

# SOUTH AMERICA

## Overview

- South America is a long triangular shaped continent.
- It stretches from 12°N to 55°S latitude.
- The Equator passes through the northern part of the continent and the Tropic of Capricorn runs roughly through the middle.
- Because of its tapering shape, a major part of the landmass is in the tropics.
- South America lies to the west of the Prime Meridian. So the time at any place on this continent will be some hours less than or behind the Greenwich Mean Time.
- The 60°W meridian divides the continent lengthwise into two halves.



- South America is the fourth largest continent, after Asia, Africa and North America.
- It is two-third the size of Africa and six times the size of India.
- The coastline of South America is smooth with very few inlets except in the extreme south-west where there are fiords and many small islands. Fiords are deep inlets of the sea into mountainous land.
- There are a few large islands off the coast of South America.
- The Galapagos Islands near the Equator and the Juan Fernandez Islands near Central Chile are in the Pacific Ocean.
- The Tierra del Fuego is in the Southern Ocean and the Falkland Islands in the South Atlantic Ocean.
- The island of Trinidad is near Venezuela in the North Atlantic Ocean.
- The Andes is the longest mountain range in the world.
- South America's three southern countries – Argentina, Chile and Uruguay–constitute a region sometimes referred to as the Southern Cone because of its pointed, ice-cream-cone-like shape.

### Description

- It contains the world's highest waterfall, Angel falls (Venezuela), the largest river (by volume), the **Amazon river**, the longest mountain range, **the Andes**, the driest place on earth, the **Atacama Desert**, the largest rainforests, the **Amazon rainforests**, the highest capital city, **Lapaz** (Bolivia), the highest commercially navigable lake in the world, **Lake Titicaca**, and excluding research stations in Antarctica, the world's most southernmost permanently inhabited community, Puerto **Toro (Chile)**.
- **Continent Size:** 17,819,000 sq km
- **Percent of Earth's Land:** 12%
- **Population:** 379,500,000
- **Highest Point:** **Mount Aconcagua**  
Andes Mountains, Argentina - 6,959m.
- **Lowest Point:** **Valdes Peninsula**  
Argentina coastline -151 ft (-40m) below sea level.

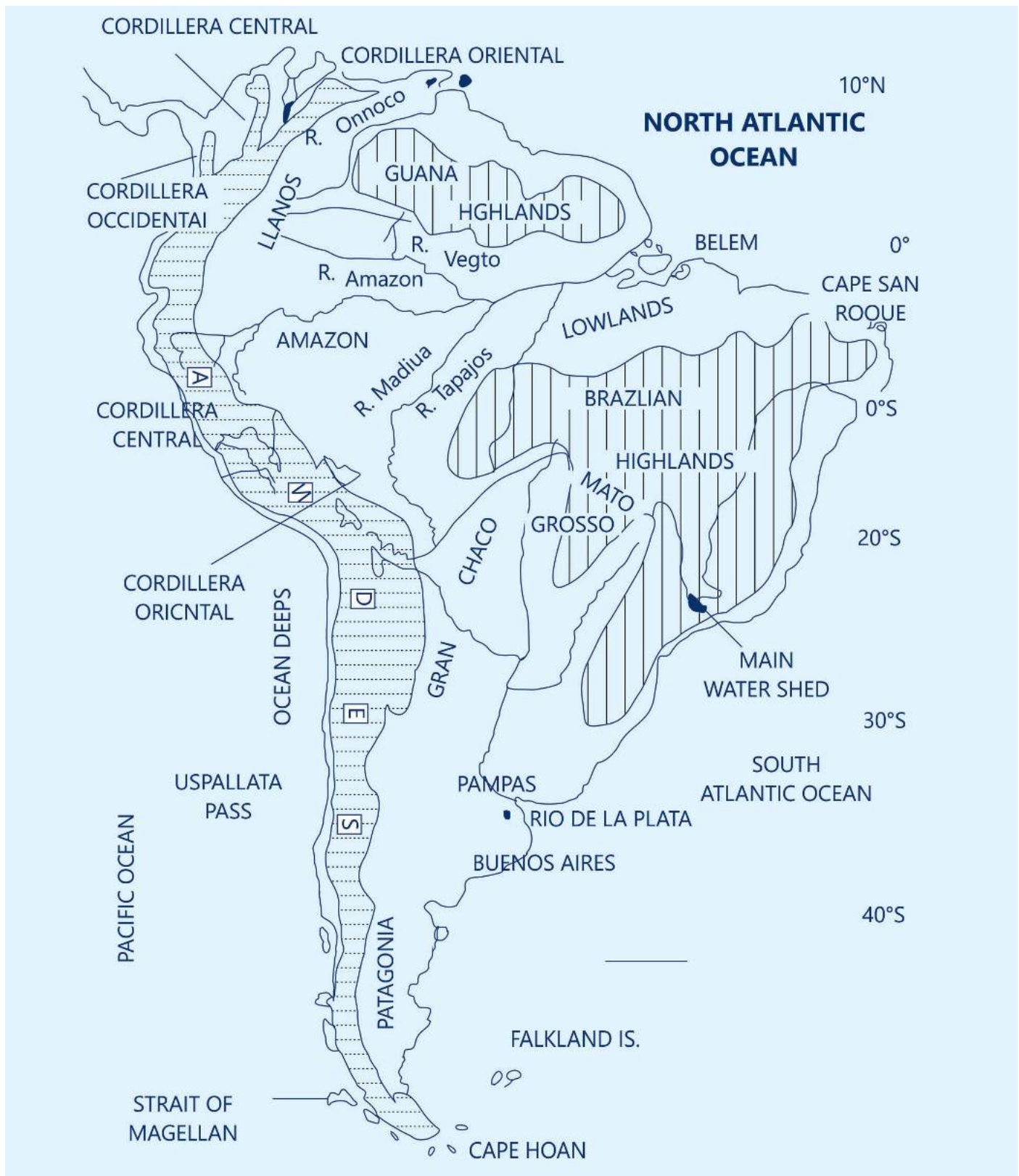
### Physical Features

- **South America can be divided into four physical regions:**
  1. **The Pacific coastal strip** lies in the west between the ocean and the Andes. It is the longest coastal plain in the world. In most places it is about 80 kilometres wide but in some it is as narrow as 8 metres.
  2. **The Andes** extend along the entire length of the continent from the Isthmus of Panama to the Strait of Magellan. They are young fold mountains. They form a chain of ranges and knots with enclosed intermontane plateaus namely in Ecuador and Bolivia. Being part of the Pacific Ring of Fire, there are many volcanoes and frequent earthquakes along this region. Mount Cotopaxi and Mount Chimborazo are active volcanoes. Mount Aconcagua, also a volcanic peak, is the highest peak in South America.
  3. **The Central Lowlands** are formed by two great river systems–the Amazon-Orinoco and the Parana-Paraguay. The vegetation of the lowlands are given special names. The Orinoco Basin has dense tropical forests. The northern part is a plain covered with savanna grass called the Llanos. The equatorial jungle of the Amazon Basin is called the selvas. The rich temperate grasslands around the mouth of the Parana-Paraguay is the pampas. At the source of these rivers is a region of scrub forest called the Gran Chaco.
  4. **The Eastern Highlands** are plateaus made up of hard old rocks. The River Amazon separates them into the Guiana Highland to the north and the Brazilian

### Mountains of Argentina

|                   |         |
|-------------------|---------|
| • Aconcagua       | 6,962 m |
| • Ojos del Salado | 6,893 m |
| • Monte Pissis    | 6,795 m |
| • Cerro Bonete    | 6,759 m |
| • Tres Cruces Sur | 6,748 m |
| • Llullaillaco    | 6,723 m |
| • Mercedario      | 6,720 m |
| • Cazadero        | 6,658 m |
| • Incahuasi       | 6,621 m |
| • Tupungato       | 6,570 m |

Highland to the south. They have been worn down by wind, rain and rivers. They have steep cliffs along the east coast and slope gently towards the Central Plains. The savanna grasslands of Brazilian Highlands is the campos. Towards the Central Lowlands it is known as the plateau of Matogrosso. Patagonia is a cold, wind swept plateau at the southern end of the tapering continent.



- **The coastline** of South America is smooth and regular.
- At the river mouths there are inlets which are used as harbours.
- The south-western coast of the continent has fiords or deep inlets of the sea into mountainous land.

- **Brazilian Highlands:**

This highland region - about 800 miles in length - runs through the Brazilian states of Minas Gerais, Goias, Bahia and Sao Paulo in southeastern Brazil. The magnificent landscape includes varied mountain ranges, namely the Serra de Mantiquiera, Serra do Paranapiatiba, Serra Geral, and Serra do Mar.

- The estimated highest point is 7,368 ft (2,245m).

- **Guiana Highlands:** A geographically stunning part of Planet Earth, over 1,000 miles in length, the Highlands stretch from southern Venezuela across the northern edge of South America to the tip of Brazil.

It consists of a vast plateau, one marked by deep gorges, tropical rain forests, numerous rivers and waterfalls. It's famed for the highest waterfall in the world (Angel Falls) at 3,212 ft (979m) high.

The highest point is Mt. Roraima on the borders of Brazil, Guyana and Venezuela at 2,810m.

- **Patagonia:** Located between the Andes and the Atlantic Ocean, and about 1,000 miles in length, Patagonia stretches south from the Rio Negro River in southern Argentina to Tierra del Fuego and the Strait of Magellan. It's mostly rugged, barren land, famed for its beauty and striking scenery.

### Mountains of Chile

| Mountains           | Metres | Feet   | Location and Features              |
|---------------------|--------|--------|------------------------------------|
| Ojos del Salado     | 6,891  | 22,608 | Atacama – Highest volcano on Earth |
| Nevado Tres Cruces  | 6,749  | 22,142 | Atacama                            |
| Llullaillaco        | 6,739  | 22,110 | Antofagasta                        |
| Tres Cruces Central | 6,629  | 21,749 | Atacama                            |
| Incahuasi           | 6,621  | 21,722 | Atacama                            |
| Tupungato           | 6,570  | 21,555 | Santiago Metropolitan              |

### Mountains of Ecuador

| Name       | Elevation (m) | Range                 | Features                   |
|------------|---------------|-----------------------|----------------------------|
| Chimborazo | 6,310         | Cordillera Occidental | Ecuador's highest mountain |
| Cotopaxi   | 5,897         | Cordillera Oriental   | Active Volcano             |

### Mountains of Peru

| Mountain          | Elevation (metres) | Region |                   |
|-------------------|--------------------|--------|-------------------|
| Huascarán (South) | 6,768              | Ancash | Cordillera Blanca |
| Chopicalqui       | 6,400              | Ancash | Cordillera Blanca |

### Deserts of South America

- Patagonian Desert – the largest desert by area in the Americas, located in Argentina
- La Guajira Desert – a desert in northern Colombia and some of northwestern Venezuela
- Atacama – a desert in Chile, the driest place on Earth
- Sechura Desert – a desert located along a portion of the northwestern coast of South America
- Monte Desert – in Argentina, a smaller desert above the Patagonian desert.

## Drainage System

- There are four major drainage basins in South America. They are:
  - (a). The Amazon Basin
  - (b). The Rio de Plata Basin
  - (c). The Orinoco Basin
  - (d). The Sao Francisco Basin



The Amazon Basin

- It is the basin of River Amazon.
- Its length is second to that of the Nile river of Africa.
- It has the largest flow of water in the world.
- It is estimated that its water flow is 10 times that of River Mississippi of North America.
- The river drains nearly 40 per cent of area of South America.
- It has about 1000 tributaries and several of them are more than 1600 km in length.
- The name Amazon to this river was given by Francisco de Orellana.
- The major tributaries of the Amazon river are River Caqueta, the Jurua, the Madeira, the Negro etc.

The Rio de Plata Basin

- This basin is second in size to that of the Amazon.
- Its area is more than 4.1 million sq. km.
- The main rivers which form the Basin of Rio de Plata are the River Paraguay, the Parana and the River Uruguay.
- River Parana (4,879 km long) rises from Minas Gerais from a water divide Carino de Paranaiba.

The Orinoco Basin

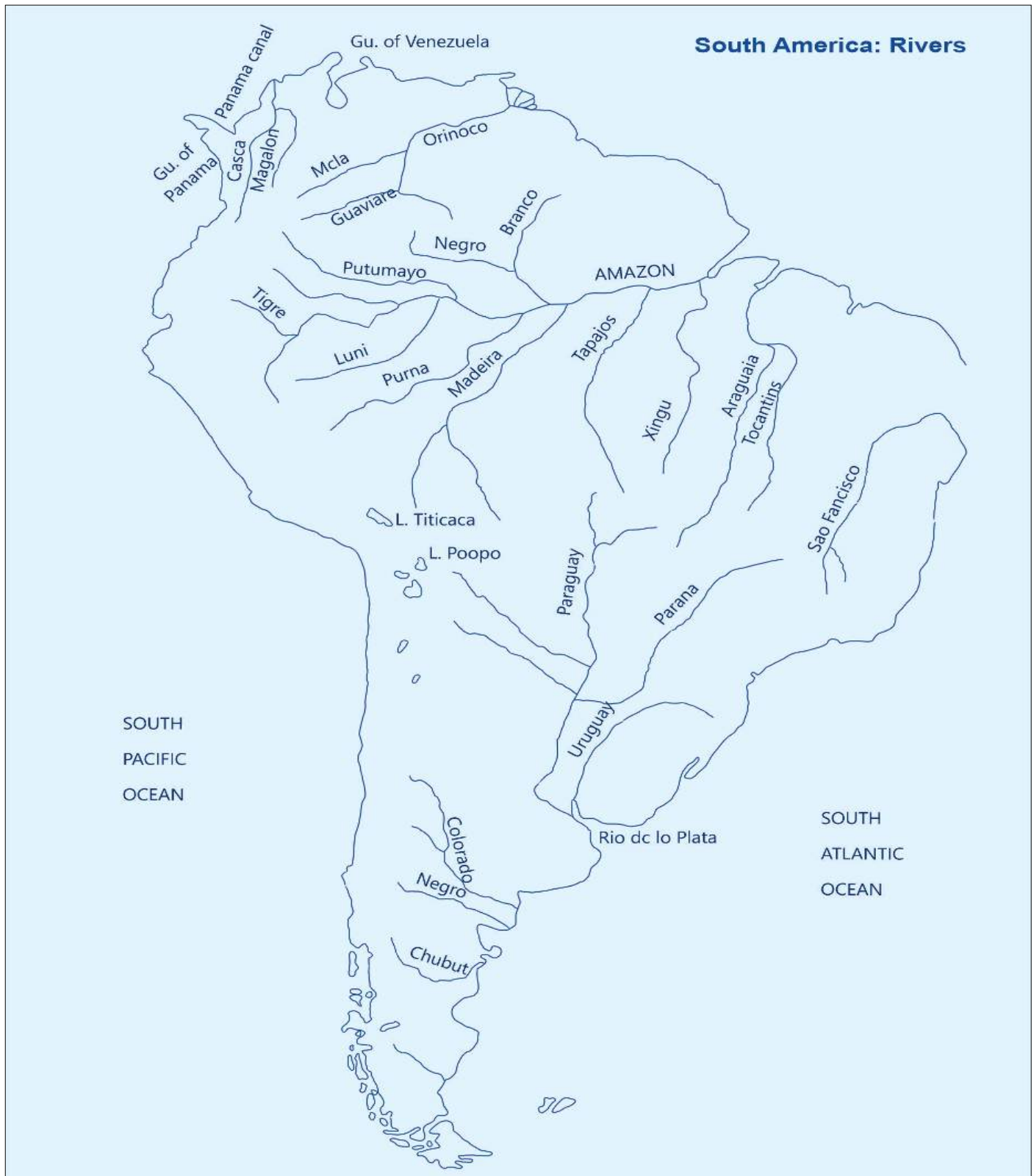
- This is considered to be the third largest drainage system of South America.
- Its drainage area is 947,940 sq km.
- It rises in the Guiana Highland.
- It rises in the Southern end of Sierra Parima near Mount Delgado Chalboud at a height of 1000 metres.
- It traverses 2,740 km to meet the Atlantic Ocean.
- The word Orinoco means ‘a place to paddle’, i.e., a river where navigation is possible.
- In the North, the Orinoco river passes through a zone called ‘Region of Rapids’ where there are enormous granite boulders.
- The world’s highest waterfall Angel (979 m) is situated on River Churun which is a tributary of River Caroni which is further a tributary of River Orinoco.
- Orinoco flows through the llanos (savanna grasslands) of Venezuela into the North Atlantic Ocean.

**Southern Asia:** This region includes India, Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka. On account of India’s vast area, it is often called the Indian Sub-Continent.

The Sao Francisco Basin

- fourth largest river system of South America is the river Sao Francisco which is about 2,914 km in length. It flows within Brazil.
- It originates North-west of the city of Belo Horizonte on the Eastern slope of Sierra da Canastra.

| Lakes               |
|---------------------|
| • Titicaca (between |
| • Sarococha (Peru)  |
| • Peru and Bolivia) |
| • Junin (Peru)      |
| • Poopo (Bolivia)   |
| • Buenos Aires      |
| • Argentino         |
| • Nahuel Huapi      |



### Climate and Natural Vegetation

- The climate of South America is influenced by the following factors:
  1. South America stretches through many degrees of latitudes and through all the temperature zones of the Earth.
  2. The Equator passes through the Amazon Basin.
  3. The high Andes cover the full length of the continent. Mountains lower the temperature and form rain shadow regions on their leeward side.

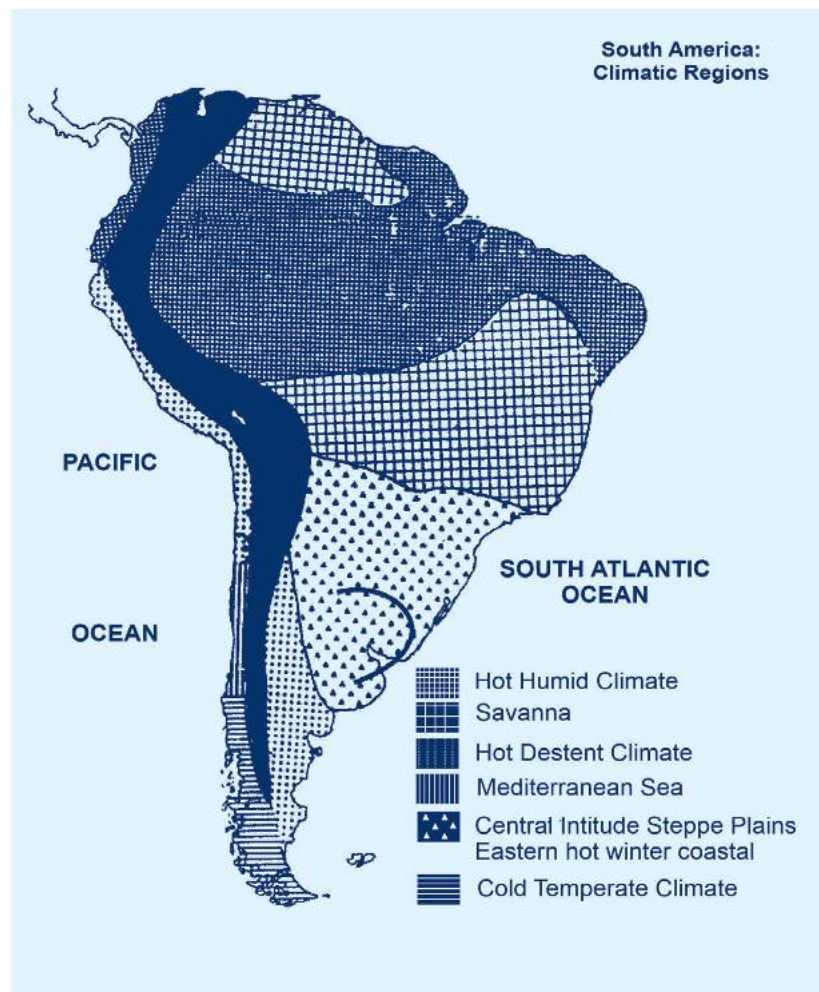
4. The Cool Peru Current flows along the west coast making the shore very dry.
5. The Warm Brazil current on the east coast brings good rainfall.
6. The South East Trade Winds bring rain to the east coast in the tropics. Thus beyond the Andes on the west coast, deserts are formed.
7. Further south from 30°S latitude to the tip of the continent, westerly winds bring rain.
- The Challenger Deep (10911m) in the Mariana Trench near the Philippines is much deeper than the height of Everest.

### Amazon Rainforest

- The **Amazon Rainforest** is a moist broadleaf forest in the Amazon Basin of South America. The area, also known as **Amazonia** or the **Amazon Basin**, encompasses seven million square kilometers (1.2 billion acres), though the forest itself occupies some 5.5 million square kilometers, located within nine nations: Brazil (with 60 percent of the rainforest), Colombia, Peru, Venezuela, Ecuador, Bolivia, Guyana, Suriname, and French Guiana. The Amazon represents over half of the planet's remaining rainforests and comprises the largest and most species-rich tract of tropical rainforest in the world.
- **Los Llanos** (meaning the flat plains) is a vast tropical grassland plain situated at the east of the Andes in northwestern South America (Colombia and Venezuela). Its main river is the Orinoco. Originally, llano is the Spanish word for plain. It became the Spanish-American term for prairie. It's approximately 582,000 sq. km in size.

## 1. The hot wet equatorial climate

- This is found in the Amazon basin.
- The Equator cuts through this region but on the high Andes rain is less because of the height.
- Quito, the capital, is said to have 'eternal spring', while the Amazon Lowlands are very hot and wet throughout the year.
- Dense impenetrable rainforests called the **selvas** are found here.
- The trees are very tall and head wooded like ebony and mahogany.
- Some valuable trees found here are cinchona from which quinine, the medicine for malaria is made; chicle, the tree which gives chewing gum; the hevea tree which gives rubber; the plant coca from which cocaine, the painkiller is extracted.
- The wildlife consists mostly of tree-top dwellers like monkeys, birds, insects and spiders. There are snakes and giant pythons called anacondas, ant eaters and armadillos; crocodiles and alligators in the marshes.



## 2. Summer rain climate on the eastern side within the tropics

- Tropical Grasslands or **savannas** are found in two regions.
- North of the Equator along River Orinoco they are called **llanos** and in the Brazilian highlands south of the Equator they are known as **campos**.
- These are regions of summer rain brought by the trade winds. The Warm Brazil Current increases the rain.
- The rest of the year is dry.
- The grass is long and coarse.
- In Brazil, coffee is grown on the eastern slopes on large estates. Mining is an important activity.

## 3. The Gran Chaco

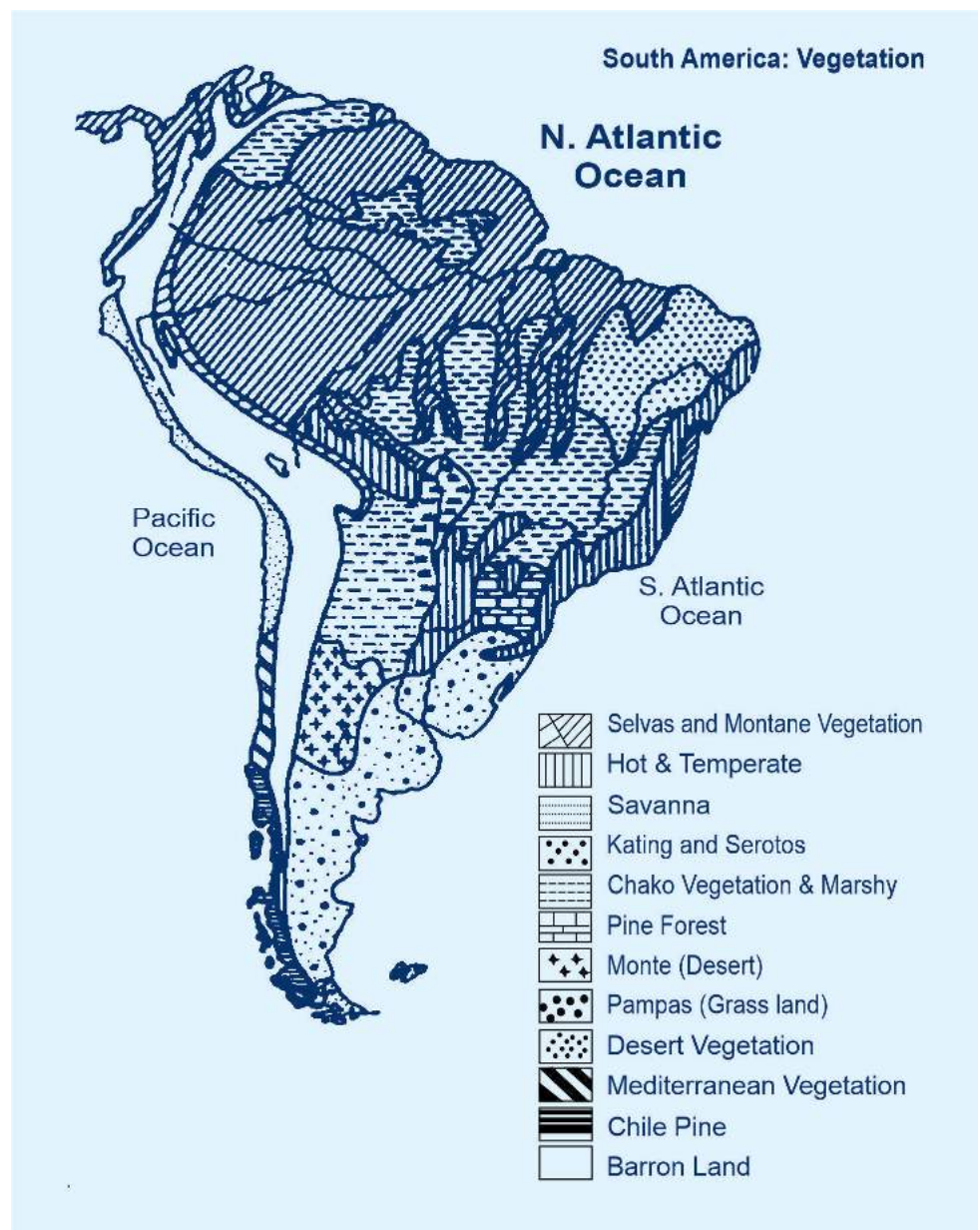
- This lies between the Brazilian Highlands and the Andes. Being far inland, the trade winds lose their moisture. There is very little rainfall.
- It is a region of scrub forests. Where streams from the Andes stagnate, there are marshes.
- The quebracho tree meaning 'axe breaker' yields tannin for tanning leather.

## 4. The Pampas

- They are the temperate grasslands of Argentina.
- The climate is cool throughout the year with light rain in summer.
- The rest of the year is dry.
- The pampas have the same type of climate and grass as the veldt of South Africa.
- Wheat farming, cattle and sheep rearing are important activities.

## 5. Patagonia

- Patagonia is a temperate desert.
- It lies in the leeward side of the Andes in the westerly wind belt.
- The **rhea**, a large flightless bird, like the ostrich and the **guanaco**,





a wild cousin of the llama, are native animals of this region.

## 6. The Andes

- This mountain stretches through all the latitudes.
- As we climb up the mountain slopes, the forests and grasslands give way to coniferous trees.
- The jaguar and the puma are carnivores of the cat family found in all the forest of South America.
- The condor is a large bird of prey.
- In the mountain villages, the llama and alpaca are the beasts of burden. They are small cousins of the camel and are sure footed on the steep mountain slopes.

### The Pampas

- The Pampas, a kind of temperate grassland, are the fertile South American lowlands that include the Argentine provinces, most of Uruguay, and the southernmost end of Brazil. It covers more than 750,000 km<sup>2</sup>. These vast plains are only interrupted by the low Ventana and Tandil hills near Bahía Blanca and Tandil (Argentina). The climate is mild, with precipitation of 600 mm (23.6 in) to 1,200 mm (47.2 in), more or less evenly distributed through the year, making the soils appropriate for agriculture. The average rainfall is 10 in (254 mm) to 30 in (762 mm) per year. This area is also one of the distinct physiographic provinces of the larger Parana-Paraguay Plain division.

## 7. The Pacific Coastlands

- Between the Andes and the Pacific Ocean lies the long narrow plain which passes through the following regions.
- The northern part of this plain lies in Colombia. There are equatorial forests and swamps.
- Peru and Northern Chile is the Atacama Desert. The Andes block the trade winds from bringing rain. The Cool Peru Current adds to the dryness of the desert.
- In Central Chile, the plains form a fertile area enjoying the Mediterranean climate. The westerlies bring rain in winter. There is summer drought. Citrus fruits, grapes, almonds and walnuts are cultivated here.
- South of 40°S latitude lies the fiord coast of Southern Chile. There is rain throughout the year from the westerly winds. The sea flows into the valleys to form a 1,000 kilometres stretch of cold, rainy islands and fiords. Evergreen temperate forests grow here. Some of the conifers like the Chilean pine are found only in South America. Some have leaves instead of needles.