

Glossary

Geographical Terms and their Meaning

- **abiotic:** non-living components in the environment, e.g., air, water, minerals, etc.
- **Antarctic Circle:** the parallel of latitude in the southern hemisphere having an angular distance of $66^{\circ}30'$ from the equator. This parallel demarcates the limit of sunshine duration. The maximum duration of sunshine to the north of this latitude is up to 24 hours whereas it goes on increasing towards its south and becomes 6 months at the South Pole.
- **Arctic Circle:** the parallel of latitude in the northern hemisphere having an angular distance of $66^{\circ}30'$ from the equator. This parallel demarcates the limit of sunshine duration. The maximum duration of sunshine to the south of this latitude is up to 24 hours whereas it goes on increasing towards its north and becomes 6 months at the North Pole.
- **atomic energy:** the energy that gets generated through the splitting of an atom. This energy is obtained by using some specific minerals like uranium, radium, thorium, etc. that are available in nature.
- **basalt:** a type of igneous rock. It is formed after the cooling of the lava that is ejected out during a volcanic eruption. Basalt is impervious, heavy and compact. This rock has a high proportion of iron.
- **Bhuvan:** the database created by the Indian Government with the help of indigenous remote sensing information and computer technology. It works in the same way as Google Maps or Wikimapia. This technology is totally of an Indian origin. It can be used for preparing maps and fixing the location of places.
- **biogas:** gas released by bio-waste. Biogas can be produced from litter, animal excreta, etc. Biogas is inflammable and hence it is used as an energy resource for domestic use.
- **biotic:** the living component of the environment. It includes plants, animals and micro-organisms.
- **cloud:** a floating cluster of microscopic water droplets and snow particles in the atmosphere.
- **continentality:** a condition of being in the interior part of a continent. As there is less moisture in these regions, the air is generally dry. Hence the climate becomes extreme. The difference in the day and night temperatures (range of temperature) is high. The difference in the temperatures of the summer and winter seasons is also pronounced.
- **conventional:** the things that are followed for a long period of time. We have been using energy resources like wood, coal, mineral oil, etc. since centuries. Hence these energy resources are called conventional resources.
- **economic transactions:** the exchange of money, or of money and articles. Such exchanges take place at places like the share market, banks, markets, etc.
- **energy resources:** such resources from which energy can be generated, e.g., coal, mineral oil, wind, running water, etc.
- **equator:** 0° parallel of latitude. It bisects the earth into the northern and southern hemispheres. It is the largest parallel (a great circle).
- **forest cover:** land occupied by forests. Mostly, the forest cover develops in a region through the natural growth of plants. It takes many years for a forest cover to develop. Forests mainly house indigenous plants that grow naturally.
- **Geographical Information System (GIS):** The database of geographical information created through statistical methods. This can be used for discovering new characteristics of the planet earth. This has been mainly used in remote sensing technologies.
- **Global Positioning System (GPS):** a technique for determining the location of any place on the earth with the help of satellites and computers. The GIS program is used in this technology.
- **globe:** a spherical model of the earth.
- **graticule:** an imaginary network formed on the

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surface of the earth by parallels of latitude and meridians of longitude intersecting one another.

- **green house gases (GHG):** such gases in the atmosphere which retain the heat. Due to these gases, air temperature increases. These gases include carbon dioxide, chlorofluorocarbon (CFC), water vapour, etc. Due to the increase in the radiation of these gases in the earth's atmosphere, the temperature of the earth is increasing.
- **hemisphere:** half part of a sphere. The northern and southern hemispheres of the earth get defined by the equator. Similarly, considering 0° and 180° together, the eastern and western hemisphere get defined.
- **humidity:** the measure of the vapour in the air. It is expressed as a percentage.
- **humus:** decomposed biotic material in the soil. It includes roots of plants, litter, etc. Completely as well as partially decomposed biotic materials are both part of humus.
- **igneous rock:** a rock formed after the cooling of lava. This gets formed on the surface of the earth or below it. Its types are identified by the chemical constituents in the rock. The types are granite, basalt, dolomite, etc.
- **industrialization:** development and concentration of various types of manufacturing or assembly units in a region. Growth of industries is a measure of the economic prosperity and rise in the standard of living. However, industrialisation also leads to issues like pollution and environmental degradation.
- **isotherm:** a line on the map joining places of equal temperature is called an isotherm.
- **latitude:** the angular distance of a place from the equator. This distance is measured at the centre of the earth on either side of the equator. (north and south)
- **lava:** the hot and semi-fluvial material that is poured out during a volcanic eruption. Extrusive igneous rocks are formed out of lava.
- **longitude:** the angular distance of a place from the Prime Meridian.
- **magma:** the molten material located below the crust of the earth. It is mostly semi-fluvial in nature. The magma at times gets cooled and solidified in the crustal portion. Such solidified magma gives rise to intrusive igneous rocks.
- **metamorphic rock:** a rock formed out of igneous or sedimentary rocks through the process of re-crystallization of the minerals, caused by intense heat and excessive pressure.
- **minerals:** compounds formed naturally through inorganic processes. However, some minerals like diamond or graphite are in the form of singular elements. Minerals have a definite chemical composition.
- **natural resources:** items / things that are available in nature, and are used by humans, e.g., wood, minerals, etc. Humans satisfy their needs with the help of natural resources.
- **nearness to the sea:** The temperatures of coastal regions are influenced by the nearness of sea waters. Evaporation of sea water reduces the difference between the minimum and maximum temperatures in the coastal region. Hence, the climate here becomes equable.
- **North Pole:** The end of the earth's axis that points towards the Pole Star.
- **northern hemisphere:** half of the earth's sphere extending from the equator to the North Pole.
- **ocean current:** the oceanic water that travels with a greater speed. These currents move in a curved manner in the areas between the equator and the North or South Poles. Ocean currents are of two types—warm and cold currents. While the warm currents move from the equator to the North and South Poles, the cold currents move from the North and South Poles towards the equator. They perform a major role in maintaining the balance in the distribution of heat over the earth. Wind speed, differences in temperature and density of oceanic water are the major reasons for these currents.

- **parallel of latitude:** an imaginary circular line on the surface of the earth. The plane of its circle intersects the axis of the earth at a right angle. These circles are parallel to each other.
- **physiography:** the physical set-up of land in a region. It gets defined due to landforms like a plain, hill, valley, mountain, spurs etc. The elevation of land and steepness of slope vividly bring out the differences in the physiography.
- **planetary winds:** the winds that blow from high pressure belts towards low pressure belts occupying vast areas of the planet. They blow regularly. These include the easterlies (trade winds), westerlies and polar winds.
- **plankton:** the plant or animal micro-organisms floating in sea waters, or moving at a very slow speed. These are the feed for fishes. Hence, the areas of sea where planktons are abundantly found are the areas where fish population is always high.
- **precipitation:** the showering of water droplets or snow particles from the atmosphere on to the surface of the earth. Rainfall, snowfall, hailstones, etc. are forms of precipitation.
- **pressure belts:** These are high and low pressure areas over the globe. Pressure belts are the result of temperature differences across the latitudes. In the hot torrid zone, air expands, becomes lighter and moves upward. This gives rise to a low pressure belt. In the cold frigid zone near the Poles, temperatures are very low, air is dense. This gives rise to a high pressure belt. Besides these two, there exists a high pressure area around 35° north and south parallels, and a low pressure belt near the Arctic and Antarctic circles.
- **primary occupations:** Occupations that are directly related to and dependent on natural resources. In these occupations, natural resources are used or collected without any processing. In these occupations, the produce is a result of natural processes. Activities like agriculture, animal husbandry, mining, collection of forest produce etc. are included in this category.
- **Prime Meridian:** the meridian that passes through Greenwich city. This meridian is considered as zero degree meridian.
- **production:** (1) total quantity of products obtained from the raw material through a process or assemblage or manufacture of altogether different items, e.g., jaggery from sugarcane; steel from iron ore; automobile engine from spare parts. (2) the farm produce obtained from investment in agriculture
- **quaternary occupations:** a special group of service sector. These services require more specialized skills than the tertiary services. They require highly educated personnel. These services yield high returns. This group includes doctors, engineers, teachers, software engineers, etc.
- **range of temperature:** the difference between the mean maximum and mean minimum temperature of a place. The difference between daily max – min temperatures is called the diurnal range of temperature. The difference between the mean maximum and mean minimum temperatures in a year is called the annual range of temperature.
- **rock:** a homogeneous mixture of different minerals.
- **salt pan:** a shallow depression in the ground in which sea water evaporates to leave a deposit of salt.
- **secondary occupations:** occupations in which the raw material obtained or collected through primary occupations is processed to make new and more useful objects. Occupations like obtaining pure metals from metal ores, making furniture from wood are included in this category. Assembly industry is also included in this group.
- **soil:** the thin uppermost layer on the earth's surface. Its thickness is generally less than one metre. It contains minerals and biotic materials. The sand and finer particles in the soil are formed through the process of weathering and erosion, whereas the humus is created through the decomposition of biotic materials. The process of

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soil formation is very slow. Soils are essential for the growth of plants. The climate of the region and the parent rock influence the type of soil.

- **South Pole:** the end of the earth's axis that is opposite to the North Pole.
- **southern hemisphere:** half part of the earth extending from the equator to the South Pole.
- **temperature:** a measure of the heat of an entity or a place.
- **tertiary occupations:** occupations supplementary to the primary and secondary occupations. Through these occupations, no production of objects takes place but they provide various services to the society. For example, tinning utensils, sharpening knives and scissors.
- **thermal belts:** the belts of high, moderate and low temperature formed on the surface of the earth due to its spherical shape and uneven distribution of heat received from the sun. Accordingly, tropical (torrid), temperate and polar (frigid) belts are identified. These belts influence the air pressure, winds and rainfall.
- **tides:** the periodic raising or lowering of sea-level caused by the combined effect of gravitational attraction by the sun and the moon, and the centrifugal force of the earth. The increase in the sea-level is called as high tide whereas the lowering of sea-level is called low tide.
- **Tropic of Cancer:** a parallel in the northern hemisphere at an angular distance of $23^{\circ}30'$ from the equator. All the places located in the area between the equator and this parallel experience perpendicular sun rays twice a year. This parallel forms the northern limit of the apparent movement of the sun observed from the earth. After reaching this parallel, the sun appears to be moving towards the south.
- **Tropic of Capricorn:** the $23^{\circ}30'$ parallel in the southern hemisphere. Up to this parallel, the sunrays can be perpendicular. All places located between the Equator and the Tropic of Capricorn experience perpendicular sunrays twice in a year. It defines the southern limit of the apparent

movement of the sun. After reaching this latitude, the sun appears to move in a northward direction.

- **urbanization:** the transformation of a settlement or village into a town. This change involves changes in the area and population of the region. Urbanization includes increase in secondary and tertiary occupations, and spread of modern thinking. Smaller settlements / villages becoming part of larger cities is also called urbanization.
- **wave:** a wave is defined as a transfer of energy. Ocean waves travel through the medium of water. The water doesn't actually travel with the wave, but only moves up and down. It's the energy that travels with the wave. Ocean waves are usually generated by wind on the ocean's surface.
- **yield:** the production in comparison with the investment, e.g., production per hectare of wheat, or production per man hour.

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