

#### Introduction

#### Introduction

Asia is the largest of all the continents and includes an area of 44,444,100 sq km which is about 33 per cent of the world's total land surface and the greater part of the Eurasian landmass. The total population of Asia in 2001 was 3,720 million, which is likely to be 4,714 million in 2025 and 5,262 million in 2050. About 37 percent of the total population of Asia is urban. The Asian countries are usually grouped into five main geographical and politico-cultural sub-divisions:

- (1) Southwest Asia, which includes Afghanistan, Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Yemen plus Turkey (on both sides of the Sea of Marmara in Asia and Europe), and Egypt, east of Suez Canal (Sinai peninsula).(2) South Asia, which includes Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka (formerly Ceylon).
- (3) Southeast Asia, which includes Brunei, Myanmar (formerly Burma), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam.
- (4) East Asia, which includes China, Japan, North Korea, South Korea and Taiwan.
- (5) Central Asia, which includes all of Siberia and the Russian republics in Asia (Kazakhstan, Kirghizia, Tajikistan, Turkmenistan and Uzbekistan).

## Landscape

Some of the highest, lowest and coldest places on Earth are found in Asia. Mount Everest in the Himalayas is the highest, the Dead Sea in the west is the lowest and the frozen wastes of northern Siberia are among the coldest. The Northern Asia is made up of old mountains and ancient stable plateaus. The Jagged Himalayan mountains dominate the central part of the continent along with the plateau of Tibet, which stretches north into China. In south-east Asia, there are many islands. Volcanoes and earthquakes are common and some of the islands are volcanically formed.

The Arabian peninsula and mountainous Iranian plateau are divided by the Gulf, fed by the Tigris and Euphrates rivers. Further east, the land begins to rise, the mountains spreading to north of the plateau of Tibet and South of the Himalayas. The plain of the south of the Himalayas are drained by the Indus and Ganges and to the east of the plateau of Tibet the Yellow River.

In the far north of Asia, the land is permanently frozen which is known as "Permafrost". Asia is watered by many great rivers. India's Ganges has its source high in the Himalayas. Tropical forests blanket the landscape across much of Southeast Asia especially in Burma, Thailand and islands of Borneo, Celebes, Java and Sumatra. The "Takla Makan" is one of the several deserts in Central Asia.

#### **Political Feature**

In Asia there is the existence of various traditions, people and culture. The breakup of Soviet Union, which once stretched south from Russia to Iran produced the new Central Asian Republic of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The countries in southwest Asia are mainly Muslim, but are divided by religious difference and conflict. India is the world's largest democracy while China is a communist power. China and North Korea have been governed by strict communist government since the late 1940s. In 1991, people in the Soviet Union rejected communism and elected the first non-communist government after almost 70 years. During the Soviet Era, the Islamic faith and culture in Central Asia were actively suppressed.

## **Population**

The deserts and high mountains of Asia are almost uninhabited and much of the Russian Federation is very sparsely populated. Singapore is one of the world's most densely populated places. Japan and India also have very high densities. Over 20 per cent of the World's people live in China but India is fast catching up.

## Industry

Agricultural occupation is still dominating around the continent. Heavy industry dominated eastern China and Russia, but Japan is the most industrially productive country. In recent years booming 'tiger' economies have developed in countries such as Taiwan which borders the Pacific Ocean. Norilsk is one of several Soviet Era industrial complexes built in Russia. It is the processing centre for rich minerals reserve found nearby.

Japan is a world-leading producer of electronic and high-tech goods like computer, cameras and hifi equipment. Taiwan, South Korea and Singapore also produce electronic goods.

#### Mineral Resources

Over half of the world's oil gas reserves are in Asia, most importantly found in Gulf and in Western Siberia. Coal in Siberia has provided power for steel industries. Metallic minerals are also abundant. Tin is found in southeast Asia and Platinum and Nickel in Siberia. The discovery of oil in the Gulf has generated enormous wealth and produced rapid industrial and social change in the countries such as Saudi Arabia, U.A.E. and Kuwait which control the oil supplies.

#### Climate

The continental type of climate is prevalent in most part of the Asia, apart from the coastal areas. Without the moderating effect of the Ocean temperature can soar during the day and plummet at night, while rainfall is generally low producing several large deserts. Temperature as low as -68°C have been recorded in the frozen wastes of Siberia while the islands in Southeast Asia have tropical climates. Southern and Eastern Asia are also affected by a seasonal wind called the Monsoon. This originates in the Indian Ocean and brings heavy rainfall and high winds.

# Land-Use and Agriculture

The large expanses of Asia are uncultivated because the soil is too poor or the climate is too cold or dry for crops to grow. The plateau of Tibet, much of Siberia and Arabian Peninsula have limited agriculture. Some of the most fertile land is found in eastern China and India, where rice is a staple. Elsewhere cash-crops are grown for profit, such as dates in southwest Asia, tea in India, China and Sri Lanka and coconuts throughout the island archipelago of Southeast Asia. China is the world's largest producer of rice, where it is grown in muddy fields called paddy fields. Uzbekistan is the world's fourth largest producer of cotton.

#### **SOUTH WEST ASIA**

# Landscape

It chiefly consists of the countries like Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen. Much of the Southwest Asia is covered with sandy and rocky deserts. On the vast Arabian Peninsula which covers an area almost the size of India-narrow, sandy plains along the Red Sea and the south-coast rise to dry mountains. In the centre is a vast high plateau that slopes gently down to the flat shores of the Gulf. The mountainous area of Iran experience frequent earthquakes.

The 'Wadis', a type of valley and riverbeds are found in Saudi Arabian desert. Usually they are dry, but after heavy rains, they are briefly filled by fast flowing rivers. The Syrian desert extends from the Jordon Valley in the west to the fertile plains of the Tigris and Euphrates rivers in the East. It is mainly a rocky desert, as the sand has been swept away by winds and occasional heavy rainstorms. Oases are areas within a desert where water is available for plants and human use. They are usually formed when a fault, or split in the rock allows water to come to surface. The Dead Sea is the large lake on the border between Israel and Jordon. It is the lowest point on the earth's surface. Its shores lie 392 m below sea level. It is also the world's saltiest body of the water and can support no life forms. The Rub-al-khali desert, also known as 'Empty Quarter' is the largest uninterrupted

stretch of sand on Earth. It covers some 650,000 sq.km. and is one of the world's driest and most-hostile deserts. The Iranian plateau in Central Iran is a vast semi-arid plateau, which rises steeply from the coastal lowlands bordering the gulf. It is ringed by high Zagros and Elburz mountains.

#### Climate

Most of the regions receive very little rainfall, apart from a few isolated pockets. During July, temperature soars, but in January temperature is much cooler, especially in the north.

## **Population**

The desert has kept much of the population clustered along the coastal area. Most people live in the cities, some of them are the fastest growing in the world. Oman and Yemen have mainly rural populations, and in Saudi Arabia, small groups of Bedouin tribe people roam the desert with their animals.

# Industry

The Oil and Natural Gas continue to be the main source of income for many of the countries here, although other industries are being developed to support their economies when these resources run out. Iran is famous for its carpet, which are woven from wool or silk.

# Farming and Land Uses

The best farmland is found along the Mediterranean coast, and in the fertile valley of the Tigris, Euphrates and Jordon river. Wheat is the main cereal crops, and cotton, dates, citrus and orchard fruits are grown for export. Elsewhere, modern irrigation techniques have created patches of fertile land in desert. Dates, wheat and coffee are cultivated in the oases and along the gulf coast.

#### **SOUTH ASIA**

#### Landscape

The South Asia consists of Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. Its landscape ranges from the mighty peaks of the Himalayas in North, through vast plains and arid deserts to tropical forest and palm-fringed beaches in the south. A massive towering wall of snow-capped mountains stretches in an arc across the continents. The huge floodplains and deltas of the Indus, Ganges and the Brahmaputra rivers separate the mountains from the rest of the peninsula, a great rolling plateau bordered on either side by coastal hills called the Eastern and Western Ghats. The Himalayas are the highest mountain system in the world. The northern range of the Himalayas average 7,000 m in height. They include the highest point on Earth, Mount Everest on the Nepal and China border which soars to 8,848 m. Much of the Bangladesh lies in the enormous delta formed by Brahmaputra and Ganges rivers. During the summer monsoon, the rivers become swollen by the torrential rain and meltwaters from Himalayas and the delta flood. The Deccan Plateau makes up most of the central and southern India. Its volcanic rock has been deeply cut by rivers such as the Krishna, creating stepped valley called "traps".



#### Climate

Climate is strongly influenced by the annual monsoon between July and September which brings hot, humid condition and extremely high levels of rainfall to much of the regions.

# Industry

Industry has expanded in India in recent years, and in cities a varieties of goods are produced and processed, including cars, aeroplanes, chemicals, food and drink. Services industries such as tourism and banking are also growing elsewhere. Small scale cottage industry serve the need of local people, but many product, mainly silk and cotton textiles, clothing leather and jewellery are also exported.

# **Population**

Most of the South Asia's people live in villages scattered across the fertile river floodplains in mountain valley or along the coast, but increasing number are migrating to the cities in search of work. Overcrowding is a serious problem in both rural and urban areas. In many cities thousands of people are forced to live in slums or on streets.

# Farming and Land Use

Over 60 per cent of the population involved in agriculture, but most farmers are small and produce only enough food to feed the family. Grains are the staple food crop- rice is grown in the wetter parts of the east and west, corn and millet on the Deccan Plateau, and wheat in north. Groundnuts are widely grown as a source of cooking oil. Cash crops include tea and jute.

#### **SOUTH EAST ASIA**

South East Asia chiefly consists of the countries like Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam. On the mainland, a belt of mountain range clocked in thick forest, run north-south. The mountains are cut through by the wide valley of five great rivers. On their route to sea, these rivers have deposited sediments forming immense, fertile flood plains and deltas. To the southeast of the mainland lies huge arc of over 20,00



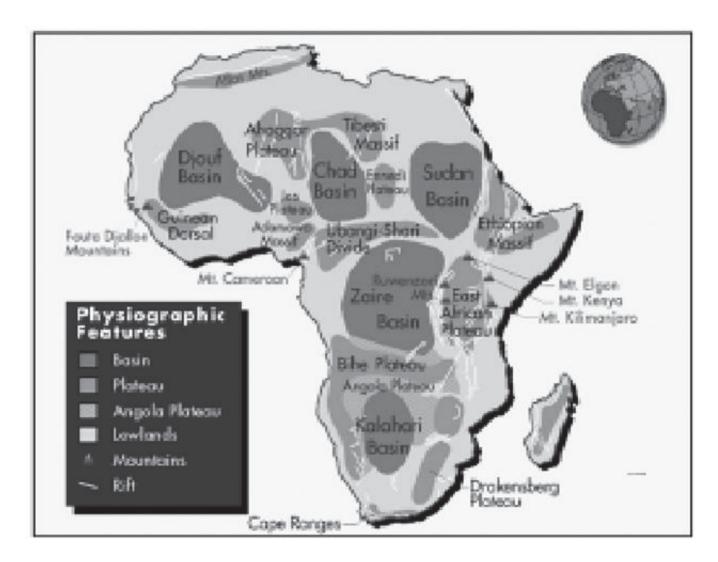
# Landscape

# Landscape

The continent of Africa ranks second next only to Asia in terms of size by occupying 20 per cent of the total land area. Its physiographic features consist of the mightiest rivers, greatest deserts and some well-known waterfalls. The entire continent appears like a huge plateau. One of the characteristic features of African landscape is the absence of elongated parallel ranges of continental dimensions such as Andes and Himalayas. Mount Atlas in the northwest and Drakensberg in the south-east are notable ranges. The towering mountain Kilimanjaro with snow-capped peaks all year around is well known. The Kalahari and Sahara desert also run alongside the mountain. Besides, Nile and Zaire rivers, there are so many rivers and waterfalls which have boosted up the hydroelectricity generation in the continent in which it occupies next position after Asia.

# Climate and Vegetation

It is the most tropical continent and the average temperature remains high throughout the year. Its equatorial belt has only one climate that is hot and humid with the least diurnal and annual range of temperature. The convectional type of rainfall occurs in the late afternoon which is also called 4'o clock rains. The equatorial rain forest of Africa is also called gallery forest. Some of the well-known species such as Mahogany, Rosewood and Ebony are found in this type of forest. The entire Savanna region is prevalent in the southern and northern side where the summer season is very warm and winter is warm. It is also known as the Sudan type of climate. This region has some of the largest wild animals thus called 'The Big Game Country'.



#### The Mediterranean Climatic Region

This type of climate is prevalent in southwestern part of S.Africa and the bordering areas of Mediterranean Sea in northern Africa. The entire region experiences warm dry summers because of offshore trade winds and cool moist winters because of onshore westerlies. A prominent feature of this region is the prevalence of local winds such as Sirocco and Khamsin. The vegetation is marked by shunted trees and xerophytic adaptation. Some of the important trees are: cork, oak, figs and olives. This region is also known for the cultivation of citrus fruits and is called 'Orchards of the World'.

**Temperate Grassland:** This region covers the areas between Drakensberg and the Kalahari and is further subdivided into a more tropical Bush - veldt and the temperate High-veldt. Parts of east Africa and Madagascar are under the influence of onshore trade winds all the year round and experiences evenly distributed rainfall which is known as the Tropical Marine Climate Region. This region is also known for the cultivation of cloves, spices and Coconuts.

The China Type of Climate: It is found in the south-eastern part of South Africa. The narrowness of the continent, maritime influences and onshore trade winds bring about a uniform distribution of rains and a small annual range of temperature. The natural vegetation includes the broad leaved deciduous forests on the low lands and coniferous on the highlands. The trees like bamboo, palm, wattle, etc. are more suitable for the climate. Besides, Mangrove is found along the Gulf of Guinea and Montane vegetation on the highlands of Ethiopia, Tanzania and Kenya.

# **Social Features**

# **Social Features**

Africa is well known for the diverse races and tribes. The Hausa of Nigeria are agriculturalists, the Masais of East Africa are pastoralists while the Pygmies of Congo are hunters and food gatherers. There is a plethora of tribal language spoken in sub-Saharan Africa. Here, nearly 10,000 languages

of the world are being spoken, but Swahili, the lingua franca, is understood by most. The Afro-Asiatic family of language and the Arabic language dominates in Saharan Africa.

# Tribes Regions

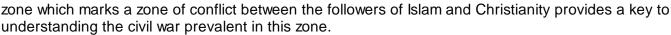
Masai East Africa
Pygmies Congo Basin
Hottentots Kalahari
Bushman Kalahari
Fulani Western Africa
Tuaregs Sahara Deserts

Bantus Central and Southern Africa Berbers Algeria, Morocco and Tunisia

Hausas Western Africa

The average population density is very low. Nile delta is the high density area accompanied by the Mediterranean regions in the north and the south. 750 million people inhabit the continent.

As far as religion is concerned, Saharan Africa is predomiantly Islamic while sub-Saharan Africa is Christian and animistic. The African transition



After the industrial revolution, Africa has developed as an exporter of primary commodities. In the present century, Africa has made a grand departure in the field of biotechnology because it is a huge resource of biodiversity. The vast stretching area of Savanna Grassland has enough potential to grow food for the rapidly increasing population. Now the continent is rapidly developing in various spheres such as Science and Technology, quality of life, agriculture, economy, etc. Thus, it would be very apt to entitle the continent as the Continent of Hope or 'Rising star'.

# Suez Canal

The Suez Canal is one of the world's most important waterways. Opened in 1869, the sea level artificial waterway crosses the narrow Isthmus of Suez, joining Africa and Asia and permits ocean going vessels to travel between the Arabian Sea and the Mediterranean Sea via the Gulf of Suez and the Red Sea. The canal is owned and operated by Egypt, and separates the main part of that country on the west bank from the Sinai Peninsula on the east bank. The northern terminus of the canal is Port Said. Southward, the canal continues in a straight line through Manzala and Timshah lakes and Ismailia where the administrative headquarters of the canal is located. Further south the canal passes through the Great and Little Bear lakes (now a single lake) and then passes through the city of Suez.

# Minerals of Africa

#### Minerals Leading Producers

1. Gold South Africa

2. Petroleum Nigeria

3. Iron ore South Africa

4. Diamond Zaire

5. Manganese South Africa

6. Phosphate Morocco

7. Tungsten Zaire

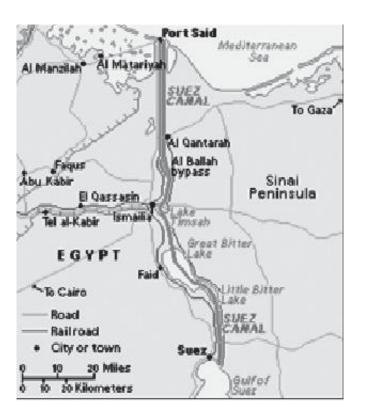
8. Bauxite Guinea

9. Copper Zaire

10. Platinum South Africa

11. Chromium South Africa

12. Vanadium South Africa



## 13. Antimony South Africa

## Mines Minerals

Kimberley Diamonds
 Lubumbashi Copper

3. Wankie Coal

4. WitwatersrandGold

5. Katanga Copper & Cobalt6. Kasai Province Bort Diamond

## Old Name New Name

1.Zaire Democratic Republic of Congo

2.Katanga Shaba 3.Elizabethville Lubumbashi 4.Gold Coast Ghana 5. South - West Africa Namibia 6.Leopoldville Kinshasa 7.South Rhodesia Zimbabwe 8.North Rhodesia Zambia 9.Nyasaland Malawi 10Stanleyville Kisangani

# Agricultural Product Leading Producer

1.Rubber Liberia 2.Tea Kenya 3.Coffee Liberia 4.Oil palm Nigeria 5.Cocoa Ghana Zanzibar 6.Cloves 7.Sisal Tanzania 8.Wool S.Africa 9.Maize S.Africa 10.Cotton Egypt 11.Wheat S. Africa

#### Points to Remember

- 1. Sirocco is a type of hot wind blowing from Sahara to Mediterranean.
- 2. Swahili is the oldest surviving African language.
- 3. The country Zaire has the maximum Hydroelectric Power potential in Africa.
- 4. The country Djibouti is facing the Strait of Bab-el-Mandeb.
- 5. Dar-es-Salam is the easternmost terminus of Tanjara railways which begins from Katanga mineral belt.
- 6. Ostrich is the flightless bird of Kalahari Desert.
- 7. Ethiopia is the place of origin of coffee.
- 8. Pretoria is the administrative capital of S. Africa.
- 9. Nilots are the aborigines of upper Nile.
- 10. River Zaire is the only river that crosses the equator twice.
- 11. Nubian desert lies in Egypt.
- 12. The countries Ethiopia and Somalia form the Horn of Africa.
- 13. High Veld is the temperate grassland of South Africa.
- 14. Africa is the most tropical of all continents.
- 15. Most part of Kalahari Desert lies in Botswana.
- 16. The Farmers of the Egypt are also called Fellahin.
- 17. Gibraltar, Suez and Bab-el-Mandeb are three points where Africa almost touches Eurasia.
- 18. Cape of Agulhas is the southernmost tip of Africa.
- 19. Mt Kilimanjaro is the highest peak in Africa.
- 20. Teff is the highly nutritious crop of Ethiopian high lands.
- 21. Bab-el-Mandeb is called Gate of Tears.
- 22. Tanzania, Kenya and Uganda are the bordering countries of Lake Victoria.
- 23. Khartoum is the city at the confluence of the Blue and the White Nile.

- 24. Al-Aziziya of Libya is the hottest place in the world.
- 25. Morocco, Algeria and Tunisia are the three Maghreb Republics.
- 26. Tana is the source of Blue Nile while Victoria is the source of White Nile.
- 27. The 'Great Bitter' and Little Lake are along the Suez Canal.
- 28. Zaire is a large geographically disadvantaged state.
- 29. Lake Assal, Djibouti is the lowest point in Africa.
- 30. Tuaregs is the nomadic herders of Sahara.
- 31. The Lake Victoria in East Africa is not laying in the Great Rift Valley.
- 32. Lake Chad is the region of inland drainage.
- 33. Cape Town is the seat of legislature of S. Africa.
- 34. The Rain Forest is the natural region with greatest biodiversity.
- 35. The South African farmer of Dutch descent is called Boer.
- 36. Lourenco Marques was renamed as Maputo.
- 37. A new country Eritrea was carved out of Ethiopia during 1990s.
- 38. River Orange is a boundary between S.Africa and Namibia.
- 39. Masai is the pastoral tribe of Kenya.
- 40. In Africa, the best quality iron-ore (magnetite) is found in Liberia.
- 41. Witwatersrand is famous for Gold.
- 42. Kimberly is famous for diamond.
- 43. Victoria Falls was discovered by Livingstone.
- 44. The countries Ethiopia and Liberia of Africa were never colonized.
- 45. Victoria Falls is on river Zambezi.
- 46. Victoria Falls is the largest water falls in the world.
- 47. Akosombo dam is situated on the river Volta.
- 48. River Limpopo is the boundary between the South Africa and Botswana.
- 49. Lake Nasser is on River Nile.
- 50. Harmattan is hot local wind blowing form Sahara to Guinea Coast.
- 51. Abuja and Dodoma is the new capital of Nigeria and Tanzania.
- 52. South Africa is the island of Gold and Diamonds.
- 53. Four largest countries in decreasing order of area are Sudan Algeria Zaire and Libya.
- 54. Nigeria is the land of oil palm.



#### ANGLO-AMERICA

The continent of Anglo-America comprises the world's two largest countries- the United States of America (USA) and Canada. In spite of a wide range of socio-economic inequality, diversity of national background and language, the indigenous American culture is flourishing. Its culture encourages the entrepreneurship, development of skill and pursuit of excellence. This is the reason why USA and Canada have emerged as the two most developed countries of the world. The natural resources have facilitated the development of ward's largest manufacturing complexes and as a result of it large scale urbanisation. The entire agricultural activities in the continent are mechanized, export oriented and commercial.

# Landscape

The entire physiography of Anglo-America varies from Swampy plains to high mountains. Some of the well-known plains are "the Canadian Shield" the "Arctic Coastal Plain," the "Gulf Atlantic Plain", the "Piedmont Plain" and the "Interior Plains". The interior plains lie mostly within the drainage basins of the rivers Mississippi, Mackenzie, Saskatchewan and St Lawrence. A large part of Canadian Shield is covered with swamps and numbers of lakes of glacial origin such as "Great Bear Winnipeg" and the "Great Lakes". The "Appalachians", "Western Cordillera" and "Interior Highland" are some of the important highlands. The Arkansas river divides the interior highlands into two major segments- the "Boston" and the "Ozark" mountains in the north and "Ouachita" Mountain" in the south. The mountain range comprises the "Rocky Mountain" and "Sierra Nevada". The "Great Basin" is the largest plateau basin. "St. Lawrence" and "Mackenzie" river which flow northward are the important rivers. The Mississippi flows southward.



# **Climate and Vegetation**

The "non-tropical" type of climate is the most prevalent one in Anglo-America except Florida, where "tropical climatic" type is found. The "Tundra Type of Climate" is found in areas from the Alaska to Labrador and Greenland. The mean annual temperature is very low in the region. Within the Arctic Circle, there are weeks of continuous darkness or light. The "cool temperate continental" or "Siberian" or "Taiga" type of climate is found south of the Tundra region. Here, the mean annual range of temperature is very high and the precipitation is very low. The "Cool Temperate Eastern Margin" or "Laurentia type" of climate is found in south of Taiga. Here, deciduous trees species oak, beech, maple and birch are important. The "Cool Temperate Western Margin" or "British type" of climatic condition is mainly found in the north-west where westerlies influences may be traced. Due to oceanic influence, the mean annual temperature is not very large. The important species include elm, beech, poplar, alders and aspen. "The Warm Temperate Eastern Margin or China type" of climate is found in the south-east. The annual rainfall is heavy and well distributed throughout the year. The occurrence of "tornadoes" and "twister" is very common in this region. The "Warm Temperate Western Margin or Mediterranean type" of climate is found in California. The summer is dry and warm and the winter is moist. The "Desert type" of climate is found in the region of Mohave, Sonoran and California deserts. Bordering the desert, in the interior of the continents lies the temperate Grassland. It is almost completely treeless. In North America, these are called "Prairies". An interesting feature of the Prairies is the hot local wind "Chinook" or "Snow Eater". It blows down

the eastern slopes of Rockies. The Prairies is covered with Grass and no trees. Species like "Low Willow", alders and poplars are found here.

# **USA**

The USA is also known as the "Melting-pot of the world" because according to the latest census report nearly 85 per cent of the US population identified themselves with one of more than 140 different national backgrounds. Some of the important nationalities here are; British Irish, French, Italian, Scandinavian, African and more recently Chinese, Indian and Korean. The immigrants have brought with them different religions. The important ones are Islam, Buddhism, Confucianism and Hinduism. Nevertheless, Anglo-America remains Christian dominated.

The North-East region of U.S.A. consists of 6 New England states; Maine, New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island and five middle Atlantic states; New York, Jersey, Pennsylvania, Delaware, Maryland and the districts of Columbia. These areas are intensely developed and most densely populated. These are also the most urbanized region. The extraordinary urbanisation is the by-product of industrialization in this region. The old textile town "Lowell and Lawrence" are the new avenues of employment.



The southern side includes the 14 states and accounts for 25 per cent of the total area and little over 30% of the population. This region has intermediate population density and lower level of urbanisation. The economy of the south is dominated by production of cash crops for the world market. The cotton growing region has now shifted to Atlantic coastal region of Georgia and South Carolina. Which is also called "Sea-Island". By 1860, "the Black-Belt" extending from Alabama of Mississippi had come to the principal centres of the U.S.A. The Midwest includes 12 states and accounts for 20 per cent of the total land area and approximately 25 per cent of the population. This region is the leading producer of agricultural products and manufactured goods. In value term, the Midwest accounts for the 40 percent of the total agricultural production. The industrial development decreases from east to west.

Agricultural Product Leading Producer

Rice Arizona

Wheat Saskatchewan

Cotton Texas
Grapes California
Orange Florida
Corn Illinois
Sugar Florida
Groundnut Georgia

Tobacco Kentucky
Apple Nova Scotia
Corn Ontario
Barley Alberta
Oats Alberta

The Western region comprises 11 states and accounts for 33 per cent of the land area and 20 percent of the population. In spite of water shortage, the region accounts for 20 per cent of the agricultural production. In southern California, the favorable climate and irrigation from the mountain streams supports the production of citrus fruits. Today the central valley is highly productive. "Oregon and Washington" are the leading producer of timber especially softwood varieties like "Douglas fir". The "Silicon Valley" of San Francisco region is well known for computers and biotechnology. The "Boeing Company of aircraft manufacturing" is located in Seattle. The copper in "Arizona" and oil and coal in "Utah" is well known. The western Pacific is now emerging as the world's most economically dynamic region.

#### CANADA

At present, Canada is one of the most industrialized and technologically advanced and urbanized state of the world. The prominent characteristic of Canada is the greater reliance on the export of raw and semi-finished material while it imports the manufactured goods. The overbearing influence on U.S.A. on Canada has been a sure point to many Canadians who think of themselves as "American Colony".

## Social Aspect

A large part of Canadian population is concentrated around its border with the U.S. In fact 70 to 80 percent of the population lives within 160 km of the border. Canada's population cluster may be grouped into four main regions:

- (i) Atlantic region in the northeast
- (ii) Culturally divided core region of maximum population and development along the St. Lawrence River in Ontario and Quebec
- (iii) the Prairies region of interior plains and
- (iv) Vancouver region in the south-west.

City	Rivers			
New York Chicago Philadelphia Cleveland Baltimore Minneapolis Cincinnati	Hudson Chicago Lower Delaware Cuyahoga Patapsco Mississippi Ohio			

The easternmost of the Atlantic region is most populated regions. It consists of the province of Newfoundland, New Brunswick, Nova Scotia and Prince Edward Islands. The Prince Edward Island is a lowland occupied by farm and small agglomerated settlement. The Labrador located on the mainland, is a part of the province of Newfoundland. In this region, the fishing industry is the most important. The Atlantic province provides a hard environment for agriculture. At present, agriculture is mainly concentrated in very small patches of good land dedicated to specialized farming. These include the "Prince Edward Island" and "Annapolis-Cornwallis Valley" of Nova Scotia where potatoes and apple are grown. Prince Edward Island has the highest proportion of tilled land of any Canadian province.

The core region of Canada consists of the provinces of "Quebec" and "Ontario". In Ontario, the American Midwest is repeated on a somewhat smaller scale with corn and livestock production, dairy farming and other special crops like fruits and vegetables while in Quebec, one find the "long lot" pattern of landholding with dairy farming being the predominant form of agriculture. This region produces a wide variety of industrial products and accounts for more than ¾th of the Canada's output. The "Ontario" is well-known for iron and steel-industry. Other important industries include

automobiles and auto-spare parts.

In Quebec 82 per cent of the people speak French and only 11 per cent speak English while it is quite the reverse in Ontario. The government in Quebec is French dominated.

The Prairies province or Pacific Region includes Manitoba, Saskatchewan and Alberta. This region is full of the tall Prairie grasses. Agriculture is the basis of this region's economy. Together these provinces produce around half of the farm produce of Canada and sell about a fifth of world's wheat exports. Of the three Prairie Provinces, Saskatchewan, with nearly 20 per cent of the total employment in farming, is agriculturally the most important. In recent times, minerals, especially oil and natural gas have become the foundation of advances in the region's economy. Coal, potash, nickel, copper, zinc and uranium are important minerals are mined in this region.

## Vancouver Region

This province lies within the high coast range and Rockies. This pacific province of British Columbia displays an environmental difference from the rest of the Canada. It is also a distinctive area, climatically, with British type of climate. The province is also sparsely populated with concentration of population around the Vancouver. It consists of more than 10 percent of the land area but it has over half of the province population. The economy of this region is chiefly based on the primary products especially timber and minerals including coal, oil and natural gas. This province is also well developed in hydro electricity. The fishing industry is also very well developed. In the recent times, this region has also experienced rapid urban growth.

#### **Industrial Centres**

# Centre Specialization New York Garments Baltimore Iron and Steel

Buffalo Iron and Steel
Pittsburg Iron and Steel
Delaware Chemical Industry
Wilmington Chemical Industry

Boston Photographic equipments
Rochester Photographic equipments

Massachusetts Electronic Industry
New York Electrical equipment
Pittsburgh Electrical equipment
Hartford Aircraft Engines

New York Printing and publishing Washington D.C. Printing and publishing

Detroit Automobile industry

New Orleans Oil refining, Petrochemical
Baron Rouges Oil refining, Petrochemical
Chicago Machinery and steel, Locomotive,

Food processing, Wood products
Toledo Glass Industry
Cleveland Iron and Steel
Akron Automobile tyres

The Canadian North comprises most of the territory. The population is dispersed in a small pockets along the southern fringe of the North called "Near North" - the southern edge of the sub-arctic climate zone. Mining settlements form many of such pockets of population. Sudbury and Ontario are the most important one. Metal and paper industries are commonly found here. The agriculture potential of this region is severely limited because of harsh climatic condition. The agricultural activities are mainly concentrated around the Sanguinary River, the clay Belt of Ontario and Quebec, the Peace River plain of Alberta and British Columbia.

## **Yukon and North-West Territory**

This region is also known as "Territorial Canada" which is in federal control and comprises over a

third of Canada's areas. The population consists of Native Indians, Eskimos and the people of mixed white origin. The white people are primarily engaged in the service sector while Red Indians and Eskimos still carry on their traditional hunting and gathering activities. The Native Indians and the Eskimos, on the other hand are generally unemployed and dependent on state support. In the recent time, the political assertiveness of the Indians and Eskimos, who have demanded a greater control over their affairs, has further delayed the process of development.

#### **Characteristic Facts**

**Douglas fir:** It is a type of tree species used in timber industry. It is found in the western USA especially in Washington and Oregon. The "Yellow" and "loblolly pines" are important tree species. The state of British Columbia is most important centre for the timber industry in Canada. Canada is the largest producer of newsprint while USA of paper and pulp.

**Grand Canyon:** The Grand Canyon of Colorado is the largest of its kind and is famous for its stark natural beauty. It is a deep-cut gorge with wall like side in the soft rocks of Colorado plateau. In the year 1869, J.W. Powell led a pioneering expedition down the Colorado River through the Grand Canyon. He remarked, "the canyons of this region would be a Book of Revelation in the rock-leaved Bible of Geology.

**NAFTA:** It refers to the North American Free-Trade Area which is a type of grand economic alliance of U.S.A., Canada and Mexico. It has progressively eliminated the barriers of trade-goods and services which has also enabled the formation of world's largest trade block.

**San Andreas Fault System:** It is the largest fault system of North America. It is inclined towards the north westerly direction through much of western California. The fault is transformed boundary. Due to the westward movement of the "pacific plate" earthquake are frequently experienced in this region. Owing to the great length and complexity of San Andreas Fault, it is more appropriately referred to as "fault system".

**Blizzard:** It is an intensely cold and strong wind accompanied by falling snow found in the northern North America. It is called "Buran" in Eurasia.

The Rustbelt/the Old Metropolitan and Sunbelt: These belts refer to the division of U.S.A into two major categories. The old metropolitan belt consists of those towns which had attained prominence by early 20th century which is growing very slowly and in some parts is even declining, especially in the Middle Atlantic belt and eastern Midwest. Such area of declining is known as "Rustbelt". The Rustbelt is characterized by outmoded buildings and equipment, depressed sales, high unemployment and unattractive surrounding. The "Sunbelt" on the other hand is a very elastic term and includes most of the south and parts of the west. It is best symbolized as "Silicon Valley" and "Sunny California". It is characterized by faster growth of the population and job.

**Corn-Belt:** It is known for its Rectangular shape. This was prescribed in "1785" by the Federal law. It has established a system of uniformity in the entire U.S.A.

Highway Technology: It refers to the Highway 128 in eastern Massachusetts because a large number of industrial units, manufacturing industries and electronics industry are situated along the roadways.

**Long-Lot:** It refers to a type of landholding in "Quebec". It is a long narrow strip of agricultural land which lies at right angles to ribbons of comparatively dense settlement along roads where the houses and farm buildings have formed elongated village.

**Topanyms:** It refers to the type of Catholic settlement in the New World or Quebec in USA. The Topanyms of Quebec settled initially by the Catholics and the New York state was settled by the Protestants.

**Yeoman Farmers:** It chiefly refers to the migrated farmers who settled in Piedmont and Appalachians and established semi-subsistence agriculture. The main reason of migration is the spread of plantation industry in the south.

**Cajun French:** It refers to the largest non-Hispanic minority language group of southern Louisiana. The French Settlement existed during the early 1700, but the arrival of refugee group "Acadians"

who planted the French culture.

#### Points to Remember

- 1. United States is the largest consumer and importer of mineral oil in the World. It has only 3 percent of the World oil reserve.
- 2. "Prince Edward Island" is Canada's smallest and most densely populated province.
- 3. "Newfoundland", the oldest British colony was the last province to join Canada in 1949.
- 4. The northernmost mine of the world is highly mechanized. "Polaris" a zinc and lead mine is just 130 km south of the North Magnetic pole.
- 5. The states of USA in descending order of area Alaska > Texas > California > Montana.
- 6. "Rhode Island" is the smallest state of USA.
- 7. "George Washington" was the first president of USA.
- 8. "Hollywood" is in the state of California. It was established by Harvey Wilcox in 1887.
- 9. The river "Rio Grande" forms the boundary between U.S.A and Mexico.
- 10. "Distt of Columbia" is the smallest administrative unit of the U.S.A
- 11. "California" is the most populated states of U.S.A
- 12. "Mt McKinley" is the highest peak in North America.
- 13. "Mt Whitney" is the highest peak in conterminus USA.
- 14. The Great Lakes arranged from West to East Superior, Michigan, Huron, Erie and Ontario.
- 15. "Michigan" Lake is entirely lying in U.S.A
- 16. The 49°N latitude separates USA and Canada.
- 17. "Seattle" is the head office of software giant, Microsoft.
- 18. The Canadian Pacific Railways runs between St. John's in New Brunswick and Vancouver.
- 19. The Canadian National Railways connects Halifax to Prince Rupert in British Columbia.
- 20. The "Davis Strait" separates N.America from Greenland.
- 21. The "Sudbury Mines of Canada" is famous for Lead, Zinc and Silver.
- 22. "Hamilton" is called the Birmingham of Canada.
- 23. "Windsor" is called the Detroit of Canada.
- 24. The highest tidal range is experienced in the "Bay of Fundy".
- 25. Canada is the largest producer of paper and pulp.
- 26. "Prince Edward Island" is the smallest province of Canada.
- 27. "Toronto" is the largest city of Canada.
- 28. "Ontario" is the most populated province of Canada.
- 29. Maritime province of Canada includes "New Foundland", "New Brunswick", "Nova Scotia" and "Prince Edward Island".
- 30. The largest province of Canada is "Quebec"
- 31. "Toronto" is the capital of the province of Ontario, Alberta, and Nova Scotia.
- 32. "Nunavut" is the most recent federal territory of Canada.
- 33. There are 10 provinces and 3 federal territories in Canada.
- 34. The Mediterranean type of Climate is found in California.
- 35. "St Louis" is the confluence of Mississippi and Missouri.
- 36. "St. Lawrence" is the busiest inland waterways of N.America.
- 37. The Damodar valley Corporation of India is on the line of "Tennessee Valley Corporation".
- 38. "Alaska and Hawaii" are the 49th and 50th state of U.S.A, respectively.
- 39. "The Yellowstone National Park, Wyoming" is the old faithful Geyser.
- 40. Canada generates largest amount of hydroelectricity as percentage of total power produced.
- 41. 'Chicago" is located on the shore of Lake Michigan
- 42. "Niagra Falls" lies between Lake Erie and Ontario.
- 43. "Soo Canal" joins Lake Superior and Huron.
- 44. "Welland Canal" joins Lake Eric and Ontario.
- 45. "Big Apple" is the nickna me of the city of New York.
- 46. "New York" is the largest urban agglomeration of the U.S.A.
- 47. "Cape Kennedy, Florida" is known as the rocket launching centre of the USA.
- 48. "J.F. Kennedy Airport, New York" is the busiest airport of the U.S.A.
- 49. USA has owned the "Davis Cup" maximum number of times.
- 50. "Baseball" is the national sport of the U.S.A.
- 51. "The Star Spangled Banner" is the national anthem of U.S.A.
- 52. "Death Valley" is the driest and hottest place in U.S.A.



## Landscape

The "Middle America" comprises countries from Mexico to Panama and all the islands of Caribbean Sea. The mainland of the Middle America which is the site of development of the Meso-American culture is also a zone of conflict. It chiefly consists of two regions "Mexico" and "Central America" which includes within it seven countries Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. The size and population of Mexico exceed the combined population and area of all others Middle American countries put together.

#### **MEXICO**

#### **Social Features**

About 60 per cent of all the Mexicans are "Mestizos" 25 per cent are Americans while only 9 per cent are Armedians. In Mexico, two way exchange of cultural change has occurred. Here, Mexican Amerindians have been Europeanized while the modern Mexico is strongly indianised. Some of the distinctive Mexican modes of dress, cuisine and architectural style also reflect Amerindian contribution. The largest number of Mexicans are Roman Catholics.

# **Climate and Vegetartion**

Over a half of Mexico lies to the North of Tropic of Cancer and is dominated by desert and steppe climatic type. The south of the Tropic of Cancer is inhabited by huge population. Mexico's climate is marked by dryness particularly in the mountain-flanked north. It is among the top five producers of agricultural products such as sugarcane, citrus fruits, coffee and corn. The central Mexico region is too high for Tierra Templada crops. The prevailing Tierra Fria environment allows only such crops which are resistant to frost damage. In the northern, Mexico the "steppe" or "desert" type of climate is found. "Lumbering" is important economic activity here. The Gulf Tropics region of Mexico is the main producer of plantation crops including Cocoa, Sugarcane and rubber.

# Industry

The physiographic diversity of Mexico has also provided to Mexico, vast mineral wealth. Antimony, petroleum and sulphur are the chief minerals of Mexico. Mexico still exports a major share of world's silver apart from copper, zinc and lead. The yearly rate of growth of Mexican population is nearly 2.3% and it is expected that its population will double by 2025.

## **IMPORTANT CENTRAL AMERICAN STATES**

#### Guatemala

It became republic in "1839" and it is the most populated of the Central American countries. Most of the population belongs to the Indian and Mestizo origin. There has been a rebellion against the military backed rule. Cotton and coffee remain the major sources of income. A fairly diversified agriculture, exploitable timber resources, vast deposit of nickel, etc. Are the hope of future growth.

#### **Belize**

It became independent in 1981. English is a lingua franca here. More than half of the population is "Creoles" or English speaking black who are found mostly in the coastal region. Sugar is a principal export item. In 1859, a treaty was signed between Britain and Guatemala delineating the territorial boundary of Belize.

# **Honduras**

There 90% of the population is Mestizo. It is the poorest Central American country and the economy is entirely based on agriculture, livestock, forestry and mining. Although Honduras has a

democratically elected government, the military continues to wield a strong influence. There is a development of light industry and tourism.

#### El Salvador

It is the "smallest" and most populated country in central America. The economy is based on the agriculture and the principal crop is coffee. It is also the principal source of medicinal gum. Here 90 per cent of the population is "Mestizos" and 5 per cent are Amerindians. The civil war has disastrous consequences for the society and economy of the country.

# Nicaragua

It is the largest and sparsely populated of the central American nation. It became independent in 1838. The civil war of the country was ended in 1990 in which more than 30,000 people were killed. Unemployment in Nicaragua is 50 per cent. The population growth rate is 3.1 per cent.

#### Costa Rica

Costa Rica has no standing army and it is the oldest democracy in middle and South America enjoying uninterrupted political freedom since 1889 and it is also the most economically developed nation in this region. It has literacy rate of 95%. It is described as "Switzerland of Central America".

#### Panama

The well known 'Panama Canal" built by the U.S.A is situated here. About 60 per cent of the population is Mestizo. Most of the rural population is Concentrated along the canal. Banana, rice, sugarcane and coffee are the prominent agricultural product. It is also the largest free trade area.

#### The Islands of Caribbean

# **Physical Set-Up**

The entire region is characterized by the diverse physical conditions. The largest West Indian island; "Cuba" comprises the lowland which have low to moderate relief features. On the other hand the island of Hispaniola, Jamaica and Puerto Rico are mountainous and hilly. The Trinidad is the detached continental island which has a low mountain range in the north and hilly in the south. "Bahamas" island is of flat limestone and rimmed by coral reef. The "Virgin" island is of volcanic origin.

# Climate and Vegetation

Due to maritime influences the hot weather is uncommon and warm weather prevail throughout the year. The annual temperature is very small and the precipitation varies from island to island. These islands are the path of trade wind and the windward side of the mountain receives high rainfall than the leeward side. The natural vegetation varies from the luxuriant forest in areas of adequate moisture to sparse and scanty woodland in the drier areas.

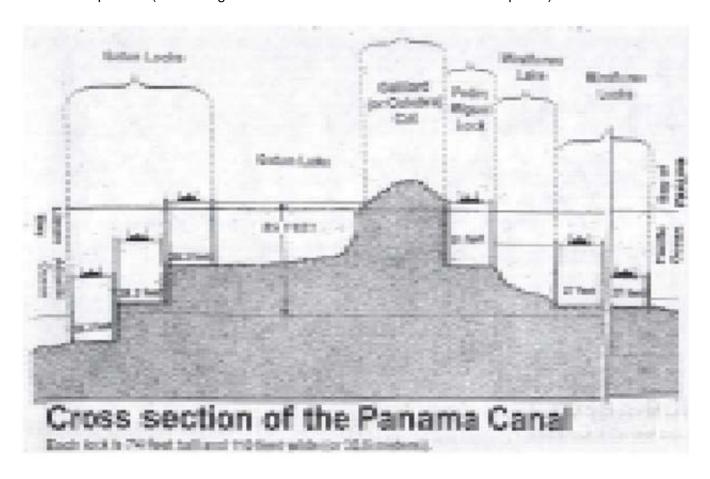
## Social Aspect

In the entire islands the majority of people belong to "black" or "mulattos." The white people from the Europe are in the best positions from the political and economic point of view. Mulattos rank next and the Black rank lowest. The cultural heritage of different island varies greatly and there are endless combination of cultural heritage is found. The political arrangement is also diverse. Some of the independent parliamentary states which include Jamaica, Barbados and Bahamas, Grenada, St. Kitts and Nevis, St. Lucia, St Vincent, Grenadines, Antigua, Barbuda are former British colonies and continue their allegiance to British crown. Some of the Independent Republics are Cuba, Haiti, Dominican Republic, Dominica and Trinidad & Tobago.

## Economy

The subsistence type of agriculture is found here. All types of crops are grown - here. The sugarcane is the most important export crop. Some of the important plantations include banana, coffee, tobacco and coconut. Bauxite is produces in the island of Jamaica. Trinidad and Tobago

produce oil. The manufacturing industry is growing in Puerto Rico and Cuba. A major portion of the income of some of the important islands comes from tourism. "Bahamas Island" is a well known tourism centre. "The Greater Antilles" comprises of four largest Caribbean islands. It includes Cuba, Jamaica Hispaniola (containing the nations of Haiti and the Dominican Republic) and Puerto Rico.



#### **Barbados**

It is the easternmost island of West Indies. It is the most densely populated and all the available land is under irrigation. Sugarcane is cultivated on 90 per cent of the cultivable land. It became independent from the Britishers in 1962. In the entire Caribbean country, Barbados is most educated and had a tolerant population. Agriculture accounts for the 6 per cent of the GDP while the service sector for nearly "80%". The main exports of Barbados are electrical component, petroleum products and chemicals.

#### Points to Remamber

- 1. "Belize" is the only Central American republic that does not have a Pacific coastline.
- 2. "El Salvador" is the only Central American country not having an Atlantic coastline.
- 3. "Belize" is the country which is also called "British Honduras".
- 4. "Sugarcane" is the largest export of most of the Caribbean islands.
- 5. "Barbados" is the most densely populated country of the central America.
- 6. The arranged order of Central American countries from North to south: Belize Guatemala Honduras El Salvador Nicaragua Costa Rica Panama.
- 7. The "Panama city" is the only capital city of central American country having a costal location.
- 8. "Panama" was one of the provinces of Colombia.
- 9. The "Nicaragua" is well known a the Mosquito Coast.
- 10. "Belize city" is the old capital of Belize.
- 11. "Chemicals" is the largest export of Puerto Rico.
- 12. "Balboa" and "Colon" are the cities on the Pacific and Atlantic ends respectively.
- 13. The capital of Costa Rica, Honduras and El Salvador are San Jose, Tegucigalpa and San Salvador.
- 14. The Republic of Haiti and Dominican Republic share the island of Hispaniola.
- 15. "El Salvador" is the most populated Central American republic. It is also the smallest Central American nation.

- 16. "Mexico city" is the largest urban agglomeration in the world.17. "Mexico" is the only Middle American country where Olympics were held in 1968.
- 18. "Chihuahua" in Mexico is one of the largest silver mines in the world.19. "Barbados" was the island of Lesser Antilles which was once under British rule.
- 20. "Mexico" is the largest country of the Central America.
- 21. "Cuba" is well known for producing sugarcane, cigar and boxes.



#### **SOUTH AMERICA**

The continent of South America was originally discovered by Columbus. This fourth largest continent of the world has diversity of physical landforms, people, culture and flora and fauna. Therefore, it is also referred to as the "new world". In comparison to other continents, it has experienced the forces of change and its economy has ascended rapidly in the market driven economy of the modern times.

# Landscapes

The western part of continent is surrounded by the "world's longest and highest" mountain range "Andes". The Andes is a type of young fold mountain which is more or less similar to the Himalayas and run 7,000 km on the west coast. "Mt. Ojas del Salado" in the Andes is the highest active volcano in the world and "Mt Aconcagua" is the highest peak. The two important highland outside the Andes; "Guiana Massif" and "Brazilian Highland" are famous for coffee plantation.

Some of the well-known rivers of the South America are Amazon, Orinoco, Parana and Paraguay. The river Parana forms the boundary between the Paraguay and Brazil. "Itiapu", the largest dam of South America, is located on it and generates 40% of the Brazil's electricity. The Guiana falls, with most voluminous discharge in the world is also on the Parana River.



#### **Climate and Vegetation**

The climate of South America is generally hot because it lies within the tropical zone. The equatorial type of climate is found in the entire Amazon basin. The entire region is covered with the tropical rainforests which is locally known as "Selvas". The "balsa", the lightest wood in the world, is found here. The Selvas lies between the tropical grasslands called "Llanos" in the north and "Campos" in the south. In this region, "Tropical Savanna Type" of climate is found. The southern part of the Campos is marked by a "warm temperate eastern margin type of climate" or China type. There is small annual range of temperature and rainfall. This region also experiences violent local storms. In Argentina and Uruguay, a cold wind called "Pampero" blows. It is accompanied by the thunder and lightnings.

The northern part of Chile and the southern plateau experience a typical "hot desert type of climate". The Atacama Desert", the driest in the world, is a trade wind desert. "Patagonia" a midlatitude desert is another well-known desert of South-America. It is a desert because of "rain-shadow effect of the Andes".

The "Mediterranean type" of climate which is characterized by warm dry summer and cool moist winter is found in central Chile. The natural vegetation here consists of the evergreen trees having thick, shiny leaves which are able to withstand the drought like conditions. The trees of Oak, walnut and chestnut are abundantly found.

The British type or cool temperate western Margin type of climate is found in the southern Chile. The natural vegetation is characterized by temperate mixed deciduous forest. The Brazilian Highland and

the south of Gran Chaco are covered with the temperate grasslands called "Pampas" in Argentina. These grasslands are particularly treeless. In the Pampas, the natural grass has been replaced by a more nutritious leguminous variety called "Alfalfa".

#### Social Life

The people of South America belong to three main racial group Amerindians, Black and Europeans. The people of mixed origin such as "Mestizos, "Mulattos" and "Zambos" are also found. Mestizos form the largest group. The persons of Indian origin have settled in Surinam, Guyana and Trinidad & Tobago. The most characteristic feature of the South American demography is the prevalence of high degree of urbanisation despite low level of technology and development. The rural to urban migration is very high because of both the pull and push factor.



The entire economic activities are centered around the agriculture and trade in primary products. In the north-east Brazil, plantation agriculture is practised. "Coffee" is the chief crop of Brazil which is grown in the south-eastern highlands and Andean templada. The Mediterranean region of the Chile is suitable for the "Citrus fruits". The shifting agriculture is practised in the Selvas.



# Industry Leading Countries

Iron & Steel Brazil
Chemical and Brazil

Pharmaceutical

Automobiles Brazil
Cement Brazil
Meat Packing Argentina
Food Processing Argentina

# Mining

lineral Leading Producer	
Oil	Ve ne zuela
Tar	Trinidad
Iron Ore	Brazil
Copper	Chile
Tin	Bolivia
Nitrates	Chile
Phosphates	Peru

Bauxite Surinam & Guyana Silver Mexico

# Agricultural Products

Product	Leading Producer
Coffee	Brazil
Cotton	Brazil
Soyabean	Brazil
Wheat	Argentina
Fisheries	Peru

# Points to Remember

- 1. The coffee soil of Brazil is called "Terra Roxa".
- 2. "Paraguay", "Uruguay" and "Bolivia" are the three buffer-states between Argentina and Brazil.
- 3. "Venezuela" is the south-American country which is member of the OPEC.
- 4. "Santos" is the outport of Sao Paulo.
- 5. "Cinchona" is the tree that yields quinine.
- 6. Brazil shares the boundary with all South American countries except "Chile" and "Ecuador".
- 7. South American countries in descending order of size; Brazil-Argentina-Peru-Columbia.
- 8. "Sucre" is the legal capital of Bolivia.
- 9. "La Paz" is the administrative capital of Bolivia.
- 10. Punta Arenas and Chile are the southernmost inhabited cities of the world.
- 11. French, Italian, Portuguese and Spanish are the Latin languages.
- 12. "Portuguese" is the official language of Brazil.
- 13. "Chuquicamata" is the copper capital of the world.
- 14. "Brazil" is the country with the largest reserve of hardwood.
- 15. World's largest exploitable reserve of copper is found in the "Chile".
- 16. "Minas Gerais" is the most mineral rich state of Brazil.
- 17. "Drake Passage" is a strait between South America and Antarctica.
- 18. Iquique in Atacama is the driest place on the Earth.
- 19. "Colombia and Chile" are the South American countries with coast along both Pacific and Atlantic Ocean.

- 20. "Titicaca" is the highest navigable lake in the world.
- 21. "Brazil" is the only country through which both equator and one of the tropics pass.
- 22. "Balsa" is the lightest wood that is found only in South-America.
- 23. "Sao Paulo" is the largest city of South America.
- 24. Argentinean ranches are called "Estancias".
- 25. "Gauchos" are the people of mixed European and American Indians ancestry who work on cattle farms.
- 26. "Mt. Aconcagua" is the highest peak of South America.
- 27. "Madeira" is the largest tributary of Amazon.
- 28. Some of the South American countries bordering Caribbean Sea are: "Colombia, Venezuela, Guyana, Surinam, French Guiana and Brazil".
- 29. Caliche or Sodium Nitrate is found in "Atacama Desert".
- 30. "Kourou" the French satellite launching station is in "French Guiana".
- 31.Lake Maracaibo, famous for crude oil is in Venezuela.
- 32. "Alfa-Alfa" is the nutritious leguminous grass of Pampas.
- 33. "Angel falls" the highest in the world is on "Orinoco river of Venezuela".
- 34. "Pampero" is the violent cold wind in Argentina and Uruguay.
- 35. "Pampas" is the temperate grassland of Argentina.
- 36. "Tubarao of South Brazil" is South America's largest steel making facility.
- 37. "Coffee Plantations of Brazil" are called "Fazendas".
- 38. "Bolivia" and "Paraguay" are the landlocked countries of South America.
- 39. Bolivia is named after "Simon Bolivar".
- 40. Trans Andean airways connects "Buenos Aires" and "Valparaiso".
- 41. "Entre Rios" is also called Mesopotamia.
- 42. "Polygon of drought" is a term used to describe the Brazilian North-East.
- 43. "Gran Chaco" is an inland plain of South America in Bolivia, Paraguay and Argentina. It has warm temperate forest and grasslands.



#### **EUROPE**

Europe is the world's second smallest continents occupying the western tip of Eurasian landmass. The old high lands lies to the north and west with the high peaks of Alps in the south. Europe's northern coastline stretches deep into the Arctic Circle. Here the Norway iceberg drift into the deep wide bottomed fjords. The north European plain has low rolling-hills and plains. Much of the area is cultivated and used for growing crops like wheat and sugar beet. Some of the world's oldest rocks are found in northwest Europe. Erosion by glaciers in the last ice age created smoothed hills such as the mountain of Wales. The Alps are Europe's major mountain chain. They were formed about 65 million years ago.

#### Climate

Europe's climate is temperate with few climatic extremes. In the far north, Europe extends into the Arctic Circle and the climate is so cold that in the winter, the Baltic Sea freezes over. Towards the Atlantic coast in the west, the climate becomes wetter and warmer because of a warm ocean current known as the 'Gulf Stream'. The countries such as Italy and Spain, which borders the Mediterranean Sea, have long hot summers and low rainfalls.

## Industry

The Western Europe has some of the world's wealthiest countries. In countries such as France, Germany and U.K. traditional industries like iron and steel making are now being replaced by light industries such as electronics and services like finance and insurance. In Eastern Europe, industry was subsidized by the communist government for years. Many factories are old fashioned and need investment to improve their equipment and production methods.

#### **Minerals**

Europe has a few sizeable reserves of metallic minerals; most were used by industry during the last century. Oil, gas and coal are found in large quantities-gas in Northern Sea and oil in Volga basin.

# Land Use and Agriculture

The North European plain is the heart of agriculture in Europe where fertile soil and ample rainfall mean that a variety of crops can be grown. Wheat is the main grain crops and a wide range of fruit and vegetable are also grown. Dairy and beef cattle are raised for their milk and meat throughout Europe. In the south, the Mediterranean climate allows citrus fruit and olives to grow. Forest covers much of the northern Scandinavia, while in the hills of British Isles sheep forming is common.

#### Northern Europe

# Landscape

The Northern Europe consists of the countries like Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden. Denmark, Sweden and Norway are together known as Scandinavia. Estonia, Latvia and Lithuania are known as "Baltic States". The Scandinavia is extremely rugged and mountainous with landscape eroded by ice. In the South of Scandinavia, the land is flatter, with fertile soil deposited by glaciers. Much of Finland, Norway and Sweden is covered by dense forest. The Baltic States are much lower with rounded hills and many lakes and marshes. Iceland is one of world's most active volcanic areas. There are about 200 volcanoes on the islands, along with bubbling hot springs, mud-holes and geysers which spurt boiling water and steam high into the air. Norway has many Fjords, deep, wide valley drowned by seawater when the ice melted at the end of the last Ice Age. Ships from Finland, Sweden and Baltic states use the Baltic Sea as their route to the North Atlantic Ocean. In winter, much of the sea is frozen. The Finland and Sweden have many thousands of lakes. During the last Ice-Age, glacier scoured hollows which filled with water when the

ice melted. The wide Courland Spit runs for 100 km. along the Baltic coast at Lithuania and the Russian enclave of Kaliningrad. It encloses a huge lagoon.

#### Climate

The warm ocean currents flowing north along the coast of Norway and Iceland make the climate mild and wet. Away from the sea, the climate is generally colder and drier.

# Industry

In Scandinavia, many natural resources are used in industry; timber for paper and furniture, iron for steel and cars. Fish and natural gas are sourced from the seas. Hydro-electric power is generated by waters flowing down steep mountain slopes. The Baltic States still rely on Russia to supply their raw material and energy.

## **Population**

The population is distributed mainly along the warmer and flatter southern and coastal areas. The total population and its densities are low for all the countries, and Iceland has the lowest population density in the Europe, with just three

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Attenue Oceans
Novele Street

Ireland

people per 59 sq (square) km. Many Scandinavian have holiday homes in the islands, along the lake shores.

# Farming and Land-Use

The southern Denmark and Sweden are most productive areas, with pig farming, dairy farming and crops such as wheat, barley and potatoes. Sheep farming is important in Southern Norway and Iceland. In the Baltic States cereal, potatoes and sugar beet are main crops and cattle graze on dump pasture.

#### THE LOW COUNTRIES

# Landscape

It consists of Belgium, Luxembourg and Netherlands. These are called Low Countries because most of their land is flat and low-lying. Much of the Netherland lies below sea level. The low countries of Europe are most densely populated countries, but most of their people have a high living standard. The Low Countries are largely flat and low lying. The two major rivers- the Meuse and the Rhine flow across the low countries of their mouth in the North Sea. At the coast of river Rhine deposit large quantities of sediments to form delta. In the Netherland land has been reclaimed from the sea since the Middle age by building dykes and drainage ditches. These areas of land are called 'Polders'. They are very fertile. The River Rhine erodes and carries large amount of sediments along its course. When it reaches the Netherlands it divides into three rivers. As they approach the North Sea, the rivers slow down depositing the sediments to form delta. The plain of Flanders in western Belgium has fertile soil which was deposited by glaciers during the last Ice Age. They provide excellent land for growing crops. The heartlands on the Dutch-Belgium border have thin sandy soils. The only plants which grow here are heathers and gorse. The hill of Ardennes was formed over 300 million years ago. They have many deep valleys, which have been eroded by rivers like Meuse.

## Climate

The Low Countries share a similar climate with mild winters and warm summers. Only in the upland Ardennes region does rainfall increase and temperature decrease.

#### Industry

The low-countries are an important centre for the hi-tech and electronic industries. Good transport links to the rest of the Europe allow them to sell their product in other countries. The built up area stretching from Amsterdam in the Netherlands to Antwerp in the Belgium has the greatest number of factories. Luxembourg is also an important banking centres, many international banks have its head quarter in its capital city.

## **Population**

More than 25 million people live in Low Countries and nine out of every ten people live in town or city. The largest urban areaknown as the 'Randstad Holland' is in the Netherlands. It runs in an unbroken line from Rotterdam in the south to Amsterdam in the west. Even most rural areas in the Low Countries are densely populated.

# Farming and Land-Use

The fertile soil and flat plain of Low Countries provides excellent condition for farming. The main crops grown are barely potatoes, and flax for making linen. In the Netherlands much farmland is used for dairy-farming. The country is also famous for growing flowers.

#### THE BRITISH ISLES

## Landscape

The British Isles consists of the countries of United Kingdom and Republic of Ireland. It lies

off the Northwest coast of mainland Europe. They are made up of two large islands and 500 smaller ones. Politically, the region is divided into two countries: the United Kingdom-England, Wales, Scotland and Northern Islands and the Republic of Ireland. Geographically, the British Isles are divided between highlands to the north and west, and lowlands to the south and east.

The Ben Nevis Mountain is the highest point in the British Isles. It is 1,343 m above the sea level. The Lake District National Park has England's highest peak. Scafell Pike, at 978 m is deepest lake. Wastwater (80 m) is its largest lake. The Pennines are a chain of high hills topped by Moorland. They run for over 400 km and are known as the 'backbone of England'. The Fens is the flattest area in England. Much of the land here has been reclaimed from the sea. Rias are rivers valley that have been drowned by rising sea level. The southern coast of southwest England has many good examples. The Burren is a large area of limestone rock in the west of Ireland. Its flat surfaces are known as limestone pavements.

## Climate

'The British Isles' climate is moderated by the warm Atlantic ocean current called 'Gulf-Stream'. The west is generally wetter than the east and the south warmer than the north.

#### Industry

The United Kingdom's traditional industries such are coal-mining, iron and steel-making and textiles have declined in recent years. Today, newer industries make cars, chemicals, electronic and high-tech goods. Service industries especially banking and insurance have grown in importance. The country's most valuable natural resources are its large North Sea oil and fields.

# **Population**

The United Kingdom is densely populated with most of the people living in urban areas. The Southeast is the most crowded part of the country. The Scottish highlands are populated today than



they were 200 years ago. Ireland is still mainly rural, with many Irish people making their living from farming.

#### **FRANCE**

## Landscape

Andorra, France and Monaco are the chief countries in these zones. The north and west of France is made up of mainly flat, grassy plains and low hills. Wooded mountain line the country border in the south and east and much of central France is taken up by Massif Central, an enormous plateau, cut by deep rivers valley and scattered with extinct volcanoes. Three major rivers. The Loire, Seine and Garonne drain the low land basins. The Paris Basin is a saucer-shaped hollow made up of layers at hard and soft rock covered with very fertile soil. It runs across about 100,000 sq. km. of Northern France. The Western end of the European Alpine Mountain chain stretches into southeast France. The French Alps can be crossed by several passes, which give access to Italy and Switzerland.

The coast of Normandy is lined with high chalk cliff. The Mount Blanc in the French Alps is the tallest in Eastern Europe. It is 4,807 m. high. Pyrenees Mountain forms a natural barrier between France and Spain. Several of their peaks reach heights of over 3,000 meter. The Pyrenees are difficult to cross, due to their height and because they have few low passes. The vast granite plateau of Massif Central was formed over 200 million years ago. Volcanic activity here only stopped within the last 10,000 years and regions rounded hills are the worn down remains of the volcanic mountain. The Camargue is an area of marshes, pastures, sand dunes and salt flats at the mouth of the river Rhone. Rare animal and plant are found there.

#### Climate

In winter, the coldest areas of France are mountain of the Massif Central and the Alps. Summer is the hottest on Mediterranean coast.

## Industry

France is one of world's top manufacturing nations, with a variety of both traditional and high tech industries. Cars, machinery and electronic products are exported worldwide, along the luxury goods such as perfumes, fashion and fine wines. Fossil fuel provides some energy, but France is currently the world's second biggest producer of Nuclear power.

#### **Population**

In the past 50 years, most people have moved from the countryside into the urban areas. Paris and its suburb, the industrial cities, and the Cote d'Azur in the southeast are parts of France and now have the biggest population.

# Farming and Land-Use

France is able to produce a variety of crops because of its rich soil and mild climate. Wheat is grown in many parts of north, along with potatoes and other vegetables. Fields of maize and sunflower and fruit orchards are found in the south, while grapes for the famous wine industry grown across the country. Beef and dairy cattle are grazed on low-lying pasture.

## **SPAIN AND PORTUGAL**

#### Landscape

Spain and Portugal occupy the Iberian Peninsula which is cut off from the rest of the Europe by the Pyrenees. Over the centuries, Iberia has been invaded and settled by many different peoples. The most of the inland in Spain is taken up by Meseta, a dry almost treeless plateau surrounded by steep mountain ranges. The only lowlands apart from narrow stripes along the Mediterranean coast are the valleys of the Ebro, Tagus, Guadiana and Guadalquivir rivers. Portugal coast is lined by wide plains. Inland, the river Tagus divides the country in two. To the north, the land is hilly and wooded; to the south it is low-lying and drier. The river Ebro carries vital irrigation water to Spain's northeastern plains before flowing into the Mediterranean Sea. The westward flowing rivers- Duero,

Tagus, and Guadalquivir- flow across the Meseta on their courses to the Atlantic Ocean. The Southern end of Mesta is marked by Sierra Morena mountain range. Mulhacen is the snow capped Sierra Nevada range in southern Spain is 3,481 m high. It is Iberia's tallest mountain.

#### Climate

The Northern Spain is wetter and cooler than the South. On the central plateau, summers are very hot and dry, and winter often-freezing. The North of Portugal is cooled by winds blowing off Atlantic Ocean. The south is warmer with dry mild winter.

# Industry

Madrid Barcelona and the northern parts are Spain's chief industrial centres. Here, Iron ore from Spanish mines is used to make steel, and factories produce cars, machinery and chemicals. Portugal exports textiles clothing and footwear, along with fish such as sardines and tuna caught off the Atlantic coast. In both countries tourism is very important to the economy.

# **Population**

In the first half of the 20th century most Spaniards lived in villages or small towns, scattered around the countries. Today tourism and industry have drawn most of the population to the cities and coastal areas. Most Portuguese still live in rural areas along the coast or in the river valley, but the cities are growing fast.

# Farming and Land Use

Cereals especially wheat and Barley are Iberia's chief crops. In the dry south of Spain, the land is irrigated to grow citrus fruits especially orange and vegetable. In both countries olive trees and vineyard occupy large area of land. Olive oil and wine are important export. Cork oak trees from Iberia forest supply 80 per cent of the world cork.

## **GERMANY AND ALPINE STATES**

# Landscape

It consists of Austria, Germany, Liechtenstein, Slovenia and Switzerland. Germany is the biggest power in the continent. To the north, flat plains and heathlands surround the North Sea coast. Further south are Germany's central uplands which are lower and older than the jagged peaks of the Alps, which began to form about 65 million years ago. From its source in the Black forest, the River Danube flows eastward across Germany and Austria on its course to the Black Sea. The other major river, the Rhine, flows northward. The Rhine is Germany's main waterway. It is an important transport route to and from Northern ports. It twists and turns across 1,320 km of Europe from its source in southeast Switzerland to the North Sea. The Danube is Europe's second longest river flowing 2,840 km. Lake Constance covers 54 sq km and is Germany's largest lake, although its water are shared by Austria and Switzerland. The Alps were formed when African plate collided with the Eurasian plate, pushing up and crushing huge amount of rock, to form mountain. The Harz Mountains are much older than the Alps. They were formed over 300 million years ago. Most of the water of the limestone Karst region of Slovenia flows underground through huge caves and caverns.

#### Climate

Winter temperature decreases eastwards and the high alpine region is coldest. Climate variations in the Alps are common due to turbulent airflows.

#### Industry

Germany is a leading manufacturer of cars, chemicals, machinery and transport equipment. Switzerland and Liechtenstein with few raw materials make high value products such as watches and pharmaceuticals and provide services such as banking. The Alpine states are popular tourist locations all year round.

# **Population**

Western and central Germany are the most densely populated areas in the region- particularly in and around the Rhine and Ruhr valleys, where there are many industries. In the south, the steep slopes of the Alps and permanent snow cover on the higher peaks means that most large towns and cities are in scattered lowland area.

## Farming and Land Use

Germany produces three quarters of its own food. Crop farming is widespread, with cereals and root grown in flat fertile areas. Cattle and Pig rearing supply meat and dairy products. Across the Alps, the mountains limit farming, although vines are grown on the warmer south facing slopes. The rich pastures of the lower slopes are used to graze beef and dairy cattle.

#### **ITALY**

# Landscape

Italy is a type of peninsula jutting south from mainland Europe into Mediterranean Sea. In Northern and Central Italy the land is mainly mountainous. Most of the flat land is in Po Valley and along the eastern coast. Italy lies within an earthquake zone which makes the land unstable and there are also a number of active volcanoes. The basins of the river Po has the best soils in Italy. Rich alluvium is washed from the mountains by the rivers to form a wide plain. The great lakes like Garda and Como fill several south-facing valleys once occupied by glaciers. The Dolomites are high mountains are parts of same range as the Alps. They were formed 65 million years ago. The Apennines mountain, range formed the backbone of the Italy dividing the rock west coast from the flatter sandy east coast.

Sardinia Island is made from very old rocks which were up-thrusted to form mountains. The Tyrrhenian Sea divides the Italian mainland from Sardinia is gradually filling with sediments from the rivers, which flows into it. Sicily is the largest islands in Mediterranean. It has a famous active volcano called 'Mount Etna' and often experiences earth quakes.

## Climate

The Alpine North has cold winters often with snow. Further south temperature are higher. Sicily has Italy's highest temperature due to warm African wind.

## **Industry**

Italian Industry is located mainly in the north. Design is extremely important to Italians and they are proud of the elegant design of their furniture, clothes and shoe. Though many firms are small, they are very efficient. Italy has few minerals resources so it needs to import new materials to make cars, engine and other high-tech products.

# **Population**

Most of the Italy's population lives in the North, mainly in and around the Po Valley, which is home to over 25 million people. Most people here have high standard of living. Southern Italy is much more rural towns are smaller and life is often much harder.

## **CENTRAL EUROPE**

# Landscape

It consists of Czech Republic, Hungry, Poland and Slovakia. The high Carpathian Mountains sweep across the northern Slovakia. The lower Sudeten Mountain lies on the border of the Czech Republic and Poland. Together these mountains form a barrier which divides the Great Hungarian plain and the Dannbe river basin in the South from Poland and the vast rolling lowlands of the North European plain. Pomeriania is a sandy coastal area with lakes formed by glaciers. It stretches west from the River Vistula to just beyond the German border; Poland's largest river is the river Vistula. It flows northwards passing through the capital, Warsaw on the way to the Baltic Sea. The Sudeten Mountains are famous for their hot minerals springs. These occur where water heated deep within the Earth's crust finds its way to the surface along fracture in the rock. The River Danube forms the border between Slovakia and Hungary for over 162 km. It then turns south to flow across the Great

Hungarian plains. The Great Hungarian Plains covers almost half of Hungary's land area. It is a mixture of farmland and Steppe. The Tatra Mountains are a small range at northern end of the Carpathian Mountains. They include Geriachousky which is central Europe's highest point at 2,655 m.

#### Climate

The Carpathian Mountains are both the coldest and the wettest part of Central Europe. Temperature plunges below zero across the whole region during winter. In summer, eastern Hungary is the hottest place.

# Industry

Brown coal or lignite is central Europe's main fuel and one of Poland's major exports. A variety of minerals are mined in the mountains of Czech Republic and Slovakia. Hungary has a wide range of industries producing vehicles, metals and chemicals as well as textile and electrical goods. The Czech Republic is famous for its breweries and glass making.

# Farming and Land Use

Central Europe's main crops are cereals such as maize, wheat and rye, along with sugar beet and potatoes. In Hungary, sweet pepper grows, helped by the warm summers and mild winters. They are used to make paprika. Grapes are also grown, to make wine. Large areas of the plains of Hungary and Poland are used for rearing pigs and cattle. Trees for timber grow in the mountain of Slovakia and Czech Republic.

# **Population**

Most people in central Europe live in low laying areas, for example, along the River Vistula in Poland and in the lowlands of the Czech Republic. In mountainous Slovakia many people still live in rural towns and villages. The industrial areas and capital cities have the highest population densities.

#### **SOUTH EAST EUROPE**

#### Landscape

It consists of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Yugoslavia (Serbia and Montenegro). The Southeast Europe is largely mountainous with range running from northwest to southeast. The Dinaric Alps runs parallel to the Dalmatian coast, and the Pindus Mountain continue this line into Greece. In the Aegean Sea the drowned peaks of an old mountain chain form thousands of islands. The Vojvodina region of Yugoslavia is the southern part of the great Hungarian plains. The plain is flat and fertile soil allows grain crops like corn and wheat to be grown.

The Balkan Mountains forms a spur running east to west through Bulgaria and separate the two main rivers the Danube and the Maritsa. Dalmatian coast has many long, narrow islands near the shore. These were formed as the Atlantic Sea flooded the river valley which ran parallel to the coast. The Peloponnese is a mountainous peninsula linked to the Greek mainland only by a narrow strip of land called an isthmus. There are two groups of Greek islands-the lonian island of the west of mainland Greece, and the more numerous islands to the east in Aegean Sea.

#### Climate

The Southern Europe's climate varies from north to south. Continental climates are found in the north; winters are cold and dry while towards the south, winters are milder and summers much hotter. Europe's wettest place is found in the mountain in Bosnia and Herzegovina.

#### Industry

The mainland Greece and the many islands in the Aegean Sea are centre of a thriving tourist trade, while tourism on the Black Sea coast continues to grow. The Dalmatian coast had a small, but growing tourist industry until the civil war in former Yugoslavia disrupted that and other industries. Heavy industries like chemicals, engineering and ship-building remain an important source of income in Bulgaria.

## **Population**

Greece population is mostly urban; over 50 per cent live in the capital Athens and in Salonica. In Bulgaria, most people live in cities. About half of Albania's and Macedonia's people are still rural. Since the civil war, the different ethnic groups in Bosnia and Herzegovina, Yugoslavia and Croatia have lived from one another.

#### **EASTERN EUROPE**

## Landscape

It consists of Belorussia, Moldavia, Romania and Ukraine. The flat and rolling grassland, marshes and rivers, flood plains covers almost all of Ukraine and Belorussia. The Carpathian Mountains cross the southwestern corner of Ukraine and continue a large arc shaped chain of high peaks at the heart of Romania. Along the southern part of this chain the Carpathians are called the Transylvanian Alps. The Pripet Marshes in Belorussia and Ukraine form the longest area of marshland in Europe. The Steppes are great wide grassland, which are found across Eastern Europe and central Asia. Over 70% of the Ukrainian landscape is Steppe. The Crimea Peninsula divides the Sea of Azov from the Black Sea. The steep mountain of Krymsk Hory runs along the southeastern coast of Crimea.

#### Climate

The climate is continental with warm dry summers and very cold dry winters. Temperatures are higher along the fringe of the Black Sea while the Carpathian Mountains are colder and wetter all year round.

## Industry

In Ukraine, most industry is based on the country's minerals reserve. The Donbas region has Europe's largest coalfield and is an important centre for iron and steel production. Belorussia's main industries are chemicals; machine building and food processing. Romania's manufacturing industries are growing with the help of foreign investment.

# Farming and Land Use

The Black soils found across much of Ukraine are very fertile and the country is a big producer of cereals sugar beet and sunflowers, which are grown for their oil. In Moldavia and southern Romania the warm summers are ideal for growing grapes for wine, along with sunflowers and variety of vegetables. Cattle and Pigs are farmed throughout Eastern Europe.

# **Population**

Most Romanians live in Bucharest, the capital or in other cities and towns. In Ukraine, two third of the population lived in the cities in the Donbas industrial area. Most of the Belorussian people are city dwellers. Moldova is the most rural country in Eastern Europe; half its people live in the countryside and make their living from farming.

#### THE MEDITERRANEAN

# Landscape

The Mediterranean Sea separates Europe from Africa. It stretches more than 4,000 km from east to west. The Mediterranean Sea would be an enormous lake if it were not for strait of Gibraltar, a narrow opening only 13 km wide which joins it to the Atlantic Ocean. The Mediterranean lies over the boundary of two continental plates. The Mediterranean coasts are bordered by several thousand miles of sandy beaches. The area of sea off the coast of Tunisia and also the Adriatic Sea are shallower than the rest of the Mediterranean. The rugged Atlas Mountain runs through the most of Morocco and Algeria. They form a barrier between the Mediterranean and the Sahara, which lies south to them. Greek Islands has thousands of islands, which lie, both in the Mediterranean and in the smaller Aegean Sea. Some of them are the remains of old volcanoes which has left black sand on the beaches. Suez Canal links the Mediterranean to the Gulf of Suez and the Red Sea. Before it was built ship had to sail around the whole of Africa to reach Asia.

#### **Tourism**

The tourism industry in and around the Mediterranean is one of the most highly developed in the world. More than half of the world's income from tourism is generated here. Resorts have grown up along the northwest coast of Africa, and in Egypt, in southern Spain, France, Italy, Greece and Turkey, tourism brings huge economic benefit.

# Industry

The Mediterranean has a large fishing industry, although most of the fishing is small- scale. Tuna and Sardines are caught throughout the region and mussels are found off the coast of Italy. Fish canning and packing takes place at most of the larger ports. Small oil and gas reserves are extracted off the coast of North Africa and near Greece, Spain and Italy.

#### Points to Remember

- 1. Europe is the sixth largest continent with an area of 10,360,000 sq km.
- 2. The highest point in Europe is Mont Blanc (4807 m) in the Alps and Mt Elbrus (5633 m) in the Caucasus.
- 3. Belgium and Netherlands are the two small low lands countries very thickly populated.
- 4. Iceland, Norway, Sweden and Denmark are collectively known as Scandinavia.
- 5. The Seine and Rhine are the important rivers that join the English Channel and the North Sea.
- 6. The Volga, which is the largest river of Europe, joins a landlocked Sea named the Caspian.
- 7. Elbrus is the highest mountain peak in Europe, which lies in the Caucasus.
- 8. Lombardy in Italy and the lowlands of Andalusia in Spain and the plains of Hungry are the lowlands.
- 9. More than 700 million people live in Europe and its population is highly urbanized.
- 10. Rotterdam, in the Netherlands is a part of conurbation, a large built up are with several towns and cities.
- 11. Temperate type of climate is found in Europe.
- 12. North European plain is the Europe's agricultural heart.
- 13. The Alps were formed when after can plate collided with the Eurasian Plate..
- 14. Estonia, Latvia and Lithuania are together called 'Baltic State.'
- 15. Belgium, Luxemberg and Netherlands are called 'Low countries.
- 16. The plain of Flanders in Western Germany has fertile soil.
- 17. The Burren is a large area of limestone rock in the west of Ireland. Its flat surfaces are known as limestones pavements.
- 18. The coast of Normandy is lined with high chalk cliffs.
- 19. The Duero, Tagus and Guadalquivir rivers flow across the Meseta on their courses to Atlantic Ocean.
- 20. Germany is a leading manufacturer of cars, machinery and transport equipment.
- 21. Sicily is the largest islands in Mediterranean. It has a famous active volcano called Mount Etna.
- 22. The Po Valley is a broad flat plain in North of Italy.
- 23. Sicily has Italy's highest temperature, due to warm African winds.
- 24. The Poland's largest river is Vistula. It flows northwards, passing through the capital Warsaw on its way to the Baltic Sea.
- 25. The Tatra Mountains are small range at the northern end of the Carpathian Mountains.
- 26. The Balkan Mountains forms a spur running east to west through Bulgaria and separate the two main rivers, the Danube and the Maritsa.
- 27. Carpathian Mountain Range is the largest mountain range in Eastern Europe. They are rich source of timber and minerals.
- 28. Suez Canal links the Mediterranean to the Gulf of Suez and the Red Sea. Before it was built, ship had to sail around the whole of Africa to reach Asia.
- 29. The Atlas Mountains runs through most of Morocco and Algeria. They form barrier between the Mediterranean coast and the Sahara, which lies south of them.
- 30. The Carpathian Mountains are both the coldest and the wettest parts of central Europe.
- 31. Tyrrhenian Sea divides the Italian mainland from Sardinia is gradually filling with sediments from the rivers, which flow into it.
- 32. Poland's largest river is the Vistula. It flows northwards passing through the Capital Warsaw.
- 33. Central Europe's main crops are cereals such as maize, wheat and rye, along with sugar beet and potatoes.

. The worst nuclear			



#### **AUSTRALIA**

It was British captain James Cook who first made voyage to the country in the 1770s. In 1778 captain Arthur Phillip unlocked Australia to the world. The present day boundary of Australia was delimited only in 1861. It was only after protected negotiations that the Commonwealth of Australia comprising New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania came into being in 1901. The federation of Australia chiefly comprises these 6 states and two federal territories, the northern territory and the Australian capital territory of Canberra. The term Oceania is used to denote the widely scattered islands of the central south Pacific; Australia and New Zealand are also frequently included in Oceania. The total population of Oceania was 31 million in 2001. Virtually, all the islands of the Oceania are either volcanic peaks or tiny coralline atolls built on submerged volcanic bases. Some of the islands such as New Guinea are sizeable land areas having snowcapped peaks as high as 5,000 m. The continent of Australia, however, shows no evidence of recent volcanism. Except for New Zealand and part of Australia, the whole of Oceania lies well within the tropics and enjoys continuous warm temperatures. The annual rainfall in Oceania may reach 400 cm in some locations. Two-thirds of Australia, a number of equatorial atolls and the leeward sides of mountainous islands tend to be arid.

#### Oceania consists of:

- (1) Australia and New Zealand,
- (2) Melanesia,
- (3) Micronesia, and
- (4) Polynesia.

Both Australia and New Zealand have minorities of indigenous inhabitants. The native Australian people are known as 'aboriginals', their population is about 260,000, living mainly in the tropical north and in the arid and semi-arid areas of the country. In New Zealand, the dominant indigenous group is Maori - a Polynesian people. They are concentrated in the Northern Island. Maoris at present constitute about 10 per cent of the total population of the country and their population is growing at a faster rate.





## Landscape

In comparison to other continents, Australia has diverse physical features. From the mountain ranges like the Great Dividing Range of Kimberly plateau to Nullarbor Plains and Great Australian Deserts. The two most important rivers of Australia are "Murray" and "Darling" The Great dividing Range in the east is not a fold mountain but only an edge of plateau which slopes gently from the east to the west. It is not continuous and exists as the Blue Mountain in New South Wales and as the Australian Alps in Victoria. It extends from Cape York in the north along the coast of Tasmania in the south. Mt. Kosciusko is the highest peak in Australia. Lying between the western plateau and eastern high land are the central lowlands, made up of Carpentaria lowland in the north. Lake Eyre basin lies in the middle - Darling basin in the south. Some of the important physical features are: Lake Eyre and Great Artesian Basin. The Western plateau or "Australian Outbreak" includes both steppe and desert climate types. The important deserts include "Gibson", "Simpson", "Great Victoria" and the "Great Sandy desert". The "Great Barrier Reef", the longest coral reef in the world, is situated on the north - eastern cost of Australia.

# **Climate and Vegetation**

It is the Tropic of Capricorn which cuts the continent into the northern and southern parts. The climatic condition of the entire continent is defined by the Eastern Highlands and monsoonal circulation. The northern and the northeastern Australia have tropical monsoon and Tropical marine climate, a modified form of the tropical monsoon. The region is known for deciduous forest, onshore trade winds and uniformly distributed rainfall. The "Natal type of climate" is found in the southeastern parts. Here the rainfall is uneven and annual temperature is very low. The "Southerly Buster" is a violent cold wind blowing along the coast of New South Wales. In this zone, the vegetation is luxuriant with temperate "Eucalyptus" dominating the Australian Alps of Victoria and the Blue mountains of New South Wales.

The Mediterranean type of climate is found in the southern coast of Australia which is characterized by warm dry summer and cool moist winters. The Eucalyptus trees are more common while "Jarrah" and "Karri" are commercially most important.

The "British type" of climate is found in the inlands of Tasmania and New Zealand. Temperate Eucalyptus is found in Tasmania, while coniferous can be seen on the higher slope of southern Alps in New Zealand.

Most of the parts of Australia is characterized by the arid and semi - arid vegetation. The Great Australian desert is next only to the Sahara. The natural vegetation here is xerophytic, adapted to low moisture high salinity and low humus content. In the northwest especially on the Kimberly plateau, the famed "Bottle trees" can be found. The trees are of bottle- shaped and store water in their bulbous trunk.

There are two type of grassland in Australia - the "tropical" and the "temperate". The tropical Savanna Grasslands are found in the North and are marked by hot rainy and cool dry season with extreme diurnal range of temperature. Their natural Vegetation consists of the tall and coarse grasses with deciduous trees. The species like "Mallee" and "Mulga" are found in the scrub of this forest. The temperate grassland of the south are called "Downs". It is characterized by continentality, extreme of temperature and high annual precipitation. The entire region of Australia is famous for sheep rearing and the world's largest number of sheeps are found here.

# **Economy**

The wool, meat and wheat have been the country's top three income earners. The cattle are reared in the wetter regions that allow better growth of grasses. It is mainly an agricultural nation, but only 5 per cent of the land is under cultivation and agriculture is mainly carried on the south western and southeastern parts and eastern coastal areas. Wheat, the most important crop of Australia, is grown mainly in New South Wales and Western Australia. The commercial grain farming is big business in Australia. Australia is also endowed with the diverse mineral resource. The "Gold rush" started with the discovery of Gold in Victoria and New South Wales in 1851. At present, minerals exports contribute significantly to the country's economy. Japan is the largest importer. Its fairly diversified manufacturing sector is concentrated in Victoria and New South Wales. Australia is basically dependent on the exports of primary products which signify its category into a developing rather in a

developed economy.

#### **New Zealand**

The small island "New Zealand" lies across the Tasman Sea. It is the "Maoris" who first inhabited here. Abel Tasman landed on the island in 1640 from when the process of colonization started. New Zealand mainly consists of two main islands - the North and the South and a number of smaller ones. The south island is relatively longer than the North islands, but they together constitute bigger in size that the Great Britain. "Mt. Cook" is the highest peak in New Zealand which lies in the Southern Alps. The "Taranaki plain" is the slope of the central highlands in North islands and an important pasture land. The "Canterbury Plains" of the south island are also important for cattle. The Europeans account for 85 per cent of the total population while the "Maoris" constitute only 10 percent. New Zealand is also one of the



foremost milk producing countries. The cold and humid climate is very conducive for the growth of nutritious grasses. The Canterbury plain of New Zealand is well known for sheep rearing and is the main farming regions of "New Zealand."

#### **Continental Facts**

"Sydney": It is the oldest and largest city of Australia. Its harbour, "Port Jackson", is the biggest port of Australia and the main export centre of wheat and wool. It was the venue of the millennium's last Olympics. The "Sydney Opera House" and "Sydney Harbours" are well known across the world.

**"Boomtang":** It is a carved throwing club of tough wood used by the Australians aborigine. It is widely used for hunting.

"Canberra": It is the capital of Australia and located on the "Molonglo River". Canberra was built as a compromise capital in order to stop squabbling between Melbourne and Sydney.

**Great Barrier Reef:** It is the world's longest coral reef which extends like a long - ridge off the north - east coast of Queensland. It consists of thousands of separate reef. The reef is generally formed from the calcareous remains of micro - organism which is known as "coral polyps", at present the reef is facing threat from environmental degradation especially from tourists.

**The Northern Territory:** It is the only federal territory that has legalised voluntary "euthanasia". It was done in "1995".

"BSC-MA-PhD": This acronym refers to the mnemonics for clockwise arrangement of the Australian coastal cities which starts from Brisbane, Sydney, Canberra, Melbourne, Adelaide, Perth and Darwin.

**"Don Bradman":** He was the legendry cricketer and regarded as an idol and a national treasure by the Australians. He symbolizes Australian nationalism like no one else.

**"Koala":** The Guinness Book records it as the most discriminating "mammalian eater". It feed exclusively on eucalyptus leaves.

"Road Trains": It is a type of transportation unique to Australian road in which several cargos - container like boxes are connected end to end and hauled by a common engine. They are used by transport cattle and horses.

"Artesian Basin": It is a type of structural basin of sedimentary rocks which produces a constant supply of water that rises to the ground surface by means of an artesian well from a subterranean aquifer which hold water under a pressure-head and is sandwiched between two layers of impermeable strata. Australia and New Zealand have some of the largest Artesian basin of the worlds.

"Niue": It is a self- governing overseas territory of New Zealand which was sighted by captain James Cook in 1774 who called it the Savage Island. It is the world's largest uplifted coral islands and the New Zealand has responsibility of looking after external affairs and defence of this Island.

"Ayers Rock": It is a conspicuous Inselberg which reaches out to a height of 348 m as a huge red rock in the middle of a desert.

"Australian-Trans-Continental Railways": It is an important link which connects "Sydney with Perth". Important stations on this route are mining towns like Broken Hills, Peterborough, Port Augusta, Karlgoorlie, Coolgardie etc.

# Points to Remember

- 1. The Australian cities in decreasing order of population are Sydney, Melbourne and Brisbane.
- 2. Australian states in decreasing order of population are; New South Wales Victoria Queensland Western Australia.
- 3. Australia is one of the most important members of "common wealth".
- 4. Australia is world's largest producer of "bauxite".
- 5. Western Australia is the largest state while New South Wales is the most populous.
- 6. New Zealand coast was explored by Cook in 1769.
- 7. The major roads in Australia are called "Commonwealth Highway".
- 8. The "Trans- Continental Stuart Highway" connects Birdum (Northern Territory) to Oodnadatta (South Australia) via Alice Spring and Tennant Greek.
- 9. "Rotorua and Maoti' towns have hot geysers; "Pohutu Geyser" is the most famous one.
- 10. Australia is the "smallest" of all continents.
- 11. Australia stands for Australia and New Zealand.
- 12. The largest state of Australia is the "Western Australia".
- 13. The largest city of Australia is Sidney.
- 14. "Emu" is the flightless bird of Australia.
- 15. The New Zealander who was first to scale Mt. Everest was "Edmund Hillary".
- 16. "Niue" is the highest uplifted coral island of the world.
- 17. "Canterbury plains" is the chief farming region of the New Zealand.
- 18. "Mt Cook" is the highest peak of New Zealand.
- 19. "Taranaki plain" of New Zealand is famous for the dairy industry.
- 20. "Lake Eyre" is the region of inland drainage in Australia.
- 21. "The Great Artesian Wells" is the natural fountain in Australia.
- 22. "Mt. Kosciusko" is the highest mountain peak in Australia.
- 23. "Auckland" is the most populous urban centre in New Zealand.
- 24. "Abel Tasman" was the first European to discover New Zealand.
- 25. "Bass strait" is the strait between Australia and Tasmania.
- 26. The "Great Barrier Reef" lies on the coast of "Queensland".
- 27. The "Cook Strait" is the strait between the North and South island of New Zealand.
- 28. The pride of Australia Don Bradman hails from the city of "Brisbane".
- 29. "Marambidgee" is the longest tributary of "Murray Darling".
- 30. "Kalgoorlie" is famous for "Gold Mining".
- 31. "Platypus" is an animal bird with 4 legs that lays eggs.
- 32. "Kangaroo" is the national animal of Australia.
- 33. "Wellington" is the southernmost capital city of the world.
- 34. "Qantas Airways" is the international airline of Australia.
- 35. "Maoris" is the aborigines of New Zealand of Polynesian descent.
- 36. "Gippsland" is famous for petroleum.
- 37. "Sheep rearing farm" in Australia is called stations.
- 38. "Hobart" is the capital of Tasmania.
- 39. "Victoria" is the most industrialized state of Australia.
- 40. "Mt. Tom Price" is famous for Iron.

- 41. Lead, Zinc and Silver are mined at Mt. Isa and Broken Hills.
- 42. "Downs" is the temperate grassland of Australia.
- 43. "Torres Strait" lies between Australia and New Guinea.
  44. "Trans Australian Railways" runs between Perth and Sydney.
- 45. "Freemantle" is the out port of Perth.
- 46. "Bindibu" are the aborigines of Australia.
- 47. Canberra is located on the banks of river "Molonglo".
- 48. New South Wales is the most populated of the Australian states.



#### ANTARCTICA OR 'TERRA AUSTRALIS'

## Landscape

The continent of Antarctica was chiefly discovered in the 20th century. It is the 5th largest of the seven continents. It is larger than Europe and Australia and coldest and windiest of all. It is also called "Ice continent". Antarctica has the largest reserve of freshwater. Nearly 11 per cent of the Antarctica's ice sheets consist of ice - shelves which are massive floating slabs of permanent ice fringing the content. The large rivers of the ice are called "glaciers". These glaciers flow either into the ice shelves or directly out of the edge of the continent, where they break up from the iceberg.

The entire continent is dominated by Trans-Antarctic Mountains that separate the eastern from the western part. These mountains hold back the ice plateau of East Antarctica like a massive dam and are deeply penetrated at places by glaciers that flow into the ice shelves.

#### Climate and Weather

The climate of Antarctica is not uniform. The high plateau region of East Antarctica yields the lowest year round temperature while the West Antarctica has a milder climate. The interior experiences almost continuous daylight during summer and darkness during winter. In the northward direction, there are fewer days of continuous daylight and darkness. The average annual rainfall is 5 cm making the continent one of the driest deserts. Antarctica experiences several unique optical phenomena including the "Aurora Australis", "Mirage", "Perihelion" and "Parselene".

# **Vegetation and Animal Life**

The constant low temperature and high moisture have limited the plant life almost entirely to Protistas- simple and unicellular organism. Here, only two varieties of flowering plant is known. The warmer waters of the western coast support the seaweeds and phytoplankton. Only microscopic and primitive insects survive here. The southern part has relatively wider variety of animal life including Whale, Seals, Penguins and Albatross.

## **Mineral Resource**

A wide spectrum of mineral resources is found in Antarctica. It consists of coal, copper, lead, iron, molybdenum and others. The deposit of oil and natural gas is found in the continental shelf region. According to the Madrid Agreement of 1991, the use of these mineral resources was banned for 50 years. It has been done to save the ecology and environment of the Antarctica.

#### **National Claims of Antarctica**

It was Roald Amundsen who first reached South Pole in 1911. Antarctica has been partitioned into two pie- shaped sectors centered on the South Pole. The "Peninsular Area" of Antarctica has been in controversy where British, Argentinean and Chilean claims over lapped. "Marie Byrd Land" is only sector of such claims. "Antarctica is at least four times as large as India and the southern ocean and nearly as large as Atlantic".

# **Antarctica Treaty System (ATS)**

The International Geophysical year 1957-58 was the year from where several nations started to cooperate on scientific research in Antarctica. After that several projects were undertaken on diverse geophysical topics and this led to the establishment of Scientific Committee on Antarctica Research (SCAR). It also led to the development of "Antarctic Treaty" in 1959. In 1983, India was admitted as the consultative member.

This treaty is chiefly aimed at enhancing the cooperation in Antarctica. According to this treaty, Antarctica should be used only for the peaceful purposes and prohibits military activities such as

waste disposal and weapons Testing. The treaty envisages continued cooperation, mutual inspection of stations and exchange of scientific personnel with the objective of maintaining the ecological balance. The ATS has also formulated several resolutions which consist of:

- (1) Conservation of Antarctic marine living resources.
- (2) Protocol on environment protection.
- (3) Agreed measures for conservation of Antarctic's flora and fauna.
- (4) Convention on Conservation of Antarctic Seals.

# **Antarctica Fact File**

- 1. Discovery of Antarctica: It was James Cook who first crossed the Antarctica circle but unable to discover anything. Firstly, Sir James Clark Ross discovered the "Ross Sea", the "Victoria Island" and the "Magnetic Pole". In a race contest to South Pole, Robert F Scott, and Roald Amundsen, participated. On 14th December 1911, Norwegian, Amundsen was able to beat Scott to victory.
- 2. Southernmost Post Office: It is situated in Antarctica and operated by a lady.
- 3. Aurora Australis: It is the fantastic display of light in characteristic colour, bands and rings of various hues. It is caused by stream of charged particles from the sun, entering into the earth's upper atmosphere. A more or less similar phenomena in the northern hemisphere is called "Aurora Borealis".
- 4. Fastest Antarctica Crossing: It is "Trans Antarctica" completed by Ranulph Fiennes, Oliver Shepard and Charles Burton in 1980 82. It is also the leg of Trans Globe Expedition in 67 days from 28th October 1980 to 11th January 1981.
- 5. Ozone Hole: It is the ozone layer over the continent of Antarctica which was discovered in mid 1970s. Its corresponding annual hole was identified over the Arctic Ocean in 1986. This hole is most prominent during the coldest seasons.
- 6. Land of Ice: The entire Antarctica is covered with the ice sheet which is as thick as 1800 metres. If all the ice of it melts, the sea would rise by 60 metres.
- 7. Cold Pole: It refers to the point with lowest-mean annual temperature in each hemisphere. In the northern hemisphere, this is at "Verkhoyansk" in north east Siberia, Russia. In the south hemisphere, the lowest recorded temperature has been at the "Soviet Research Station" of Vostok on the Antarctic ice plateau. "Vostok" and "Verkhoyansk" are together known as the "Cold Poles of the Earth".
- 8. Southern Ocean: It includes southern portion of India. Atlantic and Pacific ocean and is considered as a separate ocean due to its uniform lower temperature and salt concentration,
- 9. Ross ice shelf: It is the largest ice- shelf in the world which is as large as France.
- 10. Mt. Erebus: It is a type of active volcano which, along with many other volcanoes, dots the coastal and island regions.
- 11. Vinson Massif: It is the highest Peak in Antarctica.



**Lake Victoria:** It is the largest Lake in Africa and is the source of "White Nile". The "Lake Tana" in Ethiopia is the source of "Blue Nile". Both the White and the Blue Nile meet at the capital city of Sudan, "Khartoum" from where the combined stream is known as "Nile" river. It is the longest river of the world. The "Aswan dam" was built on it which forms the largest man-made lake, "Lake Nasser".

**River Zambezi:** It is the largest river of South Africa and natural political boundary between Zambia and Zimbabwe. The famous "Victoria fall" is situated on it. The "Kariba Dam" of Africa is also situated on it.

**River Zaire:** It is only river in the world to cross the equator twice. "Boyoma or Stanley Falls" is situated on it.

**Guinea-Bissau:** It is the most rural country in the world. In total GDP, agriculture contributes about 60% and it is also one of the poorest countries of the world.

Perforated State: It is type of state whose geographical boundary completely surrounds that of another state. For example, S. Africa encloses Lesotho and Swaziland.

**Gibraltar:** It is a gateway between Atlantic Ocean and Mediterranean Sea. The stretch between the steep "Rock of Gibraltar" and "Cape Ceuta" is called "Pillars of Hercules".

The Great Rift Valley: It is in Africa and runs from the south of lake Malawi to the northward side of Red sea and then through Gulf of Aquaba leads to Dead sea. The extensive volcanic activity believed to accompany continental rifting is exemplified by the large volcanic mountains such as Kilimanjaro and Mount Kenya.

**Kalahari Desert:** It is situated between the "Orange" and "Zambezi" river. The entire area has the annual rainfall of less than 50 cm. "Bushmen" is the aboriginal people of this desert. They use to collect water in the Ostrich eggshells in dried buck stomachs. They also use to suck dew drops in the drier years.

**Barbary State:** The north-west African countries of Morocco, Algeria and Tunisia are called as Barbary States because of the region's oldest inhabitants the Berbers. These three countries together constitute the "Maghreb". The region "Djezira-el-Maghreb" or "Isle of West" is in recognition of Atlas Mountain rising like vast inlands on the west coast of Mediterranean Sea.

**Balkans:** The entire region of Balkan Peninsula is bounded by Adriatic Aegean and Black sea. It includes Greece, Bulgaria, Albania, Romania and former Yugoslavia. Today the region has fragmented and it is referred as "Balkanization" meaning disintegration.

**Discovery of Antarctic:** It was James Cook who first cross the boundary of Antarctic Circle. But they were not able to see the landscape. Later on, Sir James Clark Ross discovered the Ross Sea, the Victoria Island and South Magnetic Pole. Robert F. Scott and Ronald Amundsen were the chief contestants. Amundsen of Norway was able to beat Scott to victory on 14th December 1911.

**Cold Pole:** It refers to the point with the lowest mean annual temperature in each hemisphere. In the North hemisphere this is at "Verkhoyansk" in North-East Siberia, Russia. In the south hemisphere the lowest recorded temperature has been at Soviet research station of Vostok on the Antarctic ice plateau. Therefore, "Vostok" and "Verkhoyansk" together called the cold pole of the earth.

**Bentley Subglacial Trench:** It is the deepest point in Antarctica. It is "2538" metres. Vinson Massif: It is the highest peak in Antarctica.

Queen Maud Range: It is the longest mountain in Antarctica.

Ross-ice-Shelf: It is the largest "ice-shelf" in the world which is as large as France.

Magnetic Poles: It may be classified into "Magnetic North Pole" and the "Magnetic South Pole", the former is located on the Prince of Wales Island is North Canada while the later is situated in South Victoria land, Antarctica.

**Aurora Australis:** The display of southern light is characterized by colour bands and rings of various hues. It is caused by the streams of charged particles from the sun, entering into the earth's upper atmosphere. A similar phenomenon in the northern hemisphere is "Aurora Borealis".

Hamites: It refers to the people of northern and eastern Africa, ancient Egypt and Ethiopians.

**Semites:** It refers to the various ancient and modern people originating in south-west Asia. It consists of "Hebrews" and Arabs. It is also used as the synonymous of the Jews.

**Kurds:** It chiefly refers to pastoral and war like people of Kurdistan of south-east Turkey and Iran. They are the classic example of stateless nation. A large number of Kurds are divided among the nation of Iraq, Iran, Turkey, Syria and Jordon.

**Tuaregs:** It refers to the Berber and Hamite speaking members of nomadic tribe of Sahara. They wear blue-dyed cloth. The dye rubs off their face and body are resembles with the blue colours. Therefore, they are called "Tuaregs" or the colour of blue.

**Aborigines:** The term chiefly refers to the original inhabitants of any area such as Maoris of New Zealand and Bushmen of Kalahari.

**Basques:** It chiefly refers to the pre-European people whose population is about 2 million and who inhabit the Pyrenees Mountain in Northern Spain and south-west France. They remained independent until the 19th century.

**Kwajalein or Marshall Islands:** It is the largest atoll in the world where USA conducts its missile tests.

**Most rainy days of the World:** Mt. Waialeale Hawaii has upto 350 rainy days per year.

Pearl Harbour: It is the US Naval base in Honolulu, the Hawaiian capital. It is the place where Japanese launched a bombing attack during World War-II which was retaliated by U.S.A. by dropping atom bomb on Hiroshima and Nagasaki.

**Hawaii:** It is the pacific realm of Polynesia which consists of 130 islands. It became the 5015 state of the U.S.A. Most of the Hawaiian Islands are of volcanic origin and the vulcanization is related to the hot spotactivity. "Mauna Loa" and "Mauna Kea" could be considered as two of the tallest mountain peak of the world. All major internal sea-route converge at Hawaii. That's why it is called "cross-road of the Pacific".

**Earth Day:** The "April-22" is celebrated as the earth day to recognize beauty and riches of the earth. It also brought awareness about the over population, energy waste and other significant issues. It was first observed on April-22, 1970.

**San Andreas Fault:** It is a fracture in Earth's crust that runs for more than 1000 kms of its length. It cuts through the U.S mainland and marks the meeting points of two plates e.g. Pacific and American plates. The Pacific plate, which is moving northwestward with respect to North American plate, causes earthquakes along the fault.

**Environmental Lapse Rate:** It refers to the normal rate of temperature decrease with the height. Normally the temperature decrease at the rate of 10°C for every 165 metres of height above sea level. The higher layers of the atmosphere contain smaller quantities of water vapour and carbon dioxide and hence their capacity to absorb heat energy is much less than that of lower layers. This is the reason why Darjeeling, Nainital and Shimla is cooler than Delhi.

**Artificial Rain:** The artificial rain is produced by introducing tiny particles of solid carbon dioxide or crystal of silver iodide into the clouds at cloud temerature above 0°C by the process called "cloud seeding". The seeding agent can be spread into a cloud from an air plane or sent up in rockets. The water-vapour in the cloud condenses around the seeding agent.

**Hottest Place:** It is the Death Valley of California in USA where temperature of over 49°C was recorded in July and August 1917.

**Coldest Place:** The Polyus Nedostypnosti of Antarctica has an extrapolated annual mean temperature of -58°C. The coldest measured annual temperature is -57°C. It was recorded at plateau station of Antarctic. The coldest permanently inhabited place in the world is village of "Oymyakon" in Siberia of Russia.

**Tornado:** It refers to the strongest known atmospheric disturbances with the wind velocity exceeding 300 km/hr. It frequently occurs in "Mississippi Valley" in the U.S. It is called "Twister". The U.K. has the highest frequency of Tornadoes by area. The highest speed of Tornado is 450 km/hr at Texas.

**Tides:** The periodic phenomenon of alternate rise and fall in Sea levels is known as "tide". On the full moon and new moon, tides are the highest and called "Spring Tides" while "Neap Tides" is the tides of 1st and 3rd quarter. Generally the tide occurs twice a day; but the "Southampton Coast" of England experiences tides four times a day. It occurs at regular intervals of 12 hours and 25 minutes. The highest tides recorded in India at Okha, Gujarat. The "Bay of Fundy" has the highest tidal range. Lakes have no tides because moon's gravitation pull is impossible in small body of water such as lake.

Artesian Well: It is a type of well in which rock layers are down folded into a basin shape so that permeable strata may be sandwiched between impermeable layers. The permeable rocks only come to the surface at the edge of the basin. The permeable layer below it prevents the water from passing downwards while the impermeable layer on top prevents any possibility of water escaping upward. Such a structural basin is called "aquifer". The water is trapped in the aquifer under great pressure and when a well is bored, the pressure of water all around the basin is sufficient to force the water up to the bore hole so that it gushes into the surface like a fountain. This type of well is more valuable to man because it can be used in Desert region.

**Rubber Trees:** It is chiefly found in the "Amazon rainforest". Its scientific name is "Hevea Brasiliensis". Latex is collected by slashing tree trunks. This is a destructive system, for trees are over trapped and destroyed for profit. With the establishment of rubber plantation in south-east Asia, Amazon River lost its pre-eminent position.

Desert of Atacama: It is an arid type of desert in northern Chile that extends 960 km south from Peru border. It has no vegetation and considered as the "Driest Desert of the World". The 400 years of drought was recorded in 1971 in the Calama town. The only stream "Rio Loa" reaches the Pacific Ocean. It was ceded to Chile by Peru and Bolivia in 1983-84. Atacama Desert is rich in nitrates, iodine and borax.

**Sao Paulo:** It is the third largest urban agglomeration in the world after Tokyo and Mexico City. It is the largest urban agglomeration in the southern hemisphere. It accounts for 22% of Brazil's population and 40% of the country's GDP. It is also the leading industrial region of America.

**Galapagos Islands:** It is situated on the north-west of South American mainland and is a part of Equator. The island is a home of many unique species of reptiles, birds and fishes.

**Forwarded Capital:** When a state relocates its capital to sensitive areas, perhaps near a zone of dispute with an unfriendly neighbour, in part to confirm its determination to sustain its position in that contested zone. Brasilia is located on what has been an internal frontier which has yet to be conquered by still developing Brazil. Another example of forward capital is Islamabad.

Ejidos: They are the agricultural communities of Mexico. The privately owned hacienda land was

transferred to them after land reform were instituted by the 1917 constitution. Like cooperative in India, these present an achievement of the deal of land to the landless, but are relatively less productive.

Panama Canal: It is connects the Atlantic with the Pacific Ocean. It came into operation in 1913. The U.S.A. had unilateral control of the canal operation and was directly involved in the administration of Panama Canal. But in the year 2000, USA transferred the canal administration to the sovereign state of Panama. The canal measures "64.8" km from Colon on the Atlantic till Panama city on the Pacific and has three locks; Pedro Miguel Lock, Mira Flores Rock and Gatun Lock.

**Douglas Fir:** It is a type of leading tree species used in the timber industry. It is the most important trees of western USA especially in Washington and Oregon. The Giant Sequoia is mainly grown in California. The important tree species here are yellow and loblolly pines. The state of British Colombia is the most important centre of timber industry in Canada. This is the reason why Canada is the largest producer of Newsprint while USA of Pulp and Paper.

**Highway of Technology:** It is also known as "Highway 128 in eastern Massachusetts" because of the concentration of industrial units manufacturing advanced electronics along the roadways.

**Prince Edward Island:** It is the smallest island of Canada and the most densely populated province.

**Newfoundland:** It was the oldest British colony and the last province to join Canada in 1949.

# **Antarctica Treaty - 1959**

The International Geophysical year (1957-58) envisaged the project on diverse geophysical topics and this led to the establishment of "Scientific Committee on Antarctica Research". It also led to the development of Antarctica Treaty in 1959. India became its member in 1983. The treaty envisaged that Antarctica should be used only for the peaceful purposes and prohibits military activities. It provides continued cooperation, exchange of scientific personnel and mutual inspection of stations.