



For All Competitive Exams



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1 CHAPTER

World Physical Geography

- There is a total of **7 continents and 5 oceans** in the world.
 - **Continents:** Africa, Asia, Australia, Europe, North America, South America and Antarctica
 - **Oceans:** Indian Ocean, Pacific Ocean, Atlantic Ocean, Arctic Ocean and Southern Ocean
 - The Equator passes through 13 countries:
 - South America: Ecuador, Colombia, Brazil,
 - Africa: Sao Tome & Principe, Gabon, Republic of the Congo, Democratic Republic of the Congo, Uganda, Kenya, Somalia
 - Asia: Maldives, Indonesia and Kiribati.
- Water Bodies through which the Equator passes: Atlantic Ocean, Pacific Ocean and Indian Ocean
- The Prime Meridian passes through 8 countries:
 - o Europe: United Kingdom, France, Spain
 - Africa: Algeria, Mali, Burkina Faso, Ghana, Togo
 - o Antarctica
- Water Bodies through which the Prime Meridian Passes: Arctic Ocean, Norwegian Sea, Greenland Sea, Mediterranean Sea, Atlantic Ocean and Southern Ocean
- The Tropic of Cancer Passes through 16 Countries:
 - o North America: Bahamas, Mexico
 - Africa: Egypt, Libya, Niger, Algeria, Mali, Western Sahara, Mauritania
 - **Asia:** Taiwan, China, Myanmar, Bangladesh, India, Oman, United Arab Emirates, Saudi Arabia
- Water Bodies through which Tropic of Cancer passes: Indian Ocean, Atlantic Ocean, Pacific Ocean, Taiwan Strait, Red Sea and Gulf of Mexico
- The Tropic of Capricorn passes through 10 countries:

- $\circ\quad$ South America: Argentina, Brazil, Chile, Paraguay
- Africa: Namibia, Botswana, South Africa, Mozambique and Madagascar
- o Australia: Australia
- Water Bodies through which the Tropic of Capricorn
 Passes: Indian Ocean, Atlantic Ocean and Pacific
 Ocean
- The Arctic Circle passes through 7 countries: Canada, Finland, Greenland, Norway, Sweden, Russia and USA (Alaska).

1. Africa

- Africa is the second-largest continent after Asia.
- Natural Boundaries:
 - North: the Mediterranean Sea,
 - North East: the Red Sea,
 - East: the Indian Ocean,
 - West: the Atlantic Ocean
- It is divided in half almost equally by the equator.
- **Tropic of Cancer:** Egypt, Libya, Niger, Algeria, Mali, Western Sahara, Mauritania.
- **Equator:** Gabon, Congo, Democratic Republic of Congo, Uganda, Kenya, Sao Tome and Principe, Somalia.
- Tropic of Capricorn: Namibia, Botswana, South Africa, Mozambique and Madagascar
- Prime Meridian: Algeria, Mali, Burkina Faso, Ghana, Togo
- **55 African countries**, 54 sovereign African states plus the territory of the Sahrawi Arab Democratic Republic, are **members of the African Union**
- Subregions of Africa (as per African Union):

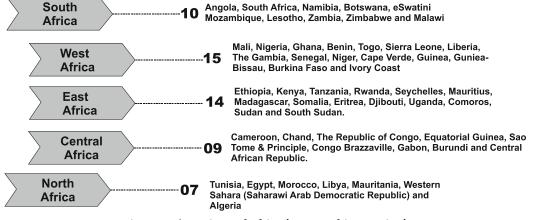


Figure: Sub Regions of Africa (As per African Union)

Plains of Africa

Sahel

• The Sahel is a narrow band of semi-arid land that forms a transition zone between the Sahara to the north and the savannas to the south.

Mountains of Africa

• The Sahel comprises flat, barren plains and stretches across Africa, from Senegal to Sudan.

Savanna

• Cover almost half of Africa, making up most of central Africa.

Mountain	Features
Atlas Mountains	• Location: Northwestern part of the continent stretching towards the southwest direction
	across Morocco, Algeria, and Tunisia.
	Highest Peak: The Jebel Toubkal (height is 4165 m from sea level)
	• It is a physical separator between the extensive coasts of the Mediterranean and the
	Atlantic Sea, and the Sahara Desert.
Rwenzori Mountains	• Location: borders Uganda and Congo (Kinshasa) and is thought to be the "Mountains of the
	Moon''.
	Highest Peak: Mount Stanley at Margherita Peak (5,119 m)
	• It is a gigantic horst of six separate glaciated masses which falls steeply westward to
	the Western Rift Valley.
Mount Elgon	• Location: the northeast part of Lake Victoria on the Uganda – Kenya border.
	• As a volcanic mountain it has a crater which is 610 m deep and 8 km across.
Tibesti Massif	• Location: the northern part of Chad and spread west into northern Niger and the Southern
	border area of Libya.
	 They have a volcanic origin.
	Highest Peak: Emi Koussi
Ahaggar Massif	• Location: south of the capital, Algiers.
	• It is a highland region in central Sahara, or southern Algeria, near the Tropic of Cancer.
	Highest Peak: Mount Tahat is the highest peak (2, 918 m).
	• It has a volcanic formation.
Drakensberg	Location: The eastern part of South Africa
	Highest Peak: Thabana Ntlenyana at 3,482 m (11,422 ft).
	 It is also the highest peak of Lesotho.
Mount Kenya	• Location: central Kenya, just south of the equator, around 150 km north-northeast of Nairobi.
	Highest Peak: Mount Kenya
	 The second-highest in Africa (after Mount Kilimanjaro).
Kilimanjaro	Location: Tanzania
Kiiiiiaiijai U	 Kilimanjaro has three volcanic cones, Kibo, Mawenzi, and Shira.
	 An inactive stratovolcano in northeastern Tanzania.
Mount Cameroon	
wount Cameroon	 Only active volcanic mountain in Africa dominates the coastline of Cameroon. Known for iron ore.
Densional Minches (199	
Bomi and Nimbas Hills	The main hills of Liberia, known for Iron ore deposits.

Plateaus of Africa

Plateaus	Features	
Ethiopian Highlands	Rise 75 million years ago when magma from Earth's mantle uplifted a broad dome of ancient rock.	
	• Include native species such as the Walia ibex, an endangered wild goat and gelada baboon.	
Southern Africa	The Kaapvaal craton shapes much of southern Africa.	
	• Southern Africa's Cape Floral Region is one of the world's richest areas for plants.	
Katanga Plateau Farming, ranching, resource-rich – copper and Uranium deposits		
Ethiopian Plateau	Lake Tana (Source of Blue Nile) cooler despite being close to the equator	
Jos Plateau	The northern half of Nigeria consists of the undulating Jos Plateau.	
Bie Plateau	Important for copper, Agriculture and cattle rearing	
Adamawa Plateau	Savannah vegetation, Bauxite deposits	

Rivers of Africa

Basin Features		
	Rivers: Blue Nile, White Nile and Atbarah Rivers (Black Nile).	
	Mouth: Mediterranean Sea	
	Longest river in the world.	
	• From Lake Victoria, it flows, as the Victoria Nile, into Lake Albert, from which it emerges as the Albert Nile.	
Nile Basin	• Farther north, after receiving several tributaries , it becomes the White Nile and finally the Nile , emptying at last into the Mediterranean Sea .	
	• This is especially true of the Blue Nile, which, after issuing from Lake Tana on the Ethiopian	
	Plateau, flows most of its length through a steep gorge.	
	• Swamps also interrupt the river's course. Of these, the largest is Al-Sudd, a vast area of	
	floating swamp reeds, mostly papyrus.	
	The largest is the Aswan High Dam on the main Nile	
	Source: Mountains of Guinea	
	Mouth: enters atlantic ocean from Southern nigeria	
Niger Basin	• The Niger basin is the largest river basin in western Africa.	
0	• The Niger River, which rises in the mountains of Guinea and enters the sea through its	
	delta in southern Nigeria.	
	• Niger receives its largest tributary, the Benue, which flows in from its left bank, in Nigeria	
	Source: Lualaba (boyoma falls)	
Congo (Zaira) Basin	Mouth: Atlantic ocean	
Congo (Zaire) Basin	Gorges often construct the river's course.	
	• Below its confluence with the Kasai, the main river cuts through the Crystal Mountains in a	
	deep gorge, which at one point expands into Malebo (Stanley) Pool, a shallow lake.	
	Source : Mwinilunga District (Zambia)	
	Mouth : Zambezi Delta (Indian ocean)	
	• The Zambezi River Originally were two rivers corresponding to the upper and lower	
	courses of the present river.	
Zambezi Basin	• There are numerous waterfalls, the most spectacular of which is Victoria Falls.	
	• After these falls, the river winds through several deep gorges cut out of basalt and, after	
	flowing through a broad valley, enters Kariba Gorge.	
	• The Kafue and the Luangwa, the two main tributaries, which both flow through gorges, join	
	the Zambezi on its left bank downstream from Kariba .	
	Source: Lesotho, Drakensberg	
	Mouth: Atlantic ocean	
	• The Orange River is the longest in South Africa.	
Orango Basin	• Flowing across almost the entire width of the country, it makes its way from the highlands	
Orange Basin	in the east through the Kalahari depression in the west to empty into the South Atlantic	
	Ocean.	
	• Its major tributary, the Vaal River , is one of its northern headwaters.	
	• Together with other major rivers on the continent, the Orange–Vaal river system shares the	
	characteristic of flowing over steep gradients for numerous stretches of its course.	

Lakes of Africa

Lake	Features	
	• Countries: central Africa, between Zambia and Zimbabwe.	
Lake Kariba	Location: Zambezi River	
Lake Kaliba	• One of the biggest man-made lakes where commercial fishing is done.	
	Largest producer of hydroelectricity in Africa	
Lake Nyasa	• Type : Rift valley lake	
(Lake Malawi)	• Countries: Malawi, Mozambique and Tanzania.	

	Third largest lake in Africa.
	Countries: Democratic Republic of Congo (Zaire) and Zambia.
	Location: Congo River.
Lake Mweru	It is the second-largest lake in the Congo valley.
	• There are two main reserves situated in the Eastern and Western parts, the Mweru Wantipa and
	the Lusenga Plain National Parks.
Lake	• Type: Rift valley lake
Tanganyika	Countries: Tanzania, Zaire and Zambia.
Tangariyika	• It is the longest freshwater lake in the world and the second deepest after lake Baikal in Russia.
Lake Edward	Countries: Uganda and Democratic Republic of Congo
	Countries: Uganda, Kenya and Tanzania.
	Source of White Nile River.
Lake Victoria	Largest lake of Africa and it does not lie in rift valley
Lake victoria	• A large lake through which the equator passes.
	World's third largest lake after the Caspian Sea and Lake Superior.
	It contains numerous coral reefs.
Lake Turkana	• Type: Rift valley lake
(Lake Rudolf)	Country: Kenya
	Country: Ethiopia
Lake Tana	Location: Ethiopian highlands.
	Source of the Blue Nile River.
	Type: Man Made Reservoir
Lake Nasser	Countries: Egypt and Sudan
	Location: the river Nile.
	Type: endorheic (shallow freshwater lake)
	Countries: Chad, Cameroon, Niger, Nigeria
Lake Chad	River: Chari River
	Largest lake of Sahara
	An example of deflation hollow which is formed due to wind erosion.
Lake Volta	Type: Man Made Reservoir
	Iocation: on the River Volta in Ghana
	Type: Crater Lake
Lake Assal	Countries: Djibouti.
	The lowest point in Africa.

• A strait is a **narrow area of water** that connects two larger areas of water.

Straits	Connects	Separates
Strait of Gibraltar	Atlantic Ocean to	The Iberian Peninsula in Europe from Morocco in Africa.
	Mediterranean Sea	
Bab-El-Mandeb	Red sea to the Gulf of Aden	Yemen (Arabian Peninsula)
		From Djibouti and Eritrea in the Horn of Africa.
Strait Of Tiran	Red sea and Gulf of Aqaba	Sinai and the Arabian Peninsula

Deserts in Africa

1. Sahara Desert

•

- Location:
 - North : Mediterranean sea
 - South : Shael Savannah
 - West : Atlantic Ocean
 - o East : Red Sea

- The Sahara contains two permanent rivers (the Nile and the Niger), at least 20 seasonal lakes and huge aquifers.
- Hamada: Rocky desert of Sahara is bare rock surface formed by deflation.
- Cities:
 - o Zinder (Niger)
 - Timbuktu (Mali)
 - Kano (Nigeria)
 - o Kumasi (Ghana).

2. Libyan Desert

- It is also known as the Great Sand Sea or Western Desert.
- Located in the northern and eastern part of the Sahara Desert and occupies southwestern Egypt, eastern Libya, and northwestern Sudan.
- This desert is primarily sand and boulder plains and is inhabited by the Senussis, a conservative Islamic group.
- Ridges and deep depressions (basins) exist in several parts of the desert, and no rivers or streams drain into or out of the area.

Serir: Stony desert of Libya is covered with boulders, angular pebbles and gravel produced by a high diurnal temperature range.

3. Arabian Desert

- Arid region of North-East Egypt.
- Encompasses almost the entire Arabian Peninsula.
- It contains **Rub Al-Khali**, one of the **world's** largest continuous bodies of sand.

2. Asia

4. Nubian Desert

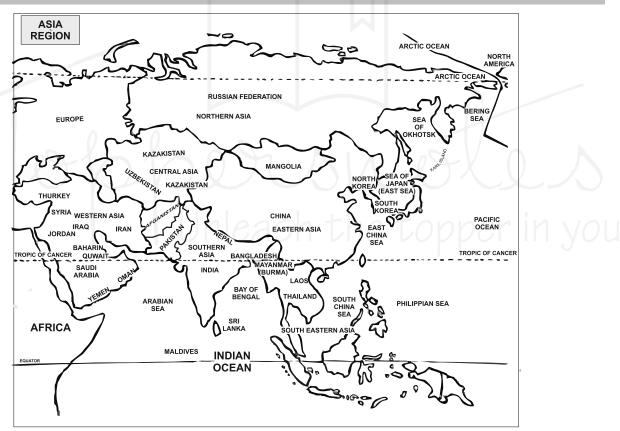
- The arid region is **rugged and rocky** and contains some dunes.
- It also contains many wadis(valleys) that die out before reaching the Nile.
- The largest city of the Nubian Desert is Port Sudan.
- This desert is the only habitat for the critically endangered palm 'Medemia argun'.

5. Namib Desert

- Namib means "vast" in the Nama language.
- Existing for at least 55 million years, the Namib is **one of the oldest deserts** in the world.
- Some of the world's tallest sand dunes (over 300m) are found in the Namib Desert.

6. Kalahari Desert

- The semi-desert region of Botswana lies to the east of the Namib desert.
- Home of one of Africa's oldest races, the Kalahari Bushmen.



Natural Boundaries:

- North West: The Ural River, The Ural Mountains.
- West: The Caucasus Mountains, The Mediterranean Sea, The Caspian Sea, And The Black Sea.
- South West: The Suez Canal, Red Sea, Gulf of Aden.
- Ural Mountains- separated from Europe, and the Bering Strait separates it from North America.
- **Tropic of cancer:** Taiwan, China, Myanmar, Bangladesh, India, Oman, United Arab Emirates, Saudi Arabia
- Equator: Maldives, Indonesia, Kiribati (Oceania)
- Grasslands of Asia
 - **Steppes have warm** to hot summers and cold winters.

 Commonly referred to as 'the Great Steppe', it is found in Eastern Europe and Central Asia, and nearby countries.

The earth's highest and lowest places are both in Asia:

- Highest place on earth: Mount Everest
- Lowest place on earth: Dead Sea-shore

Political Divisions of Asia

Divisions	Features
	Known as the Middle East and is a region of political instability.
	• Countries: Iran, Iraq, UAE, Oman, Yemen, Saudi Arabia, Jordan, Syria, Turkey, Azerbaijan, Armenia,
West Asia	Georgia, Lebanon, Israel, Palestine, Qatar, and Kuwait.
	Geographical extent:
	• West: The Mediterranean Sea, the Sinai Peninsula.
	• South: The Red Sea
	• Southeast: The Indian Ocean.
	Geographical Extent:
	o East: China
Central Asia	• North: Russia
	o South: Afghanistan
	• The western border of this region runs along the Caspian Sea.
	• Countries: Tajikistan, Uzbekistan, Kazakhstan, Turkmenistan, and Kyrgyzstan.
	• Silk Road Trading- Played an important role in the transportation of goods between China and Europe
	Geographical Extent:
	o West: Central Asia
East Asia	o East: East China Sea
	O North: Russia
	o South: South Asia
	• Countries: China, Mongolia, North Korea, South Korea, Japan, Hong Kong, Taiwan, and Macau.
	South Asia has a peninsula-like shape.
	Geographical extent: three bodies of water
	• South : The Indian Ocean
South Asia	• East : The Bay of Bengal
	• West : The Arabian Sea
	The region includes the Indian subcontinent and surrounding countries.
	• Countries: Sri Lanka, Bangladesh, India, Afghanistan, Pakistan, Bhutan, Nepal, Iran, the Maldives, and Myanmar.
	Featured as the most densely populated area in the world.
	Geographical Extent
	o South: Australia
	• North: East Asia
South Asia	• East: The Pacific Ocean
	• West: The Bay of Bengal.
	Only Asian region is located on both sides of the equator.
	• Countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Timor Leste,
	and Vietnam.

Plains in Asia

Plains	Features
	Geographical extent:
Great	• West: Ural Mountains
Siberian	O East: River Lena
Plains	• Lake Baikal, the deepest lake of the world is located in Siberia, estimated to holds 20% of all fresh
	lake water on the globe.
	Mountains and deserts surround this interior Heartland.

Manchurian	• Formed by the Amur River and its tributaries in the northern part of China.
Plains	• Important cities Anshan, Shenyang and Fushun of the Mudkan triangle (region of well-developed
	Iron and steel industries) are located.
Massastania	Location: The land between the Euphrates and Tigris rivers
Mesopotamia	• Both rivers are fed by numerous tributaries .
Plains	• Climate: semi-arid with a vast desert expanse in the north.
	• In the extreme south, the Euphrates and the Tigris merge and drain into the Persian Gulf.
	Geographical extent:
	• Containing Plains of northern and eastern India, Bangladesh and southern plains of Nepal
Ganga Plains	• The Ganga plain, part of the Great Plains of north India which comprises the Rajasthan plain, the
	Punjab plain.
	• Formed: through alleviation by the Satluj, the Ganga and the Brahmaputra drainage.
Great Plains	• Contributed by two major rivers of China, the Hwang Ho and Yangtze rivers.
of China	

Mountains of Asia

- The highest, grandest and most revered mountain ranges are found in Asia.
- These Ranges are home to some of the most iconic and highest peaks in the world.
- Asia is a vast continent with many mountain ranges, the subcontinent ranges of the Himalayas, Karakoram and Hindu Kush, often collectively referred to as the Great Himalaya.

Himalayas

- One of the **youngest mountain ranges**, formed through the collision of the Indian **tectonic plate and the Eurasian plate**.
- Runs in an arc form, from northwest to southeast.
- The highest mountain outside Asia is **Aconcagua** in the Andes that stands at 6,961m.
- Mount Everest (8,848m) is the highest peak of Himalaya.

Range	Countries	Highest Point Mount Everest (8,848 m)	
Himalayas	Nepal, India, China, Bhutan		
Karakorum (Second highest mountain range in World.)	Pakistan, India, China, Afghanistan and Tajikistan	K2 (8,611 m)	
Hindu Kush	Afghanistan and Pakistan	Tirich Mir (7,690 m)	
Ural Mountains	Russia and Kazakhstan	Mount Narodnaya (1,895 m)	
Altai Mountains	Russia, China, Mongolia and Kazakhstan	Bekuda Mountain (4,506 m)	
Tian Shan	Kazakhstan, Kyrgyzstan and China	Jensingh chokusu (7,439 m)	
Pamir Mountains	Tajikistan	Kangour Taugh (7,649 m)	
Kunlun Mountain	China/Tibet	Liushi Shon (7,167 m)	
Western Ghats	India	Anamudi, Kerala (2,695 m)	
Couscous Mountains	Russia, Acerb, Georgia	Mount Elbrus (5,642 m)	

Mountain Knot

Junction of two or more mountain ranges **Pamir Knot**

- <u>Hindukush:</u> Extends into Afghanistan, Pakistan and Tajikistan.
 - Highest peak Tirich Mir (Pakistan).
- <u>Tien shan:</u> Spread into China, Tajikistan, Kazakhstan, Uzbekistan and Kyrgyzstan.
 - Highest mountain peak is Jengish chokusu (Kyrgyzstan–China border)
- Kunlun shan: Lies in China.
 - Highest **peak Is KongurTagh (China).**

- <u>Karakoram:</u> Countries India, Pakistan, China, Afghanistan and Tajikistan.
 - Highest peak is k2 (China and POK Border).
- <u>Himalayas</u>: Countries India, China, Nepal and Bhutan.
 - Highest peak Mount Everest (Nepal).

Armenian Knot

- Mountains of Elburz, Zagros, Pontic and Taurus originate from here.
- The mountain ranges extend into Turkey, Georgia, Azerbaijan, Armenia and Iran.
- Mount Damavand (Iran) highest peak of the highlands.

Chronological order of mountain ranges in Asia are:

- <u>West to East</u>: Pontic and Taurus ranges, Elburz and Zagros mts. Hindukush ranges, Tien Shan, Kunlunshan, Karakoram, Himalayas, Altai mts, Nan shan, ArakanYoma etc.
- <u>North to South</u>: Kolyma mts, Altai mts, Armenian knot (Pontic, Taurus, Elbrus and Zagreus), Tien shan, Kulunshan, Hindukush, Karakoram, Himalayas, Sulaiman, Kirthar, etc.

Plateaus

Plateau Features			
Iranian Plateau	Countries: Iran, Afghanistan, and Pakistan.		
	• Plateau - not uniformly flat- contains some high mountains and low river basins.		
	• Highest mountain peak- Damavand (5,610 meters/18,410 feet).		
	• Plateau has two large deserts: the Dasht-e Kavir and Dasht-e Lut.		
Deccan Plateau	Most of the southern part of India.		
	Bordered- three mountain ranges:		
	• North: Satpura Range		
	o East: Eastern Ghats		
	o West: Western Ghats		
	• The plateau and its main waterways—the Godavari and Krishna rivers—gently slope toward		
	the Eastern Ghats and the Bay of Bengal.		
Tibetan Plateau	Known as the "Rooftop of the World,"		
	Geographical Extent:		
	o South: Himalayas		
	o North: Taklamakan desert		
	Countries: China, Nepal, India, Bhutan, Tajikistan and Kyrgyzstan.		
	• Termed as the Third Pole.		
	• Largest reserve of freshwater outside the polar regions.		
Pamir Plateau	Known as the Roof of the world.		
	Countries: Tajikistan, China and Afghanistan		
	It is a junction of mountain ranges:		
	O South East: Himalayas		
	 North East: Tian shan 		
	• West: Hindu Kush		
	o South: Suleiman		
Arabian Plateau	Easternmost part of Asia.		
	High Aridity due to low Rainfall		
	Rich in petroleum reserves		

Deserts of Asia

Desert	Features		
Arabian	Countries: Yemen, Oman, Jordan and Iraq.		
Desert	Water body: Persian Gulf		
	Rub Al Khali sand desert is part of it.		
	Largest in Asia.		
Gobi Desert	2nd largest desert in Asia.		
	Countries: China and Mongolia.		
	• Less rainfall due to Himalayan barrier.		
	cold desert		
Taklamakan	China's largest desert.		
Desert	 Known as the "Place of Ruins" or the "Sea of Death" 		
	• Second largest non-polar sand-shifting desert in the world.		
Thar Desert	Asia's only subtropical desert.		
	Countries: India and Pakistan.		

Consists of aeolian (wind-deposited) sand.		Consists of aeolian (wind-deposited) sand.	
• Several playas (saline lake beds), known as dhands , are scattered throughout the region.			
Kyzylkum • Fifth largest desert in Asia		Fifth largest desert in Asia	
Desert • Countries: Kazakhstan and Uzbekistan.		Countries: Kazakhstan and Uzbekistan.	
• Features a wide variety of flora and fauna.		Features a wide variety of flora and fauna.	
• Famous for red sand		Famous for red sand	
Kara Kum • Country: Turkmenistan.		Country: Turkmenistan.	
Desert • Famous gas crater "Gates to Hell" is located here.		Famous gas crater "Gates to Hell" is located here.	
Translated as "Black Sand"			

Rivers of Asia

Rivers	Features		
Euphrates	Originates in Eastern Anatolia.		
and Tigris	Countries: Turkey, Syria, Iran, Iraq and Kuwait.		
	Mouth: Persian Gulf.		
	Flows South easterly direction		
Syr Darya	Origin: Border of Afghanistan and Tajikistan.		
	Countries: Afghanistan, Tajikistan, Turkmenistan and Uzbekistan.		
	Mouth: Aral Sea.		
	Flows North westward		
Amu Darya	Origin: Tien Shan Mountains in Kyrgyzstan.		
	Countries: Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan.		
	Mouth: Aral Sea.		
	Flows North west ward.		
Indus	Origin: Tibetan plateau Near Mansarovar lake in China.		
	• Flows to the North-northwest and after Entering into Pakistan it flows towards the south west.		
	Countries: China, India and Pakistan.		
	Mouth: Arabian sea.		
Ganges	Origin: Himalaya Mountains at Gomukh, end of the Gangotri Glacier.		
-	• Mouth: Bay of Bengal.		
	• Flows to south and then loops back on an easterly course toward Kanpur.		
	Longest river in India, if we consider the total distance covered by a river within India.		
Brahmaputra	Origin: Mansarovar lake in Tibet.		
	Mouth: Bay of Bengal.		
	It is Known as Yarlung Tsangpo (the purifier) in China.		
	It flows in the East direction and after entering into India it flows southward.		
Irrawaddy	Origin: Myanmar.		
	Mouth: Andaman Sea		
	• Flows North to South.		
	• Very important transport route.		
	• Naypyidaw is on this river.		
Salween	Origin: Tibetan plateau in China.		
	Countries: China, Myanmar and Thailand.		
	Mouth: Andaman Sea.		
	Flows from North to South		
	One of the largest Basins in Southeast Asia.		
Mekong	 Origin: Tibetan plateau. 		
Yangtze	Countries: China, Myanmar, Laos, Thailand, Cambodia and Vietnam.		
-	Mouth: South China Sea.		
	Flows from North to South		
Yellow	Origin: Qinghai province of western China.		
	 Mouth: Bohai sea (China) 		

	٠	Known as Huang He.
	٠	Flows from West to Northeast.
	•	Yellow colour because of sand from the Gobi Desert.

Chronological order of Rivers in Asia:

• West to East: Euphrates, Tigris, Amu Darya, SyrDarya, Indus, Ganga, Brahmaputra, Irrawaddy, Salween, Mekong, Yangtze, Yellow etc.

Lakes of Asia

Lakes	Features			
Caspian Sea	World's largest inland body of water			
	• Type: Saline, Permanent, Natural			
	Geographical extent			
	• West: The Caucasus Mountains,			
	• East: The Central Asian steppes,			
	• North: The Russian plains in Eastern Europe,			
	• South: Western Asia's Iranian Plateau.			
	Countries bordering: Russia, Iran, Azerbaijan, Kazakhstan and Turkmenistan			
Lake Baikal	The oldest and largest freshwater lake by volume			
	Type: Ancient Lake, Continental rift lake			
	Geographical extent: Located in south-central Russia			
	Country: Russia and Mongolia			
Lake Balkhash	Third-largest Lake in Asia			
	Type: Endorheic, Saline			
	Countries: Kazakhstan, China and Kyrgyzstan.			
	Rivers: The Aksu, Byan, Ili, Karatal, Kapal, Koksu, and Lepsy rivers			
Lake Urmia	• Type: Salt (hypersaline) lake			
	Country: Iran			
	Rivers: Gadar, Mahabad, Nazlou, Boyuk Chay, Leylan, and Zola.			
	Asia's sixth-largest lake.			
• It is a Ramsar site				

The chronological order of water bodies in Asia are:

• West to East: Red Sea, Dead Sea, Lake Van, Lake Urmia, Persian Gulf, Caspian Sea, Aral Sea, Lake Balkhash, Lake Baikal etc.

Seas of Asia

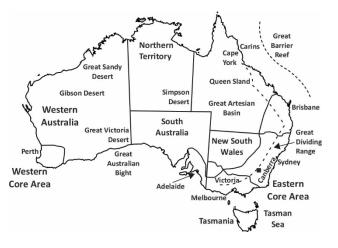
Sea	Features			
Red sea	٠	Countries: Saudi Arabia, Yemen, Sudan, Egypt, Eritrea and Djibouti.		
	Adjoining water bodies:			
		 Meets the Mediterranean Sea by the Suez Canal. 		
		 Meets Gulf of Aden by Strait of Bab El Mandeb 		
		Formed because of Rifting in the Arabian Peninsula.		
		 Important trade routes. 		
Dead	•	Countries: Jordan and Israel.		
sea	•	Landlocked Salt Lake.		
	• Lowest elevation and the lowest water body on the surface of Earth			
Persian	٠	• Countries: Iran, Iraq, Kuwait, Saudi Arabia, Qatar, Bahrain, United Arab Emirates and Oman.		
Gulf	World's largest single source of Petroleum.			
	• The Strait of Hormuz connects it with the Gulf of Oman.			
Aral Sea	a • Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Russia, Afghanistan and Iran.			
	٠	Amu Darya and Syr Darya rivers fed it.		
	•	Characterized by a desert-continental climate		
	• Previously the 4th largest lake in the world but now reduced to 1/10th of its size.			

Straits of Asia

Straits	Separates	Connects	
Bering strait	Asia and North America	East Siberian Sea with Bering Sea	
La Pérouse Strait	Sakhalin Island and Hokkaido Island	Sea of Okhotsk with Sea of Japan	
Tata Strait	Eastern Russia and Sakhalin	Sea of Okhotsk with Sea of Japan	
Korea Strait	South Korea and Kyushu (Japan)	Yellow Sea with the Sea of Japan	
Formosa Strait (Taiwan Strait)	Taiwan and China	East China Sea with South China Sea	
Luzon Strait	Taiwan and Luzon (Philippines)	South China Sea with Pacific Ocean.	
Makassar Strait	Borneo (Kalimantan) and Celebes Island	Celebes Sea with the Java Sea.	
Sundra Strait	Java and Sumatra	Java Sea with India Ocean	
Malacca Strait	Malaya Peninsula and Sumatra	Java Sea with the Bay of Bengal	
Strait of Johor	Singapore and Malaysia	South China Sea with strait of Malacca	
Strait of Hormuz	UAE and Iran	Persian Gulf with the Gulf of Oman.	
Strait of Bosporus	Asia and Europe	Black Sea with Sea of Marmara.	
Strait of Dardanelles	Asia and Europe	Sea of Marmara with the Mediterranean Sea	

3. Australia

- Location: Indian and the Pacific oceans
- Capital: Canberra
- Tropic of Capricorn passes through it
- Physical boundaries
 - Northwest: The Timor Sea
 - North: The Gulf of Carpentaria
 - Northeast: Great barrier reef
 - South: Great Australian bight
 - South East: The island of Tasmania.
- Natural Vegetation and Forest
 - o Downs
 - Temperate grassland of Australia, found in the Murray-Darling basins of South-Eastern part.
 - Cultivation is profitably done in the down areas where Mitchel grasses are grown.
 - Similarly, in New Zealand, Profitable cultivation is practised in Canterbury grassland



Political Division of Australia

- Has **6 states** and 2 centrally administered territories. The 6 states are:
 - 1. Western Australia
 - 2. Queensland
 - 3. South Australia
 - 4. New South Wales
 - 5. Victoria
 - 6. Tasmania
- Mount Kosciuszko (2,230 meters), the highest peak.
- Smooth coastline and no inlets except in the south. Known for few good harbours.

Physical Features of Australia

Western Plateau

- Eroded plateau, undergone the process of erosion.
- Originally home to Australian Aboriginal tribes (Kulin).

Central Lowlands

- Extends from The **Gulf of Carpentaria** (north) to the **southern shores of Australia**.
- Dry lowland.
- Biggest source of freshwater for basins in the world.

Eastern Highlands

- The Great Dividing Range: a chain of hills and mountains interrupts the levelled landform of Australia.
- Important mountain ranges: Great Dividing Range, Grey range, Blue Mountain range, Australian Alps, Darling range, Reynolds range etc.
- Extended from the Cape York Peninsula to the north of Tasmania.
- Elevated plateau the highest peak Mt. Kosciusko (2234mt)
- Most rivers of Australia rise from here.
- The Australian Alps are Part of this range.

Great Barrier Reef

- Largest and most extensive coral reef system in the • world.
- located in the Coral Sea (North-East Coast), off the . coast of Queensland, Australia.

Location: western Australia

Largest Desert of the continent.

Due to offshore trade winds.

Gold mines are found here

western Australia

Location: Northern territory of

Selected as a World Heritage Site in 1981.

Features

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Deserts of Australia

Sandy

Deserts

Desert

Great

Desert

Great Victoria

	٠	Gold mines are found here
		• Granites Gold mine
		• Coyote Gold Mine
Gibson Desert	٠	Location: Northern territory of
		western Australia
	•	Gold mines are found here
		• The Granites gold mine
		• Coyote Gold Mine

Rivers of Australia

- Australia has two crucial rivers Murray and Darling. •
- Darling river originates from the Great Dividing • Range and Murray from Snowy Mountain.
- Temperate grassland 'Downs' are the feature of • the Murray darling Basin.
- Most of the rivers drain into lakes. (Inland drainage (م ما: م

	• The Granites gold mine basins) • Coyote Gold Mine			
Tanami	Location: Northern territory of			
Desert	western Australia			
Rivers	Features			
Murray River	Source: Australian Alps			
	Mouth: Southern Ocean			
	• The Murray River is Australia's longest river and is located in the southeastern region of Australia.			
	• The Murray River acts as a mouth for some other major Australian rivers.			
	• The Murray River flows through South Australia, Victoria and New South Wales.			
Murrumbidgee	Source: Peppercorn Hill			
River	Mouth: Murray River			
	• The Murrumbidgee River is Australia's second-longest river and is located in the south-eastern region of Australia			
Darling River	Source: Culgoa River and Barwon River			
-	Mouth: Murray River			
	• The darling River is the third-longest river in Australia and is located in New South Wales .			
Lachlan River	Source: The Great Dividing Range			
	Mouth: Murray River			
	• The Lachlan River flows through New South Wales, and is dammed to form the Wyangala			
	Reservoir near Cowra			
Warrego River	Source: Mount Ka Ka Mundi			
	Mouth: Darling River			
	 Flows from Queensland down to New South Wales. 			
	• The name 'Warrego' is believed to mean "bad". It is also an Aboriginal term meaning "River of Sand"			
Cooper Creek	• Source: The Great Dividing Range			
	Mouth: Lake Eyre			
	 Cooper Creek travels from Queensland to South Australia. 			
Paroo River	• Source: Augathella			
	Mouth: Darling River			
	• The Paroo River consists of lots of water holes			
	• It flows from Queensland down to New South Wales.			
	 In 2007 the Paroo River Wetlands was listed as a wetland of national importance 			

Lakes of Australia

Lakes	Features
Lake Eyre/Kati	• Location: South Australia and covers an area of 9690 sq. km.
Thanda (South	• Type: endorheic and Salt Lake, which is mainly a dried basin for most of the year
Australia)	• It is considered the lowest natural point in Australia.
Lake Mackay	• Type: ephemeral Salt Lake
(Western Australia)	

	Location: Pilbara and Goldfields-Esperance region of the northern portion of Western
	Australia.
Lake Amadeus	Type: Salt Lake
(Northern Territory)	• Location: southwestern corner of Australia's Northern Territory (north of Uluru/Ayers Rock)
	• The lake forms a part of the larger Amadeus Basin.
	Lake Amadeus is the Northern Territory's largest Salt Lake.
Lake Garnpung	• Location: Willandra Lakes region in the western part of the Australian state of New South
(New South Wales)	Wales.
	 Garnpung Lake is located to the north of Lake Mungo National Park.
Lake Gordon	• Type: Artificial reservoir created by the damming of the Gordon River by the 140m high
(Tasmania)	Gordon Dam.
	location: southwest region of the Australian island state of Tasmania.
	Lake Gordon is considered the largest lake in Tasmania.
Lake Dalrymple	• Type: Man-made reservoir created by the damming of the Burdekin River by
(Queensland)	the 876m long Burdekin Falls Dam.
	• Location: the northern portion of the Australian state of Queensland.
	• Lake Dalrymple serves as a popular tourist destination and offers many recreational activities
	such as fishing, boating, water sports, etc. for its visitors.
Lake Corangamite	• Also referred to as Kronimite by the indigenous people.
(Victoria)	Type: A hypersaline endorheic lake in state of victoria
	Lake Corangamite is considered the largest permanent saline lake in Australia.
	• The lake forms a part of Victoria's Western District Lakes that have been designated as
	"wetlands of international importance" under the Ramsar convention.
	• Lake Corangamite Complex has also been recognized by BirdLife International as an Important
	Bird Area as it often supports an internationally significant number of waterbirds.

Straits of Australia

Strait	Connects	Separates
Bass Strait	Tasman sea and the great Australian bight	Tasmania and Australia's mainland
Torres strait	Coral Sea to Arafura Sea and Gulf of Carpentaria	Australia and New Guinea

Gulfs of Australia

Gulfs	Fea	atures
Gulf of	٠	Shallow sea enclosed on three sides by northern Australia, and the eastern Arafura Sea encloses the
Carpentaria		north side
	•	The Gulf hosts a submerged coral reef province that was only recognised in 2004.
Gulf of	•	Location: The north coast of the Kimberley region of Western Australia.
Cambridge	•	Rivers: Ord River, Pentecost River, Durack River, King River and the Forrest River, making the
		environment an estuarine one

4. Europe

• Europe is a continent of peninsulas, islands, and varied landforms.

• Physical Boundaries:

- North: The Arctic Ocean
- o South: Mediterranean Sea
- o West: Atlantic Ocean
- East: Ural Mountains

- A portion of Turkey is in Europe, but Turkey is considered a part of Asia.
- Europe is also close to North Africa, and Morocco's coast can be seen across the Strait of Gibraltar from Spain.
- Prime meridian:
 - United Kingdom
 - o France
 - o Spain

Physical Division of Europe

Physical Division	Description	
Western Uplands	 Also known as the Northern Highlands, curve up the western edge of Europe and define the physical landscape of Scandinavia (Norway, Sweden, and Denmark), Finland, Iceland, Scotland, Ireland, the Brittany region of France, Spain, and Portugal. A fjord is a long and narrow inlet of the sea that is surrounded by high, rugged cliffs. Many of Europe's fjords are located in Iceland and Scandinavia. 	
North European Plain	 Extends from the southern United Kingdom east to Russia. It includes parts of France, Belgium, the Netherlands, Germany, Denmark, Poland, the Baltic states (Estonia, Latvia, and Lithuania), and Belarus. It is home to many navigable rivers, including the Rhine, Weser, Elbe, Oder, and Vistula 	
Central Upland	 Extends east-west across central Europe and include western France and Belgium, southern Germany, the Czech Republic, and parts of northern Switzerland and Austria. Important highlands in this region include the Massif Central and the Vosges in France, the Ardennes of Belgium 	
Alpine Mountains	 Includes the mountains of the Alps, Pyrenees, Apennines, Dinaric Alps, Balkans, and Carpathians. High elevations, rugged plateaus, and steeply sloping land define the region. Europe's highest peak, Mount Elbrus (5,642 m), is in the Caucasus mountains of Russia. Also includes active volcanoes, such as Mount Etna and Mount Vesuvius in Italy 	

Rivers of Europe

Rivers	Features
Danube River	• The Danube River is considered the second-longest river in the European continent.
	Origin: The Black Forest region of Germany
	Drains: Black Sea via the Danube Delta.
	• Countries: Germany, Austria, Romania, Hungary, Bulgaria, Serbia, Croatia, Slovakia, Ukraine, and Moldova.
	• The Danube River is one of the most significant commercial waterways on the European continent.
	• It is an important source of drinking water, hydroelectric power generation, irrigation, fishing,
	and navigation, for the 10 countries that share its waters.
	The Rhine-Main-Danube Canal connects the Danube River with the North Sea.
Dnieper River	Fourth-longest River in Europe.
	Origin: Valdai Hills (Russia)
	Drains: The Black Sea
Don River	Fifth-longest River in Europe.
	Origin: Novomoskovsk, Russia.
	It then flows in a southeasterly direction towards the Volga River.
	Drain: The Gulf of Taganrog in the Sea of Azov.
	The Lenin Volga-Don Shipping Canal links the Don River with the Volga
Elbe River	Origin: Krkonose Mountains (Poland and the Czech Republic boundary)
	Drains: North Sea.
	• It then flows through Bohemia in the northwestern part of the Czech Republic and enters
	Germany through its eastern side
Po River	The Po River is Italy's longest river.
	Origin: Cottian Alps
	Drain: Adriatic Sea
	• The cities of Milan and Turin, which serve as major industrial centers in the country, utilize the
	waters of the Po River for industrial purposes.
Volga River	• The Volga River is the longest river on the European continent.
	National River of the Russian Federation.
	Origin: Valdai Hills
	Drains: Caspian Sea.
	• Many hydroelectric reservoirs were built on the Volga River. These reservoirs are Volgograd,
	Saratov, Uglich, Gorky, and Cheboksary.
Rhine River	Origin: Swiss Alps, Switzerland.
	Drain: North Sea
	• international boundary: Switzerland and Liechtenstein and Switzerland and Austria.

In Austria, the river flows into Lake Constance.
• The river then flows westwards out of the lake as High Rhine and forms Switzerland's northeastern
border with Germany.
• It is referred to as the Upper Rhine
• This part Forms the international boundary between Germany and France
• The principal cities along the Rhine River
include Düsseldorf, Basel, Rotterdam, Cologne, and Strasbourg.

Seas of Europe

Seas	Features
Mediterranean	The Mediterranean Sea is one of the largest seas in the world.
Sea	Physical Boundaries:
	o North: Europe
	• South: Africa
	o East: Asia
	• West: The Atlantic Ocean via the narrow Strait of Gibraltar.
	Countries: Greece, Spain, Italy, France, Croatia, Algeria, etc.
Adriatic Sea	• It is the northernmost extension of the Mediterranean Sea that separates the eastern part of the
	Italian Peninsula from the countries of the Balkan Peninsula.
	• Surrounded by the Apennine Mountains, Dinaric Alps, and other adjacent mountain ranges.
	Countries: Italy, Croatia, Albania, Montenegro, Slovenia, and Bosnia and Herzegovina.
Aegean Sea	It is located between Anatolia and the Balkan peninsulas.
	• seven major groups of islands: Cyclades, Crete, Dodecanese, North Aegean Islands, Saronic,
	Sporades, and the West Aegean Islands.
Alboran Sea	Westernmost portion of the Mediterranean Sea
	Location: Between the Iberian Peninsula and the northern part of Africa.
	Physical boundaries:
	• West: Gibraltar sea
	• North: Spain
	• South: Algeria and Morocco in the south.
	• The Strait of Gibraltar, which lies at the extreme western end of the Alboran Sea, connects the
	Mediterranean Sea with the Atlantic Ocean.
Balearic Sea	Often referred to as the Iberian Sea.
	The Balearic Sea is a portion of the Mediterranean Sea
	Physical Boundaries:
	o West: Spain,
	• North: France,
	• East: Sardinia and the Corsica Islands.
Baltic Sea	The Baltic Sea is one of the marginal seas of the Atlantic Ocean.
	• Countries : Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany, Denmark, and Russia's
	Kaliningrad region.
	• It is estimated that over 250 rivers and small streams drain into the Baltic Sea.
	• Significant islands like Gotland, Saaremaa, Oland, Lolland, etc. are located in the Baltic Sea.
Barents Sea	Situated along the northern coasts of Russia and Norway.
	• It is bounded by the Svalbard archipelago, Novaya Zemlya archipelago, Kola Peninsula, Franz Josef
	Land islands, and the Norwegian and the Greenland Seas.
	• The Barents Sea is an important site for exploring hydrocarbons like petroleum and natural gas.
Black Sea	• The Black Sea is one of the marginal seas of the Atlantic Ocean.
	 Situated between the continents of Europe and Asia.
	Countries: Russia, Ukraine, Romania, Georgia, Bulgaria, and Turkey.
	 Rivers Mouth: Danube, Dniester, Don, Dnieper, Rioni, Southern Bug, etc
	 The sea hosts many islands of varying sizes like Dzharylhach Island, Nova Zemlja, St. Ivan, St.
	Cyricus, Bird Island, etc.
Irish Sea	 Also referred to as the Manx Sea, the Irish Sea separates the island of Great Britain from the
	• Also referred to as the Manx Sea, the firsh sea separates the Island of Great Britain from the island of Ireland.
	Physical Boundaries:
	• South : St. George's Channel and the Celtic Sea in the south.