

Fig. 23.1 : South America : Political.

## 2. RELIEF

South America possesses nearly every kind of topography including high mountains, plateaus,

basins, river valleys, coastal plains etc. Thus it can be divided into following physiographic regions : (1) The Andes Mountains, (2) The

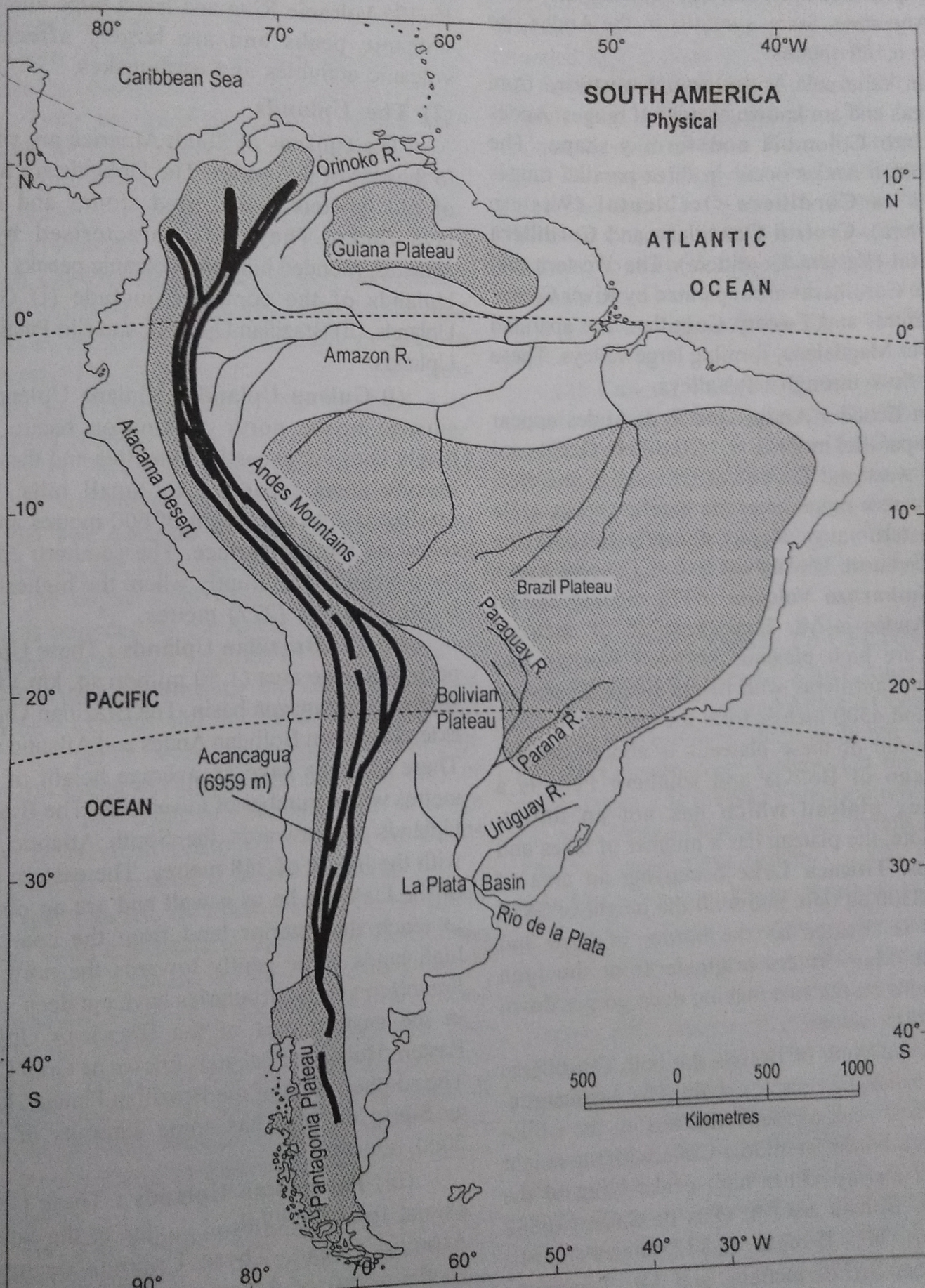


Uplands, (3) River Basins, and (4) Coastal Plains.

### (1) The Andes Mountains

Andes Mountains constitute the longest mountain chain in the world extending for more

than 8800 km. along the Pacific coast. Andes are the highest mountains of the Western Hemisphere. These are high and rugged mountains and form a barrier to east-west travel.





It extends from the Caribbean Sea in the north to the Cape Horn in the south. There is only break in the Andes known as **Uspallata Pass** which provides only link between Middle Chile and Argentina. Some summits in the Andes rise above 6,100 metres.

In Venezuela Andes extend westward from **Caracas** and are known as coastal ranges. Andes turn into Colombia and form y-shape. The Colombian Andes occur in three parallel ranges known as **Cordillera Occidental** (Western Cordillera), **Central Cordillera** and **Cordillera Oriental** (Eastern Cordillera). The Western and Central Cordilleras are separated by River Cauca, and central and Eastern Cordillera are separated by River Magdalena, forming large valleys. These rivers flow through rift valleys.

In Ecuador Andes and Peru Andes appear as two parallel mountains : Cordillera Occidental in the west and Cordillera Oriental in the east. The western range faces the Pacific Ocean while the eastern range slopes abruptly towards the Amazon basin. The highest peak in Ecuador Andes is **Chimbarazo Volcano** (6370 metres) and in Peru Andes is Mt. **Huascaran** (6768 metres). There are high plateaus between Western and Eastern Cordilleras with height ranging between 3600 and 4500 metres from the sea level. East-west width of these plateaus is about 200 km. **Altiplano** of Bolivia and southern Peru is a complex plateau which has not an outlet. Therefore, the plateau has a number of lakes and marshes. **Titicaca Lake** occupying an area of about 8300 sq. km. and with the height of 3815 metres is situated on the border of Peru and Bolivia. Many rivers originate from the high mountains on the east making deep gorges down the eastern slopes.

In the south of Bolivia the both Cordilleras join to make one complex chain. The **Aconcagua**, the highest peak of the Andes lies on the Chile-Argentina border in middle Chile with the height of 6959 metres. Other high peaks lying to the south of Bolivia are Mt. Ojas de Salado (6882 metres), Mt. Bonete (6872 metres), Mt. Mercedano (6770 metres), and Mt. Tupungato

(6570 metres). South of Mt. Aconcagua the Andes descends and its southern part descends into the sea and creates a number of islands with deep slopes. The Andes are a part of Circum Pacific Volcanic Ring and has a large number of volcanic peaks and are largely affected by volcanic activities and earthquakes.

## (2) The Uplands

The Uplands of South America are situated to the east of the Andes. The Uplands are formed of old igneous rocks, sand stones and recent lava rocks. They are characterised by flat plateaus, rounded hills and volcanic peaks. Major Uplands of the continent include (i) Guiana Uplands, (ii) Brazilian Uplands, and (iii) Patagonian Uplands.

(i) **Guiana Uplands** : Guiana Uplands are situated to the north of Amazon basin. Their height does not exceed 330 metres and they have marshy areas separated by small hills. Some inselbergs upto the height of 600 metres are also found on the flat surface. The southern edge of the plateau rises abruptly where the highest peak is Mt. Roraima (277) metres.

(ii) **The Brazilian Uplands** : These Uplands occupy a large area (1.50 million sq. km.) to the south of the Amazon basin. The Brazilian Uplands extend between Bolivian Andes and Atlantic coast. These Uplands have an average height of 1000 metres with a number of lower hills. The Brazilian Uplands rise towards the South Atlantic coast with the height of 348 metres. The eastern edges of the Uplands lie as a wall and are an obstacle to reach the interior land from the coast. The high lands slope gently towards the north. Sao Francisco and its tributaries have cut deep valleys in the eastern part of the Brazilian Uplands. Eastern Bolivian Plateau is known as Gran Chaco. The southern part of the Brazilian Plateau, known as Sierra de Mar has some summits of above 2000 metres.

(iii) **Patagonian Uplands** : These Uplands extend from the Chilean Andes to the Southern Atlantic Ocean. These Uplands occupy the southern part of Argentina. These Uplands rise



westward from the eastern coast forming low terraces from the coastal cliff to the foothills of the Andes. The Uplands rise upto 1500 metres from the sea level.

### (3) River Basins

About 50 per cent of the total area of South America is covered by the river basins or lowlands. There are five major river basins and lowlands in South America : (i) Orinoco Basin, (ii) Amazon Basin, and (iii) Rio de Plata (or La Plata) Basin, (iv) Pampas lowlands, and (v) Gran Chaco lowlands.

**(i) The Orinoco Basin :** This is the northern coastal lowland situated between the Guiana upland in the south and the Caribbean coast in the north. The Orinoco River flows from west to east in this area. This area is filled with sediments brought down by the Orinoco River. The river flows through enormous granite boulders making several rapids and waterfalls.

**(ii) The Amazon Basin :** Occupying about 7 million sq. km. area, Amazon Basin is considered to be the largest river basin in the world. This basin is bounded by the Andes Mountains in the west, by the Guiana Uplands to the north and by the Brazilian Uplands to the south. Its height now here exceeds 400 metres above sea level. It has very gentle slope from west to east. The Amazon Basin occupies large parts not only of Brazil but also those of Peru and Bolivia. Large areas of Amazon Basin are affected by floods but most of the area is above flooding.

**(iii) The Rio de Plata (or La Plata) Basin :** This basin is situated to the east of the Chilean Andes. It is bounded by the Andes in the west by Brazilian Plateaus in the north and north-east and by the Atlantic Ocean in the south-east. This region is drained by the Parana, Paraguay and Uruguay rivers. The entire region is made of alluvial deposits brought down by these rivers. The Parana-Paraguay basin slopes towards south-eastwards.

**(iv) The Pampas Lowlands :** The Pampas lowland is situated to the south of La Plata in Argentina. The Pampas are covered by loose

sediments brought by rivers coming from the Andes. The plain is almost level and slopes down from the west to the east.

**(v) Granchaco Lowlands :** This is a vast lowland which are filled with sediments. It is bounded by the Bolivian Andes in the west and the Parana and Paraguay rivers in the east. It extends over 7.25 lakh sq. km. This region is drained by two rivers – River Palcomayo and River Bermajo. They flowing south-eastwards across the Gran Chaco meet the River Paraguay. The Gran Chaco is poorly drained and is full of swamps, oxbow lakes, sand bars, braided channels etc. Gran Chacho is separated by hilly parts and mesas of sandstone from the Paraguay plain.

**(4) Coastal Plains :** South America has narrow coastal plains along the Caribbean Sea, the Atlantic Ocean and the Pacific Ocean. Most of the big cities of South America are situated in the coastal plains. Coastal plains are relatively wide in the river deltas such as in the deltas of the Orinoco, the Amazon and the Parana-Paraguay (La Plata).

## 3. DRAINAGE PATTERN

The major rivers of South America flow into the Caribbean Sea and Atlantic Ocean. There are four major river systems in South America : (1) the Orinoco river system, (2) the Amazon river system, (3) the Sao Francisco river system, (4) the Parana-Paraguay river system, and (5) Pacific Coastal river system.

### (1) The Orinoco River System

The Orinoco River flows in Venezuela from west to east and joins the Atlantic Ocean forming a delta. It rises in the southern edge of Sierra Parima (the Guiana Highlands). Traversing a distance of 2740 km. it flows into the Atlantic Ocean. It flows through the tropical grasslands known as Llanos. The main tributary of the Orinoco include River Mavaca on the left, and Manaviche, Ocama and Padamo rivers on the right. There are several lagoons around the River Orinoco. The Orinoco delta extends for about 440 km.