

# Optional **GEOGRAPHY**

*Human Geography*

## **Boundary & Frontiers**

**MAIN EXAMINATION**

**2023 - 24**



**Hari Bhawan : 14A/103, W.E.A, Karol Bagh New Delhi - 05**

**Ph : 011 - 355 - 77 - 975**

**(M) : 09810382305 mail : [info@directionias.com](mailto:info@directionias.com)**

**Visit Us at [www.directionias.com](http://www.directionias.com)**

## BOUNDARY AND FRONTIERS

International boundary making starts with the intention of two or more countries of boundary delimitation and/or demarcation. These terms are ruled by their function like separating, developing or connecting the different countries. The initial intention is usually identified by a treaty or agreement.

### Frontier:

In the past, during the political evolutions of a state, states were separated by areas, not lines. The function of the intervening area was to prevent direct contact between the neighboring states and it was referred to as a frontier.

- A frontier is the political and geographical area near or beyond a boundary. The term came from French in the 15th century, with the meaning “borderland”—the region of a country that fronts on another country (see also marches).
- A frontier can also be referred to as a “front”. A difference has also been established in academic scholarship between Frontier and Border, the latter denoting a fixed, rigid and clear-cut form of state boundary.
- A frontier, can, thus, be defined as a politico-geographical area, lying beyond defined borders of a political unit into which expansion could take place (for instance, European penetration into the Zulu-Natal area and, in modern times, Antarctica). It is a physical and moral concept which implied looking outwards and moving outwards.

It is not an abstract concept but a ‘fact of life’—a manifestation of the tendency for spontaneous growth of ecumene.

*Accordingly there are three stages in the evolution of a frontier,*

- designated zone of influence of different physical phenomena;
- anthropological-geographical concept;
- political frontier.

The term ‘frontier’ in political geography has two different meanings: it can refer to either the political division between two states or the division between the settled and uninhabited parts of one state. In either case the frontier may be considered as a line or a zone. While the context normally prevents confusion between the two meanings, problems of interpreting the sense can easily arise. It is for this reason that some geographers have attempted to restrict the use of the term to features possessing width, referring to simple linear divides as boundaries

The existence of frontiers is a necessary result of the fact that human beings are not spread evenly over the surface of the earth. Even in so small a country as England, where every patch of ground has its owner, there are large areas, such as the Pennine moorlands, which are without permanent human inhabitants. In contrast to these empty spaces are the densely crowded urban regions. In several of the industrial counties the density of the population exceeds a thousand people to the square mile, and about the larger cities this high-density is far surpassed. Similar high densities are reached in the fertile lower valleys of the Ganges, the Yang-tse-kiang, and the Nile, and elsewhere.

The frontier between **sea and land**, which is so often spoken and thought of as the coast-line, is really a zone of variable, and constantly varying, width. All round our shores the strip between the high- and low-tide marks, the fore-shore, is neither sea nor dry land, but alternately sea and land. And the influence of the land affects the sea far beyond the low-water mark in numberless ways. It modifies the temperature and composition of the water, the trend and force of the currents, the character of the bottom and the amount of organic matter, and so the abundance and distribution of living things in the shore waters. Similarly the influence of the sea reaches inland for some distance from the coast, directly to the head of every estuary and inlet wherever the tides are felt, indirectly to all parts which are readily accessible from the coast or are exposed to the sea-breezes, and farther inland in other ways. So that our familiar term coast is, on analysis, found to denote not a line, but a broad zone between land and sea. Such a zone, in which the influences from the two sides mingle so as to lessen the abruptness of the transition between the strongly contrasted regions which it separates, is a true frontier ; and such a mingling is the most characteristic feature of a frontier.

It is the same with **all-natural boundaries**. In nature there are many fluctuating frontier zones, but no fixed boundary lines. The snow-line on the mountains shifts from season to season and from year to year : the actual limit of the perennial snows is somewhere in a broad belt of altitude. Away from the heart of the woodland clearings become larger and more numerous, the trees fewer and the landscape more open, till at last there are only clumps and scattered trees at the edge of the open country ; and, except round man's artificial plantations, it is not possible to mark the edge of the woodland as a line of no width. The scree lessens the abruptness of the transition from the steepness of the cliff to the flatness of the valley floor. The Himalayas are separated from, and joined to, the plain of India by their foot-hills. And along the base of every mountain system is the piedmont belt, which shares the properties of mountain and lowland and forms a frontier intermediary between these strongly contrasted regions.

As an example of a **climatic frontier** we may consider the northern limit of the Mediterranean region. The most characteristic feature of this climatic region is its combination of the hot and dry seasons in one. In Palestine, South Greece, and Sicily, the summer is almost rainless ; practically the whole of the rain falls in

the winter half of the year. Farther to the north the winter is still the season of maximum rainfall ; but the summer is no longer rainless, though it is still, relatively, the dry season.

The same zonal character marks **human racial frontiers**. From the negro lands of Guinea the population gradually changes, as one passes northward, into the mixed brownish type of the Sudan and the Sahara, where the Black and White races have long been in slight contact. And at the northern edge of the Sahara this mixed population mingles with the Mediterranean race of Southern Europe. In Europe itself the three principal races are nowhere separated by any well- defined boundaries.

As with racial so it is, though to a less degree, with **linguistic borders**. Language is much more prominent in ordinary life than racial characters such as head-form or eye-colour ; hence the linguistic border is more obvious; while its enormous social and political importance has always drawn attention to it. In the zone of contact of two languages there is usually a considerable intermixture. Many of the people in the highlands between the valley of the Rhine and the Paris Basin find it worth while to know both French and German ; and the border dialects of each language are affected by the nearness of the other. It is not in a frontier province that we expect to find linguistic purity ; and the spoken German of the Rhineland is less careful of minor

Settlement frontiers can exist only where de jure boundaries have been established to define the state area. The frontier then marks the limit to which the state's authority has extended in occupying its legally defined territory. The two types have different characteristics.

**Primary settlement frontiers** are historical features, while **secondary settlement frontiers** are currently found in many countries where an adverse physical environment, or inadequate techniques, hinder further advance of land-use and settlement. The primary settlement frontier marked the de facto limit of the state's political authority, whereas the political authority of modern states extends beyond the secondary settlement frontiers, and can be exerted when necessary. Any state, such as Australia or the Republic of Sudan, which includes sections of desert provide examples of this situation. Special services are supplied for operation in the uninhabited areas if necessary. The range of potential economic activities in a primary frontier is generally greater than in the secondary frontiers. Fur trapping ,timber felling, semi-subsistence cultivation, grazing, mining and manufacturing and service industries were all found at some point on the American frontier, or developed after it had passed. On the other hand, the advancement of secondary settlement frontiers is likely to be by the extension of irrigated farming, as in the Republic of Mali, by extensive ranching as in Rhodesia, or by the exploitation of mineral reserves as in parts of Canada. Secondary frontiers normally reflect the limited range of economic activities by a population of low density, while on primary settlement frontiers, densities may be moderate to heavy.

**Political frontiers** between states have generally been replaced by boundaries throughout the world. Only in the eastern Arabian desert is there an absence of boundaries delimiting the territories of Political frontiers existed before boundaries, and the best current examples are to be found between tribal territories within some African and South American states. Research into political frontiers must therefore have a strong historical and anthropological basis. Political frontiers generally enjoyed less intensive economic development than the territories they separated. This was because the environment was less favourable, or because the resources of the existing state area were sufficient, or because it was the policy of the state to neglect the frontier, thereby enhancing its divisive character. Deserts, mountain ranges, rivers and river plains, and woodlands have all formed frontiers at some stage in history.

**Boundary:** It implies the physical limit of sovereignty and jurisdiction of a state; it is a manifestation of integration and is oriented inwards.

*Its characteristics are as follows:*

- It is still possible to recognize frontier characteristics in boundaries, especially in sparsely populated regions, such as deserts. This leads to minimum friction. An example is the boundary between Spain and Portugal.
- It is an appropriate concept for the modern state where all that is within the boundary is bound together by common law, economy, physical features, idea or creed with a government or central authority in effective control of the territory and activities within the boundaries.
- It may be reached by expanding into frontiers when the natural limits are reached. For instance, the westward expansions of the USA into desert frontiers till the coastlines were reached.
- It is an outer line of effective control of the central government keeping the enemy out and the resources in.
- It is a legal-political phenomenon which is not created but fixed by the political decision makers.
- It signifies differences in goals, ideology, structure, interests etc. from those of the neighboring states.

**Boundary and Frontier:**

- A boundary is oriented inwards. It is a manifestation of integration, and is a centripetal force; a frontier is oriented outwards and is a manifestation of the spontaneous tendency to grow, of ecumene, and is a centrifugal force.
- A boundary is created and maintained by the will of the government. It has no life of its own, not even a material existence; a frontier is a 'fact of life' and exists physically on ground as a dynamic entity.
- A boundary is well-defined and regulated by law. It possesses uniform characteristics. A frontier is a phenomenon of history and, like history, it is unique.
- A boundary is a separating factor whereas a frontier provides scope for mutual interaction and exchange.

Existence of boundaries shows that a political community has reached a relative degree of maturity, orderliness and being law abiding. Frontiers and boundaries are products of socio-political forces and are, thus, subjective and not objective.

In order to have a stable internal political structure, distinction is required between domestic and foreign policy. Boundary facilitates this distinction. Super-national, non-national and other factors undermine the significance of boundary to some extent.

The precise **delineation of boundaries** is relatively new in human history. Before the availability of surveying and cartographic technologies, impediments to travel such as mountain ranges, water bodies or even features such as broad as forests and deserts were used to separate the territories of political entities -

#### **Antecedent boundaries.**

In Europe, the 1648 Peace of Westphalia gave rise to a more territorially-based notion of the sovereign state, creating an imperative for the delineation and demarcation of boundaries and the establishment of border facilities - **Subsequent boundaries.**

The colonial expansion of European states in the 17th, 18th and 19th centuries led to the creation of many international boundaries that endure to this day, despite the fact that they were often drawn arbitrarily -

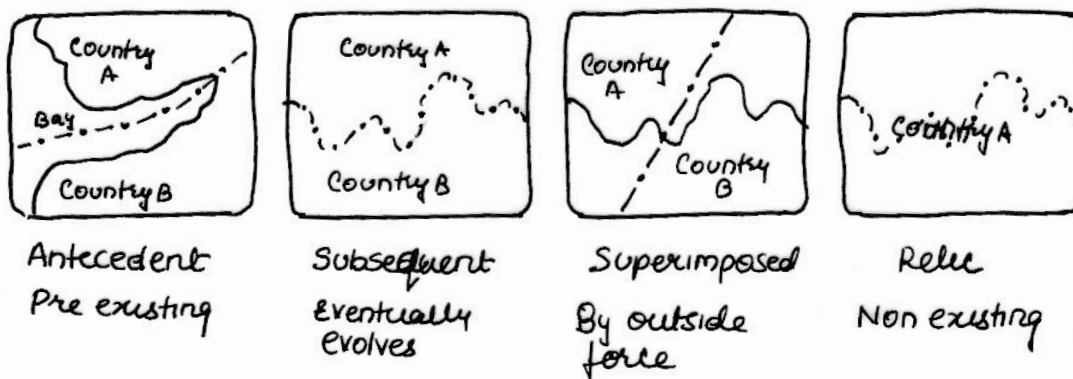
#### **Superimposed boundaries.**

As recently as the late 19th century, European powers delineated boundaries on the map of Africa without surveys on the ground and without regard to the economy or culture of African people. Until the second half of the twentieth century, international boundaries were subject to change arising from diplomatic agreements and military conflict.

In the years following World War II, an international consensus arose around the territorial integrity norm, a principle that in order to prevent armed conflict, existing boundaries should be treated as unchangeable. While this has led to the preservation of colonial era boundaries that have negatively impacted economic and cultural development in Africa, the frequency of wars over territory has declined. This does not mean that the political map has remained unchanged.

The disintegration of states including the Soviet Union and Yugoslavia into multiple smaller states has created new international boundaries within pre-existing boundaries, while the German reunification in 1991 involved the dissolution of a boundary that has divided Europe for decade





### Relic boundaries.

Obviously, stable and mutually agreed boundaries are a major pre-requisite for a peaceful cooperation between countries. Surveying and mapping in general and aerial and satellite imagery in particular, play a major role in establishing the borders physically which is an important fact in the recognition of borders. Before discussing boundary making, several terms which are commonly in this area are reviewed such as treaty, delimitation, demarcation, and delineation. They appear in many stages of establishing international boundaries

The meaning of treaty and international agreement under Article 102 of the charter of the United Nations is defined as: "Treaty is a generic term embracing all instruments binding under international law, regardless of their formal designation, concluded between two or more international juridical persons". The Vienna Convention (1969) defines a treaty as "an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation"

Treaties between two or more countries are political juridical instruments enforcing delimitation and demarcation by an executor, taking into consideration the customary international law represented by the United Nations (UN) for accepting, binding and maintaining sovereignty rights over the territory of the concerned countries.

**Boundary delimitation** requires to have external specifications which define the scope of work, technical specifications for each part of work in terms of description, physical properties, time covering the cycle of boundary making (surveying, construction, mapping), allowing the internal specifications to define the true needs of boundary administration for operation.

Delimitation is the legal process by which two sovereign nations establish and describe in writing the location of their common boundary, mainly as the output of the decision making on the negotiation table.

**Demarcation** is a field operation. Its purpose is to mark the position of the boundary on the ground so it is visible to all, and this normally starts by surveying which is the initial stage of demarcation. The objective of demarcation is to place or adopt physical marks that accurately represent the location of a delimited

boundary. Wherever possible, demarcation by artificial boundary marks should consist of monuments placed directly on the boundary line. A joint commission, composed of an equal number of members from each country, normally undertakes the physical demarcation.

Boundary demarcation is based on requirements with either static documentation (paper mapping and reports) as an output, which for securing knowledge or information about their boundaries, are to be attached to the treaties archived in the UN; or they are based on dynamic output (like data for Geographic Information Systems, GIS) to be used by future boundary administrations.

**Delineation** is the graphical or mathematical representation of the boundary. Frequently, a joint commission undertakes both demarcation and delineation. The commission's published results consist of reports, photographs and other illustrations, maps, and tables showing geographic positions of boundary monuments and survey control stations used for the entire period of field work. In this way delineation is the comprehensive description of the entire demarcation and mapping activities that is able to document the boundary for future reference.

***There are two types of boundaries: natural and geometric or artificial boundaries.***

Natural boundaries are the hydrological boundaries, or watercourses, dry boundaries (wadis), mountain ranges and other natural landmarks. Artificial boundaries are boundaries marked by monuments.

Boundaries that are based upon natural characteristics quickly come to mind, e. g. the border between Spain and France or the one between France and Germany. But it is obvious that many boundaries in today's world do not depend on natural characteristics. Generally, flat areas are appropriate for border crossings and it is not easy to see such a boundary unless they are clearly defined. There are several border definitions generally referring to physical and/or ethnic characteristics. However, there are also boundaries that depend neither on physical nor ethnic characteristics. These types of boundaries can be classified as artificial boundaries. Unfortunately, this type of boundaries causes many disputes.

***Boundary making can be accomplished in two ways.***

- The countries of concern set requirements, specifications and implementation rules and share the output and its future use by the boundary administration between them.
- Countries call upon the UN Secretary General to make arrangements to demarcate their common boundary. In this case the requirements and specifications are often different, because the cost of boundary making plays a major role and may affect the output. This type sometimes tends not to be fully state-of-the-art.

Boundary making can be influenced also by a wide range of historical, geographical, political, economic and cultural factors. As a consequence, "there is no single model of good practice in boundary demarcation and maintenance, but sharing experience from around the world can help generate new ideas"

### **Boundary making process steps**

The process of boundary making (delimitation, demarcation and delineation) normally starts by establishing a joint committee which includes technical experts mainly in surveying, documentation, and mapping,



responsible for executing the treaty in its framework and for setting up the technical specifications. These steps should be seen in light of the ISO standards the 9000 family

***There are three stages of the international boundary making process***

- The preparation of boundary delimitation starts with drafting of border treaties or agreements. The boundary engineer serves as technical adviser to the negotiator by providing the input information for decision making
- The demarcation work includes all field activities, where delineation covers the mapping process
- Stage (3) illustrates the output of the boundary making process: static documentation or dynamic purposes for future use.

**The use of quality standards for the boundary documentation process**

The process of boundary documentation should be implemented based on the requirements of boundary taking into consideration the qualification of the producer who should be ISO certified for quality, showing that its quality management system meets the requirements of the ISO 9000 family (organizational), and providing confidence to the client in that particular organization.

The ISO family of standards (technical specifications) was set up to define, describe and manage geographic information. The focus of this family of standards is to define the basic semantics and the structure of geographic information for data management and data interchange purposes, and to define geographic information service components and their behavior for data processing purposes. Standardization efforts also facilitate interoperability of geographic information systems including interoperability in distributed computing environments. Interoperability is the ability of a system or system component to provide information sharing and inter-application co-operative process control.