

Figure 1.2 : Branches of geography based on systematic approach

- (v) *Political Geography* looks at the space from the angle of political events and studies boundaries, space relations between neighbouring political units, delimitation of constituencies, election scenario and develops theoretical *framework* to understand the political behaviour of the population.

3. Biogeography

The interface between physical geography and human geography has led to the development of Biogeography which includes:

- (i) *Plant Geography* which studies the spatial pattern of natural vegetation in their habitats.

- (ii) *Zoo Geography* which studies the spatial patterns and geographic characteristics of animals and their habitats.
- (iii) *Ecology /Ecosystem* deals with the scientific study of the habitats characteristic of species.
- (iv) *Environmental Geography* concerns world over leading to the realisation of environmental problems such as land gradation, pollution and concerns for conservation has resulted in the introduction of this new branch in geography.

- (c) Field Survey Methods
- (d) Geo-informatics comprising techniques such as Remote Sensing, GIS, GPS, etc.

The above classification gives a comprehensive format of the branches of geography. Generally geography curricula is taught and learnt in this format but this format is not static. Any discipline is bound to grow with new ideas, problems, methods and techniques. For example, what was once manual cartography has now been transformed into computer cartography. Technology has enabled scholars to handle large quantum of data. The internet provides extensive information. Thus, the capacity to attempt analysis has increased tremendously. GIS has further opened vistas of knowledge. GPS has become a handy tool to find out exact locations. Technologies have enhanced the capacity of attempting synthesis with sound theoretical understanding.

You will learn some preliminary aspects of these techniques in your book, *Practical work in Geography – Part I* (NCERT, 2006). You will continue to improve upon your skills and learn about their application.

BRANCHES OF GEOGRAPHY BASED ON REGIONAL APPROACH (FIGURE 1.3)

1. Regional Studies/Area Studies

Comprising *Macro, Meso* and *Micro* Regional Studies

2. Regional Planning

Comprising Country/Rural and Town/Urban Planning

3. Regional Development

4. Regional Analysis

There are two aspects which are common to every discipline, these are:

- (i) Philosophy
 - (a) Geographical Thought
 - (b) Land and Human Interaction/ Human Ecology
- (ii) Methods and Techniques
 - (a) Cartography including Computer Cartography
 - (b) Quantitative Techniques/Statistical Techniques

PHYSICAL GEOGRAPHY AND ITS IMPORTANCE

This chapter appears in the book entitled *Fundamentals of Physical Geography*. The contents of the book clearly reflect its scope. It is therefore, appropriate to know the importance of this branch of geography.

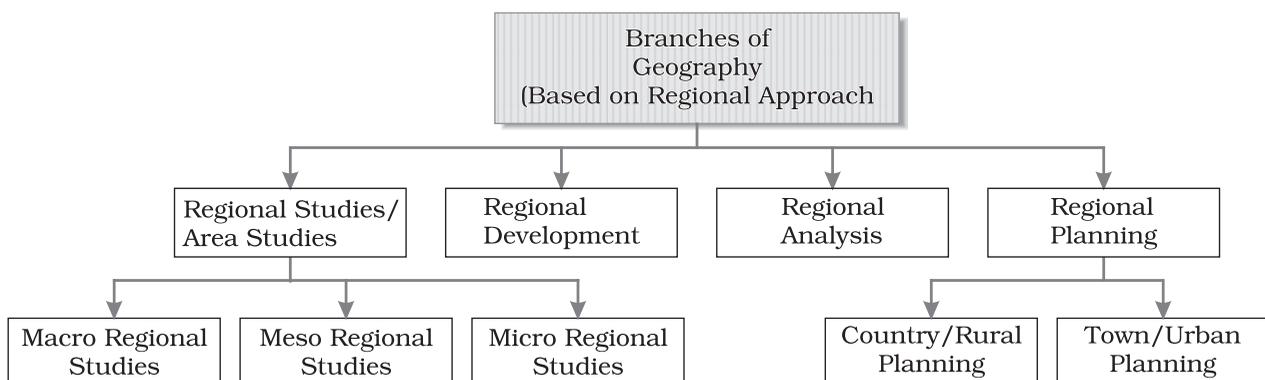


Figure 1.3 : Branches of geography based on regional approach

Physical geography includes the study of lithosphere (landforms, drainage, relief and physiography), atmosphere (its composition, structure, elements and controls of weather and climate; temperature, pressure, winds, precipitation, climatic types, etc.), hydrosphere (oceans, seas, lakes and associated features with water realm) and biosphere (life forms including human being and macro-organism and their sustaining mechanism, viz. food chain, ecological parameters and ecological balance). Soils are formed through the process of *pedogenesis* and depend upon the parent rocks, climate, biological activity and time. Time provides maturity to soils and helps in the development of soil profiles. Each element is important for human beings. Landforms provide the base on which human activities are located. The plains are utilised for agriculture. Plateaus provide forests and minerals. Mountains provide pastures, forests, tourist spots and are sources of rivers providing water to lowlands. Climate influences our house types, clothing and food habits. The climate has a profound effect on vegetation, cropping pattern, livestock farming and some industries, etc. Human beings have developed technologies which modify climatic elements in a restricted space such as air conditioners and coolers. Temperature and precipitation ensure the density of forests and quality of grassland. In India, monsoonal rainfall sets the agriculture rhythm in motion. Precipitation recharges the *ground water aquifers* which later provides water for agriculture and domestic use. We study oceans which are the store house of resources. Besides fish and other

sea-food, oceans are rich in mineral resources. India has developed the technology for collecting manganese nodules from oceanic bed. Soils are renewable resources, which influence a number of economic activities such as agriculture. The fertility of the soil is both naturally determined and culturally induced. Soils also provide the basis for the biosphere accommodating plants, animals and micro organisms.

What is Geography?

Geography is concerned with the description and explanation of the areal differentiation of the earth's surface.

Richard Hartshorne

Geography studies the differences of phenomena usually related in different parts of the earth's surface.

Hettner

The study of physical geography is emerging as a discipline of evaluating and managing natural resources. In order to achieve this objective, it is essential to understand the intricate relationship between physical environment and human beings. Physical environment provides resources, and human beings utilise these resources and ensure their economic and cultural development. Accelerated pace of resource utilisation with the help of modern technology has created ecological imbalance in the world. Hence, a better understanding of physical environment is absolutely essential for sustainable development.

EXERCISES

1. Multiple choice questions.
 - (i) Which one of the following scholars coined the term 'Geography'?

(a) Herodotus	(c) Galileo
(b) Erathostenese	(d) Aristotle
 - (ii) Which one of the following features can be termed as 'physical feature'?

(a) Port	(c) Plain
(b) Road	(d) Water park

- (iii) Make correct pairs from the following two columns and mark the correct option.

1. Meteorology	A. Population Geography
2. Demography	B. Soil Geography
3. Sociology	C. Climatology
4. Pedology	D. Social Geography

- (a) 1B,2C,3A,4D (c) 1D,2B,3C,4A
 (b) 1A,2D,3B,4C (d) 1C,2A,3D,4B
- (iv) Which one of the following questions is related to cause-effect relationship?
 (a) Why (c) What
 (b) Where (d) When
- (v) Which one of the following disciplines attempts temporal synthesis?
 (a) Sociology (c) Anthropology
 (b) Geography (d) History
2. Answer the following questions in about 30 words.
- (i) What important cultural features do you observe while going to school? Are they similar or dissimilar? Should they be included in the study of geography or not? If yes, why?
- (ii) You have seen a tennis ball, a cricket ball, an orange and a pumpkin. Which one amongst these resembles the shape of the earth? Why have you chosen this particular item to describe the shape of the earth?
- (iii) Do you celebrate *Van Mahotsava* in your school? Why do we plant so many trees? How do the trees maintain ecological balance?
- (iv) You have seen elephants, deer, earthworms, trees and grasses. Where do they live or grow? What is the name given to this sphere? Can you describe some of the important features of this sphere?
- (v) How much time do you take to reach your school from your house? Had the school been located across the road from your house, how much time would you have taken to reach school? What is the effect of the distance between your residence and the school on the time taken in commuting? Can you convert time into space and vice versa?
3. Answer the following questions in about 150 words.
- (i) You observe every day in your surroundings that there is variation in natural as well as cultural phenomena. All the trees are not of the same variety. All the birds and animals you see, are different. All these different elements are found on the earth. Can you now argue that geography is the study of "areal differentiation"?
- (ii) You have already studied geography, history, civics and economics as parts of social studies. Attempt an integration of these disciplines highlighting their interface.

Project Work

Select forest as a natural resource.

- (i) Prepare a map of India showing the distribution of different types of forests.
- (ii) Write about the economic importance of forests for the country.
- (iii) Prepare a historical account of conservation of forests in India with focus on Chipko movements in Rajasthan and Uttaranchal.

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