

ASIA

Overview

- The continent of Asia is the largest of all continents in the world in terms of both size and population.
- It covers almost one third of the land on the Earth.
- Excepting some of the islands of Indonesia, it is situated entirely in the Northern Hemisphere.

Extent

- Latitudinally, Asia stretches across all the heat zones of the Earth.
- Extending from 10°S of the Equator (the steaming evergreen jungles, where heat, rain and humidity are the highest on the globe) to 80°N, the northern most part of the continent lies within the frozen arctic region.
- We find all the three important latitudes passing through this continent. 0°–Equator, 23½°N – Tropic of Cancer and 66½°N – Arctic Circle.

Description

- As the planet's largest continent, Asia covers about 30 percent of the world's landmass and includes 44 countries and assorted islands and/or dependencies.
- The continent includes the world's most populated countries, China and India; the world's longest coastline, the world's deepest lake; Lake Baikal, and some of the most important rivers on the planet.
- Asia's and world's highest point: Mt Everest (8,850m).
- Asia's and world's lowest point: Dead Sea (392m below sea level).
- **Continent Size:** 44,579,000 sq km
- Percent of Earth's Land: 30%
- **Population:** 3,879,000,000 (2008 estimate)



- Longitudinally, it stretches from 25°E along the Mediterranean shore of Asia Minor to 10° beyond 180° meridian in the Bering Strait.
- This works out to 165° difference in longitude.
- 15° difference in longitude brings about one hour difference in time. Therefore 165° difference in longitude brings about $165/15=11$ hours difference.
- Thus, when it is 12 noon Sunday in Asia Minor, it is 11 p.m. Sunday at the Bering Sea Coast.

Boundaries

- To the north of Asia lies the Arctic Ocean, to the east the Pacific Ocean, to the west the Mediterranean Sea and to the south lies the Indian Ocean.
- Ural Mountains and Ural river, Caspian Sea, Caucasus Mountain and Black Sea separate it from Europe.
- Red Sea and the Suez Canal, separate it from Africa, while the Bering Strait separates it from North America.

Seas of Asia

- South of the Bering Strait is the Bering Sea.
- The Kamchatka Peninsula shuts in the Sea of Okhotsk.
- There is the Sea of Japan and the Yellow Sea which get its name from the yellowish loess washed into it by the Yellow river (Huang Ho).
- There are the East and South China Seas.
- The South China Sea is a busy trade route.
- The Gulf of Oman and the Persian Gulf are the inlets between Arabia and Iran.
- The Suez Canal, which has been built on the Isthmus of Suez, joins the Red Sea with the Mediterranean Sea.

Regions of Asia

- Asia is a vast continent and is divided into the following regions:
1. **South West Asia:** This region lies in the middle of the east and is referred to as the 'Middle East'. It includes Saudi Arabia, Iran, Iraq and Afghanistan. This region and Europe are collectively referred to as Western Eurasia.
 2. **Southern Asia:** This region includes India, Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka. On account of India's vast area, it is often called the Indian Sub-Continent.
 3. **South East Asia:** This region includes Malaysia, Singapore, Burma, Kampuchea, Vietnam and the Philippines.
 4. **East Asia:** This is referred to as the Far East and the regions are China, Japan, Korea and Taiwan.
 5. **Northern Asia:** This region is also known as the Soviet Asia because it includes the vast area of Asian part of the Soviet Union.
 6. **High Asia:** This region includes the lands of Central Asia, such as, Tibet, Sikiang and Mongolia.

Asia—A Continent of Contrasts

- Asia is often referred to as a continent of contrasts or a land of diversities for the following reasons:
1. **Relief:** Asia contains the world's highest peak, known as Mount Everest, which is 8,848 metres above the sea level. In contrast to it the lowest part of the land's earth surface, the Dead Sea, 394 metres below sea level, lies in Asia.

- The Challenger Deep (10911m) in the Mariana Trench near the Philippines is much deeper than the height of Everest.
- 2. **Climate:** The coldest inhabited place is Verkhoyansk in Siberia, where the winter temperature falls to -50°C . In contrast to it, the hottest place in Asia– Terat Tzvi (Israel) also lies in Asia (hottest temperature recorded on earth 53.9°C).
- The wettest place: The rainiest place in the world is Cherrapunji and Mawsynram, both in Meghalaya. They get 1,080 centimetres of rain in a year. At the same time, places like Arabia and the Thar Desert are the driest parts of the Earth.
- 3. **Vegetation:** Impenetrable thick equatorial forests of Malaysia and Indonesia, in contrast to the barren waste of the hot deserts of the Arabian and Thar, the temperate deserts of Gobi and the Ice Deserts of the Arctic Shore.
- 4. **Rivers:** Asia has some of the world's largest and mightiest rivers like the Ganga and the Brahmaputra as well as small ones, like, Salween in Myanmar, draining into the Gulf of Martaban. The Sundarbans delta is the largest in the world.
- 5. **Lakes:** It has the world's largest salt lake in the continent, the Caspian Sea. There are also fresh water lakes, like, Lake Baikal in Siberia, the deepest and also comparatively smaller lakes like, Wullar in Kashmir
- 6. **Religion:** Asia is the birth place of great religions like, Judaism, Christianity and Islam from the Mediterranean lands; Confucianism from China; Hinduism, Buddhism and Jainism from India.
- **Ancient Civilisation:** The ancient river valley civilisation of Asia are the Mesopotamian, Indus Valley and the Chinese. The Chinese civilisation has unbroken historic records to the present day.
- 7. **People:** When we compare the life of the people, we find Japan the most developed part of the world, where most people live in cities, while countries like Afghanistan and Mongolia come under least developed countries where people still live in villages and hamlets.
- We also find nomads in India, Mongolia and other parts of Asia.
- It has the highest density of population in Java, yet, the dead heart of Siberia in Russia has practically no population.
- Agricultural practices are advanced in countries like India and China, yet food gathering is still practised by some tribes in the deep forests like Onges (Andamans).
- There are also contrasts in the development of languages. Languages like Tamil, Japanese, Chinese and Arabic are rich in literature and language, while, some have only dialects with no scripts.
- Hence it is rightly called the 'Continent of Contrasts'. Extremes are caused mainly because of its location and the vast extent of its landmass.

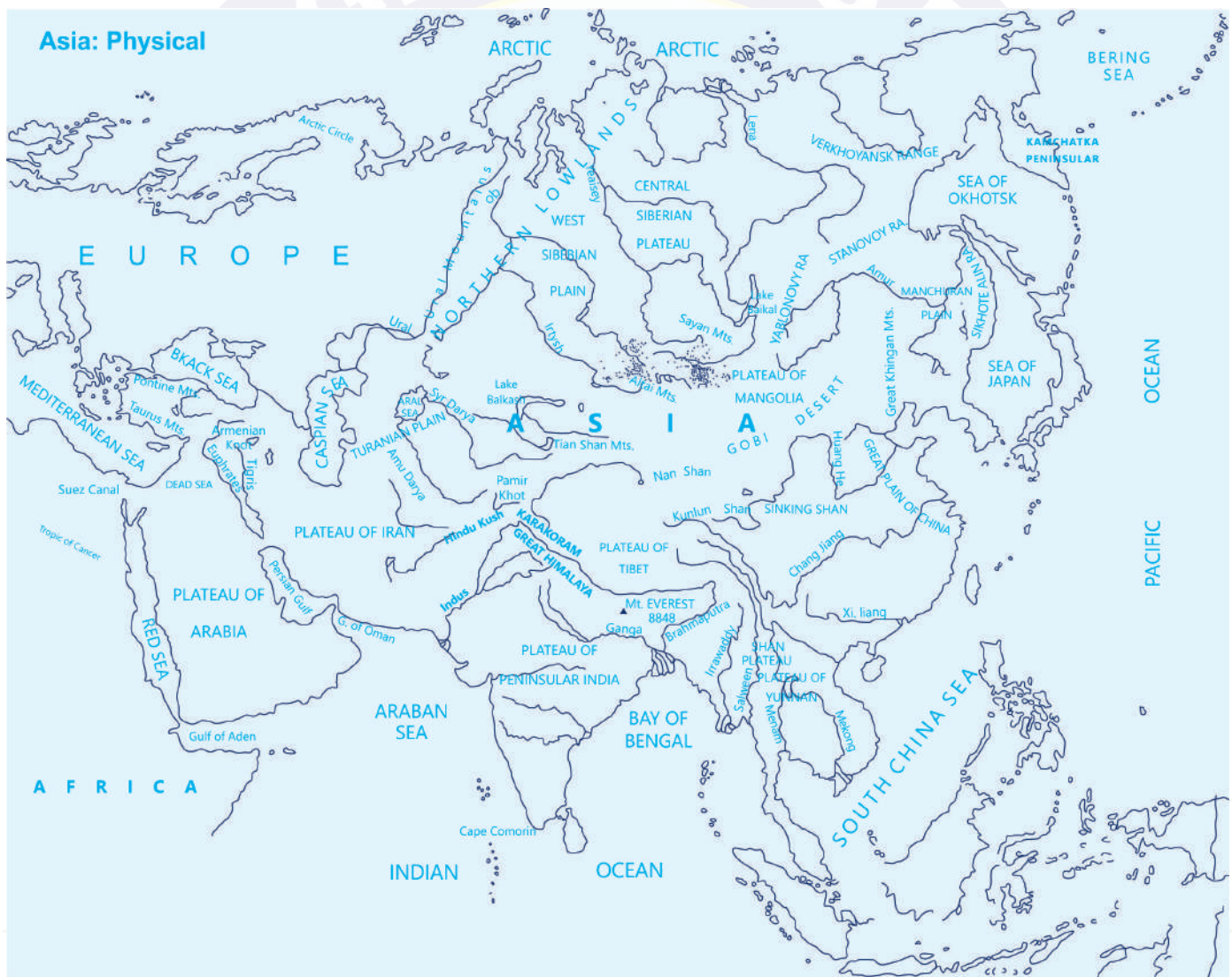
Physical Features

- Asia covers 43,942,000 square kilometers or 30 per cent of the world's land area.
 - Thus, according to relief, it can be divided into five divisions
1. The Northern Lowlands
 2. The Central Mountain Mass
 3. The Plateaus of the South
 4. The River Valleys
 5. The Eastern and South Eastern Island groups.

The Northern Lowlands

- To the north of Asia, sloping towards the Arctic Ocean lies the vast Siberian Plain.
- It is roughly triangular in shape, the Ural Mountains and the Arctic Ocean forming the two sides and the Central Mountains the base.

- It stretches from the Urals in the west to the Yablanovyy, Stanovoy and Verkhoyansk Ranges in the east.
- Three Mountains from Pamir Knot are Hindukush, Kunlun and Himalayas. Some long rivers start from Central Highlands and flow northward.
- They are the Ob, Yenisey and Lena.
- In spring, when the snow, on the mountains from where they originate, melts the volume of water in them increases.
- Since their mouths are still blocked by the Arctic ice, they overflow their banks forming vast swamps.
- To the south of the Urals, a small part of this plain is different from the rest as it is a basin of inland drainage known as the Turan Plain.
- It is drained by the two rivers, the Syr Darya and the Amu Darya which flow into the Aral Sea.



The Central Mountain Mass

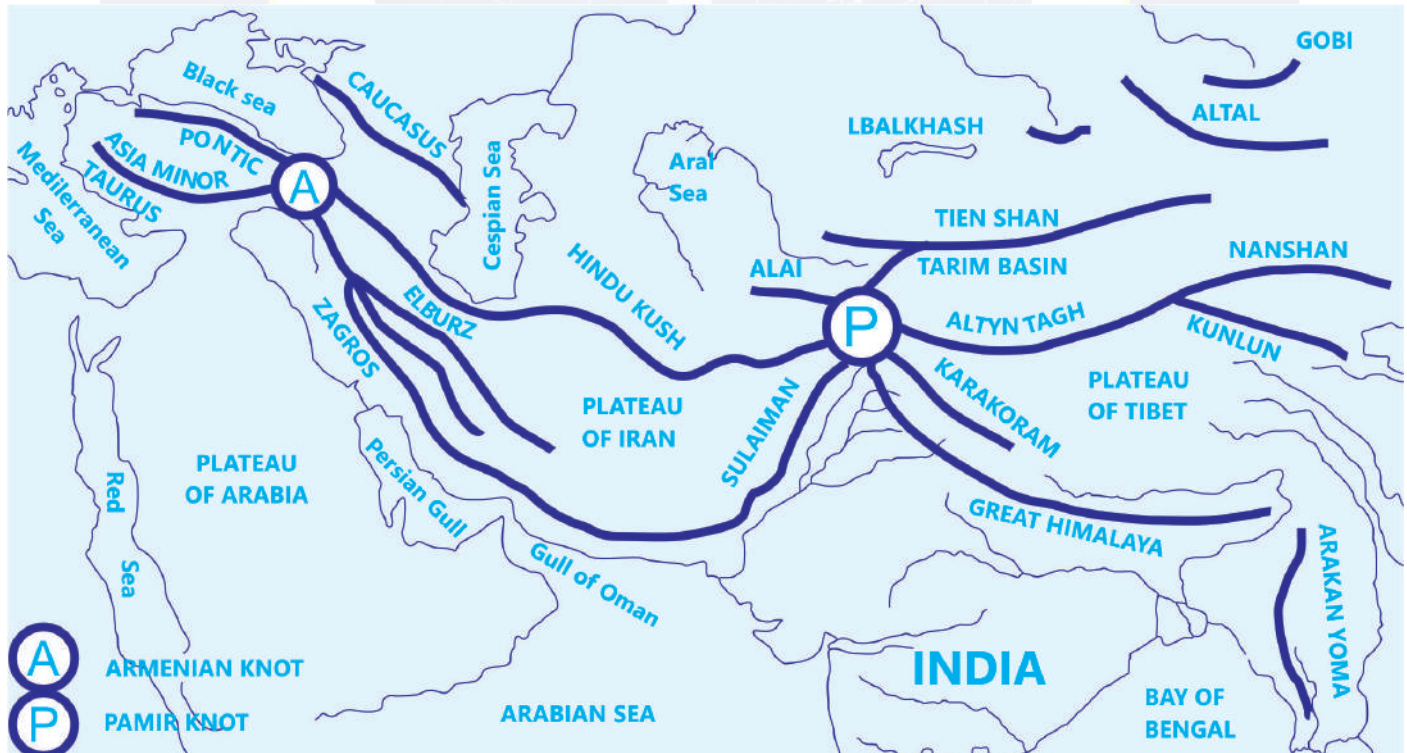
- The heart of Asia is made up of great young fold mountain ranges and high plateaus.
- These form the largest mountainous areas in the world and they seem to radiate like spokes from the hub of a wheel.
- There are two hubs or knots the Pamir Knot, north of India and Armenian Knot in the western part of Asia Minor.

Mountains from Pamir Knot

- Southeastwards from the Pamir Knot stretch the Himalayas, Karakoram and Kunlun Mountains.
- To the north of these in a west to east direction lie the Tien Shan and Nan Shan mountain.
- Tibet, the roof of the world, is the intermontane plateau between the Himalayas and the Kunlun Mountain and the Tarim Basin is the one between the Kunlun and the Tien Shan.
- Eastwards of this lies the Gobi Desert bordered on the north by the Plateau of Mongolia and the Altai Range.
- Running eastwards, the most southerly of the fold mountains are the Himalayas.
- The Himalayas extend southwards in the north eastern part of India and run through Myanmar (Burma) as the Yomas, into the Malay Peninsula and continue into the Indonesia Archipelago as submarine ranges.
- Mount Everest and Mount K2 are the highest peaks in the Himalayas.
- There are a number of passes in the Himalayas – the famous one being the Khyber Pass in Afghanistan and the Nathu La and Shipki La passes, the gateways to Tibet from India.

Mountains from Armenian Knot

- Eastwards along the south of the Caspian Sea, the Elbruz Mountains run to the Hindu Kush.
- From the Armenian Knot towards the west extend the Pontic and Taurus Mountains which are the northern and southern ranges of Turkey with the Plateau of Anatolia lying in between.
- This forms the Peninsula of Asia Minor.
- The Plateaus of Iran and Afghanistan are other intermontane plateaus.



The Plateaus of the South

- These are made up of hard old metamorphic rocks.
- There are three plateaus. All three jut into the sea forming peninsulas.

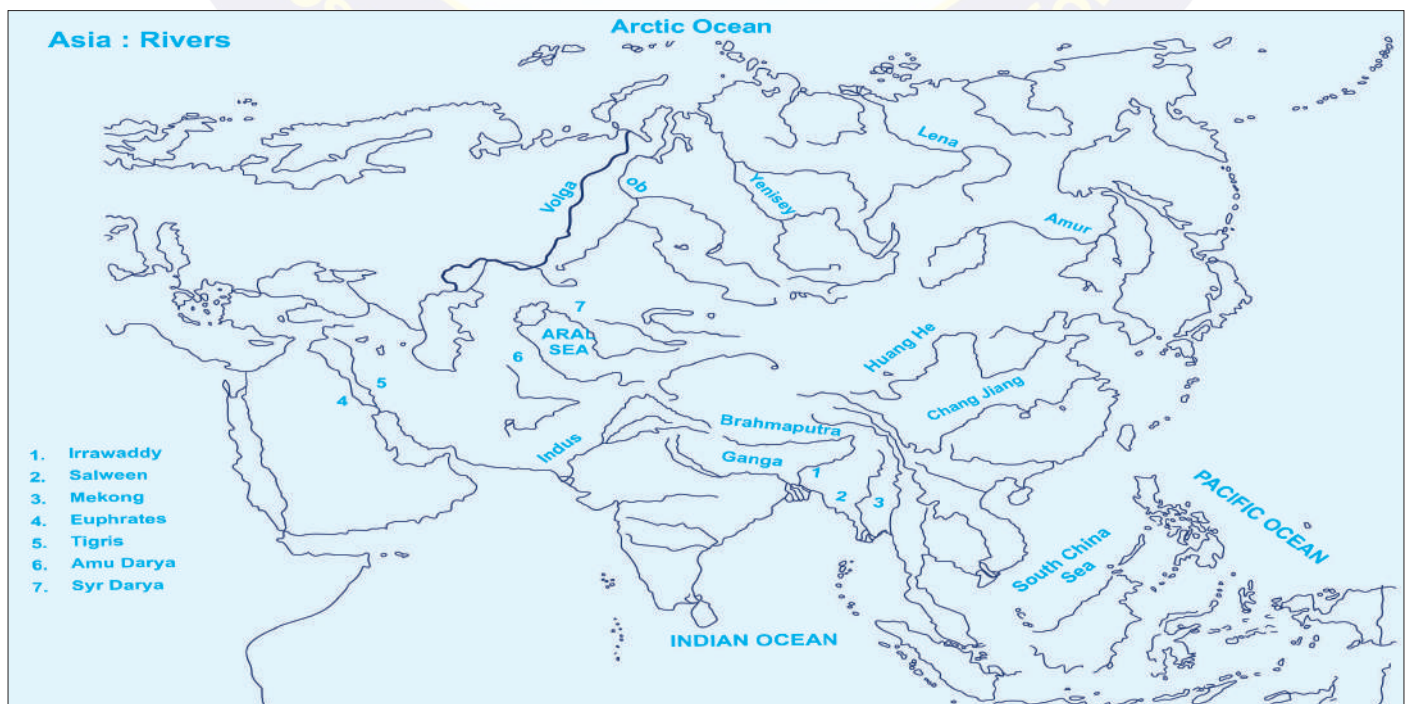
- They are the Arabian Plateau, the Deccan Plateau and the Plateaus of Shan and Yunnan together known as the Plateau of Indochina.
- While the Arabian Plateau is a hot desert the other two have been eroded by monsoon rains and cut into deep river valleys. Hence they are called "dissected plateaus".

The River Valleys

- These are the most productive region of Asia.
- These have broad flood plains and deltas, built up entirely of alluvium.
- The soil is very fertile and transportation is easy.
- These are the most densely populated regions of the world.
- The river Tigris and Euphrates flow into the Persian Gulf; Indus, Ganga and Brahmaputra are of the Indian peninsula; Irrawaddy and Salween of Myanmar; Menam and Mekong of South East Asia.
- The Chinese rivers are Xi Jiang, Chang Jiang and Huang Ho.
- The River Amur is part of the boundary between China and C.I.S.
- River Chang Jiang is the longest river of Asia.

Peaks of Asia

Mount Everest (8,848 m)	Nepal-Tibet, China border
K2 (8,611 m)	Pakistan-China
Kangchenjunga (8,586 m)	Nepal-Sikkim
Lhotse (8,516 m)	Nepal-Tibet, China
Makalu (8,462 m)	Nepal-Tibet, China
Cho Oyu (8,201 m)	Nepal-Tibet, China
Dhaulagiri (8,167 m)	Nepal
Manaslu (8,156 m)	Nepal
Nanga Parbat (8,125 m)	Pakistan
Annapurna (8,091 m)	Nepal
Gasherbrum I (8,068 m)	Pakistan-China
Broad Peak (8,047 m)	Pakistan-China
Gasherbrum II (8,035 m)	Pakistan-China
Shishapangma (8,013 m)	Tibet, China
Gyachung Kang (7,952 m)	Nepal-Tibet, China
Gasherbrum III (7,952 m)	Pakistan-China
Annapurna II (7,937 m)	Nepal
Gasherbrum IV (7,925 m)	Pakistan-China
Himalchuli (7,893 m)	Nepal
Distaghil Sar (7,885 m)	Pakistan
Kunyang Chhish (7,852 m)	Pakistan
Masherbrum (7,821 m)	Pakistan
Nanda Devi (7,816 m)	India
Kamet (7,756 m)	Indianear Tibetan border
Namcha Barwa (7,756 m)	Southeast Tibet, China
Gurla Mandhata (7,694 m)	Tibet, China
Gangkhar Puensum (7,570 m)	Bhutan
Kula Kangri (7,554 m)	Tibet, China



The Eastern and Southeastern Islands

- The innumerable islands are separated from each other and the mainland by straits and smaller seas.
- The Japanese Islands, Philippines and the Islands of Indonesia are the large island groups.
- Kamchatka, Korea and Malaysia are peninsulas.
- The busy ports of Singapore and Hong Kong are both islands.
- Being part of the Pacific Ring of Fire, earthquakes and volcanoes occur frequently in this region.
- The violent volcanic eruption of Krakatau which blew up an island and from its caldera raised a cone out of the sea is in the Sunda Strait between Sumatra and Java.

Drainage System

- Though the rivers of Asia have their sources in the Central Mountain Mass, they are grouped according to the seas they flow into. This grouping is known as drainage system.
- In Asia we have the following drainage systems:
 - 1. The Indian Ocean** – Rivers Tigris and Euphrates flow into the Persian Gulf; the Indus, Ganga, Brahmaputra, Irrawaddy and Salween into branches of the Indian Ocean.
 - 2. The Pacific Ocean drainage** consists of the Menam, Mekong, Xi Jiang, Chang Jiang, Huang Ho and Amur.
 - 3. The Arctic Ocean drainage** consists of the three rivers of the north, Ob, Yenisey and Lena.
 - 4. Inland drainage** – River Jordan flows into the Dead Sea; Amu Darya and Syr Darya into the Aral Sea.

Deserts

• Gobi	–	Mongolia
• Taklamakan	–	China
• Ordos	–	China
• Kara Kum	–	Central Asian countries
• Kyzyl Kum	–	Kazakhstan and Uzbekistan
• Thar-Cholistan	–	India and Pakistan
• Dasht-e Lut	–	Iran
• Dasht-e Kavir	–	Iran

Important Seas

The Aral Sea is a landlocked endorheic sea in Central Asia; it lies between Kazakhstan in the north and Karakalpakstan, an autonomous region of Uzbekistan, in the south. Since the 1960s the Aral Sea has been shrinking, as the rivers that feed it (the Amu Darya and the Syr Darya) were diverted by the Soviet Union for irrigation. By 2004, the sea had shrunk to 25% of its original surface area, and a nearly fivefold increase in salinity had killed most of its natural plants and animals. The Aral Sea is also heavily polluted, largely as the result of weapons testing, industrial projects, and fertilizer runoff.

The Caspian Sea is the largest enclosed body of water on Earth by area, variously classed as the world's largest lake or a full-fledged sea. It has a surface area of 371,000 square kilometers (143,244 sq mi) and a volume of 78,200 cubic kilometers (18,761 cu mi). It is an endorheic body of water (has no outflows), and lies between the southern areas of the Russian Federation and northern Iran. It has a maximum depth of about 1025 meters (3,363 ft). It is called a sea because when the Romans first arrived there, they tasted the water and found it to be salty. It has a salinity of approximately 1.2%, about a third the salinity of most saltwater. It is named after the ancient Caspians.

The Dead Sea is a salt lake between the West Bank and Israel to the west, and Jordan to the east. At 420 metres (1,378 ft) below sea level, its shores are the lowest point on the surface of the Earth that are on dry land. At 330 m deep (1,083 feet), the Dead Sea is the deepest hypersaline lake in the world. It is also the world's second saltiest body of water, after Lake Van in Turkey. With 30 percent salinity, it is 8.6 times saltier than the ocean. Israeli experts say it is nine times saltier than the Mediterranean Sea (31.5% salt versus 3.5% for the Mediterranean). The Dead Sea is 67 kilometres (42 mi) long and 18 kilometres (11 mi) wide at its widest point. It lies in the Jordan Rift Valley, and its main tributary is the Jordan River.

Climate

- Asia being a huge continent has many types of climatic region.
- The following factors bring about these climatic differences.

Latitude

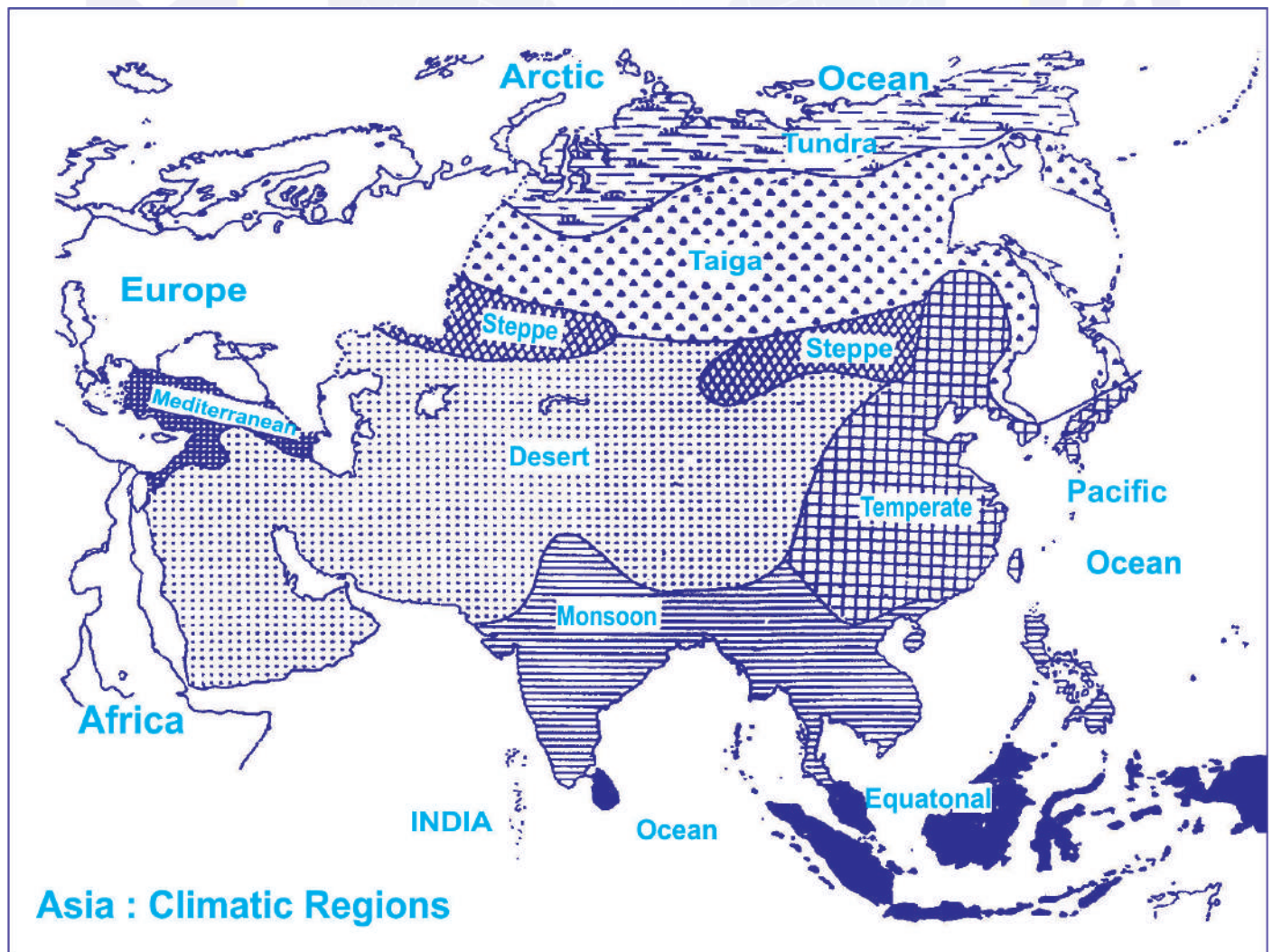
- Asia stretches from 10°S latitude to 77°N. This means places near the Equator are hot and wet while places near the Arctic Circle are frozen most of the year.

Distances from The Sea

- In addition to its vast extent from south to north, Asia stretches from 25°E longitude to 100° beyond the 180° meridian.
- Because of its vastness there are places in Central Asia almost 3,000 kilometres away from the sea which have given rise to continental climate with extremes of temperature and very low rainfall.

Altitude and Direction of Mountain Ranges

- The Central Mountains of Asia are the loftiest in the world. Therefore this region of ranges and intermontane plateaus are cold and snow covered throughout the year.
- The direction of mountain ranges plays an important role in the climate of the region. The Himalayas are an example. They stretch from west to east across the path of the monsoon winds.
- India being on the windward side gets good rainfall but Tibet on the leeward side is dry.
- They also shelter India from the cold Arctic winds that blow southwards.
- In China where there is no west to east mountain range, winters are much colder and places like Canton (Guangzhou) which are closer to the Equator than Delhi gets snow, which is unthinkable of in Delhi.



Prevailing Winds

- In summer, the interior of Asia gets very hot.
- Winds blow from the ocean towards this low pressure centre and bring rain to most areas in the south and south-east.
- In winter, when the landmass cools down and high pressure builds up, winds blow from the interior towards the sea.
- These dry land winds do not bring rain except where they cross a sea and curve towards land.
- That is how Tamil Nadu gets rain in winter. These seasonal winds of Asia are called the "monsoons".

Ocean Currents

- Ocean currents influence the climate of regions they flow past. The western part of Asia is land bound. The southern part stretches into the tropics.
- Therefore only in the north-east of Asia do they play a part in altering the climate.
- The Cold Oya Shio Current makes the winters of Kamchatka and North Japan very cold.
- The Warm Kuro Shio moderates the winters of South Japan.

Conditions in Winter

- When the sun shines over the Tropic of Capricorn, it is winter in the Northern Hemisphere. Central Asia becomes very cold. High pressure develops over it. Cold, dry land winds blow towards the surrounding seas and curve westwards.
- The coasts that lie in their path get winter rain from the moisture, hence Tamil Nadu gets winter rain.
- Indonesia, Malaysia, Philippines, Japan, Vietnam and Sri Lanka also get rain in this season from the same source.
- The area stretching from the Mediterranean coast of Western Asia eastwards upto the Punjab Plains also get winter rain but from another source. Depressions over the Mediterranean Sea cause these winter rains which are typical of the region.

Conditions in Summer

- In summer the sun shines directly overhead the Tropic of Cancer, making the interior of Asia very hot.
- Because of the warm rising air, low pressure develops over vast area.
- Moist winds from the seas all around are sucked into these low pressure centres.
- These are the 'summer monsoon' winds which bring life-giving rain to most parts of south and South East Asia.
- This region is known as the 'monsoon lands' of Asia because the crops and the well-being of the people are dependent on the monsoons.
- Monsoon rains are 'orographic' in nature (relief rain) i.e. they are dependent on mountains which lie in their path.
- The windward sides get heavy rain while the leeward sides are dry.
- Mawsynram in Meghalaya on the windward slopes of the Khasi Hills is the rainiest place on the Earth.
- But Shillong on the leeward side of the same range gets low rainfall.
- Central Asia remains very dry.
- South west winds bring summer monsoon rain to India whereas in South East Asia, South China and Japan, monsoon winds blow in the south east direction from the Pacific Ocean which lies to the east.

Natural Vegetation & Resources

- Asia is a very vast continent and therefore all the major types of vegetation are found varying from the dense tropical forests of Malaysia to the treeless plains of Central Asia and the Tundra of the Arctic Region.



1. Equatorial Forests

- This region lies near the Equator and is found in Malaysia, Indonesia, southern Sri Lanka and the Philippines.
- The climate is always hot and wet so plants and trees are tall with broad leaves.
- The plants are often entwined with creepers growing up towards the sunlight.
- Trees like the mahogany, ebony, rosewood and palms grow here.

2. Tropical Forests

- Lands that lie near the Tropic of Cancer – India, Pakistan, Bangladesh, northern Sri Lanka, Myanmar, etc – have tropical forests.
- It is mainly hot and wet.
- In places where the rainfall is heavy, we find trees like teak, sal, rosewood, banyan, etc. and in places where the rainfall is less, cacti, shrubs and thorn bushes grow.
- The trees found are largely deciduous and shed their leaves in the hot dry summer months to prevent excessive transpiration.

3. Deserts

- China, Arabia and India (Thar) have vast desert areas.
- In the hot deserts (Arabia and India)- summers are hot while winters are cool.
- Since there is hardly any rainfall, only cacti, shrubs and thorny bushes grow in these areas, though date palms also grow in an oasis.
- Cold deserts like Takla Makan, Gobi and Kashgar are surrounded by high mountains and experience very cold winters. Short grass and low thorny bushes grow along the edge of these deserts.

4. Steppes

- It is known as dry grassland.
- This zone is a narrow belt from the Ukraine in the west to Lake Balkhash and Siberia in the east.
- The summers are warm and the winters cold.
- Rainfall ranges from 20 to 50 centimetres year, which is not enough for trees to grow but short grass and low bushes grow in this area.

5. Mediterranean Woodlands

- A very small area of Asia comes under this type of vegetation.
- They are the shores of Turkey and parts of Syria, Lebanon and Israel.
- The summers are hot and dry and the winters mild and moist.
- Cedars, wheat, grape and citrus fruits grow in these lands.

6. Temperate Forests

- Such forests are found above and beyond the tropical forests, mainly in north and Central China, South Japan and South Korea.
- The climate is cool and wet.
- Broad leaved deciduous trees (trees which shed their leaves to guard against the winter) like oak, camellia, camphor, bamboo and mulberry are found in these forests.

7. Siberian Forest or Taiga

- The taiga lies to the north of the temperate grassland.
- They form a wide belt of coniferous (cone bearing) forests that stretch right across the continent and are described by the Russian word taiga which means 'forests of sticks'.
- The long and severe winters are punctuated by brief summers which last for only about three months.
- Almost always, precipitation is in the form of snow.
- The conifers bear seeds in cones.
- The trees found in the taiga are the evergreen spruce, fir, cedar, larch and pine.
- Since the wood of the conifers is soft, it is used as timber and to make wood pulp and rayon.

8. Tundra or Polar

- This belt is a narrow strip along the northern coast of the continent.
- The Russian word 'tundra' refers to a flat marshy plain and is used to describe the vast, cold, treeless plains north of the taiga.
- Snow covers the land most of the time. The sub soil is permanently frozen.

- Precipitation is in the form of rain and snow.
- The vegetation here is mostly grass, shrub, moss, lichen and a few stunted (dwarf) trees.
- There is continuous daylight during the short summer months and numerous little brightly coloured flowers carpet the ground.

Natural Resources

- The wealth of any country lies in its resources.
- Asia's wealth is in its agricultural resources which include fertile soil and water for irrigation.
- Asia also has forest and mineral resources and above all, human skill and talent to utilise these.
- Even though many Asian nations gained independence only after World War II, nearly every country is working on long term plans for economic development and great changes are taking place at present to improve the living conditions and life of the people.

