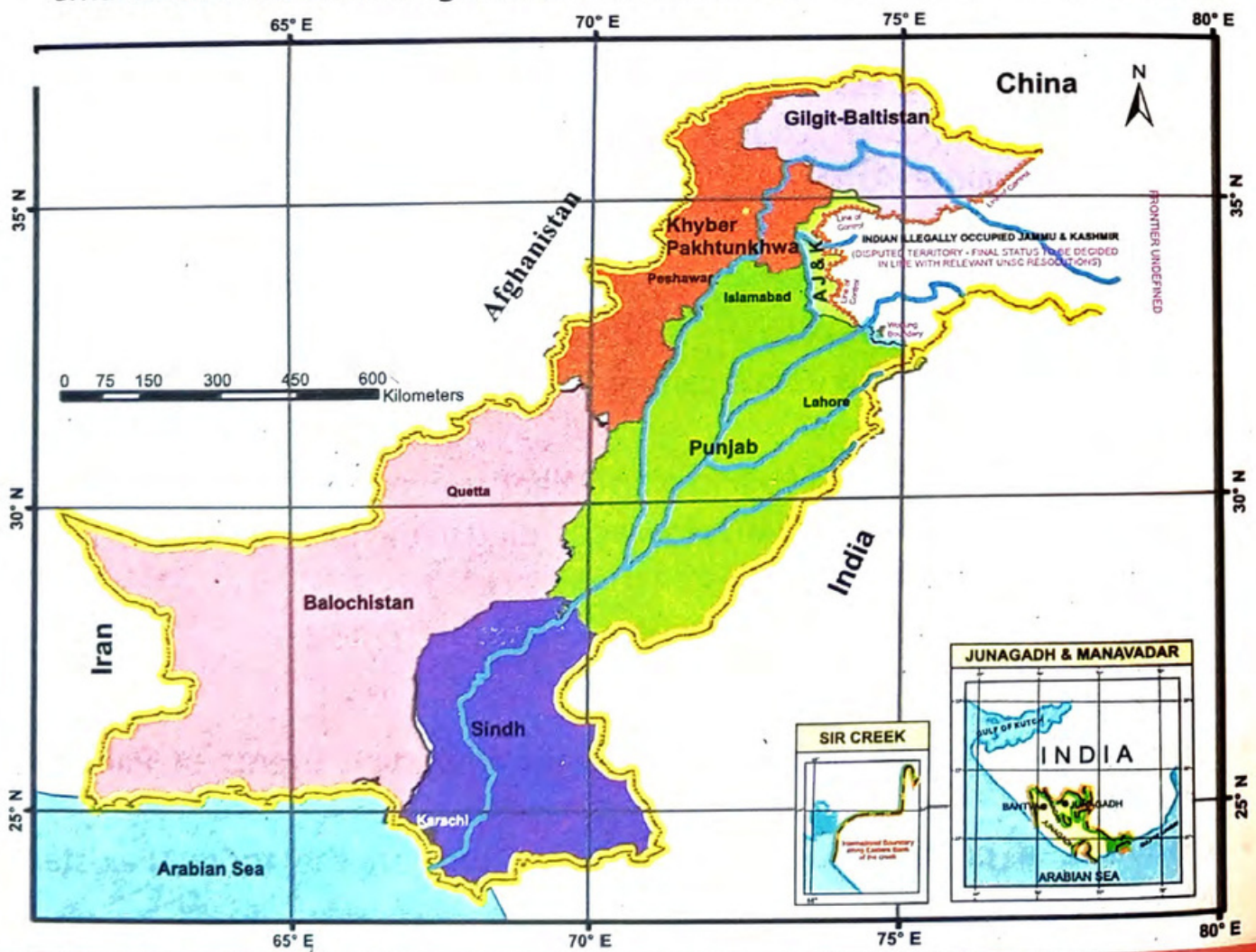


LAND OF PAKISTAN

LOCATION OF PAKISTAN

Pakistan is located in the North Western part of South Asia between 24° to 37° North latitudes and between 61° to 76° East longitudes. It has an area of 796096 square kilometers. In the North East of Pakistan, there lies China, in the North West is Afghanistan, India is in the East, Iran is in the South West and Arabian Sea is in the South. The length of its borders with China is 585 Kilometers. Pak-Afghan border line, known as Durand Line, was emarcated in 1893. Its length is 2250 km. In the North a narrow strip Wakhan



of Afghanistan separates Pakistan from Tajikistan. Pakistan has 1610 km common border with India, which was demarcated by Radcliffe Commission at the time of Indian Partition. In its north east with Kashmir is the disputed border "line of control". The length of border with Iran is 832 kilometers where as the length of coastal strip is 1046 kilometers.

IMPORTANCE OF THE LOCATION OF PAKISTAN

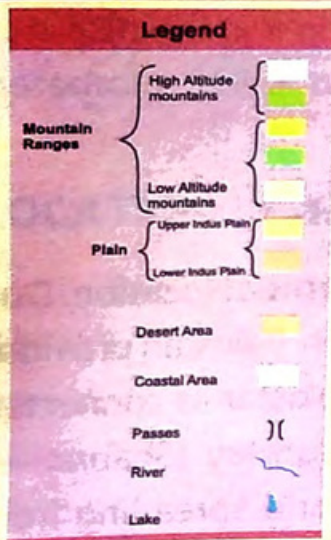
Pakistan has prominent position in the world in terms of location. Due to its geo-strategic location it is situated in sensitive region. Pakistan provides transit trade to Afghanistan and Central Asian States. Pakistan is connected with China by road, this road is called Karakorum Highway (Shahrah-e-Resham). Pakistan is located in the centre of Islamic world spreading from Moroco in the West to Indonesia in the East. Pakistan is in close proximity to the oil producing countries of Middle East and Central Asia. Galiyat, Kaghan Valley, sceneries of Swat and the oldest civilization of Indus Valley and Gandahara have great attraction for tourists in Pakistan.

PHYSICAL FEATURES OF PAKISTAN

Pakistan is a vast country. There is a great variation in physical features of Pakistan. It is about 1600 kilometers in length and 885 kilometers in breadth. These physical features starts from high mountains in the North to the coastal areas in the South. On the basis of physical features, Pakistan is divided into the following parts.

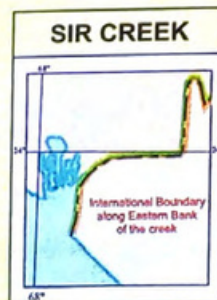
1. MOUNTAINOUS REGION
2. PLATEAUS
3. THE PLAINS
4. DESERTS
5. COASTAL AREAS

Pakistan Physical Map



Scale 1: 7500 000

0 50 100 150 200 Km
0 50 100 Miles



MOUNTAINOUS REGION

1. Northern Mountains

These mountains consist of parallel ranges in the East West direction, the slopes of these mountains are covered with evergreen coniferous forests. Northern areas of Pakistan, Azad Kashmir, Khyber Pakhtunkhwa and Northern areas of Punjab lie in these mountains. Beautiful valleys of Murree, Gilgit and Kaghan also lie in these mountains. These mountains are divided into two parts.

(I) The Himalayan Range

(ii) The Karakoram Range

(i) The Himalayas

The Himalayan Range stretches from Asam (India) in the East to the River Indus in the North West. In Pakistan there are three minor ranges of these mountains.

(i) The Shiwalik Range

It is low in altitude and is situated in the north of plain area of Punjab having an altitude of 600 to 1200 meters extend over to the Southern part of Hazara, Attock and some areas of Rawalpindi.

(ii) The Lesser Himalayas Or Pir Punjal Range

The Pir Punjal Ranges lie further to the north of Shiwalik Range. This range has an altitude of 1800 to 4600 meters. It includes the areas of Battagram, Mansehra and Abbottabad, some of the tourist resorts and picnic places like Murree and Galiyat also situated in this range.

(iii) The Central Himalayas

In the North of Pakistan this great mountain range of the world lies in the East-West direction at an average height of 6000 meters. The highest peak of this range, Nanga Parbat, is 8126 meters high. Many small glaciers lie in this range. In the Valley of Kaghan "Lake Saif-ul-Malook" is a very popular tourist spot. Some mountains of Kashmir and Hazara form a part of it.

Evergreen forests having needle like leaves, lush green valleys and abundance of fruits is the beauty of the region.

a. THE KARAKORAM RANGE

This lies to the north of Himalayas. Karakoram mountain has an average altitude of 6100 meters where as K-2 is the highest peak of this range having an altitude of 8611 meters. After Mount Everest, this is the second highest peak of the World. The Karakoram high mountain peaks remain covered with snow throughout the year. In this range, there are at least 20 glaciers of more than 20 kilometers in length. Rainfall is low in Karakoram area, therefore, forests are also less. Some passes are the only source of traffic between valleys which are often closed in winter due to snowfall. Khunjarab Pass and Karakoram Pass are the important passes of this range.

1. North Western and Western Mountainous Regions

These mountains spread in the Western and North Western parts of Pakistan. These mountains are less high as compared to the Eastern mountains. Some of these ranges make border between Pakistan and Afghanistan. The difficult passes in these mountainous ranges are the sources of transportation. Western Mountains are further divided into the following important ranges.

- | | |
|--------------------------|------------------------|
| (a) The Hindu Kush Range | (b) The Koh-e-Sufaid |
| (c) Waziristan Hills | (d) The Suleiman Range |
| (e) Kirthar Range | |

a) The Hindu Kush Range

The Hindu Kush Range is situated in Chitral and Western part of Northern areas. In the north of Chitral, Trichmir is the highest peak of this range. River Chitral is the important river of Hindu Kush Range. Due to the height and harsh conditions, only a few passes are the routes of transportation between Pakistan and Afghanistan. Among them, the historical Khyber Pass is the important trade route between Peshawar Valley and Kabul.

b) The Koh-e-Sufaid

The average altitude of this mountain range is 3600 meters. Seeka Ram Sar is the highest peak of this range. Parachinar is situated in the foot of this range.

c) Waziristan Hills

The average altitude of these hills is 1500 to 3000 meters. There are fertile valleys in these hills. Miran Shah and Wana are located in this region.

d) The Suleiman Range

This mountain range starts from River Gomal and spread to the East upto 450 Kilometers. Takht-e-Suleiman is the highest peak in this range with a height of 3847 meters.

e) Kirthar Range

This range is in the south of Koh-e-Suleiman in the North South direction, separates Lower Indus Basin from Balochistan. This mountain range is about 400 kilometers long and 30 kilometers wide.

2. THE PLATEAUS

a. The Potohar Plateau

The Potohar Plateau is situated in the North of Islamabad between river Indus and river Jhelum. Its height is 300 to 600 meters. River Swan is the important river of this plateau. Potohar Plateau is rich in minerals. The most important are Salt, Gypsum, Lime Stone, Coal and Mineral Oil.

In the south of Potohar Plateau, the Salt Range lies in the Districts of Jhelum, Chakwal, Kalabagh and Mianwali. The famous salt mine "Khewra" is situated here. The average height of Salt Range is 750 to 900 meters. The most important peak is Sakesar with 1527 meters high.

b. BALOCHISTAN PLATEAU

The Balochistan Plateau is situated in the South West of Pakistan. Its average altitude is 600 to 900 meters. It is a vast area of 34190 square kilometers. Chaghi range lies to the North of this Plateau. Some ranges of low altitude are also here, which include Siahan range and Central Makran range.

The famous salt water lake "Hamoon Mashkhel" is also situated here.

3. THE PLAINS

The Indus Plain spread over a vast area is one of the important and fertile plains of the world. The plain of Indus River is made by the fertile soil brought by the Indus River and its tributaries. The Indus Plain is divided into two parts.

a) THE UPPER INDUS PLAIN

The Upper Indus Plain consists of Province of Punjab. The river Indus and its tributaries i.e. the Rivers Jhelum, Chanab, Ravi and Sutlaj flow in it. The Upper Indus Plain spread over from Shiwalak Hills in the north and Salt range in the south to Mithankot. It slopes down from North West to South. The Plain is 400 to 1200 feet high from the sea level. River Indus and its tributaries divided this plain into Doaabes. The area between two rivers irrigated by them is called Doaab.

b) THE LOWER INDUS PLAIN

This leveled plain of Sindh Province starts from Mithankot to the Arabian Sea in the south. The height of the plain decreases from 400 feet in the north to only 20 feet in the south. The river flows very slowly in the plain due to its gentle slope. From Thatta to the coast of Arabian Sea, it starts making delta and ends up in the Sea. Here the river Indus is divided into many branches making delta. It includes the area of Run Kutch.

4. DESERTS

In Pakistan some areas are deserts. Though these are parts of plains but due to their unique features, these differ from plains. Surface of these areas are covered with sand dunes. Winds play a vital role in making features of these areas. The extremely low rain fall is the special sign of the desert areas. Underground water level is very deep. Most of the people are nomads. If the irrigation facilities are provided, then these barren areas can be utilized

for cultivation. The famous deserts of Pakistan are as follow:-

- i) Thal Desert – North West Punjab
- ii) Cholistan Desert – South East Punjab
- iii) Nara and Tharparkar Desert – South East Sindh
- iv) Chaghi and Kharan Desert – West Balochistan

2. THE COASTAL AREAS

In the south of Pakistan there is the Arabian Sea. The coastal area of Pakistan begins from Run Kutch in Sindh and stretches westward in Balochistan to the border between Pakistan and Iran. Its total length is about 1046 Kilometers. It consists of two parts i.e. the Sindh Coast and Balochistan Coast. In Sindh, Karachi and Port Qasim and in Balochistan, Gwadar Port are famous ports of Pakistan.

CLIMATE OF PAKISTAN

The average condition of temperature, humidity, air pressure and rainfall of a place or region for a long time (Average 30 years) is called climate, whereas if it is for a short time i.e. a day or a week then it is called weather. Climate of a place or area depends upon the distance from the equator and the sea, altitude, direction of winds and mountains. Pakistan is situated in the sub-tropical region above the equator. Only southern areas fall under the influence of sea winds. Monsoon and western winds cause rain in some regions at the end of summer and winter respectively. While the northern and western mountains decrease the intensity of cold wind coming from the north in winter. In the high mountainous areas, the weather changes with the altitude.

CLIMATIC ZONES OF PAKISTAN

Pakistan is situated in the sub-tropical region, therefore, its climate is hot and dry. Sea coast, monsoon, western winds and high mountains bring variation in this dry and hot climate. Pakistan can be divided into eight (8) regions on the basis of climate.

i. HIGH LANDS

Here the temperature is low because of the high altitude. In winter there is heavy rainfall and snowfall. The weather is extremely cold in winter. In summer the weather is pleasant whereas the rainfall is low due to non availability of monsoon winds. This region contains Northern areas and parts of Khyber Pakhtunkhwa Province.

i. HUMID MOUNTAINOUS REGION

These are the areas of low altitude mountains, where heavy rainfall due to monsoon and Western winds occur. In summer the temperature is moderate and heavy rainfall due to monsoon occur. Abundant rain and snowfall in winter occur. Famous areas for tourism in this region are Murree, Gilgit and Parachinar.

iii. SEMI DRY MOUNTAINOUS REGION

These are mountainous areas of low altitude where due to western winds rainfalls and sometimes snow falls in winter. Summer is moderate and dry. This region consists of areas of Quetta, Qilla Saifullah and Qalat.

iv. SEMI HUMID PLAIN REGION

It includes the Plain area of Daman-e-Koh, where heavy amount of monsoon rainfall occur. In summer the temperature is high and monsoon rains fall whereas the winter is dry and moderate. This region includes Sialkot, Gujrat and Islamabad.

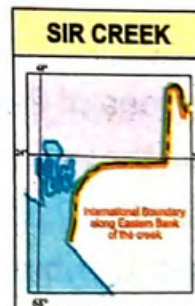
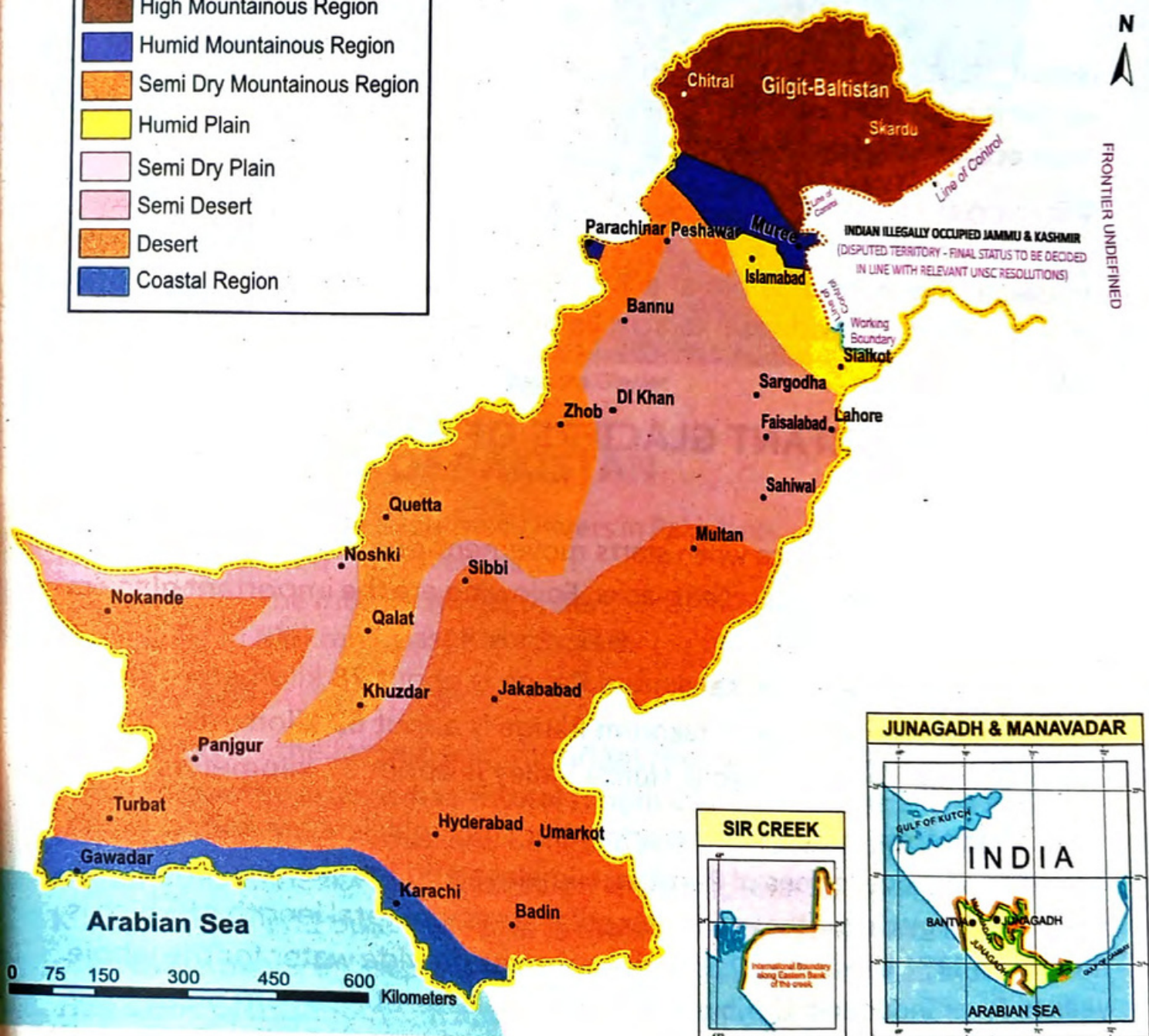
v. SEMI DRY PLAIN AREA

In this region rainfall is low due to low monsoon and western winds temperature is very high in summer. Winter is dry and moderate. It consists of the fertile plain areas of Northern Punjab and Peshawar valley.

Climatic Regions of Pakistan

Key

-  High Mountainous Region
-  Humid Mountainous Region
-  Semi Dry Mountainous Region
-  Humid Plain
-  Semi Dry Plain
-  Semi Desert
-  Desert
-  Coastal Region



vi. SEMI ARID REGION

Most of the area of Sindh, Southern Punjab and Central Balochistan are situated in this semi arid area. Here low rainfall occurs. Summer is extremely hot, winter is mild.

vii. ARID REGION

Tharparkar, Cholistan, Thal and Kharan deserts are included in this region. Here very small amount of rain occurs. Summer is extremely hot, winter is mild. There is no agriculture due to drought. Cattle rearing is the main occupation of the people.

viii. COASTAL AREA

In the south of Pakistan, is the coastal strip, the weather here remains moderate. The summer is hot and the winter is mild. Rainfall is low. The important ports of Pakistan i.e. Karachi, Port Qasim and Gwadar are located in the region.

IMPORTANT GLACIERS OF PAKISTAN

A huge mass of ice when starts movement due to gravitational pull and its material pressure, is called glacier. Following are the important glaciers of Pakistan.

1. Siachin glacier in the Karakorum Range is about 78 kilometers long.
2. Baltoro glacier in the Karakorum Range is about 62 kilometers long.
3. Batoora glacier situated in Hunza Valley is about 57 kilometers long.

Apart from these glaciers many other small glaciers are found in the high mountainous regions of Pakistan. Himalaya and Karakoram ranges are great sites of glaciers in the world after polar areas, the total length of which is more than 1771 kilometers. These great reserves provide water for the whole year to River Indus and its tributaries. Beautiful lakes of northern areas exist due to these glaciers.



Siachin Glacier



Baltoro Glacier



Batoora Glacier

RIVERS SYSTEM OF PAKISTAN

There are three Systems of Rivers in Pakistan:-

- (i) The Indus River System
- (ii) The Interior Rivers System
- (iii) Makran Coast River System

(i) THE INDUS RIVER SYSTEM

Indus is the largest and important river of Pakistan which flows from north to southwards. It has a total length of 2900 kilometers. The eastern tributaries of River Indus are Sutlaj, Bias, Ravi, Chenab and Jhelum. The western tributaries of River Indus are River Gilgit, River Swat, Panjkora, Kabul, Kurram, Tochi and Bolan etc. Due to the erosional and depositional activities of all these rivers, a vast plain has come into being which is called Indus Plain. This is one of the important and fertile plains in the world.

ii) THE INTERIOR RIVER SYSTEM

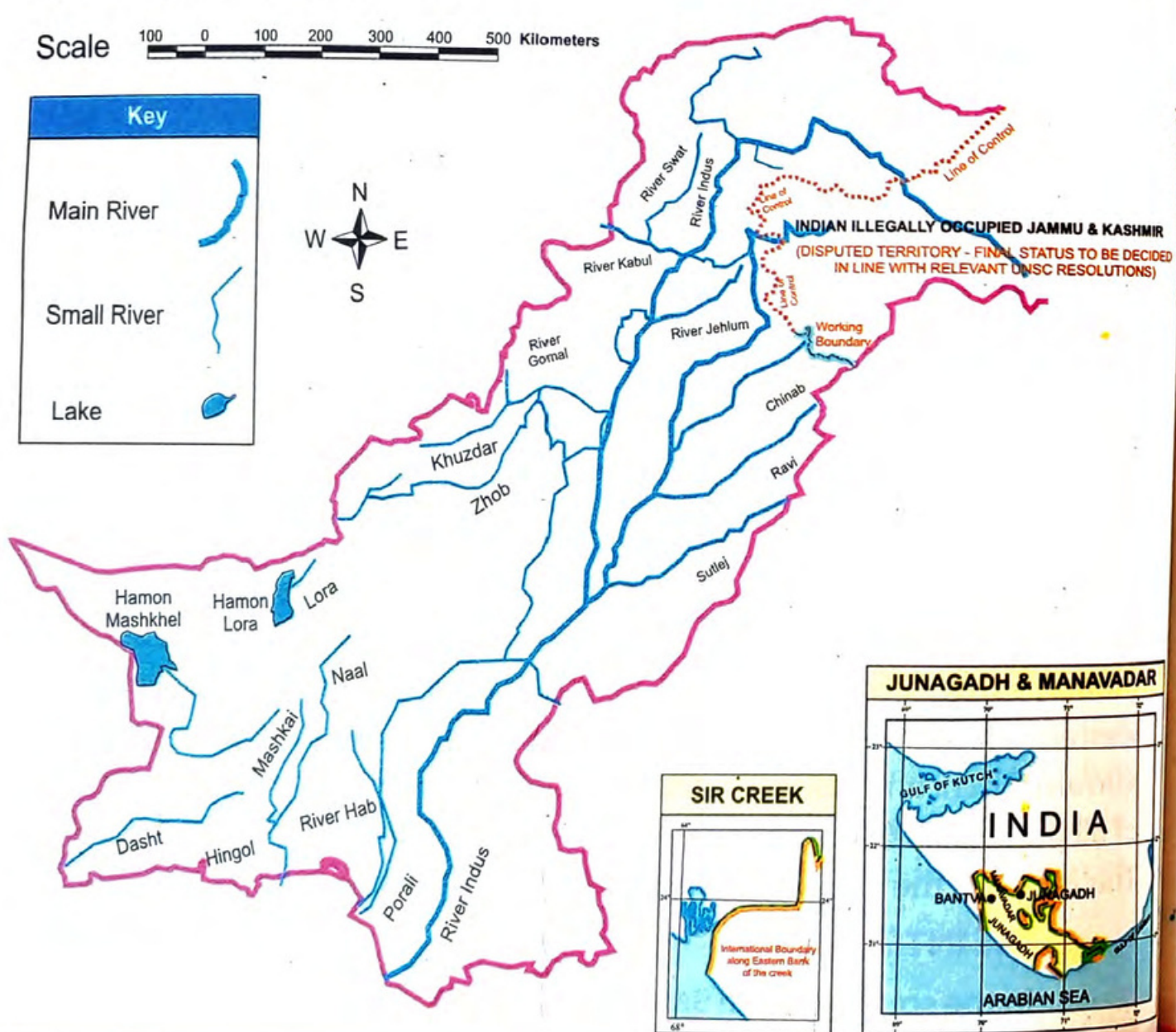
In the south western Balochistan the rivers fall into lake instead of sea.

Coming out of Raskoh and Chaghi Ranges, some of these rivers disappear before it reach the local lakes. Hamoon Mashkhel and Hamoon Lora are the important lakes of this area.

(iii) MAKRAN COAST RIVER SYSTEM

Originating from the Coastal ranges of Makran, rivers flow southwards into the Arabian Sea. They have very small number of tributaries. Here some important rivers are Hub, Porali, Hangol and Dasht.

River System of Pakistan



NATURAL VEGETATION OF PAKISTAN

Natural vegetation are the vital part of our environment. Forests are those natural vegetation which have covered a large part of the land. Currently in Pakistan only 4.8% of the land is covered with forests.

The forests found in Pakistan are of the following types

- | | |
|---------------------------------|-----------------------|
| 1. High land forests | 2. Coniferous forests |
| 3. The Riverian or Bela forests | 4. Coastal forests |
| 5. Artificial forests | 6. Dry shrubs forests |

1. HIGH LAND FORESTS

These forests are found in Northern areas, Chitral, Dir, Kohistan and Galiyat etc. These are evergreen forests. Deudar and Pine Trees are found here. These trees are used for furniture and building purpose.

2. CONIFEROUS FORESTS

These forests are found in the Northern areas of Pakistan. These are found in Abbottabad, Mansehra, and Murree. Besides, these forests are also seen in the highlands of Quetta and Qalat Division in Balochistan. These forests are evergreen and grow in low temperature. The Coniferous, Deudar and Pine trees are important. Moreover, it plays an important role in keeping the environment clean, prevent soil erosion and attracts tourists. These are used as timber and for making furniture.

3. THE RIVERAIN OR BELA FORESTS

Such forests are found along the banks of Indus River and its tributaries. The main varieties include Shisham and Babul trees. It provide very fine and hard wood for furniture.

4. COASTAL FORESTS

These forests are found on the Delta of river Indus and river Hub. Trees in these forests are of small size. These trees can also survive in salty water. Height of these trees are about 3 meters and sometimes it rises up to 6 meters. People living in coastal areas use its wood as timber.

5. ARTIFICIAL FORESTS

These are planted forests. Most of the species such as Shisham, Acacia and eucalyptus are grown for different purposes. These forests are found in Changa Manga near Lahore, Thal Desert, District Sahiwal, Ghulam Muhammad and Guddu Barrages.

6. DRY SHRUB FORESTS

These forests are also called arid or desert forests. The arid thorny forests are the important. Acacia, Berry, Karid, Oak etc are important plants in the region. These plants are found in the Indus plain and arid regions of Balochistan.

WILD LIFE IN PAKISTAN

Different kinds of wild life are found in abundance in the mountainous regions of the Northern areas as compare to the other parts of Pakistan. Northern mountainous ranges provide important habitats for wild life, because these are far away from the reach of human beings. In these areas some of the animals are snow leopards, black and brown bears, otters, lynix, markhore, leopards and snow cock etc. All these animals reside on extreme height. In the foot of Himaliya ranges and Potohar plateau, the deer chinkara, red legged partridge and some other birds are found.

In the forests of Indus plain animals like Jackals, wild cats, desert cats, wild deer etc are found. In the riverain areas Hog deer are also found.

In the arid areas there is small amount of wild life due to lack of forests. In the sandy desert of Cholistan, chinkara and blue bulls are found. In the Sulaiman and Kirther ranges, markhor, chinkara, leopards, red legged partridge and other birds are found. In the Indus water, Sindhi dolphin, fishing cat, smooth otter and crocodile are found. In the coastal areas of Pakistan, about eight kinds of tortoises are found. In Pakistan, the sand lizards, geekok (a kind of lizard) and many kinds of snakes are found. In the swampy and wet areas some kinds of marine birds are found.

Kinds of Animals	Kinds found in Pakistan
Mammal	180
Birds	660
Reptiles (lizards snakes, tortoise etc.)	174
Fish	525
Insects	20000

NATURAL REGIONS OF PAKISTAN

The area where physical features e.g. climate, natural vegetation animals and activities of human being are the same, is called a natural region. Pakistan is divided into the following natural regions.

- 1) Plain region
- 2) Arid region
- 3) Coastal region
- 4) Dry and semi dry mountainous region
- 5) Humid and sub Humid mountainous region

1. PLAIN REGION

Plain areas are very important for so many reasons, the slope of plain areas is low, therefore, plain areas are very important for agriculture. Besides availability of water, transport, means of communication and other facilities, the plain areas are thickly populated. The Indus plain is the most productive area of Pakistan. Different features of the Indus plain and rivers basins play important role in the expansion of population. The area between the two rivers (Doab) is best for cultivation, 80% of the cultivable area of Pakistan is situated here. Cotton, wheat, rice and sugar cane are important crops of the Indus plain. Canal irrigation system is helpful in cultivation. Means of transport and communication in the area are easily available. Therefore, the big cities of Pakistan like, Lahore, Faisalabad, Gujranwala, Sukkur and Hyderabad are located here. Many big industries like textiles and sugar

industry etc are in this region. This is densely populated region of Pakistan.

2. THE ARID REGION

Though the desert area is also a part of plain but from economic and commercial point of view it is less productive as compared to other parts of Indus plains. Usually there is intense shortage of rain in the deserts. Due to lack of facilities of life here most of the people are nomads, rearing sheeps and goats. Some of the desert areas are fertile and cultivable but due to shortage of water the cultivation is not on large scale. If water is made available then the desert can be made cultivable. Now through the canals, the desert of Thal, Cholistan and a great part of Thar have been brought under cultivation.

3. THE COASTAL AREA

The southern area includes Delta of Indus River, Karachi coast and Makran Coast is called Coastal region. In this region the sea breeze keep the temperature moderate. Therefore, this area is neither too cold nor too hot. Because of very gentle slope, marshy areas are also found here e.g. Rann Kutch area. The coastal areas of southern Sindh including Karachi are thickly populated as compared to the coast of Makran, because Karachi is an important port. Karachi is a great centre of trade and industry in Pakistan. Main occupation of the people of coastal areas is fishing, besides trade.

4. DRY AND SEMI DRY MOUNTAINOUS REGION

The extreme north and South West mountainous areas of Pakistan are the areas of very low rain fall. This is the driest region of Pakistan. Winters are severe and summers are mild. Due to severe cold in winter, cultivation is not possible and people are mostly busy in handicrafts e.g. carpet weaving. This is the region of low population and due to severe cold, people migrate towards plains in winter. Main occupation of the people is cattle rearing. Apple, grapes, peaches and dry fruits are the main agriculture products of this region.

5. HUMID AND SUB HUMID MOUNTAINOUS REGION

This region includes Shiwalik, Pir Punjal, Hindu Kush and some parts of Koh-e-sufaid, Murree, Swat, Abbottabad and Parachinar are located in this region. Due to the heavy rains fall on mountains, there are evergreen forests on the slopes of these mountains. These forests are the shelters for wild life and birds as well as keep the environment clean. Due to sliding on roads and heavy snow fall in winter transportation is difficult. Therefore, the inhabitants here are facing economic problems.

ENVIRONMENTAL HAZARDS

Any action or process which endangers the environment is called environmental hazards. Pollution and natural calamities both are included in environmental hazard. Air, water, soil and noise pollution create disturbance in the environment. Likewise natural calamities such as earth quake, Tsunami, flood, wind and rain, storm, drought, and soil erosion directly damage the environment. Change occurs in the environment due to environmental hazards, changing the climate accordingly and become the cause of danger for human life and civilization.

ENVIRONMENTAL PROBLEMS OF PAKISTAN

Natural environment of Pakistan is a blessing of Almighty Allah but some of the human activities endangered the natural environment which in turn creating so many problems for us. Some of the major environmental problems are discussed below:-

1. PROBLEM OF WATER LOGGING AND SALINITY

Our canals are of raw and water is flowing there throughout the year due to which the underground water levels become high. When underground water level becomes so high that it comes on the surface of the earth, it is called water logging. Such land is not cultivable. The underground salts also come up with the underground water to the surface. The water evaporates and the salts remain on surface. This is called salinity.

Due to this cultivation is not possible and the land changes into waste.

A vast area of land in Pakistan has been affected by water logging and salinity. The area affected by water logging and salinity is a great cause of low production. In order to solve the problem of water logging and salinity, it is necessary that the canals should be cemented, Tube wells should be installed. Standing water over the earth surface and high level of underground water must be controlled by proper sewerage system. Such trees should be planted which have the capacity to absorb salts from soil along with water. For example the eucalyptus. Steps should be taken by the government to overcome this problem.

2. DEFORESTATION

Forests play a key role in the economy of a country. In Pakistan, forests are only 4.8% of the total area. Forests have many advantages, wood for building and fuel is obtained from forests. It provides fodder for the cattle and raw material for industries. Medicinal herbs are obtained from forests. It makes the environment pleasant and cause more rain. In spite of all these advantages, deforestation is very rapid. Following are the causes of deforestation in Pakistan.

1. Food for growing population and increase in demand for other crops is the main cause of deforestation. Forests are removed and the land is being used for agriculture.
2. Cities are expanding due to increase in urban population; therefore, forests are removed to clear the land for urban population.
3. Due to industrial development, the need for transport and roads are also increased. Many roads are being constructed by cutting the trees.
4. Merciless cutting of trees and use as timber and fuel.
5. Forests are utilized as grazing grounds which bring decrease in it.

The area under forest in Pakistan is decreasing annually which not only badly affects the human being but the environment also.

The following steps should be taken to stop the deforestation.

- (i) Government should build residential colonies and encourage the people for small houses instead of big one for living.
- (ii) The areas from where the forests have been removed should be planted with those trees which have speedy growth.
- (iii) Low standard wood forest should be planted to be used for fuel purposed. This can prevent the high standard forests from burning.
- (iv) Awareness should be created in people regarding importance of forests.
- (v) Rules regarding forests should be imposed strictly.
- (vi) Trees should be planted in urban areas on the road sides and in open spaces.
- (vii) Fruit trees should be planted on the slopes of the hills that those provide fruits for the people and the people themselves would protect those trees.



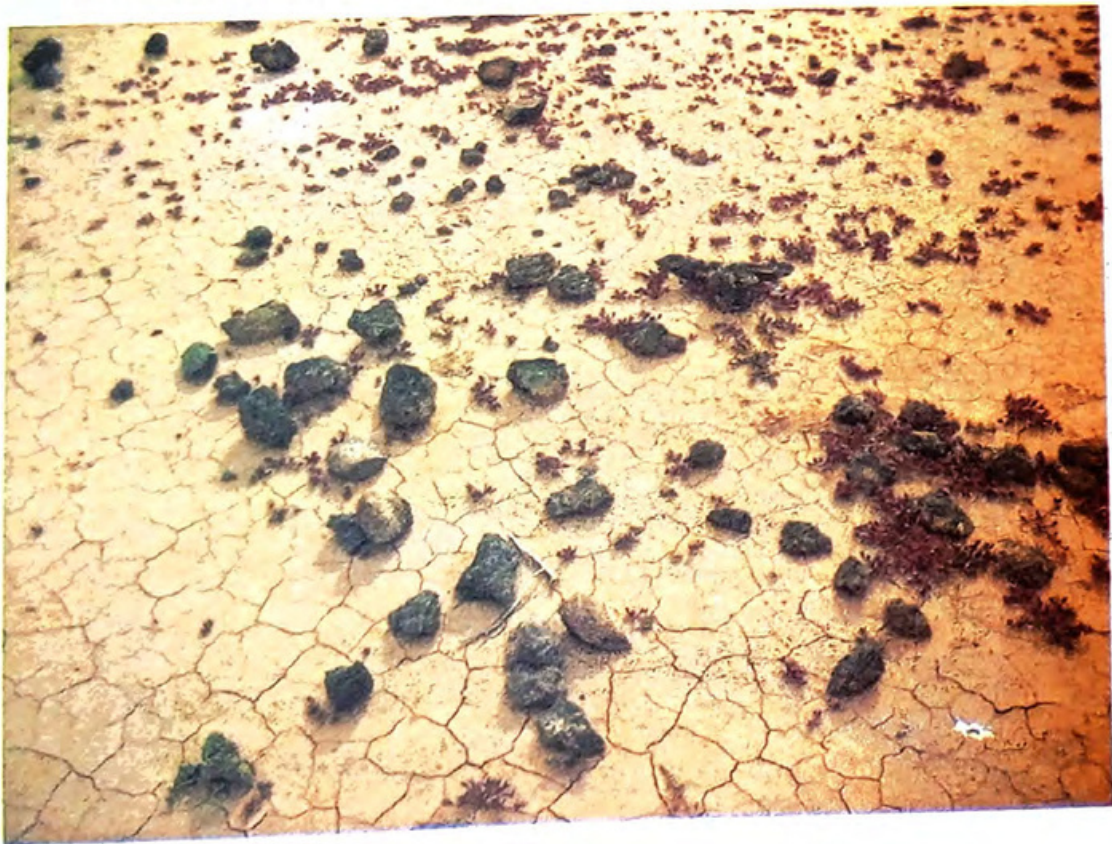
DESERTIFICATION (CHANGING OF FERTILE LAND INTO DESERT)

Due to low rain fall in Pakistan, most of the land is dry having arid and semi arid features. When the vegetations are completely vanished from fertile land, then the land become barren which cannot be made cultivable easily again. This process is called changing of fertile land into desert or desertification. There are two causes of desertification.

1. Environmental factors (No rain fall for a long time and soil erosion by wind and water).
2. Human interference (Over grazing and soil pollution).

Different steps can be taken to prevent the spread of deserts. These are:-

- i. Preventing over grazing
- ii. Prevent the soil pollution
- iii. Keeping away the industrial wastes from the cultivable land and plantation of shrubs adjacent to it, so that the sand of desert could not reach to the cultivable area.



POLLUTION AND ITS KINDS

Our environment is made of two elements.

1. Natural elements
2. Human elements

In our surrounding atmosphere; the Oxygen, Nitrogen, Carbon dioxide and other gases are found in a particular proportion. Besides, streams, drains, rivers, and heat of the sun all are natural elements of the environment. Whereas human factors mean, everything in which humans are involved, like crops, buildings and factories etc.

There is a balance maintained by nature between different factors of our environment and any change which disturb this balance, is called environmental pollution. Environmental pollution dangerously affect the human life. Basically, environmental pollution is of three types.

1. Air pollution
2. Water pollution
3. Land/soil pollution

1. AIR POLLUTION

Usually, air pollution is due to the auto mobiles and factories, engines of vehicles like truck, rickshaw and car etc. are running with fuel resultantly, carbon dioxide, hydrogen and carbon mono oxide gases get mixed with the air. Many of the injurious gases come out from the factories or construction work for example; sulphur dioxide, Nitrogen oxide, dust ashes etc mix with the air. This pollution in the air indirectly affects the human health.



Air Pollution

Air pollution is very high in urban and industrial areas. Big industrial cities of Pakistan like Karachi, Hyderabad, Lahore, Faisalabad, Gujranwala etc. are more affected from air pollution.

2. WATER POLLUTION

Domestic and Industrial wastes in the urban areas are the major source of water pollution. For example all the domestic and industrial waste of Nowshera is flown into Kabul River. Such as all the industrial waste of Karachi and Maleer goes into layaree stream. This not only pollute the water of rivers and lakes but the underground water also become polluted.

Clean drinking water is the basic need of life. In the rural areas drinking water is not available. There are no stream or water courses in many of the rural areas. Therefore, the rain water is collected and used. In some areas water from ponds are used which become dirty after some time. Use of dirty water is a great cause of diseases in the rural people. Polluted water is harmful for human use and is the main cause of intestinal and liver diseases.



Water Pollution

3. LAND/SOIL POLLUTION

Land pollution is the result of growing population. The densely populated areas are more polluted. People in rural areas ease themselves in the open fields and in the cities rubbish and garbage is thrown outside. It causes pollution of land. They contaminate and make poisonous the food crops and vegetable grown on such lands.

Efforts should be made on national and mass level to control the environmental pollution. General awareness should be created in the people. At the government level, planning should be made for industries and growing urbanization population growth. Trees and plants are the prime source of environmental purification. Therefore, awareness should be created at public level regarding tree plantation.



Land Pollution

EXERCISE

1. Choose the correct answer of the following.

- 1) In which part of South Asia Pakistan is located?
a. South West b. South East c. North West d. North East
- 2) How much is the total area of Pakistan?
a. 5967210 Sq Km b. 796096 Sq Km
c. 896096 Sq Km d. 997512 Sq Km
- 3) What is located in the South of Pakistan?
a. China b. India c. Indian Ocean d. Arabian Sea
- 4) Which country is separated from Pakistan by Wakhan strip in the North?
a. Uzbekistan b. Tajikistan c. Turkmenistan d. Azerbaijan
- 5) How much is the length of Pakistan in the North South direction?
a. 1400 KM b. 1500 KM c. 1600 KM d. 1700 KM.
- 6) In which mountain range, Nanga Parbat is situated?
a. Shiwalik b. Karakorum c. Hindukush d. Koh-e-Hamaliyan
- 7) How much is the height of K-2?
a. 8126M b. 8224M c. 8611M d. 9611M
- 8) Which historical pass is in the Hindukush ranges?
a. Bolan Pass b. Khyber Pass c. Tochi Pass d. Gomal Pass
- 9) Where Lake Hamoon Mush Khail is situated?
a. Koh-e-Hindukush b. Koh-e-Sulaiman
c. Potohar Plateau d. Balochistan Plateau
- 10) In which climatic zone Pakistan is situated?
a. Tropical b. Sub-Tropical c. Arid d. Semi-Arid

2. Write short answers to the following questions.

1. Discuss the location of Pakistan and its importance.
2. Describe the four boundaries of Pakistan.
3. Write short notes on the following:
 - a. Plateaus b. Plains c. Deserts d. Coastal Areas
4. What is the difference between weather and climate?
5. What is a glacier? What are the important glaciers of Pakistan?
6. What are Environmental Hazards?

3. Write detailed answers to the following questions.

1. Write a note on mountain ranges of Pakistan.
2. Pakistan is divided in how many climatic regions? Describe each one in detail.
3. What do you know about the natural vegetation of Pakistan?
4. What is a natural region? Give details of the natural regions of Pakistan.
5. Discuss the environmental problems of Pakistan.

ACTIVITIES

1. Draw a sketch of the map of Pakistan and highlight the climatic regions on it.
2. Hold a painting competition on the environmental problems.