e) Tourism e.g. hiking, sightseeing etc.
- f) Trade and commercial activities like banking.
- g) Transportation services by road, air, water and rail. Basel is the chief port of Switzerland and also has an international Airport nearby.
- h) Industrial processing and manufacturing of products like textiles, watches etc.

Map Showing the physical divisions, drainage features and cities of Switzerland

