

# Geography

## Basic Geographical Facts

### Physical geography:

#### (A) Planets:

As per the International Astronomical Union (IAU), the planet is a celestial body which-

1. is in orbit around the sun.
2. has sufficient mass to assume hydrostatic equilibrium (a nearly round shape) and
3. has 'cleared the neighbourhood' around its orbits.

According to the definition, there are currently eight planets and five dwarf planet in the solar system.

- (1) Mercury (Closest to the Sun and is the fastest planet to revolve around the Sun)
- (2) Venus (The Brightest and hottest planet in all)
- (3) Earth (Only known planet to possess life)
- (4) Mars (Known as the Red planet. Explored for life by astronomers now, as it is having similarities with Earth)
- (5) Jupiter (The largest planet of the solar system)
- (6) Saturn (System of rings are the characteristic feature of this planet)
- (7) Uranus
- (8) Neptune

\* Please note that Pluto used to be a planet but recently has been discarded as a planet and is no longer counted as a planet.

#### (B) Comets:

Comets are cosmic snowballs of frozen gases, rock and dust roughly the size of a small town. When a comet's orbit brings close to sun, it heats up and spews dust and gases into a joint glowing head larger than most planet. The dust and gases form the tail that stretches away from the sun for millions of kilometers. Two famous comets known, are as follows:

- (i) **Halley's comet:** Discovered by British astronomer Edmond Halley, takes 76.1 years to encircle the Sun. It was last seen in February 9, 1986.
- (ii) **Smith-Tuttle comet:** It's a huge comet heading on a collision course with Earth on August 17, 2116.

#### (C) Satellites:

A satellite is a moon, planet or machine that orbits a planet or star. For example, Earth is a satellite because it orbits the sun. Likewise, the moon is a satellite because it orbits the Earth. Usually, the word 'satellite' refers to a machine that is launched into space and moves around Earth or another body in space.

Earth and moon are examples of natural satellites. Satellites are mainly used for communication such as beaming TV signals, Phone calls etc. A group of 20 satellites makeup the Global Positioning System (GPS).

These are the bodies which revolve around the planets. Mercury and Venus have no satellites. Earth has only one satellite (natural), i.e. Moon. Jupiter has the maximum number of satellites.

**Moon:** The first planet of our solar system visited by man. On July 20, 1969, Neil Armstrong and Edwin Aldrin were the first to set foot on the Moon, and between them, Neil Armstrong is the first person to have set foot on the Moon.

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**(D) Earth:**

It is the fifth largest planet in the solar system. It is the third closest planet to the sun. Its shape is oblate spheroid, like a ball which is flattened at the poles.

**Important facts about Earth:**

- (i) Mean distance from the Sun: 1,49,407,000 km.
- (ii) Time taken by Earth to revolve around the Sun: 365 days, 5 hours, 48 minutes and 45.51 seconds.
- (iii) Time taken by Earth for rotating on its own axis: 23 hours 56 minutes and 4.09 seconds.
- (iv) Earth is covered 70% by water and 30% by land.

**Movements of Earth:**

- (i) **Revolution:** The Earth revolves around the Sun in an elliptical orbit. One complete revolution is called a year and this revolution of Earth causes change of seasons.
- (ii) **Rotation:** Earth rotates on its own imaginary axis also, simultaneously revolving around the Sun. It moves from west to east. This causes day and night.

**Notes:**

Duration of days and nights is equal at the equator.

**(E) Eclipses:**

An eclipse is an astronomical event that occurs when an astronomical object is temporarily obscured, either by passing into the shadow of another body pass between it and the viewer.

- (i) **Solar eclipse:** It occurs when the Moon comes between the Sun and the Earth, and this causes hindrance in Sun's light, when viewed from the Earth.
- (ii) **Lunar eclipse:** When the Earth comes between the Moon and the Sun, the shadow cast by the Earth on the Moon causes lunar eclipse.

**(F) Atmosphere:**

The Earth is surrounded by a gaseous cover called the atmosphere. There are many gases in the atmosphere like Oxygen, Nitrogen, Carbon Dioxide, Helium, Argon, Xenon, etc. The maximum percentage of gas present in the atmosphere is Nitrogen and that comprises 78.09%.

**Atmosphere is divided mainly into four layers:**

- (i) **Troposphere:** It is the nearest layer to the Earth's surface and is up to 15 km of height from the Earth's surface.
- (ii) **Stratosphere:** From the end of 15 km of troposphere, stratosphere is present till 50 km of the atmosphere.
- (iii) **Mesosphere:** It lies between 50 km and 80 km above the surface of the Earth.
- (iv) **Ionosphere:** It lies above the mesosphere and extends from 80 km to 400 km above the Earth's surface. Radio communication takes place because of this layer.

**Note:**

**Ozone Layer:** The ozone layer is situated in the stratosphere belt of earth's atmosphere. The basic Ozone gas structure consists of three oxygen atoms. Ozone gas is present in the stratosphere in the form of a layer, which extends from 12 km to 30 km above the earth's surface. The main function of Ozone is that it protects mankind from harmful radiations which comes from outer space i.e.; Ultra Violet radiations (UV- radiations) from the Sun. Now-a-days this Ozone layer is getting depleted which can cause skin cancer and damage vegetation. The main reason behind the depletion of Ozone layer is pollution and pollutants present in the atmosphere like Chlorofluorocarbons (CFC's, also known as Freons), which comes from refrigeration systems, aerosols, air conditioners and solvents.

To minimize the Ozone layer depletion the governments of many countries are now replacing the CFC's with simple hydrocarbons.

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### (G) Continents:

It is defined as any of the world's main continuous expanses of land (Europe, Asia, Africa, North and South America, Australia, Antarctica)

The surface of the Earth is made up of big land masses which are divided into seven continents. The seven continents are as follows:

- (i) Asia: The largest continent (covers approximately. 30 per cent of the world land and hosts 59 per cent of the world population)
- (ii) Africa: (The largest desert—Sahara—is there.)
- (iii) North America
- (iv) South America
- (v) Antarctica: Covered with ice (coldest)
- (vi) Europe (Comprises of western most peninsula of Eurasia)
- (vii) Oceania (Australia): The smallest continent (The only continent with capital. i.e., Canberra)



**Note:**

Antarctica and Oceania are island continents.

### (H) Oceans:

- (i) There are five oceans on the Earth: (i) Pacific, (ii) Atlantic, (iii) Indian, (iv) Arctic, (v) Antarctic. Pacific being the largest, occupies 35.25% of the Earth's surface.
- (ii) South China Sea has the maximum area among all the seas of the world.

### (I) Rocks:

These are naturally occurring solid aggregates of one or more minerals or mineraloids.

These form the crust of the Earth. They are classified into three categories:

- (i) **Igneous rocks:** It is the product of cooled solidified magma/lava and it constitutes 90% of the Earth's crust.
- (ii) **Metamorphic rocks:** Original igneous or sedimentary rocks when subject to change due to pressure or temperature, metamorphose into metamorphic rocks, i.e. slate, marble, etc.
- (iii) **Sedimentary rocks:** As the name suggests, these rocks are formed from the sedimentary deposits on the ocean beds, i.e. gypsum, limestone, etc.

### (J) Important Mountain Ranges and Mountain Peaks of the World:

(i) **Mountain ranges:**

Name	Continent
Himalaya-Karakoram	Asia
Rockies	North America
Alps	Europe
Andes	South America

(ii) **Mountain peaks:**

Name	Continent	Height (In metres)
Everest	Asia	8848
K2 (Godwin Austen)	Asia	8,610
Kanchenjunga	Asia	8,590
Lhotse	Asia	8,500
Makalu 1	Asia	8,470
Dhaulagiri	Asia	8,170
Nanga Parbat	Asia	8,130
Nanda Devi	Asia	7,820



**Note:**

Everest is the highest mountain peak of the world, situated in Nepal and extended to Tibet and K2 is India's highest mountain peak, but it is situated in POK. Therefore, Kanchanjunga is the highest peak within India.

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## (K) Important Water bodies of the World:

## (i) Lakes (Natural):

Name	Location
Caspian (also called the Caspian Sea)	Iran, Azerbaijan, Russia, Turkmenistan, Kazakhstan
Superior (largest fresh water lake of North America)	USA/Canada
Victoria	Kenya and Tanzania
Baikal (deepest lake of the world)	Russia
Titicaca (highest lake of the world)	South America

## (ii) Canals (Shipping):

- Panama Canal:** It links the Pacific and the Atlantic Ocean. It is located in Central America and is 58 kilometres long.
- Suez Canal:** It links the Red Sea and the Mediterranean Sea. It is in Egypt and is 169 kilometres long.
- Kiel Canal:** It lies between Baltic Sea and North Sea ports. It is in Germany and is 98 kilometres long.

**Note:**

Angel Waterfall which is in Venezuela, is the highest waterfall in the world having a height of about 979 metres.

## (iii) Important Rivers of the world:

Name	Length (km)	Country/Continent
Nile	6,690	Egypt, Africa
Amazon	6,570	Brazil, South America
Mississippi-Missouri	6,020	USA, North America
Yangtze-Kiang	5,980	China, Asia
Hwang Ho	4,840	China, Asia
Niger	4,800	Nigeria, Africa
Congo	4,800	Zaire, Africa
Murray	3,720	Australia
Volga	3,700	Russia, Asia
Indus	3,180	India and Pakistan, Asia
Brahmaputra	2,960	India, Asia
Danube	2,820	Austria, Hungary and Yugoslavia, Europe

**Note:**

The longest river in the world is Nile (6,690 km). The largest river of the world (in terms of volume of water it carries) is Amazon river.

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### (L) New names of certain cities and countries

	Old Names	New Names
1	Abyssinia	Ethiopia
2	Baroda	Vadodara
3	Burma	Myanmar
4	Calicut	Kozhikode
5	Congo	Zaire
6	Constantinople	Istanbul
7	Dacca	Dhacca
8	Formosa	Taiwan
9	Gold Coast	Ghana
10	Irish Free State (Eire)	Ireland
11	Kampuchea	Cambodia
12	Mesopotamia	Iraq
13	Panjim	Panaji
14	Peking	Beijing
15	Siam	Thailand
16	South Rhodesia	Zimbabwe
17	Trivendrum	Thiruvanthapuram
18	Rangoon	Yangoon
19	Madras	Chennai
20	Calcutta	Kolkata
21	Pondichery	Puduchery
22	Bangalore	Bengaluru

### (M) Important world cities on river banks

	City	River
1	London	Thames
2	Rome	Tiber
3	Paris	Siene
4	Vienna	Danube
5	Budapest	Danube
6	Belgrade	Danube
7	Baghdad	Tigris

### (N) Important Indian Cities On river banks

City	River
Delhi	Yamuna
Agra	Yamuna
Kolkata	Hoogly
Kanpur	Ganga
Allahabad	Ganga and Yamuna
Nasik	Godavari
Indore	Narmada
Lucknow	Gomti
Srinagar	Jhelum

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## Important Countries, Capitals and Currencies

Country	Capital	Currency	Continent
Afghanistan	Kabul	Afghani	Asia
Algeria	Algiers	Algerian Dinar	Africa
Angola	Luanda	New Kwanza	Africa
Argentina	Buenos Aires	Peso	South America
Australia	Canberra	Australian Dollar	Australia
<b>*Austria</b>	Vienna	Schilling/Euro	Europe
Azerbaijan	Baku	Manat	Europe
Bahrain	Manama	Bahrain Dinar	Asia
Bangladesh	Dhaka	Taka	Asia
Barbados	Bridgetown	Barbados Dollar	North America
<b>*Belgium</b>	Brussels	Belgian Franc	Europe
Bermuda	Hamilton	Bermuda Dollar	North America
Bhutan	Thimphu	Ngultrum	Asia
Bolivia	La Paz (administrative) Surce (legal)	Boliviano	South America
Bosnia and Herzegovina	Sarajevo	Convertible Mark	Europe
Botswana	Gaborone	Pula	Africa
Brazil	Brasilia	Cruzeiro Real	South America
Bulgaria	Sofia	Lev	Europe
Burundi	Bujumbura	Burundi Franc	Africa
Cambodia	Phnom Penh	Riel	Asia
Cameroon	Yaounde	CFA Franc	Africa
Canada	Ottawa	Canadian Dollar	North America
Chad	N'djamena	CFA Franc	Africa
Chile	Santiago	Chilean Peso	South America
China	Beijing (Peking)	Renminbi Yuan	Asia
Colombia	Bogota	Colombian Peso	South America
Democratic Republic of Congo	Kinshasa	Zaire	Africa
Costa Rica	San Jose	Costa Rican Colon	North America
Cote d'Ivoire	Yamoussoukro	CFA Franc	Africa
Croatia	Zagreb	Kuna	Europe
Cuba	Havana	Cuban Peso	North America
<b>*Cyprus</b>	Nicosia	Cyprus Pound/Euro	Europe
Czech Republic	Prague	Koruna	Europe
Denmark	Copenhagen	Danish Krone	Europe

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Country	Capital	Currency	Continent
Ecuador	Quito	Sucre	South America
Egypt	Cairo	Egyptian Pound	Africa
El Salvador	San Salvador	Colon	North America
Ethiopia	Addis Ababa	Ethiopian Birr	Africa
East Timor	Dili	US Dollar	Asia
Fiji	Suva	Fijian Dollar	Australia
<b>*Finland</b>	Helsinki	Markka/Euro	Europe
<b>*France</b>	Paris	French Franc/Euro	Europe
Gambia, The	Banjul	Dalasi	Africa
Georgia	Tbilisi	Lari	Europe
<b>*Germany</b>	Berlin	Deutsche Mark/Euro	Europe
Ghana	Accra	Cedi	Africa
<b>*Greece</b>	Athens (Athinai)	Drachma/Euro	Europe
Guatemala	Guatemala City	Quetzal	North America
Guyana	Georgetown	Guyana Dollar	South America
Haiti	Port-au-Prince	Gourde	North America
Hungary	Budapest	Forint	Europe
Iceland	Reykjavik	Krona	Europe
India	New Delhi	Indian Rupee	Asia
Indonesia	Jakarta	Indonesian Rupiah	Asia
Iran	Teheran	Iranian Rial	Asia
Iraq	Baghdad	Iraqi Dinar	Asia
<b>*Ireland</b>	Dublin	Irish Pound/Punt/Euro	Europe
Republic of Israel	Jerusalem	New Israeli Shekel	Asia
<b>*Italy</b>	Rome	Italian Lira	Europe
Jamaica	Kingston	Jamaican Dollar	North America
Japan	Tokyo	Yen	Asia
Jordan	Amman	Jordan Dinar	Asia
Kenya	Nairobi	Kenyan Shilling	Africa
Korea, North	Pyongyang	Won	Asia
Korea, South	Seoul	Won	Asia
Kuwait	Kuwait City	Kuwaiti Dinar	Asia
Laos	Vientiane	Kip	Asia
Lebanon	Beirut	Lebanese Pound/Livre	Asia
Libya	Tripoli	Libyan Dinar	Africa
<b>*Luxemburg</b>	Luxemburg	Luxemburgish Franc/Euro	Europe

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Country	Capital	Currency	Continent
Malaysia	Kuala Lumpur	Malaysian Dollar/Ringgit	Asia
Maldives	Male	Rufiyaa	Asia
Mauritius	Port Louis	Mauritian Rupee	Asia
Mongolia	Ulanbaatar	Tugrik	Asia
Morocco	Rabat	Moroccan Dirham	Africa
Myanmar (Burma)	Naypyidaw	Kyat	Asia
Namibia	Windhoek	Namibian Dollar	Africa
Nepal	Kathmandu	Nepalese Rupee	Asia
<b>*Netherlands</b>	Amsterdam	Guilder	Europe
New Zealand	Wellington	New Zealand Dollar	Oceania
Nigeria	Abuja	Naira	Africa
Norway	Oslo	Norwegian Krone	Europe
Oman	Muscat	Omani Rial	Asia
Pakistan	Islamabad	Pakistan Rupee	Asia
Peru	Lima	New Sol	South America
Philippines	Manila	Philippine Peso	Asia
Poland	Warsaw	Zloty	Europe
<b>*Portugal</b>	Lisbon	Escudo	Europe
Qatar	Doha	Qatar Riyal	Asia
Romania	Bucharest	Leu	Europe
Russia	Moscow	Rouble	Asia/Europe
Rwanda	Kigali	Rwanda Franc	Africa
Saudi Arabia	Riyadh	Soudi Arabian Riyal	Asia
Seychelles	Victoria	Seychelles Rupee	Africa
Singapore	Singapore City	Singapore Dollar/Ringgit	Asia
Slovak Republic	Bratislava	Slovak Koruna	Europe
South Africa	Cape Town (Legislative) Pretoria (Administrative) Bloemfontein (Judicial)	Rand	Africa
South Sudan	Juba	South Sudanese Pound	Africa
<b>*Spain</b>	Madrid	Peseta	Europe
Sri Lanka	Sri-Jayawardenapura (since 1983); former capital, Colombo	Rupee	Asia
Sudan, The	Khartoum	Sudanese Dinar	Africa
Suriname	Paramaribo	Suriname Guilder Florin	South America
Swaziland	Mbabane	Lilangeni	Africa

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Country	Capital	Currency	Continent
Sweden	Stockholm	Swedish Krona	Europe
Switzerland	Berne	Swiss Franc	Europe
Syria	Damascus	Syrian Pound	Asia
Taiwan	Taipei	New Taiwan Dollar	Asia
Tanzania	Dodoma (formerly Dar es Salam)	Tanzanian Shilling	Africa
Thailand	Bangkok	Baht	Asia
Tunisia	Tunis	Dinar	Africa
Turkey	Ankara	Tunisian Lira	Asia
Uganda	Kampala	Uganda Shilling	Africa
Ukraine, The	Kiev	Hryvna	Europe
United Arab Emirates (UAE)	Abu Dhabi	United Arab Emirates	Asia
United Kingdom (UK)	London	Pound Sterling	Europe
United States of America	Washington, DC	US Dollar	North America
Uruguay	Montevideo	New Uruguayan Peso	South America
Uzbekistan	Tashkent	Som	Asia
Venezuela	Caracas	Bolivar	South America
Vietnam	Hanoi	Dong	Asia
Yemen	Sana (Political) Aden (Commercial)	Yemeni Riyal	Asia
Yugoslavia	Belgrade (Serbia)	Yugoslav Dinar	Europe
Zambia	Lusaka	Kwacha	Africa
Zimbabwe	Harare	Zimbabwe Dollar	Africa



### Note:

The asterisk mark above represents the member states of European Union that participate in Euro. Please note that Euro is the official currency of 19 out of 27 member states of the European Union as on January 2021. In addition to the above 13 countries (marked as bold) 6 more countries viz. Malta, Slovakia, Slovenia, Estonia, Latvia and Lithuania are part of Eurozone.

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## Important Countries and their Parliaments

Country	Name of the Parliament
Afghanistan	Shura
Argentina	National Congress
Australia	The Parliament of the Commonwealth of Australia
Bahamas	General Assembly
Bangladesh	Jatiyo Sangsad
Bhutan	Tshogdu
Brazil	National Congress
Bulgaria	Narodno Sabranieye(National Assembly)
Myanmar	Pyithu Hluttaw
Cambodia	National Assembly
Canada	Parliament of Canada
China (Mainland)	National People's Congress
China (National)	Li fa Yuan (Legislative Yuan)
Colombia	Congress of the Republic
Cuba	National Assembly of People's Power
Denmark	Folketinget
Ethiopia	Shergo
Egypt	Consultative Council and People's Assembly
Finland	Eduskusta/Riksdagen
France	Parlement
Germany (United)	Bundestag (Lower House) Bundestrat (Upper House)
Greenland	Landstinget
Hungary	National Assembly
Iceland	Althingi
India	Sansad [Lok Sabha (Lower House) and Rajya Sabha (Upper House)]
Indonesia	People's Consultative Assembly and House of Representatives

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Country	Name of the Parliament
Iran	Majles
Iraq	National Assembly
Israel	The Knesset
Japan	The Diet
Laos	National Assembly
Libya	General People's Congress
Maldives	Majlis
Mongolia	Great Hural
Nepal	Sansad
Netherlands, The	Staten-Generaal
New Zealand	House of Representatives
Norway	Stortinget
Papua New Guinea	National Parliament
Poland	Sejm
South Africa	House of Assembly
Spain	Cortes Generales (General Courts)
Surinam	Staten
Sweden	Riksdagen
United Kingdom (UK)	Parliament (House of Commons and House of Lords)
United States	Congress (House of Representatives and Senate)

## Geographical Facts of India

### (A) Geographical Location

India lies in the Asian continent and Northern Hemisphere between parallels of latitude 8° 4' and 37° 6' North and between the meridians of longitude 68° 7' and 97° 25' East.

1. In the **west**, India shares its boundary with Pakistan.
2. In the **south**, Sri Lanka is India's neighbouring country.
3. In the **north**, Nepal and China are the neighbouring countries.
4. In the **east**, Bangladesh and Myanmar are the two major countries which surround India.

In south-east of India, there is Bay of Bengal, in south-west it is Arabian Sea and in south, it is the Indian Ocean and in the north, it is surrounded by the Himalayan range of mountains.

### Important dimensions of India

1. **India covers 2.4 per cent of the Earth's surface.**
2. Total land area of India is 32,87,263 sq.km.

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- Distance from east to west is 2,933 km.
- Distance from north to south is 3,214 km.
- The total length of the coastline of the mainland, Lakshadweep Islands and Andaman and Nicobar Islands, is 7,516.6 km. The coastline of only mainland is about 6300 km.**

**(B) Important Geographical Structures of India**

**Major rivers of India:** The longest Indian river is Ganga, its length is 2,640 km. The other major rivers of India are Indus (has five major tributaries: Sutlej, Chenab, Jhelum, Ravi and Beas), Brahmaputra, Godavari, Krishna, Narmada, Tapi, Cauvery, Damodar, Mahanadi and Periyar.

**Notes:**

The world's largest delta, (in West Bengal) Sundarban, is made by Brahmaputra and Ganga.

**Mountains:** They are Himalayas (**highest mountains in the world and one of the youngest mountain ranges**), Vindhyas, Satpura, Sahyadri, Aravallis (one of the oldest mountain ranges of the world), Patkai (Purvanchal or Eastern mountains) and the Eastern Ghats.

**(C) Soil: The following table shows various types of soils and related information****Types of soil      Major areas of presence**

<b>Black soils:</b>	Most suitable for cotton cultivation and is found majorly in the Maharashtra, Andhra Pradesh, Tamil Nadu, Madhya Pradesh (Western), Gujarat
<b>Laterite soils:</b>	Originated from weathering, mainly present in Andhra Pradesh, Deccan, Eastern Ghats, laterite rocks Tamil Nadu, Mysore
<b>Alluvial soils:</b>	Very fertile soil, covering majority in West Bengal, Punjab, Bihar, UP. approximately <b>25%</b> of all the Indian soil
<b>Red soils:</b>	Good for cultivating <b>coarse grains</b> , mainly present in Madhya Pradesh, Andhra Pradesh, Odisha and <b>pulses</b> because of high iron content

**(D) Agriculture**

**Agriculture in India:** More than 50 percent of the area of the country is under the cultivation and **about 64% of the Indian population is engaged in agriculture.**

There are two major crop seasons in India, viz.:

- Rabi**
- Kharif**

**Rabi:** It is sown in **October or December** and harvested in **April or May**. Major crops are: **barely, wheat, peas, gram and mustard.**

**Kharif:** It is sown in **June or July** and harvested in **September or October**. Major crops are: **bajra, cotton, jowar, rice and jute.**

**Some important facts about Indian agriculture**

- Green Revolution** White Revolution was launched in India in **1967-68** for **improving agricultural productivity.**
- Operation Flood/ White Revolution** was initiated in **1970** and mainly aimed at **improving the milk production** in India.
- Yellow Revolution** for improving oil seed production.
- Blue Revolution** for fishries

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- (E) Forests: The total forest and tree cover is 80.73 million hectare, which is 24.56% percent of the total geographical area of India. (As per Forest Survey Report 2019). The target as per the national forest policy is to cover 33% of area by forests.

### Important National Parks, Wildlife Sanctuaries and Biosphere Reserves of India

Name	Location
Bandipur National Park	Border of Karnataka and Tamil Nadu
Jim Corbett National Park	Nainital, Uttaranchal
Dachigam Sanctuary	Dachigam, Kashmir
Ghana Bird Sanctuary	Bharatpur, Rajasthan
Gir National Park	Junagadh, Gujarat
Kanha National Park	Chhattisgarh
Kaziranga National Park	Jorhat, Assam
Periyar Sanctuary	Idukki, Kerala
Ranthambore Tiger Sanctuary	Sawai Madhopur, Rajasthan
Sariska Sanctuary	Alwar, Rajasthan
Sharavathy Sanctuary	Shimoga, Karnataka
Similipal Tiger Sanctuary	Mayurbhanj, Orissa
Sonai Rupai Sanctuary	Tezpur, Assam
Sunderbans Tiger Reserve	South 24 Parganas, West Bengal
Tungabhadra Sanctuary	Bellary, Karnataka
Wild Ass Sanctuary	Little Rann of Kutch, Gujarat
Bharatpur Bird Sanctuary	Bharatpur, Rajasthan
Jaldapara Bird Sanctuary	Kuch Bihar District, West Bengal

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**Biosphere Reserves of India :** In total there are 15 Biosphere Reserver of India which are as follows.

S. No.	Name of the Biosphere reserve	Location	State
1	Great Rann of Kutch	Part of Kutch, Rajkot and Surendranagar District	Gujarat
2	Gulf of Mannar	Indian part of Gulf of Mannar between India and Sri Lanka	Tamil Nadu
3	Sunderbans	Part of delta of Ganges and Barahamaputra river system	West Bengal
4	Nanda Devi	Parts of Chamoli District, Pithoragarh District & Almora District	Uttarakhand
5	Nilgiri Biosphere Reserve	Part of Wynad, Nagarhole, Bandipur and Mudumalai, Nilambur, Silent Valley and Siruvani Hills	Tamil Nadu, Kerala and Karnataka
6	Dehang Debang	Part of Siang and Debang valley	Arunachal Pradesh
7	Pachmarhi Biosphere Reserve	Parts of Betul District, Hoshangabad District and Chhindwara District	Madhya Pradesh
8	Simlipal	Part of Mayurbhanj district	Odisha
9	Achanakamar - Amarkantak	Part of Annupur, Dindori and Bilaspur districts	Madhya Pradesh Chattisgarh
10	Manas	Part of Kola, Jorhat, Bongaigaon, Karbi Anglong, Jorhat, Kamrup and Lakhimpur District	Assam
11	Kanchanjunga	Parts of Kanchanjunga Hills	Sikkim
12	Agasthyamalai Biosphere Reserve	Neyyar, Peppara and Shenduruny Wildlife Sanctuary and their adjoining areas	Kerala
13	Great Nicobar Biosphere Reserve	Southern most islands of Andaman and Nicobar Islands	Andaman and Nicobar Islands
14	Nokrek	Part of Garo Hills	Meghalaya
15	Dibru-Saikhowa	Part of Dibrugarh District and Tinsukia District	Assam
16	Cold Desert	Pin Valley National park and surrounding; Chandratal Wildlife Sanctuary	Himachal Pradesh
17	Seshachalam Hills	Seshachalam Hill Ranger covering parts of Chittoor and Kadapa District	Andhra Pradesh

## Industries In India

### Cotton Textile

Most important industry in terms of employment and production of export goods. In Maharashtra (Mumbai, Sholapur, Pune, Kolhapur, Satara, Wardha, Hajipur), Gujarat (Ahmedabad, Vododara, Rajkot, Surat, Bhavnagar), Tamil Nadu (Coimbatore-Manchester of South India). Tamil Nadu has the largest number of cotton textile mills in India.

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<b>Silk Textile</b>	The location of silk industry is governed by two factors- prevalence of sericulture practices and availability of skilled labour. Karnataka is the leading producer, followed by West Bengal, Bihar, etc.
<b>Woollen Textile</b>	In Punjab (Dhariwal, Amritsar, Ludhiana, Ferozpur), Maharashtra (Mumbai), UP (Kanpur, Mirzapur, Agra, Tanakpur), etc.
<b>Jute</b>	India manufactures the largest quantity of jute goods in the world. Mainly located in West Bengal, followed by Andhra Pradesh, Bihar, UP, MP.
<b>Iron and Steel</b>	Located near the sources of raw materials and fuel (coal). In Jamshedpur (Jharkhand), Durgapur, Burnpur (W.B.), Bhadravati (Karnataka), Bokaro (Jharkhand), Rourkela (Odisha), Bhilai (Chhatisgarh), Salem (T.N.), Vishakhapatnam (A.P.).
<b>Aluminium Smelting</b>	Located mainly near the sources of raw materials, means of transport and cheap electricity. In Hirakud, Koraput (Odisha), Renukoot (UP), Korba (MP), Ratnagiri (Maharashtra), Mettur (TN), Alwaye.
<b>Copper Smelting</b>	In Khetri, Alwar, Jhunjhunu (Rajasthan), Singhbhum (Jharkhand), Agnigundala (A.P.).
<b>Heavy Machinery</b>	In Ranchi, Vishakhapatnam, Durgapur, Tiruchirapalli, Mumbai, Naini.
<b>Machine Tools Industry</b>	It forms the basis for the manufacturing of industrial, defence equipments, automobiles, railway engines and electrical machinery. In Bangalore, Pinjore (Haryana), Kalamassery (Kerala), Hyderabad, Secunderabad, Srinagar, Ajmer.
<b>Heavy Electrical Equipments</b>	Power generation equipments. In Bhopal, Tiruchirapalli, Jammu, Ramchandrapuram (Hyderabad), Hardwar, Bangalore and Jagdishpur (UP).
<b>Railway Equipments</b>	Locomotives: In Chittaurgarh (W.P.), Varanasi, Jamshedpur, Bhopal. Coaches: Perambur (T.N.), Kapurthala (Punjab), also at Bangalore and Kolkata.
<b>Ship Building</b>	Hindustan Shipyard at Vishakhapatnam, Cochin Shipyard, Mumbai (Mazgaon Dock) and Kolkata (Garden Reach Workshop). For Indian Navy, only at Mazgaon.
<b>Cycles</b>	In Mumbai, Asansol, Sonapat, Delhi, Chennai, Jalandhar and Ludhiana.
<b>Tractors</b>	At Faridabad, Pinjore, Delhi, Mumbai, Chennai.
<b>Fertilizers</b>	The location of fertilizer industry is closely related to petro-chemicals. About 70% of the plants producing nitrogenous fertilizers use naphtha as raw material. Naphtha is a by-product of oil refineries. Phosphate plants are dependent on mineral phosphate found in UP and MP. Now natural gas based fertilize plants are also being set up. The Fertilizer Corporation of India (FCL) was set up in 1961. National Fertilizer Limited (NFL) was set up in 1974. In Sindri (Bihar), Nangal, Trombay, Gorakhpur Durgapur, Namrup, Cochin, Rourkela, Neyveli, Varanasi Vadodara, Vishakhapatnam, Kota and Kanpur.
<b>Pharmaceuticals and Drugs</b>	Antibiotics are prepared at Pimpri and Rishikesh. The Indian Drugs and Pharmaceuticals Limited has 5 plants at Hyderabad Rishikesh, Chennai, Gurgaon and Muzaffarpur. A number of other units are concentrated in Mumbai, Baroda, Delhi, Kolkata and Kanpur.
<b>Pesticides</b>	Delhi and Alwaye
<b>Sugar Industry</b>	UP, Maharashtra, AP, TN, Karnataka and Bihar.
<b>Aircraft</b>	Hindustan Aeronautics India Ltd. was formed by merging two aircraft factories at Bangaluru and Kanpur. Four other factories are at Nasik, Hyderabad, Koraput (Odisha), Lucknow.
<b>Rubber Industry</b>	Bareilly (UP), Baroda (Gujarat)- Synthetic Rubber Units, Mumbai, Ahmedabad, Amritsar-Reclaimed Rubber Units.

## 2.16

## Geography

## Oil Refineries

Barauni Refinery (IOC)	Kochi Refinery (Kochi Refineries Ltd)
Guwahati Refinery (IOC)	Numaligarh Refinery (NRL)
Mathura Refinery (IOC)	Mangalore Refinery (MRPL)
Bongaigaon Refinery (IOC)	Tatipaka Refinery (ONGC)
Manali Refinery (IOC)	Essar Refinery (Essar)
Jamnagar Refinery (Reliance Petroleum)	

## Nuclear Power Stations

<b>Tarapur</b>	Maharashtra
<b>Kalpakkam</b>	Tamil Nadu, called Indira Gandhi Nuclear Power Station
<b>Narora</b>	UP
<b>Rawatbhata</b>	Kota, Rajasthan
<b>Kaiga</b>	Karnataka
<b>Kakrapara</b>	Gujarat
<b>Kundnkulam (TN)</b>	Under construction with the assistance of Russia.

## Major Thermal Power Plants

Power Plant	State	Power Plant	State
Neyveli	Tamil Nadu	Talcher	Odisha
Korba	Chhattisgarh	Farakka	West Bengal
Obra	UP	Katapur	MP
Haduaganj	UP	Jamnagar	Delangana
Rihand	UP	Vindhyanchal	MP
Singrauli	UP	Bokaro	Jharkhand
Parichha	UP		

## Ultra Mega Power Plants

Power Plant	State
Mundra	Gujarat
Sasan	Madhya Pradesh